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13/157,309 | INFO-002COC:

SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

PUBLIC VIEW

|                        |                          |                   |                                                                                                                                                                                                                                                          |
|------------------------|--------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application #          | Confirmation #           | Attorney Docket # | Patent #                                                                                                                                                                                                                                                 |
| 13/157,309             | 6924                     | INFO-002COC       | <a href="#">8,117,645</a> <br><a href="#">Download PDF</a> <br>Issued - 02/14/2012 |
| Filing or 371 (c) date | Status                   |                   |                                                                                                                                                                                                                                                          |
| 06/10/2011             | Patented Case 01/25/2012 |                   |                                                                                                                                                                                                                                                          |

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Application data

|                              |                                                                                                                                                                                                                                              |                                     |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Application type             | Earliest publication #                                                                                                                                                                                                                       | Intl. registration # (Hague)        |
| Utility                      | <a href="#">US 2011-0231915 A1</a> <br><a href="#">Download PDF</a>  | -                                   |
| Examiner                     | Earliest publication date                                                                                                                                                                                                                    | Intl. registration publication date |
| HOSUK SONG                   | 09/22/2011                                                                                                                                                                                                                                   | -                                   |
| Group art unit               | Assignee for publication                                                                                                                                                                                                                     |                                     |
| 2435                         | InfoExpress, Inc.<br>Mountain View                                                                                                                                                                                                           |                                     |
| Class/subclass               | Confirmation #                                                                                                                                                                                                                               |                                     |
| 726/002.000                  | 6924                                                                                                                                                                                                                                         |                                     |
| AIA (first inventor to file) |                                                                                                                                                                                                                                              |                                     |
| No                           |                                                                                                                                                                                                                                              |                                     |
| Entity status                |                                                                                                                                                                                                                                              |                                     |
| Small                        |                                                                                                                                                                                                                                              |                                     |

|                                                                                             |                                                                                                    |            |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------|
| Correspondence address                                                                      | Inventors                                                                                          | Applicants |
| 28661 - Lewis Roca Rothgerber Christie LLP<br>PO BOX 29001<br>Glendale, CA<br>UNITED STATES | Stacey C. Lum<br>Los Altos, CALIFORNIA (US)<br><br>Yuhshiow Alice Lee<br>Saratoga, CALIFORNIA (US) |            |

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**PETITION TO MAKE SPECIAL UNDER ACCELERATED EXAMINATION PROGRAM**

|                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------|
| Attorney Docket Number                                                                                                                                                 | PA5252US                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | First Named Inventor | STACEY C. LUM |
| Application Number (if Known)                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | UNKNOWN              |               |
| Title of Invention                                                                                                                                                     | SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |               |
| <b>APPLICANT HEREBY PETITIONS TO MAKE THE ABOVE-IDENTIFIED APPLICATION SPECIAL UNDER THE REVISED ACCELERATED EXAMINATION PROGRAM. See Instruction sheet on page 3.</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                      |               |
| 1.                                                                                                                                                                     | <b>Claims of the application:</b><br>a. The application must contain three (3) or fewer independent claims and twenty (20) or fewer total claims. The application may not contain any multiple dependent claims.<br><br>b. <b>Applicant hereby agrees not to separately argue the patentability of any dependent claim during any appeal</b> in the application. Specifically, the applicant agrees that the dependent claims will be grouped together with and not argued separately from the independent claim from which they depend in any appeal brief filed in the application (37 CFR 41.37(c)(1)(vii)).<br><br>c. The claims must be directed to <b>a single invention</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                      |               |
| 2.                                                                                                                                                                     | <b>Interviews:</b><br>Applicant hereby agrees to have (if requested by examiner):<br>a. An interview (including an interview before a first Office action) to discuss the prior art and any potential rejections or objections with the intention of clarifying and possibly resolving all issues with respect to patentability at that time, and<br><br>b. A telephonic interview to make an election without traverse if the Office determines that the claims are not obviously directed to a single invention.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |               |
| 3.                                                                                                                                                                     | <b>Preexamination Search Statement and Accelerated Examination Support Document:</b><br>With this petition, applicant is providing: a <b>preexamination search statement</b> , in compliance with the requirements set forth in item 8 of the instruction sheet, and an <b>“accelerated examination support document”</b> that includes:<br>a. An <b>information disclosure statement</b> in compliance with 37 CFR 1.98 citing each reference deemed most closely related to the subject matter of each of the claims;<br><br>b. For each reference cited, an <b>identification of all the limitations of the claims</b> that are disclosed by the reference specifying where the limitation is disclosed in the cited reference;<br><br>c. A <b>detailed explanation of how each of the claims are patentable</b> over the references cited with the particularity required by 37 CFR 1.111(b) and (c);<br><br>d. A concise <b>statement of the utility</b> of the invention as defined in each of the independent claims (unless the application is a design application);<br><br>e. An identification of any cited references that may be disqualified as prior art under 35 U.S.C. 103(c) as amended by the CREATE act; and<br><br>f. <b>A showing of where each limitation of the claims finds support under the first paragraph of 35 U.S.C. 112</b> in the written description of the specification. If applicable, the showing must also identify: (1) each means- (or step-) plus-function claim element that invokes consideration under 35 U.S.C. 112, ¶6; and (2) the structure, material, or acts that correspond to any means- (or step-) plus-function claim element that invokes consideration under 35 U.S.C. 112, ¶6. If the application claims the benefit of one or more applications under title 35, United States Code, the showing must also include where each limitation of the claims finds support under the first paragraph of 35 U.S.C. 112 in each such application in which such support exists. |                      |               |

The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This form is estimated to take 12 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. *If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

EFS Web 2.2.20

**PETITION TO MAKE SPECIAL UNDER ACCELERATED EXAMINATION PROGRAM  
(Continued)**

|                                                                                                                                                                                                                                      |                                                                                                              |                                                                                                                                                               |               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Attorney Docket Number                                                                                                                                                                                                               | PA5252US                                                                                                     | First Named Inventor                                                                                                                                          | STACEY C. LUM |
| <b>Attachments:</b>                                                                                                                                                                                                                  |                                                                                                              |                                                                                                                                                               |               |
| a.                                                                                                                                                                                                                                   |                                                                                                              | Accelerated Examination Support Document (see item 3 above).                                                                                                  |               |
| b.                                                                                                                                                                                                                                   |                                                                                                              | A statement, in compliance with the requirements set forth in item 8 of the instruction sheet, detailing the preexamination search which was conducted.       |               |
| c.                                                                                                                                                                                                                                   |                                                                                                              | Information Disclosure Statement.                                                                                                                             |               |
| d.                                                                                                                                                                                                                                   | <input type="checkbox"/>                                                                                     | Other (e.g., a statement that the claimed subject matter is directed to environmental quality, energy, or countering terrorism (37 CFR 1.102(c)(2)).<br><hr/> |               |
| <b>Fees: The following fees must be filed electronically via EFS or EFS-Web:</b>                                                                                                                                                     |                                                                                                              |                                                                                                                                                               |               |
| a.                                                                                                                                                                                                                                   | The basic filing fee, search fee, examination fee, and application size fee (if required) under 37 CFR 1.16. |                                                                                                                                                               |               |
| b.                                                                                                                                                                                                                                   | Petition fee under 37 CFR 1.17(h) - unless the petition is filed with a showing under 37 CFR 1.102(c)(2).    |                                                                                                                                                               |               |
| <b>Signature:</b>                                                                                                                                                                                                                    |                                                                                                              |                                                                                                                                                               |               |
| Click Remove if you wish to remove this signatory                                                                                                                                                                                    |                                                                                                              |                                                                                                                                                               | <b>Remove</b> |
| Signature                                                                                                                                                                                                                            | /Tam Thanh Pham/                                                                                             | Date                                                                                                                                                          | 2011-06-07    |
| Name (Print/Typed)                                                                                                                                                                                                                   | Tam Thanh Pham                                                                                               | Registration Number                                                                                                                                           | 50565         |
| Click Add if you wish to add additional signatory                                                                                                                                                                                    |                                                                                                              |                                                                                                                                                               | <b>Add</b>    |
| <b>Note:</b> Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature. |                                                                                                              |                                                                                                                                                               |               |

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Stacey C. Lum et al.  
APPLICATION NO.: Unknown / Not Assigned  
FILING DATE: Herewith  
TITLE: Systems and Methods of Controlling Network Access  
ATTY.DKT.NO.: PA5252US

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STATEMENT IN SUPPORT OF PRE-EXAMINATION SEARCH

This pre-examination search document is provided in support of the Petition for Accelerated Examination filed herewith. A pre-examination search was conducted involving U.S. patents and patent application publications, foreign patent documents and non-patent literature as indicated below. The pertinent and relevant results of the search are provided on an Information Disclosure Statement filed concurrently herewith.

**A. Pre-Examination Search**

**1. U.S. Field of Search**

|        |         |
|--------|---------|
| 726/1  | 713/50  |
| 726/2  | 713/168 |
| 726/3  | 709/225 |
| 726/15 | 709/228 |
| 726/12 | 709/229 |
| 726/15 |         |
| 726/24 |         |

Search Conducted: November 2009

## **2. Foreign Field of Search**

### *IPCs Searched*

H04L 9/00

H04L 9/32

G06F 15/16

Search Conducted: November 2009

## **3. Database Searches**

### **a. Database Service: USPTO Web Site**

Files Searched: US-PGPUB, USPAT

Search Conducted: November 2009

### *Search Logic*

- L1 (authenticat\* and evaluat\*and network and extensible and filter)
- L2 (authenticat\* and evaluat\* and network and extensible and module)
- L3 (authenticat\* and evaluat\* and network and extensible and protocol)
- L4 (authenticat\* and evaluat\* and network and extensible and layer)
- L5 (authenticat\* and evaluat\* and network and extensible and gate\*)

### **b. Database Service: Patent Abstracts of Japan**

Search Conducted: November 2009

### *Search Logic*

- L1 (authenticate and extensible and filter)
- L2 (authenticate and extensible and module)
- L3 (authenticate and extensible and protocol)
- L4 (authenticate and extensible and layer)
- L5 (authenticate and extensible and gatekeeper)

**c. Database Service: European Patent Office**

Search Conducted: November 2009

*Search Logic*

- L1 (authenticate and extensible and filter)
- L2 (authenticate and extensible and module)
- L3 (authenticate and extensible and protocol)
- L4 (authenticate and extensible and layer)
- L5 (authenticate and extensible and gatekeeper)

**d. Database Service: Google**

Files Searched: Google News, Google Scholar

Search Conducted: November 2009

*Search Logic*

- L1 (authenticate and evaluate and network and extensible and filter)
- L2 (authenticate and evaluate and network and extensible and module)
- L3 (authenticate and evaluate and network and extensible and protocol)
- L4 (authenticate and evaluate and network and extensible and layer)
- L5 (authenticate and evaluate and network and extensible and gatekeeper)

**B. Search Directed to the Invention**

The pre-examination search was directed to the claimed invention, encompassing all the features of the claims and giving the claims their broadest reasonable interpretation.

**C. Search Directed to the Disclosure**

There are no disclosed features that are unclaimed at this time and currently seen as features that may be claimed later. To the extent such features may later be claimed, the Applicant will conduct a further search and provide an updated support document.

**D. Search Report from a Foreign Patent Office**

No search report from a foreign Patent Office has been issued although the Applicants make note of Patent Cooperation Treaty application number PCT/US04/31352, which claims a similar priority benefit of the present application. The international search report for that application identified a single X reference—5,968,176. The '176 reference is not cited herewith as it is not believed to be any more pertinent or relevant than any other reference specifically identified below.

**E. Statement of Good Faith**

All statements in support of the petition to make special are based on a good faith belief that the search was conducted in compliance with the requirements of the petition process.

Respectfully Submitted,  
Stacey C. Lum et al.

June 9, 2011

By: /Tam Thanh Pham/  
Tam Thanh Pham (Reg. No. 50,565)  
**CARR & FERRELL LLP**  
120 Constitution Drive  
Menlo Park, CA 94025  
T: 650.812.3400  
F: 650.812.3444

| Electronic Patent Application Fee Transmittal |          |                                                   |        |                      |
|-----------------------------------------------|----------|---------------------------------------------------|--------|----------------------|
| Application Number:                           |          |                                                   |        |                      |
| Filing Date:                                  |          |                                                   |        |                      |
| Title of Invention:                           |          | SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS |        |                      |
| First Named Inventor/Applicant Name:          |          | Stacey C. Lum                                     |        |                      |
| Filer:                                        |          | TamThanh Thi Pham/Bindi Patel                     |        |                      |
| Attorney Docket Number:                       |          | PA5252US                                          |        |                      |
| Filed as Small Entity                         |          |                                                   |        |                      |
| Utility under 35 USC 111(a) Filing Fees       |          |                                                   |        |                      |
| Description                                   | Fee Code | Quantity                                          | Amount | Sub-Total in USD(\$) |
| Basic Filing:                                 |          |                                                   |        |                      |
| Utility filing Fee (Electronic filing)        | 4011     | 1                                                 | 82     | 82                   |
| Utility Search Fee                            | 2111     | 1                                                 | 270    | 270                  |
| Utility Examination Fee                       | 2311     | 1                                                 | 110    | 110                  |
| Pages:                                        |          |                                                   |        |                      |
| Claims:                                       |          |                                                   |        |                      |
| Miscellaneous-Filing:                         |          |                                                   |        |                      |
| Petition:                                     |          |                                                   |        |                      |
| Petition fee- 37 CFR 1.17(h) (Group III)      | 1464     | 1                                                 | 130    | 130                  |

| Description                       | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|-----------------------------------|----------|----------|--------|----------------------|
| Patent-Appeals-and-Interference:  |          |          |        |                      |
| Post-Allowance-and-Post-Issuance: |          |          |        |                      |
| Extension-of-Time:                |          |          |        |                      |
| Miscellaneous:                    |          |          |        |                      |
| Total in USD (\$)                 |          |          |        | 592                  |

## Electronic Acknowledgement Receipt

|                                             |                                                   |
|---------------------------------------------|---------------------------------------------------|
| <b>EFS ID:</b>                              | 10251930                                          |
| <b>Application Number:</b>                  | 13157309                                          |
| <b>International Application Number:</b>    |                                                   |
| <b>Confirmation Number:</b>                 | 6924                                              |
| <b>Title of Invention:</b>                  | SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS |
| <b>First Named Inventor/Applicant Name:</b> | Stacey C. Lum                                     |
| <b>Customer Number:</b>                     | 22830                                             |
| <b>Filer:</b>                               | TamThanh Thi Pham                                 |
| <b>Filer Authorized By:</b>                 |                                                   |
| <b>Attorney Docket Number:</b>              | PA5252US                                          |
| <b>Receipt Date:</b>                        | 10-JUN-2011                                       |
| <b>Filing Date:</b>                         |                                                   |
| <b>Time Stamp:</b>                          | 00:50:07                                          |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                       |

### Payment information:

|                                          |                 |
|------------------------------------------|-----------------|
| Submitted with Payment                   | yes             |
| Payment Type                             | Deposit Account |
| Payment was successfully received in RAM | \$ 592          |
| RAM confirmation Number                  | 6494            |
| Deposit Account                          | 060600          |
| Authorized User                          |                 |

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

## File Listing:

| Document Number                                 | Document Description                               | File Name                           | File Size(Bytes)/<br>Message Digest       | Multi Part /.zip | Pages (if appl.) |
|-------------------------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------------|------------------|------------------|
| 1                                               | Application Data Sheet                             | 5252US_ADS.pdf                      | 73722                                     | no               | 3                |
|                                                 |                                                    |                                     | 6564d05cda722bba60769cb7a181a920dcb55a24  |                  |                  |
| Warnings:                                       |                                                    |                                     |                                           |                  |                  |
| Information:                                    |                                                    |                                     |                                           |                  |                  |
| This is not an USPTO supplied ADS fillable form |                                                    |                                     |                                           |                  |                  |
| 2                                               | Examination support document                       | 5252US_AESD.pdf                     | 159356                                    | no               | 17               |
|                                                 |                                                    |                                     | ec7b62e0fdf55a1e5bfc31ac9fbc1b2395d101d   |                  |                  |
| Warnings:                                       |                                                    |                                     |                                           |                  |                  |
| Information:                                    |                                                    |                                     |                                           |                  |                  |
| 3                                               | Oath or Declaration filed                          | 5252US_Declaration.pdf              | 183898                                    | no               | 4                |
|                                                 |                                                    |                                     | d270e91a57101bd270f9ae4518e8bce1c0b4cd62  |                  |                  |
| Warnings:                                       |                                                    |                                     |                                           |                  |                  |
| Information:                                    |                                                    |                                     |                                           |                  |                  |
| 4                                               | Oath or Declaration filed                          | 5252US_Statement_re_Declaration.pdf | 73705                                     | no               | 1                |
|                                                 |                                                    |                                     | 77047a366dc68be5e49c4e9408adb2ab4909dd07  |                  |                  |
| Warnings:                                       |                                                    |                                     |                                           |                  |                  |
| Information:                                    |                                                    |                                     |                                           |                  |                  |
| 5                                               | Drawings-only black and white line drawings        | 5252US_Figures.pdf                  | 43836                                     | no               | 10               |
|                                                 |                                                    |                                     | 01f562e595713e7d8a17c888cd5c3deddeb2dcb4a |                  |                  |
| Warnings:                                       |                                                    |                                     |                                           |                  |                  |
| Information:                                    |                                                    |                                     |                                           |                  |                  |
| 6                                               | Information Disclosure Statement (IDS) Form (SB08) | 5252US_IDS_PTO_SB_08.pdf            | 30486                                     | no               | 3                |
|                                                 |                                                    |                                     | 0432a3d23ec0acd091a891b1b84d6bf9457ec1b7  |                  |                  |
| Warnings:                                       |                                                    |                                     |                                           |                  |                  |
| Information:                                    |                                                    |                                     |                                           |                  |                  |
| This is not an USPTO supplied IDS fillable form |                                                    |                                     |                                           |                  |                  |
| 7                                               | Transmittal Letter                                 | 5252US_IDS_Statement.pdf            | 73579                                     | no               | 2                |
|                                                 |                                                    |                                     | 9793ee036ded8b9cf553202dcb514f6cb06a170   |                  |                  |
| Warnings:                                       |                                                    |                                     |                                           |                  |                  |
| Information:                                    |                                                    |                                     |                                           |                  |                  |

|                                                          |                                                     |                          |                                                     |     |    |
|----------------------------------------------------------|-----------------------------------------------------|--------------------------|-----------------------------------------------------|-----|----|
| 8                                                        |                                                     | 5252US_Specification.pdf | 195786<br>a71ab44a7a4e3e207f9e402ea0e2ab5fc81b5dc3  | yes | 29 |
|                                                          | Multipart Description/PDF files in .zip description |                          |                                                     |     |    |
|                                                          | Document Description                                |                          | Start                                               | End |    |
|                                                          | Specification                                       |                          | 1                                                   | 27  |    |
|                                                          | Claims                                              |                          | 28                                                  | 28  |    |
|                                                          | Abstract                                            |                          | 29                                                  | 29  |    |
| Warnings:                                                |                                                     |                          |                                                     |     |    |
| Information:                                             |                                                     |                          |                                                     |     |    |
| 9                                                        | Change of Address                                   | 5252US_PTO_SB_122.pdf    | 56807<br>1319031702cd0265885ecc0717cd0303124cc30c55 | no  | 1  |
| Warnings:                                                |                                                     |                          |                                                     |     |    |
| Information:                                             |                                                     |                          |                                                     |     |    |
| 10                                                       | Petition for 12-month Accelerated Exam              | 5252US_Petition_Form.pdf | 34800<br>2717dfee871cd0b811e39cf5880897d227af289c3  | no  | 2  |
| Warnings:                                                |                                                     |                          |                                                     |     |    |
| This is not a USPTO supplied Accelerated Exam SB28 form. |                                                     |                          |                                                     |     |    |
| Information:                                             |                                                     |                          |                                                     |     |    |
| 11                                                       | Statement of preexamination search                  | 5252US_PESD.pdf          | 93073<br>7250f8b97fc00195599cf392575122e88c6dd245d  | no  | 4  |
| Warnings:                                                |                                                     |                          |                                                     |     |    |
| Information:                                             |                                                     |                          |                                                     |     |    |
| 12                                                       | Fee Worksheet (SB06)                                | fee-info.pdf             | 36804<br>1565b8301891a52190e148c52a0dbe841073c985   | no  | 2  |
| Warnings:                                                |                                                     |                          |                                                     |     |    |
| Information:                                             |                                                     |                          |                                                     |     |    |
| Total Files Size (in bytes):                             |                                                     |                          | 1055852                                             |     |    |

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

## APPLICATION DATA SHEET

### **Application Information**

|                                   |                                                   |
|-----------------------------------|---------------------------------------------------|
| Application Number ::             | Unknown                                           |
| Filing Date ::                    | Herewith                                          |
| Application Type ::               | Utility (Expedited Examination)                   |
| Classification ::                 | 726/001 (Suggested)                               |
| Group Art Unit ::                 | 2435 (Suggested)                                  |
| Title ::                          | Systems and Methods of Controlling Network Access |
| Attorney Docket Number ::         | PA5252US                                          |
| Request for Early Publication? :: | No                                                |
| Request for Non-Publication? ::   | No                                                |
| Number of Drawing Sheets ::       | 10                                                |
| Suggested Drawing Figure ::       | FIG. 9                                            |
| Small Entity? ::                  | Yes                                               |

### **Applicant Information for First Named Inventor**

|                                |                                                         |
|--------------------------------|---------------------------------------------------------|
| Applicant Authority Type ::    | Inventor                                                |
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**Domestic Priority Information**

CON of 12/273,037 (November 18, 2008),  
which is a CON of 10/949,179 (September 24,  
2004), which claims the priority benefit of  
60/513,080 (October 21, 2003) and 60/503,582  
(September 24, 2003)

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**Name ::** Tam Thanh Pham

**Date ::** June 7, 2011  
**Reg. No. ::** 50,565

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Stacey C. Lum et al.  
APPLICATION NO.: Unknown / Not Assigned  
FILING DATE: Herewith  
TITLE: Systems and Methods of Controlling Network Access  
ATTY.DKT.NO.: PA5252US

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ACCELERATED EXAMINATION SUPPORT DOCUMENT

This accelerated examination support document is provided in support of the petition for accelerated examination filed herewith.

There are six claims currently pending in the application. The claims read as follows:

**Claim 1**

A network access control system, comprising:  
    an authentication module stored in memory and executable by a processor to authenticate a device seeking network access based at least on authentication information received from the device;  
    a gatekeeper stored in memory and executable to :  
        formulate an audit request,  
        send the audit request to the device,  
        evaluate device information received from the device in response to the audit request, and  
        approve the device based on evaluation of the device information; and  
    an extensible authentication protocol (EAP) server layer (SL) stored in memory and executable to :  
        receive the authentication information from the device using an EAP encryption protocol, and  
        configure an access point in response to approval of the device by the gatekeeper.

**Claim 2**

The network access control system of claim 1, wherein the gatekeeper is hosted at the same computing device as the EAPM, ESL, and SF.

**Claim 3**

The network access control system of claim 2, wherein the computing device is an access point or router.

**Claim 4**

The network access control system of claim 1, wherein the gatekeeper is hosted at a computing device distinct from a computing device hosting the EAPM, ESL, and SF.

**Claim 5**

The network access control system of claim 1, wherein the SF is part of the ESL.

**Claim 6**

The network access control system of claim 1, wherein the EAPM includes a plurality of authentication modules configured to perform different authentication operations.

*REFERENCES DEEMED MOST CLOSELY RELATED*

An Information Disclosure Statement in compliance with 37 C.F.R. § 1.98 has been filed herewith citing each of the following references deemed most closely related to the subject matter of the claim.

- U.S. patent number 5,842,002 to Schnurer, filed May 30, 1997, issued November 24, 1998.
- U.S. patent number 7,752,320 to Kappes, filed November 25, 2003, issued July 6, 2006.
- U.S. patent publication number 2003/0229808 to Heintz, filed June 10, 2002, published December 11, 2003.
- U.S. patent publication number 2006/0147043 to Mann, filed September 23, 2002, published July 6, 2006.

## IDENTIFICATION OF LIMITATIONS DISCLOSED BY THE REFERENCES

### I. U.S. PATENT NUMBER 5,842,002 TO SCHNURER

#### **(Claim 1) A network access control system comprising:**

With respect to the preamble, Schnurer refers to a “computer virus trapping device.”  
Abstract.

**an authentication module stored in memory and executable by a processor to authenticate a device seeking network access based at least on authentication information received from the device;**

With respect to the first element of claim 1, Schnurer refers to “computer security” and “[l]ogin/password control and encryption.” 3:24-26. Schnurer does not specifically address device authentication.

**a gatekeeper stored in memory and executable to: formulate an audit request,**

Schnurer does not teach any gatekeeper or any audit request.

**send the audit request to the device,**

Schnurer does not teach sending any audit request to the device.

**evaluate device information received from the device in response to the audit request, and**

Schnurer does not teach evaluating device information received from the device in response to the audit request.

**approve the device based on evaluation of the device information; and**

Schnurer does not teach approving the device based on evaluation of the device information.

**an extensible authentication protocol (EAP) server layer (SL) stored in memory and executable to: receive the authentication information from the device using an EAP encryption protocol, and**

Schurer refers to “computer security” and “[l]ogin/password control and encryption.” 3:24-26. Schnurer does not specifically address device authentication. Schurer further does not

teach any extensible authentication protocol (EAP) server layer (SL) for receiving authentication information from the device using an EAP encryption protocol.

**configure an access point in response to approval of the device by the gatekeeper.**

Schnurer does not teach any configuration of access points responsive to approval by any gatekeeper.

**(Claim 2) The network access control system of claim 1, wherein the gatekeeper is hosted at the same computing device as the EAPM, ESL, and SF.**

Schurer does not teach any gatekeeper, extensible authentication protocol module, extensible authentication protocol server layer, or server filter.

**(Claim 3) The network access control system of claim 2, wherein the computing device is an access point or router.**

Schurer does not teach any access point or router.

**(Claim 4) The network access control system of claim 1, wherein the gatekeeper is hosted at a computing device distinct from a computing device hosting the EAPM, ESL, and SF.**

Schurer does not teach any gatekeeper, extensible authentication protocol module, extensible authentication protocol server layer, or server filter.

**(Claim 5) The network access control system of claim 1, wherein the SF is part of the ESL.**

Schurer does not teach any extensible authentication protocol server layer or server filter.

**(Claim 6) The network access control system of claim 1, wherein the EAPM includes a plurality of authentication modules configured to perform different authentication operations.**

While Schurer refers to “computer security” and “[l]ogin/password control and encryption,” Schnurer does not teach any extensible authentication protocol module having a plurality of authentication modules for performing different authentication operations. 3:24-26.

## II. U.S. PATENT NUMBER 7,752,320 TO KAPPES

### **(Claim 1) A network access control system comprising:**

With respect to the preamble, Kappes refers to “computer security techniques, such as access control mechanism, to prevent unauthorized users from accessing the networks or network devices.” 1:22-25.

**an authentication module stored in memory and executable by a processor to authenticate a device seeking network access based at least on authentication information received from the device;**

With respect to the preamble, Kappes refers to “computer security techniques, such as access control mechanism, to prevent unauthorized users from accessing the networks or network devices.” 1:22-25.

**a gatekeeper stored in memory and executable to: formulate an audit request,**

Kappes refers to a “firewall” and mentions that “a trusted auditor has audited the network to meet certain security standards. 5:1; 17-18. Kappes does not, however, teach any gatekeeper that formulates an audit request.

**send the audit request to the device,**

Kappes does not teach sending any audit request to the device.

**evaluate device information received from the device in response to the audit request, and**

Kappes does not teach evaluating device information received from the device in response to the audit request.

**approve the device based on evaluation of the device information; and**

Kappes does not teach approving the device based on evaluation of the device information.

**an extensible authentication protocol (EAP) server layer (SL) stored in memory and executable to: receive the authentication information from the device using an EAP encryption protocol, and**

Kappes refers to “authenticating a user or device” and “Extensible Authentication Protocol.” 1:18; 4:19. Kappes also refers to “conventional authentication mechanisms, such as an EAP-scheme” and an “authentication server.” 6:26-27, 38.

**configure an access point in response to approval of the device by the gatekeeper.**

Kappes refers to “the device may be restricted to accessing only one or more restoration services,” which include “reinstalling one or more programs or returning configuration settings to default values.” 2:29-31, 35-36. Kappes does not teach any configuration of an access device responsive to the approval by a gatekeeper.

**(Claim 2) The network access control system of claim 1, wherein the gatekeeper is hosted at the same computing device as the EAPM, ESL, and SF.**

Kappes does not teach any extensible authentication protocol server layer or any server filter.

**(Claim 3) The network access control system of claim 2, wherein the computing device is an access point or router.**

Kappes refers to “wireless access points:” and “routers.” 4:57, 58.

**(Claim 4) The network access control system of claim 1, wherein the gatekeeper is hosted at a computing device distinct from a computing device hosting the EAPM, ESL, and SF.**

Kappes does not teach any gatekeeper, any extensible authentication protocol server layer, or any server filter.

**(Claim 5) The network access control system of claim 1, wherein the SF is part of the ESL.**

Kappes does not teach any extensible authentication protocol server layer or any server filter.

**(Claim 6) The network access control system of claim 1, wherein the EAPM includes a plurality of authentication modules configured to perform different authentication operations.**

While Kappes refers to “a number of authentication protocols,” Kappes does not teach any EAPM that includes a plurality of authentication modules for performing different authentication operations. 1:28.

### III. U.S. PATENT PUBLICATION NUMBER 2003/0229808 TO HEINTZ

#### **(Claim 1) A network access control system comprising:**

With respect to the preamble, Heintz refers to “network security” and “restricting access of the end user system to other components in the network.” [0011].

**an authentication module stored in memory and executable by a processor to authenticate a device seeking network access based at least on authentication information received from the device;**

With respect to the first element of claim 1, Heintz refers to “uniquely identify[ing] the end-user system.” [0026].

**a gatekeeper stored in memory and executable to: formulate an audit request,**

Heintz refers to a “network perimeter security device or provision, such as a software firewall.” [0024]. Heintz also refers to a “policy inspector determining rule set violations.” Heintz does not teach, however, any formulation of any audit request.

**send the audit request to the device,**

Heintz does not teach sending any audit request to the device.

**evaluate device information received from the device in response to the audit request, and**

Heintz does not teach evaluating device information received from the device in response to the audit request.

**approve the device based on evaluation of the device information; and**

Heintz does not teach approving the device based on evaluation of the device information.

**an extensible authentication protocol (EAP) server layer (SL) stored in memory and executable to: receive the authentication information from the device using an EAP encryption protocol, and**

Heintz refers to “uniquely identify[ing] the end-user system.” [0026]. Heintz does not teach any extensible authentication protocol module for authenticating devices.

**configure an access point in response to approval of the device by the gatekeeper.**

While Heintz refers to “retriev[ing] end user system configuration” and “network perimeter security device,” Heintz does not teach any configuration of any access point responsive to approval by a gatekeeper. [0024]; [0037]

**(Claim 2) The network access control system of claim 1, wherein the gatekeeper is hosted at the same computing device as the EAPM, ESL, and SF.**

Heintz does not teach any extensible authentication protocol module, any extensible authentication protocol server layer, or any server filter.

**(Claim 3) The network access control system of claim 2, wherein the computing device is an access point or router.**

Heintz does not teach any router.

**(Claim 4) The network access control system of claim 1, wherein the gatekeeper is hosted at a computing device distinct from a computing device hosting the EAPM, ESL, and SF.**

Heintz does not teach any extensible authentication protocol module, any extensible authentication protocol server layer, or any server filter.

**(Claim 5) The network access control system of claim 1, wherein the SF is part of the ESL.**

Heintz does not teach any extensible authentication protocol server layer or any server filter.

**(Claim 6) The network access control system of claim 1, wherein the EAPM includes a plurality of authentication modules configured to perform different authentication operations.**

While Heintz refers to “uniquely identify[ing] the end-user system,” Heintz does not teach any extensible authentication protocol modules having a plurality of authentication modules for performing different authentication operations. [0026].

#### **IV. U.S. PATENT PUBLICATION NUMBER 2006/0147043 TO MANN**

**(Claim 1) A network access control system comprising:**

With respect to the preamble, Mann teaches “wireless network access” and “security policies.” Abstract.

**an authentication module stored in memory and executable by a processor to authenticate a device seeking network access based at least on authentication information received from the device;**

With respect to the first element of claim 1, Mann teaches that “an authentication module.” [0062].

**a gatekeeper stored in memory and executable to: formulate an audit request,**

Mann mentions that “security policies are received from the gatekeeper 104 using a two-way authentication process.” [0034]. Mann also mentions that an “audit log module 610 stores system event data, such as successful or unsuccessful authentication attempts.” [0066]. Mann does not teach, however, that the gatekeeper formulates any audit request.

**send the audit request to the device,**

Mann does not teach sending any audit request to the device.

**evaluate device information received from the device in response to the audit request, and**

Mann does not teach evaluating device information received from the device in response to the audit request.

**approve the device based on evaluation of the device information; and**

Mann does not teach approving the device based on evaluation of the device information.

**an extensible authentication protocol (EAP) server layer (SL) stored in memory and executable to: receive the authentication information from the device using an EAP encryption protocol, and**

Mann mentions that “[t]he server uses a layering approach and places a virtual layer above external and internal LDAP systems.” [0048]. Mann does not, however, teach any extensible authentication protocol server layer.

**configure an access point in response to approval of the device by the gatekeeper.**

Mann teaches that “security policies are received from the gatekeeper 104 using a two-way authentication process.” [0034].

**(Claim 2) The network access control system of claim 1, wherein the gatekeeper is hosted at the same computing device as the EAPM, ESL, and SF.**

Mann does not teach any extensible authentication protocol module, any extensible authentication protocol server layer, or any server filter.

**(Claim 3) The network access control system of claim 2, wherein the computing device is an access point or router.**

Mann teaches “access points” and “routers.” [0006]; [0040].

**(Claim 4) The network access control system of claim 1, wherein the gatekeeper is hosted at a computing device distinct from a computing device hosting the EAPM, ESL, and SF.**

Mann does not teach any extensible authentication protocol module, any extensible authentication protocol server layer, or any server filter.

**(Claim 5) The network access control system of claim 1, wherein the SF is part of the ESL.**

Mann does not teach any extensible authentication protocol server layer or any server filter.

**(Claim 6) The network access control system of claim 1, wherein the EAPM includes a plurality of authentication modules configured to perform different authentication operations.**

While Mann teaches “an authentication module,” Mann does not teach any extensible authentication protocol modules having a plurality of authentication modules for performing different authentication operations. [0062].

### *DETAILED EXPLANATION OF PATENTABILITY*

With respect to independent claim 1, all of the identified references does not (at the least) individually teach or suggest the following:

- a gatekeeper stored in memory and executable to :
  - formulate an audit request,
  - send the audit request to the device,
  - evaluate device information received from the device in response to the audit request, and
  - approve the device based on evaluation of the device information; and
- an extensible authentication protocol (EAP) server layer (SL) stored in memory and executable to :
  - receive the authentication information from the device using an EAP encryption protocol, and
  - configure an access point in response to approval of the device by the gatekeeper.

None of the references disclose the elements of claims 2-6, which depend from claim 1. In particular, with respect to claim 2, all of the identified references fail to (at the least) teach or suggest that the claimed 'gatekeeper is hosted at the same computing device as the EAPM, ESL, and SF.'

With respect to claim 4, all of the identified references fail to (at the least) teach or suggest that 'the gatekeeper is hosted at a computing device distinct from a computing device hosting the EAPM, ESL, and SF.'

With respect to claim 5, all of the identified references fail to (at the least) teach or suggest that the claimed 'SF is part of the ESL.'

With respect to independent claim 6, all of the identified references does not (at the least) individually teach or suggest that the claimed 'EAPM includes a plurality of authentication modules configured to perform different authentication operations.'

Assuming *arguendo* that a proper motivation to combine the aforementioned references may be posited, said combination of the aforementioned references still does not meet each and every limitation of the presently claimed invention, including but not limited to those identified above.

*CONCISE STATEMENT OF UTILITY*

The invention as claimed has utility in that it provides a means for controlling network access.

*SHOWING OF SUPPORT UNDER 35 U.S.C. § 112, ¶ 1*

The Applicant's undersigned representative hereby provides the following reference to the specification to evidence support for each and every one of the claim elements of the present application as required by 35 U.S.C. § 112, ¶ 1. The present application is a continuation and claims priority benefit of U.S. patent application number 12/273,037 ('037 Application), which is a continuation of U.S. patent number 7,523,484 ('484 Patent), which claims the priority benefit of U.S. provisional patent application number 60/513,080 ('080 Application) and U.S. provisional patent application number 60/505,582 ('582 Application).

These references are exemplary and not intended to be limiting. Additional support may exist that is not expressly identified here.

| <u>Claim Limitation</u>                                                                                                                                                                        | <u>Support in<br/>Specification</u>          | <u>Support in<br/>Specification<br/>of '037</u>              | <u>Support in<br/>Specification<br/>of '484</u>            | <u>Support in<br/>Specification<br/>of '080</u> | <u>Support in<br/>Specification<br/>of '582</u> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| 1. A network access control system comprising:                                                                                                                                                 | Abstract;<br>[0012]-[0016];<br>[0033]-[0035] | Abstract;<br>[0014]-[0018];<br>[0035]-[0037]                 | Abstract;<br>2:48-4:9;<br>5:29-6:16                        | 1:5-7; 6:4-9                                    | 1:5-7; 5:24-27                                  |
| an authentication module stored in memory and executable by a processor to authenticate a device seeking network access based at least on authentication information received from the device; | [0047]; [00068];<br>[0075]-[0078]            | [0049]; [0062];<br>[00069]; [0077]-<br>[0080]; FIGs. 5-<br>9 | 8:29-30; 11:31-<br>38; 12:37-39;<br>14:18-49;<br>FIGs. 5-9 | 6:18-23; 7:3-7;<br>8:3-5; 9:3-8;<br>FIGs. 3-7   | 1:6-7; 3:13-15;<br>4:11-14                      |
| a gatekeeper stored in memory and executable to: formulate an audit request,                                                                                                                   | [0016]; [0079]                               | [0018]; [0081]                                               | 3:60-66; 14:50-<br>56.                                     | 1:9-10; 6:6-15;<br>9:9-13; FIG. 6-<br>7B        | 1:5-7; 4:16-19,<br>32-36; 5:10-15               |
| send the audit request to the device,                                                                                                                                                          | [0080]                                       | [0082]                                                       | 14:57-60                                                   | 6:14-15; 9:14-16;<br>FIG. 6-7B                  | 4:16-19, 32-36;<br>5:10-15                      |

|                                                                                                                                                                                                |                                                         |                                                         |                                                      |                                          |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------------------------------------------------|------------------------------------------------------|------------------------------------------|---------------------------|
| evaluate device information received from the device in response to the audit request, and                                                                                                     | [0079]-[0083]                                           | [0081]-[0083]                                           | 14:50-67                                             | 6:15-16; 11:3-5; FIG. 6-7B               | 4:16-5:15                 |
| approve the device based on evaluation of the device information; and                                                                                                                          | [0081]-[0082]                                           | [0083]-[0084]                                           | 14:61-15:4                                           | 6:15-16; 11:3-5; FIG. 6-7B               | 5:16-29                   |
| an extensible authentication protocol (EAP) server layer (SL) stored in memory and executable to: receive the authentication information from the device using an EAP encryption protocol, and | [0076]-[0081]; FIGs. 5-8B                               | [0078]-[0083]; FIGs. 5-8B                               | 14:27-67; FIGs. 5-8B                                 | 6:11-14; 7:3-7; 8:3-5; 10:3-7; FIGs. 3-7 | 4:11-14; 4:18-19; FIG. 3  |
| configure an access point in response to approval of the device by the gatekeeper.                                                                                                             | [0015]; [0037]; [0052]-[0055]; [0066]-[0070]; FIGs. 4-9 | [0017]; [0039]; [0054]-[0057]; [0068]-[0072]; FIGs. 4-9 | 3:52-59; 6:34-48; 9:20-10:25; 12:17-13:28; FIGs. 4-9 | 6:15-16; 11:12-16; 12-7-12               | 5:16-29                   |
| 2. The network access control system of claim 1, wherein the gatekeeper is hosted at the same computing device as the EAPM, ESL, and SF.                                                       | [0075]; FIG. 5                                          | [0077]; FIG. 5                                          | 14:18-26; FIG. 5                                     | 6:19-23                                  |                           |
| 3. The network access control system of claim 2, wherein the computing device is an access point or router.                                                                                    | [0085]; FIG. 2                                          | [0087]; FIG. 2                                          | 15:20-37; FIG. 2                                     | 12:3-11                                  | 6:11-15; 12:16-18; FIG. 4 |
| 4. The network access control system of claim 1, wherein the gatekeeper is hosted at a computing device distinct from a computing device hosting the EAPM, ESL, and SF.                        | [0075]; FIGs. 2-3                                       | [0077]; FIGs. 2-3                                       | 14:18-26; FIGs. 2-3                                  | 6:19-23                                  |                           |
| 5. The network access control system of claim 1, wherein the SF is part of the ESL.                                                                                                            | [0075]; [0079]; FIGs. 6B-8A                             | [0077]; [0081]; FIG. 6B-8A                              | 14:18-26; 14:61-67; FIG. 6B-8A                       | 6:19-23                                  |                           |

|                                                                                                                                                                             |               |               |          |              |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|----------|--------------|--|
| 6. The network access control system of claim 1, wherein the EAPM includes a plurality of authentication modules configured to perform different authentication operations. | [0075]-[0076] | [0077]-[0078] | 14:18-34 | 7:3-5; 8:3-5 |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|----------|--------------|--|

The claims as presented are not believed to invoke 35 U.S.C. § 112, ¶ 6. The claims as presented are not believed to recite means-plus-function or step-plus-function claim elements.

*IDENTIFICATION OF REFERENCES DISQUALIFIED AS PRIOR ART UNDER 35 USC 103(c)*

The Applicant's undersigned representative does not believe any reference cited in the context of the present petition to be subject to disqualification under 35 U.S.C. § 103(c).

Respectfully Submitted,  
Stacey C. Lum et al.

June 7, 2011

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ATTORNEY'S DOCKET NO.: PA2836US

**SUPPLEMENTAL DECLARATION AND  
POWER OF ATTORNEY FOR PATENT APPLICATION**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled

"Systems and Methods of Controlling Network Access"

which was filed in the United States Patent and Trademark Office on September 24, 2004 and assigned serial number 10/949,179.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under Title 35, United States Code §119(a)-(d) or (f) or §365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or §365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

| <u>Number</u> | <u>Country</u> | <u>Foreign Filing Date</u> | <u>Priority Claimed?</u>                                 | <u>Certified Copy Attached?</u>                          |
|---------------|----------------|----------------------------|----------------------------------------------------------|----------------------------------------------------------|
| (Number)      | (Country)      | (MM/DD/YYYY)               | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| (Number)      | (Country)      | (MM/DD/YYYY)               | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No |

**ATTORNEY'S DOCKET NO.: PA2836US**

I hereby claim the benefit under Title 35, United States Code §119(e) of any United States provisional application(s) listed below.

**Prior Provisional Applications:**

|                      |                           |
|----------------------|---------------------------|
| <u>60/505,582</u>    | <u>September 24, 2003</u> |
| (Application Number) | (Filing Date)             |
| <u>60/513,080</u>    | <u>October 21, 2003</u>   |
| (Application Number) | (Filing Date)             |

I hereby claim the benefit under Title 35, United States Code §120 of any United States application(s), or §365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of Title 35, United States Code §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

**Prior U.S. or PCT Applications Designating the U.S.:**

|                             |                             |                                          |
|-----------------------------|-----------------------------|------------------------------------------|
| <u>                    </u> | <u>                    </u> | <u>                    </u>              |
| (Application Number)        | (Filing Date)               | (Status -- patented, pending, abandoned) |
| <u>                    </u> | <u>                    </u> | <u>                    </u>              |
| (Application Number)        | (Filing Date)               | (Status -- patented, pending, abandoned) |

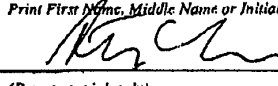
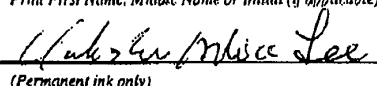
**POWER OF ATTORNEY:** I hereby appoint the attorney(s) and/or agent(s) associated with the customer number **22830** to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

**SEND ALL CORRESPONDENCE TO:**

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ATTORNEY'S DOCKET NO.: PA2836US

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first inventor: Stacey C. Lum Citizenship: U.S.A.*Print First Name, Middle Name or Initial (if applicable), Last Name*Inventor's signature:  Dated: 10/21/08*(Permanent ink only)**(Date of Signature)*Residence Address: Los Altos, California*(if the inventor lives at a location different than his/her mailing address)*Mailing Address: 170 S. Whisman Road, Suite B, Mountain View, California 94041*(Where the inventor customarily receives mail: Number, Street, City, State, Zip Code)*Full name of second inventor: Yuhshiw Alice Lee Citizenship: U.S.A.*Print First Name, Middle Name or Initial (if applicable), Last Name*Inventor's signature:  Dated: 10/21/08*(Permanent ink only)**(Date of Signature)*Residence Address: Saratoga, California*(if the inventor lives at a location different than his/her mailing address)*Mailing Address: 170 S. Whisman Road, Suite B, Mountain View, California 94041*(Where the inventor customarily receives mail: Number, Street, City, State, Zip Code)*

ATTORNEY'S DOCKET NO.: PA2836US**37 CFR §1.56 Duty to disclose information material to patentability.**

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(h)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

(1) Prior art cited in search reports of a foreign patent office in a counterpart application, and

(2) The closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a *prima facie* case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office, or

(ii) Asserting an argument of patentability. A *prima facie* case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

(1) Each inventor named in the application;

(2) Each attorney or agent who prepares or prosecutes the application; and

(3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

(e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

PA2836US

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Stacey C. Lum, et al.  
APPL. NO.: Unknown  
FILING DATE: Herewith  
TITLE: Systems and Methods of Controlling Network Access  
PARENT APPL. NO.: 10/949,179  
PARENT FILING DATE: September 24, 2004  
PARENT EXAMINER: Hosuk Song  
ATTY. DKT. NO.: PA5252US

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Statement Regarding Declaration

SIR:

Enclosed with the present continuation patent application is the declaration for U.S. patent application number **10/949,179** filed on September 24, 2004. U.S. patent application number **10/949,179** is the parent application of U.S. patent application number 12/273,037, which is the parent application of the present continuation patent application. These documents are being submitted pursuant to 37 C.F.R. § 1.63 whereby a newly executed oath or declaration is not required in a new continuation application.

Respectfully submitted,  
Stacey C. Lum, et al.

June 7, 2011

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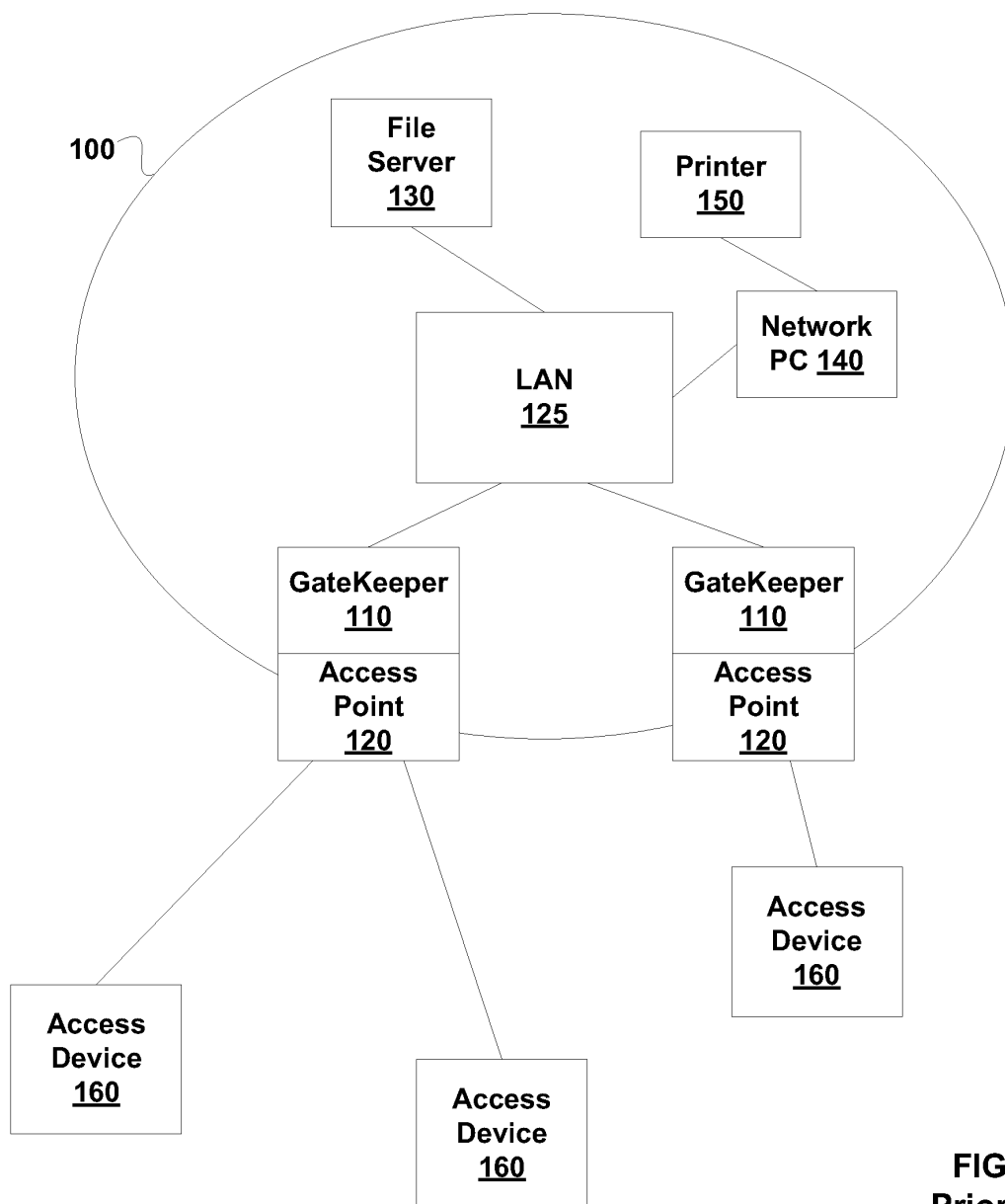


**FIG. 1**  
**Prior Art**

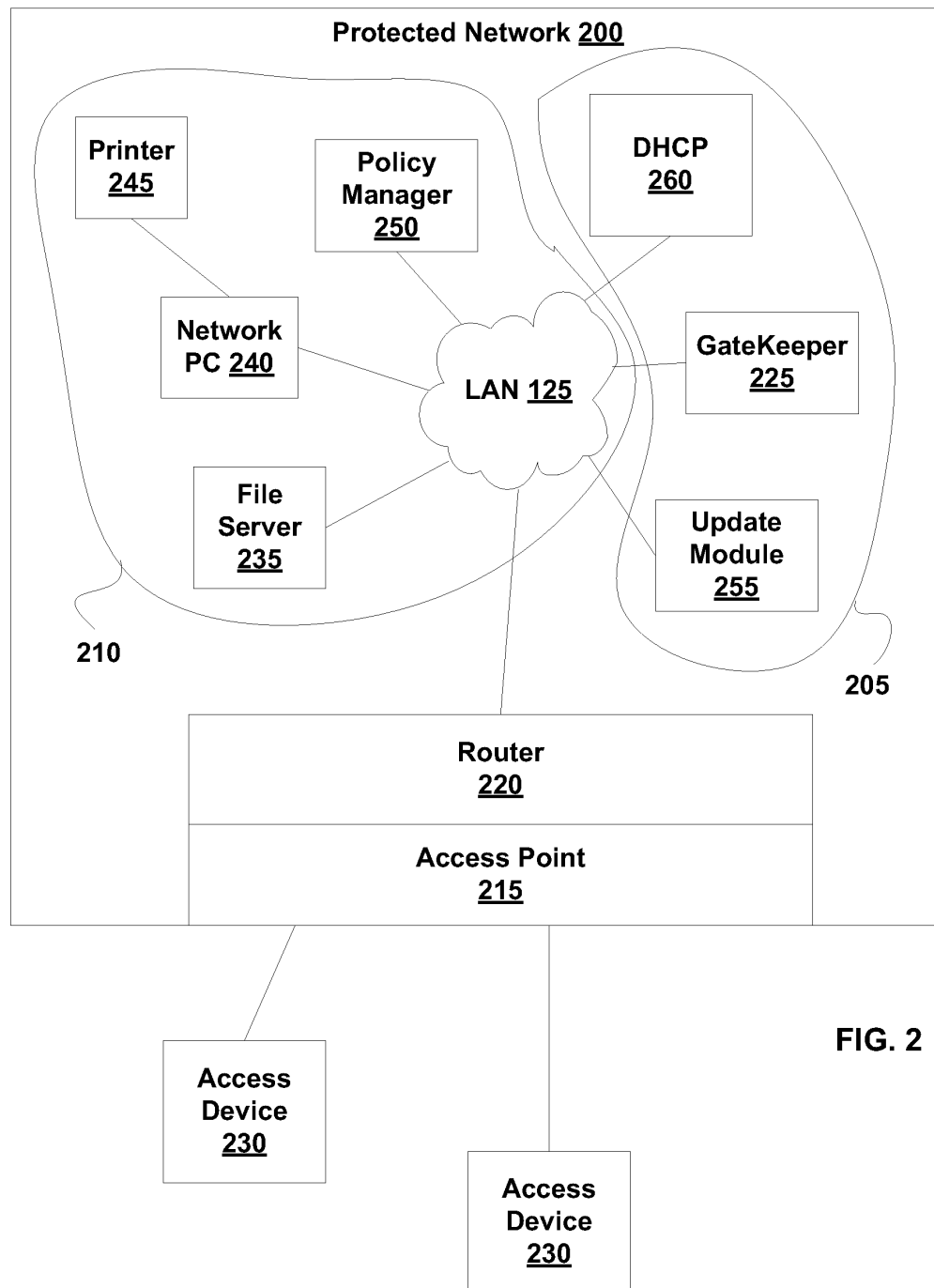


**FIG. 2**

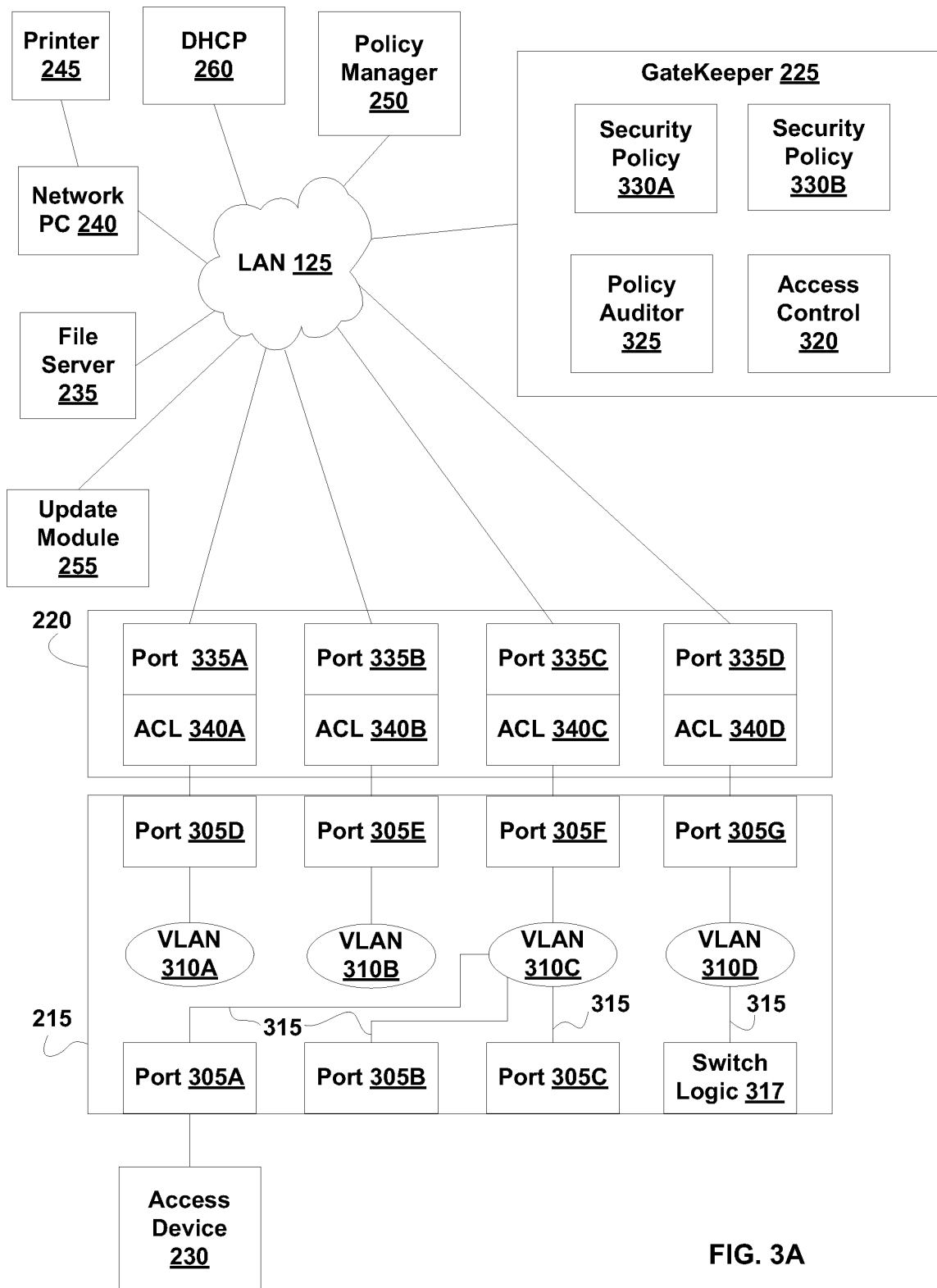


FIG. 3A

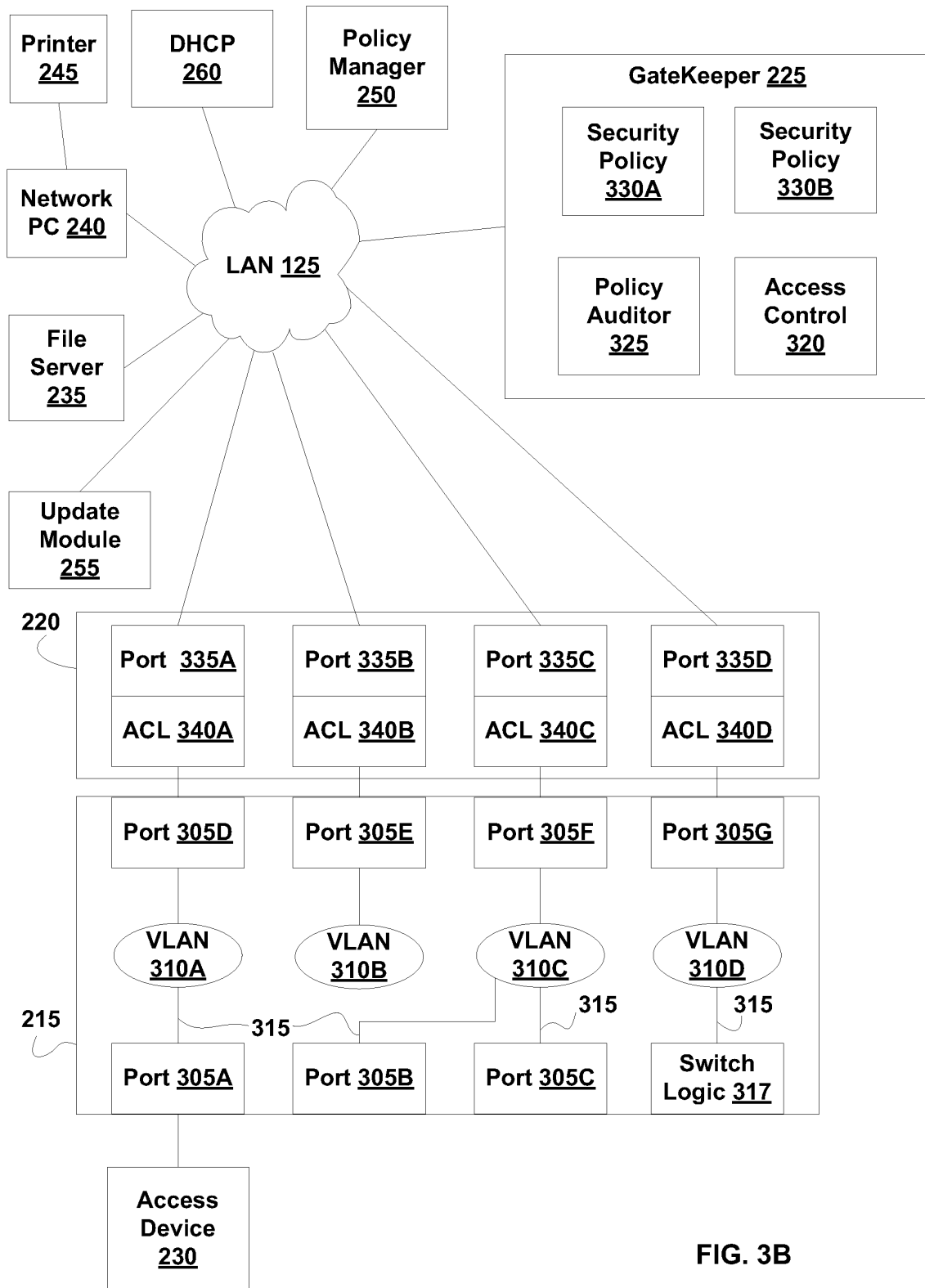


**FIG. 3B**

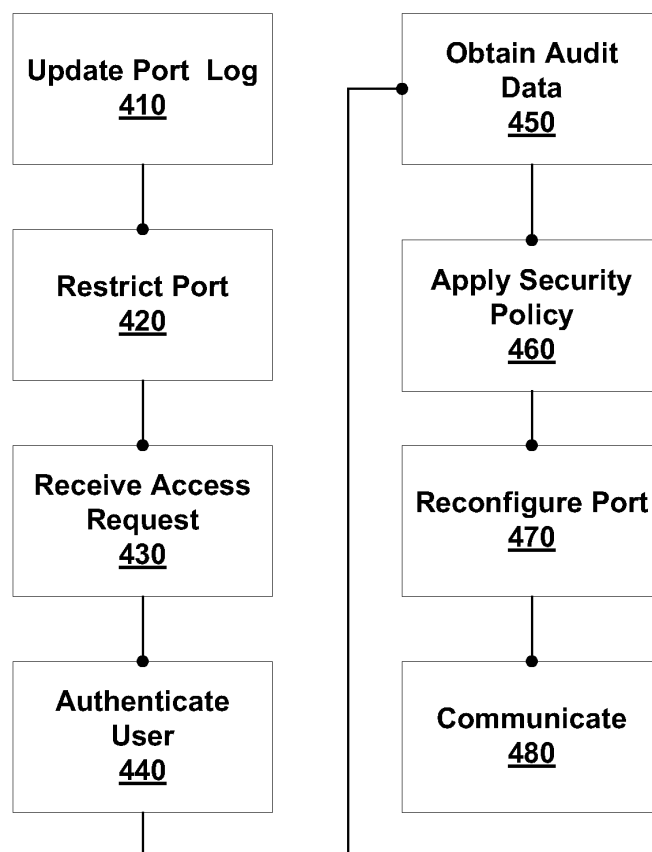


**FIG. 4**

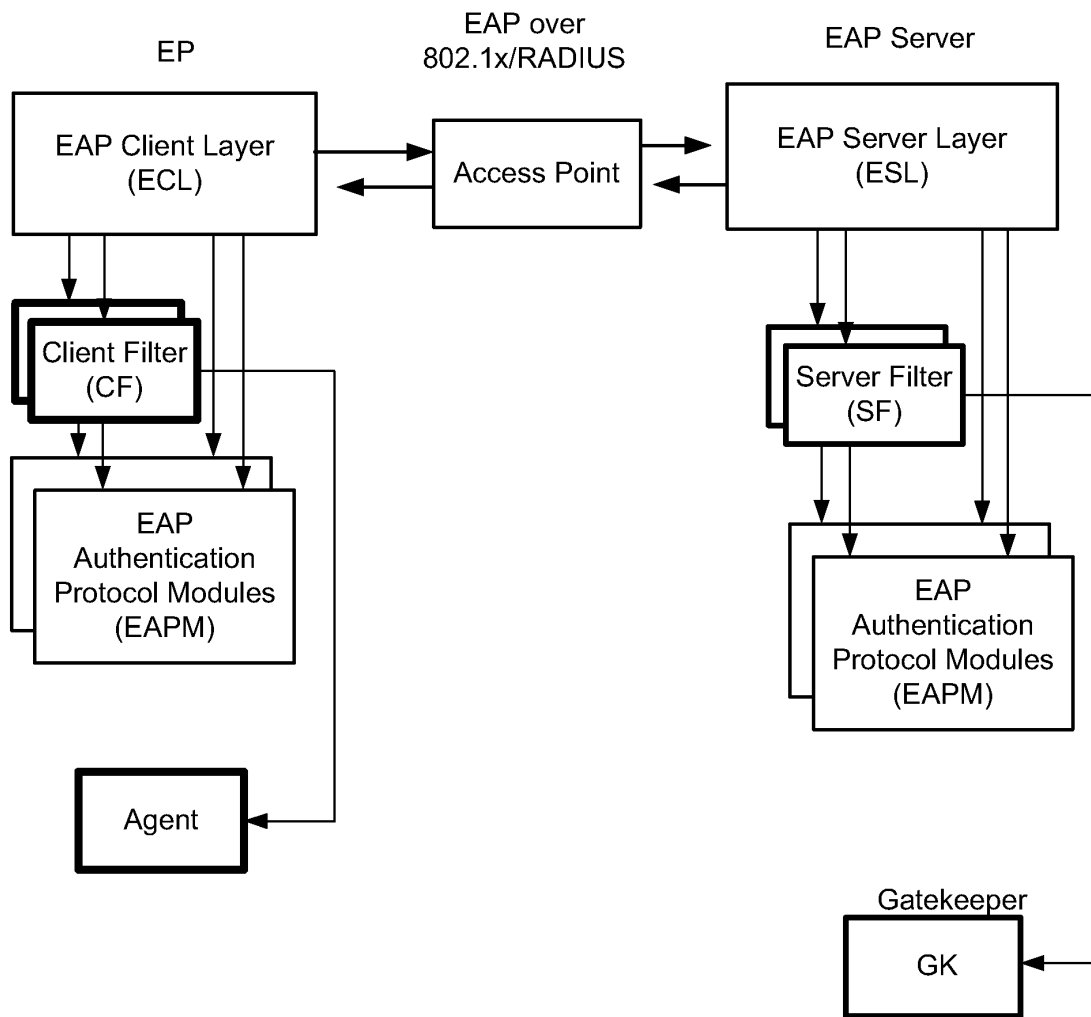


FIG. 5

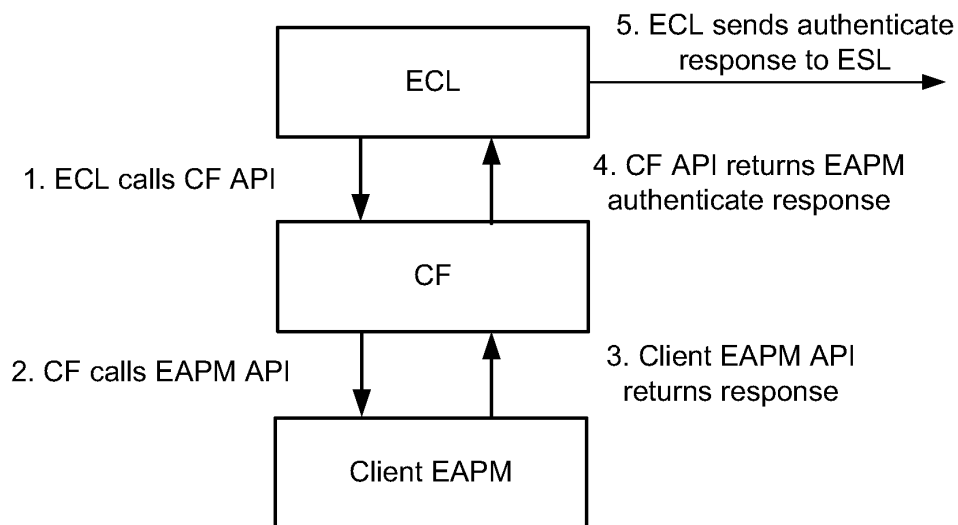


FIG. 6A

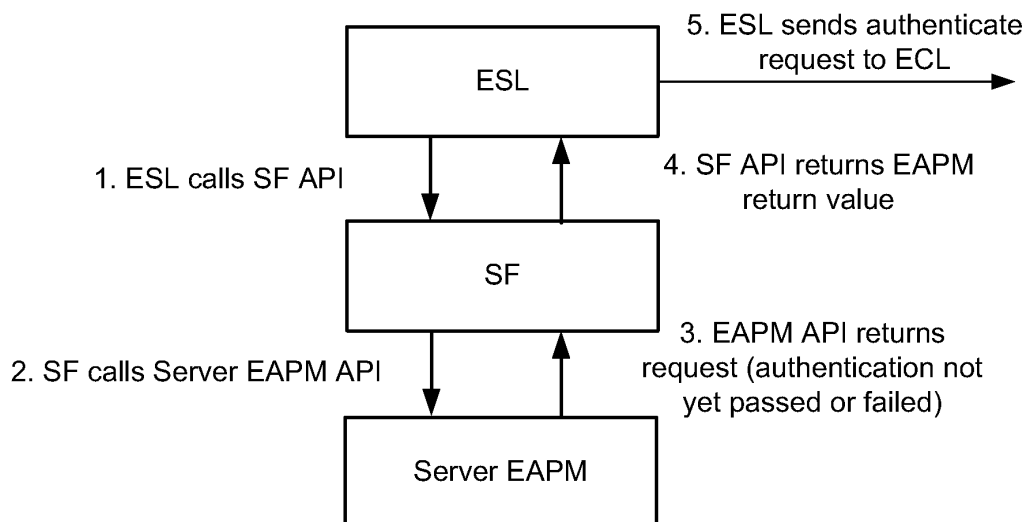


FIG. 6B

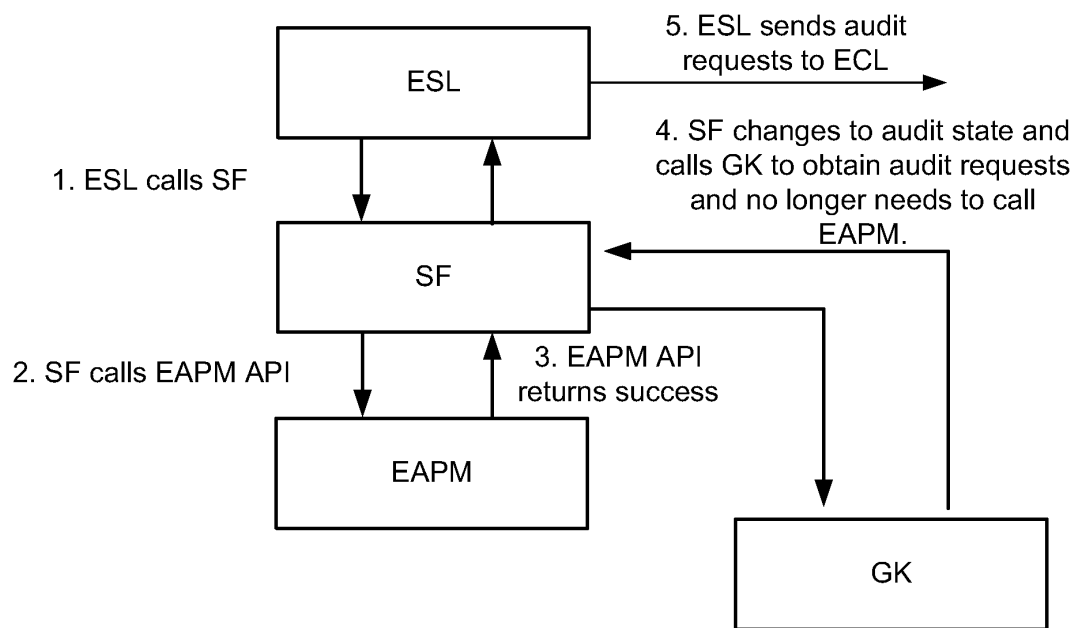


FIG. 7

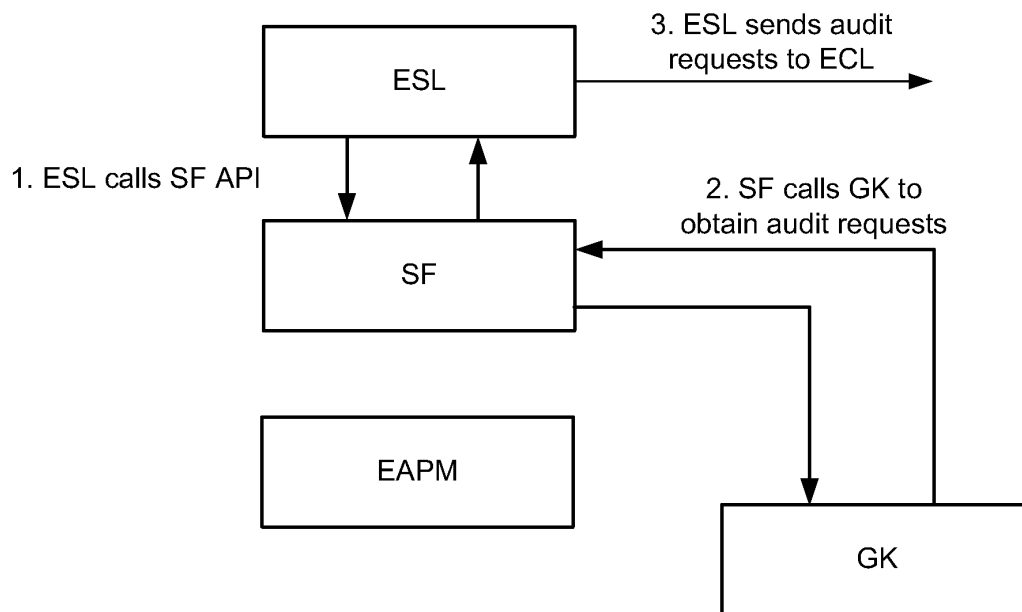


FIG. 8A

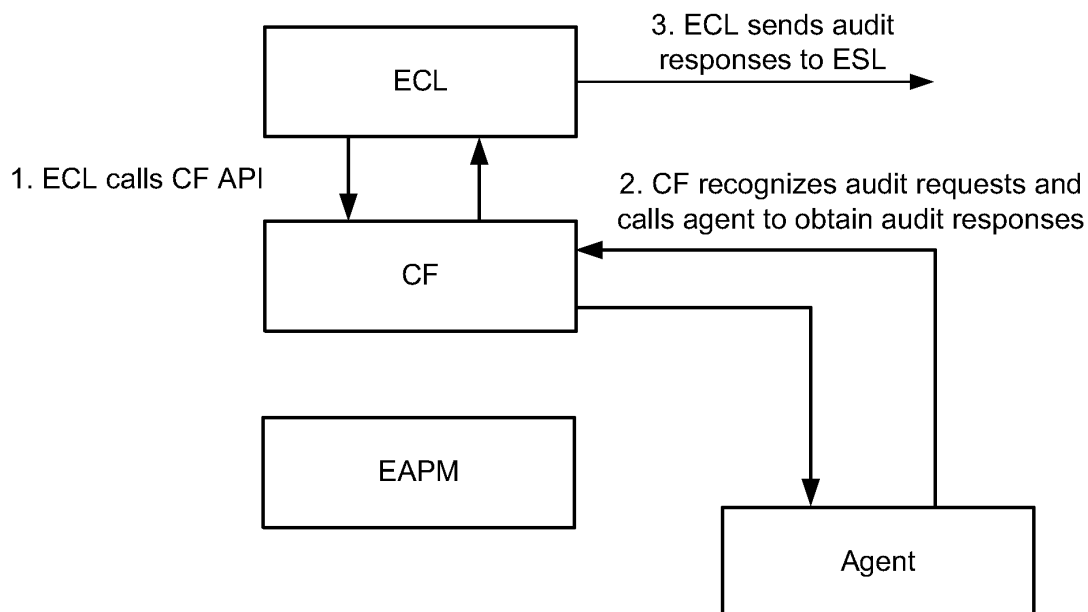


FIG. 8B

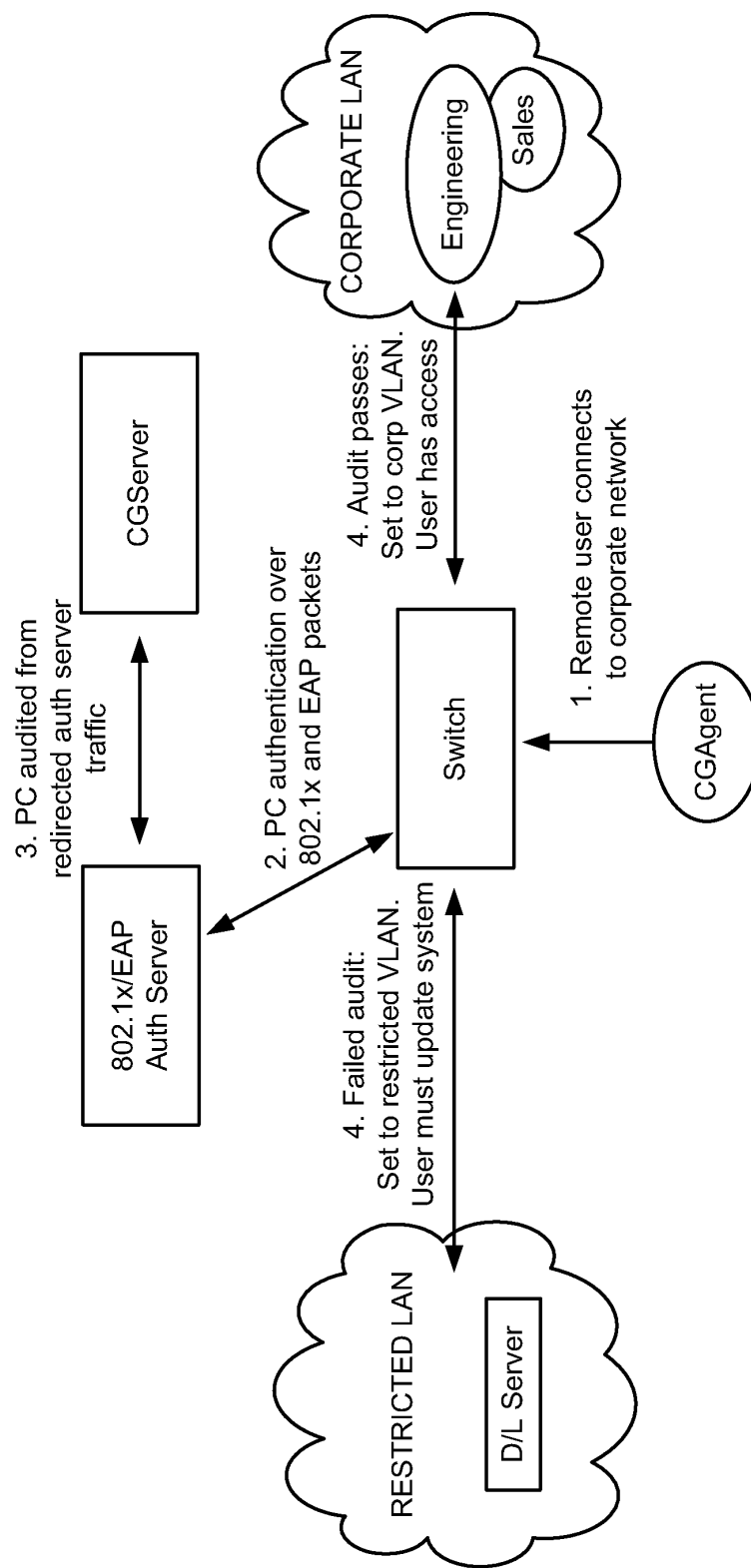


FIG. 9

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

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|-----------------------------------------------------------------------------------------------------|------------------------|---------------|----------|--|
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     |               | UNKNOWN  |  |
|                                                                                                     | Filing Date            |               | HEREWITH |  |
|                                                                                                     | First Named Inventor   | STACEY C. LUM |          |  |
|                                                                                                     | Art Unit               |               |          |  |
|                                                                                                     | Examiner Name          |               |          |  |
|                                                                                                     | Attorney Docket Number |               | PA5252US |  |

| U.S.PATENTS       |         |               |                        |            |                                                 |                                                                        |
|-------------------|---------|---------------|------------------------|------------|-------------------------------------------------|------------------------------------------------------------------------|
| Examiner Initial* | Cite No | Patent Number | Kind Code <sup>1</sup> | Issue Date | Name of Patentee or Applicant of cited Document | Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear |
|                   | 1       | 5842002       |                        | 1998-11-24 | SCHNURER                                        |                                                                        |
|                   | 2       | 7752320       |                        | 2006-07-06 | KAPPES                                          |                                                                        |

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|                                     | 1       | 20030229808        |                        | 2003-12-11       | HEINTZ                                          |                                                                        |
|                                     | 2       | 20060147043        |                        | 2006-07-06       | MANN                                            |                                                                        |

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| Examiner Initial*        | Cite No | Foreign Document Number <sup>3</sup> | Country Code <sup>2</sup> | Kind Code <sup>4</sup> | Publication Date | Name of Patentee or Applicant of cited Document | Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear | T <sup>5</sup>           |
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| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     |               | UNKNOWN  |
|                                                                                                     | Filing Date            |               | HEREWITH |
|                                                                                                     | First Named Inventor   | STACEY C. LUM |          |
|                                                                                                     | Art Unit               |               |          |
|                                                                                                     | Examiner Name          |               |          |
|                                                                                                     | Attorney Docket Number |               | PA5252US |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |                                                                                                                                                                                                                                                                 |                          |
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| Examiner Signature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |         | Date Considered                                                                                                                                                                                                                                                 |                          |
| *EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.                                                                                                                                                                                                                                                                                                                                                                                                  |         |                                                                                                                                                                                                                                                                 |                          |
| <small> <sup>1</sup> See Kind Codes of USPTO Patent Documents at <a href="http://www.USPTO.GOV">www.USPTO.GOV</a> or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.         </small> |         |                                                                                                                                                                                                                                                                 |                          |

|                                                                                                     |                        |               |
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| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     | UNKNOWN       |
|                                                                                                     | Filing Date            | HEREWITH      |
|                                                                                                     | First Named Inventor   | STACEY C. LUM |
|                                                                                                     | Art Unit               |               |
|                                                                                                     | Examiner Name          |               |
|                                                                                                     | Attorney Docket Number | PA5252US      |

### CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☐ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

**OR**

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

### SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

|            |                  |                     |            |
|------------|------------------|---------------------|------------|
| Signature  | /Tam Thanh Pham/ | Date (YYYY-MM-DD)   | 2011-06-07 |
| Name/Print | Tam Thanh Pham   | Registration Number | 50565      |

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Stacey C. Lum et al.  
APPLICATION NO.: Unknown  
FILED: Herewith  
TITLE: Systems and Methods of Controlling Network Access  
EXAMINER: Unknown  
ATTY.DKT.NO.: PA5252US

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**INFORMATION DISCLOSURE STATEMENT**  
**Under 37 C.F.R. § 1.56, and 1.97-1.98**  
**& Statement Under 37 C.F.R. § 1.97(e)(2)**

Pursuant to the provisions of 37 C.F.R. §§ 1.56 and 1.97-98 of the Rules of Practice in Patent Cases, enclosed herewith is form PTO-SB-08, listing several references. The Examiner is requested to make these references of official record in the application.

The references cited may be material to examination of the application and are submitted in compliance with the Applicants' duty of disclosure as defined by 37 C.F.R. § 1.56. No representation is made or intended as to the completeness of this list, nor is the inclusion of any reference on this list an admission that it is prior art or pertinent to this application.

Applicants believe no fee is due with this submission. If a fee is due, however, the Commissioner is hereby authorized to charge any necessary fee to Account Number 06-0600.

Respectfully submitted,  
Stacey C. Lum et al.

June 7, 2011

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## **SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS**

### **CROSS-REFERENCE TO RELATED APPLICATIONS**

**[0001]** This application is a continuation and claims the priority benefit of U.S. patent application number 12/273,037 filed November 18, 2008, which is a continuation and claims the priority benefit of U.S. patent application number 10/949,179 filed September 24, 2004 (now U.S. patent number 7,523,484), which claims the priority benefit of U.S. provisional patent application number 60/505,582 filed September 24, 2003 and U.S. provisional patent application number 60/513,080 filed October 21, 2003, the disclosures of the aforementioned applications being incorporated herein by reference.

### **BACKGROUND**

#### **1. Field of the Invention**

**[0002]** The invention is in the field of computing systems and more specifically in the field of network security.

#### **2. Description of the Related Art**

**[0003]** Several approaches to controlling external access to computing networks have been developed. The goals in developing these approaches include limiting access to authorized users and assuring that computing devices employed by these users do not include malicious computing code such as viruses, worms, or Trojan horses. The need for access control has grown with users' demands for accessing secure networks over the Internet and from personal devices such as laptop computers and personal digital assistants.

**[0004]** A first level of access control is achieved by requiring authentication of a user. This may be accomplished by requiring the user to enter a username and password or by reading a MAC address or other identifying information from an access device. In some systems, a network switch is programmed to grant access to a secure network only after proper authentication is achieved. Systems capable of using this approach include those using a proprietary VMPS protocol from Cisco Systems, Inc. of San Jose, Calif. or using a IEEE 802.1x standard protocol.

**[0005]** Reliance on mere user authentication includes several disadvantages. For example, there are no provisions to assure that an access device used by the authenticated user meets network security policies. The access device may have out-of-date virus software, may have security vulnerabilities, or may be otherwise compromised. Further, this approach requires that access points (e.g., network switches) support one of a specific set of access protocols. Because many access points do not support VMPS, 802.1x, or a similar protocol, implementation of this approach on a large preexisting network, such as a corporate network, may be prohibitively expensive.

**[0006]** A greater level of access control may be achieved by including a gatekeeper between the secure network and the access device. The gatekeeper is configured to ensure that the access device conforms to a predetermined security policy. FIG. 1 is a block diagram of a Secure Network, generally designated 100, including two instances of a Gatekeeper 110 each associated with a different instance of an Access Point 120. Secure Network 100 further includes, as an illustrative example, a network File Server 130, a Network PC (personal computer) 140 and a Printer 150 included in and connected via, a local area network designated LAN 125.

**[0007]** Each instance of Access Point 120 may include a large number of individual communication ports. These ports are used to connect through GateKeeper 110 to other elements within Secure Network 100 such as File Server 130 or LAN 125. Large corporate networks may include many instances of Access Point 120, each including

hundreds of individual communication ports and being associated with an instance of GateKeeper 110.

[0008] Some instances of Access Point 120 are capable of supporting virtual local area networks (VLANs). VLANs are generated by associating communication ports within Access Point 120 with separate virtual networks. For example, one Access Device 160 may be placed on a different VLAN than another Access Device 160 by assigning the communication ports of Access Point 120 to separate VLANs. From the point of view of these devices, the effect of a VLAN is equivalent to having a separate hardwired network.

[0009] GateKeeper 110 is configured to control access to Secure Network 100. In addition to authenticating users who wish to access Secure Network 100 using an Access Device 160, GateKeeper 110 is configured to ensure that Access Device 160 conforms to a predetermined security policy, before granting access to Secure Network 100. For example, GateKeeper 110 may make certain that Access Device 160 has up-to-date virus software and encryption protocols as proscribed by the security policy. Once GateKeeper 110 has verified that Access Device 160 satisfies the security policy, Access Device 160 is allowed to communicate through GateKeeper 110 to LAN 125.

[0010] A disadvantage of the use of GateKeeper 110, as practiced in the prior art, is that all communications between Access Device 160 and LAN 125 pass through GateKeeper 110. For large networks including many instances of Access Point 120, each of which may include many communication ports, this can be a significant burden. The use of one instance of GateKeeper 110 to support numerous instances of Access Device 160 is limited by bandwidth and required sophistication (e.g., cost) of GateKeeper 110. It is undesirable for GateKeeper 110 to become a limiting factor on the bandwidth of communication between instances of Access Device 160 and Secure Network 100. Further, the use of a separate GateKeeper 110 for each instance of Access Device 160 or Access Point 120 is often prohibitively expensive. Even if a separate GateKeeper is used for each Access Point 120, there is no isolation between compliant and non-compliant Access Devices 160 which are attached to the same Access Point 120.

[0011] There is, therefore, a need for improved systems and methods of controlling access to secure networks.

## SUMMARY OF THE INVENTION

[0012] Systems and methods of the invention include a protected network physically or logically divided into a restricted subset and one or more less-restricted subsets. Requests from an access device for access to the less-restricted subset are first passed to the restricted subset. Elements (e.g., a gatekeeper) of the restricted subset are then used to apply security policies to the access device and if security policies are satisfied, the access device is granted access to a less-restricted subset of the protected network. The passing of access requests to the restricted subset and granting of access are accomplished by configuring and reconfiguring a communication port of an access point. After access is granted, further communication between the access device and the protected network can include access to the less restricted subset.

[0013] Typically, the less-restricted subset of the protected network and the restricted subset of the protected network are characterized by Virtual Local Area Networks (e.g., VLANs) defined within the access point and optionally by access control lists (ACL) of a router, firewall, or switch situated between the VLAN and the protected network. Different VLANs within the same access point, or within different access points, may be configured to characterize a plurality of restricted subsets and/or a plurality of less-restricted subsets within the protected network. A communication port of the access point is configured such that network traffic directed at the protected network is initially passed through a restricted VLAN rather than through a less-restricted VLAN. The restricted VLAN allows network traffic to pass to the restricted subset of the protected network and is typically restricted in the sense that it only allows access to elements of the protected network that are configured to communicate with an access device whose security characteristics are unknown or questionable. In contrast, the less-restricted VLAN allows access to the less-restricted subset of the protected network and, in typical embodiments, to elements of both the less-restricted subset and the restricted subset. For example, the restricted VLAN allows traffic to pass to a gatekeeper configured to receive requests for access to the less-restricted VLAN, and to

determine if, and to what extent, access may be allowed. To grant access, the gatekeeper sends commands to the access point in order to reconfigure a communication port to which the access device is connected. The reconfiguration typically includes reassigning the communication port from the restricted VLAN to the less-restricted VLAN.

**[0014]** Subsequent to reconfiguration of the communication port, network traffic can pass from the access device through the less-restricted VLAN to elements of both the less-restricted subset and (optionally) the restricted subset. This network traffic need not pass through the gatekeeper. Thus, in various embodiments of the invention a gatekeeper is used to grant access to the less-restricted subset, and after access has been granted, most network traffic does not need to pass through the gatekeeper. For example, in some embodiments, the gatekeeper only receives requests to access the less-restricted network and data regarding access to and security of the protected network. This data may be received from administrators, access devices, access points, routers, and/or other devices on the network. These limited communications with gatekeeper occur both before and after reconfiguration of the communication port, and eliminate a significant disadvantage associated with the use of prior art gatekeepers.

**[0015]** Various embodiments of the invention include a computing network comprising a less-restricted subset of the computing network, access to the less-restricted subset being responsive to a first VLAN, a restricted subset of the computing network including a gatekeeper, the gatekeeper configured to receive requests for access to the less-restricted subset from an access device and to issue commands configured to allow access to the less-restricted subset, access to the restricted subset of the computing network being responsive to a second VLAN, and at least one access point including a communication port configurable for communication with the less-restricted subset or alternatively for communication with only the restricted subset, configuration of the communication port including association of the communication port alternatively with the first VLAN or the second VLAN, configuration of the communication port being responsive to the commands issued by the gatekeeper. Other elements are optional.

**[0016]** Various embodiments of the invention include a network gatekeeper comprising at least one security policy including requirements that must be satisfied before an access device is granted access to a less-restricted subset of a protected network, a policy auditor configured to audit an access device using the at least one security policy, in response to a request to access the less-restricted subset of the protected network, the request being sent from the access device to the gatekeeper via a communication device, and an access control configured to reconfigure the communication device such that data sent from the access device can be received by the less-restricted subset of the protected network rather than merely a restricted subset of the protected network, if the audit results in a determination that the access device meets the requirements of the at least one security policy, the restricted subset of the protected network including the gatekeeper. Other elements are optional.

**[0017]** Various embodiments of the invention include a method of granting access to a protected network, the method comprising receiving a request for access to a less-restricted subset of the protected network from an access device external to the protected network, the request being received through a communication port of an access point, the communication port configured for communicating between the access device and a restricted subset of the protected network, the restricted subset including a gatekeeper, applying a security policy to the access device, responsive to the request, and reconfiguring the communication port for communicating between the access device and the less-restricted subset of the protected network, if requirements of the security policy are satisfied. Other steps are optional.

**[0018]** Various embodiments of the invention include a method of granting access to a protected network, the method comprising receiving a first communication from an access device at a communication port, the communication port being configured to pass the first communication to a restricted subset of the protected network, the restricted subset including a gatekeeper configured to enforce security policy for access to a less-restricted subset of the protected network, receiving a command from the gatekeeper, the command being responsive to the received first communication and being

configured to reconfigure the communication port to communicate data to the less-restricted subset of the protected network, configuring the communication port to communicate data to the less-restricted subset of the protected network rather than merely the restricted subset of the protected network, responsive to the received command, and receiving a second communication from the access device at the communication port, the communication port now being configured to pass the second communication to the less-restricted subset of the protected network. Other steps are optional.

[0019] Various embodiments of the invention include a computing network comprising means for dividing the computing network into a restricted subset and a less-restricted subset, means for receiving a request at the restricted subset, the request being to access the less-restricted subset, means for enforcing a security policy in response to the request, and means for allowing communication to the less-restricted subset, responsive to the enforcement of the security policy, the communication to the less-restricted subset not necessarily passing through the restricted subset. Other elements are optional.

[0020] In various embodiments of the invention the restricted subset of a computing network includes elements configured to communicate with access devices having an unknown or questionable security status, and the less-restricted subset of the computing network includes those elements of the computing network not included in the restricted subset.

## BRIEF DESCRIPTION OF THE FIGURES

- [0021] FIG. 1 is a block diagram of a prior art computing network;
- [0022] FIG. 2 is a block diagram of a protected network, according to various embodiments of the invention;
- [0023] FIG. 3A is a block diagram showing further details of an access point, router and gatekeeper of FIG. 2, according to various embodiments of the invention;
- [0024] FIG. 3B is a block diagram showing further details of the access point, router and gatekeeper of FIG. 2, after access has been granted to a less-restricted subset of a protected network, according to various embodiments of the invention; and
- [0025] FIG. 4 is a flowchart illustrating a method of granting access to a protected network, according to various embodiments of the invention.
- [0026] FIG. 5 is a block diagram showing EAP over 802.1x/Radius.
- [0027] FIG. 6A is a block diagram showing a client in authentication state.
- [0028] FIG. 6B is a block diagram showing a server in authentication state.
- [0029] FIG. 7 is a block diagram showing a server changing to audit state.
- [0030] FIG. 8A is a block diagram showing a server in audit state.
- [0031] FIG. 8B is a block diagram showing a client responding to audit requests.
- [0032] FIG. 9 is a block diagram showing a system in 802.1x mode where normal traffic does not traverse CGS.

## DETAILED DESCRIPTION

[0033] Access to a protected computing network is controlled by manipulating a communication port within an access point. When an access request is first received, the communication port is configured to pass the request to a restricted subset of a protected computing network. This restricted subset includes a gatekeeper configured to administer a security policy governing access to those parts of the protected computing network that are not part of the restricted subset. Those parts of the protected computing network that are not part of the restricted network are considered to be in a less-restricted subset. The less-restricted subset being less restricted relative to the restricted subset in terms of what elements may be included in each subset. If the device requesting access satisfies requirements of the security policy, then the gatekeeper sends commands to the access point in order to reconfigure the communication port through which the access request was received. The communication port is reconfigured such that further communication from the access device is passed to the less-restricted subset as well as, optionally, the restricted subset. In some embodiments, the less-restricted subset and the restricted subset are characterized by VLANs defined within the protected network.

[0034] FIG. 2 is a block diagram of a Protected Network 200, according to various embodiments of the invention. Protected Network 200 is either physically or logically divided into a Restricted Subset 205 and a Less-Restricted Subset 210. Access to Protected Network 200 is possible through an Access Point 215 (a communication device) and an optional Router 220. As is described further herein this access is under the control of a GateKeeper 225. GateKeeper 225 is configured to enforce a security policy against one or more Access Device 230 requesting access to Less-Restricted Subset 210. Typically, Less-Restricted Subset 210 and Restricted Subset 205 are characterized by VLAN settings within Access Point 215. Access Device 230 and Access Point 215 are connected by a communication channel such as a cable, the Internet, a telephone

network, other computing network, and/or the like. In some embodiments, a network access server (not shown) is included between Access Device 230 and Access Point 215.

**[0035]** In various embodiments, Protected Network 200 includes a corporate network, telephone network, private network, local area network, wide area network, wireless network, communication network, government network, university network, and/or the like. Restricted Subset 205 is a subset of Protected Network 200 including at least GateKeeper 225. In some embodiments, Restricted Subset 205 further includes a DHCP (dynamic host configuration protocol service) 260 configured to assign and manage network addresses, and/or an Update Module 255 configured for providing security updates to Access Device 230. For example, in one embodiment, Restricted Subset 205 includes a server configured to function as DHCP 260 and a server configured to function as GateKeeper 225. In one embodiment, Restricted Subset 205 includes a single computing device configured to function as both Update Module 255 and GateKeeper 225.

**[0036]** Less-Restricted Subset 210 includes those elements of Protected Network 200 not included in Restricted Subset 205. Less-Restricted Subset 210 optionally includes devices such as a File Server 235, a Network PC 240, a Printer 245, or the like. In some embodiments, Protected Network 200 includes elements having a hierarchy of access restrictions. For example, access to Network PC 240 may require a higher level of authority than access to File Server 235. In this case, as described further herein, access control lists within Router 220 are optionally used to independently control access to specific devices within Less-Restricted Subset 210. Protected Network 200 may be large, including tens, hundreds, or thousands of devices. The hierarchy of access restrictions may be enforced by a hierarchical set of security policies defined using Policy Manager 250. In various embodiments, Router 220 and Access Point 215 may be considered part of Restricted Subset 205 or Less-Restricted Subset 210.

**[0037]** GateKeeper 225 is configured to enforce one or more security policies against an instance of Access Device 230 attempting to access Protected Network 200. The security policies may include requirements for user identification such as user names and

passwords, configuration requirements relating to the configuration of Access Device 230, application requirements relating to applications running on Access Device 230, or the like. For example, in one embodiment GateKeeper 225 is configured to enforce a security policy that requires a user of Access Device 230 to provide a username and password, requires Access Device 230 to be running an operating system with specific security patches installed, requires that Access Device 230 not be connected to any insecure devices, and requires that Access Device 230 have current antivirus software installed.

[0038] In some embodiments, GateKeeper 225 is configured to enforce several alternative security policies having different levels of requirements, and to determine which security policy to enforce based on the identity of Access Device 230, the identity of a user of Access Device 230, those elements of Less-Restricted Subset 210 to which access is requested, and/or the like. For example, a request to access File Server 235 may have to satisfy a security policy that includes scanning Access Device 230 for malicious code, while a request to access Printer 245 may have to satisfy a security policy that includes establishing a user identity. Security policies may be stored on GateKeeper 225, on Policy Manager 250, or elsewhere accessible to Restricted Subset 205.

[0039] In some embodiments, a single instance of GateKeeper 225 is configured to manage access through more than one Access Point 215 and/or to manage access to more than one Protected Network 200. As is described further herein, management of Access Point 215 is accomplished by configuring and reconfiguring one or more communication ports within Access Point 215, and optionally setting access control lists within Router 220. In some embodiments Protected Network 200 includes a plurality of Access Point 215, a plurality of GateKeeper 225 and/or a plurality of Restricted Subset 205. Further details of GateKeeper 225 and Access Point 215 are discussed below.

[0040] Access Device 230 is a computing device configured to operate as an end point (EP) in a communication channel including Access Point 215 and Access Device 230. In various embodiments, Access Device 230 is a personal computer, a personal digital assistant, a telephone, a wireless device, a communication device such as a

router, Ethernet card, wireless card, another access point, a network device, or the like.

Access Device 230 is optionally identified by a MAC address, by a cookie, by data stored on Access Device 230, by a user name, an IP address, a network address, or the like.

**[0041]** In some embodiments, Access Device 230 is configured to execute a software and/or hardware agent for communicating with GateKeeper 225. For example, in one embodiment, Access Device 230 includes an agent configured to monitor code running on Access Device 230 and report any suspicious code to GateKeeper 225. In another example, Access Device 230 may include software and/or hardware configured to monitor other devices connected to Access Device 230 and to report information about these devices (e.g., their security statuses or MAC addresses) to GateKeeper 225.

**[0042]** Policy Manager 250 is configured to centrally create, update, and distribute security policies enforced by one or more GateKeeper 225. For example, in various embodiments, Policy Manager 250 is configured to manage passwords, to specify access privileges, to specify requirements of security policies, or the like. In some embodiments, Policy Manager 250 is configured to establish several security policies and to specify conditions under which each of the security policies should be used. For example, a security policy may be selected for use responsive to a device type of Access Device 230 and/or the elements of Protected Network 200 to which access has been requested.

**[0043]** Update Module 255 is configured for remotely modifying Access Device 230, or a device connected to Access Device 230, in order to improve compliance with a security policy. For example, if it is found that Access Device 230 includes out-of-date antivirus software, then Update Module 255 may facilitate updating of the antivirus software on Access Device 230. In some embodiments, Update Module 255 is configured to update an agent executing on Access Device 230. Update Module 255 is optionally included in Less-Restricted Subset 210 or external to Protected Network 200. Update Module 255 optionally operates responsive to a security policy and/or to GateKeeper 225.

**[0044]** FIG. 3A is a block diagram showing further details of Access Point 215, Router 220 and GateKeeper 225, according to various embodiments of the invention. Access Point 215 is, for example, a network switch, a wireless access point, a remote access virtual private network (VPN), secure socket layer VPN, firewall, or the like. When embodied in a network switch, Access Point 215 includes a series of communication ports, designated Ports 305A-305G and configured for communication with devices such as Access Device 230, Router 220, Less-Restricted Subset 210 and/or Restricted Subset 205.

**[0045]** Communication received at one member of Ports 305A-305G is directed internally to another member of Ports 305A-305G via a member of VLANs 310A-310D. VLANs 310A-310D are logical associations between members of Ports 305A-305G. Typically, any members of Ports 305A-305G that are configured to be associated with the same member of VLANs 310A-310D are in bi-directional communication with each other. These associations are illustrated in FIGs. 3A and 3B by Lines 315. For example, with Ports 305A-305G configured as shown in FIG. 3A, communication from Access Device 230 and received at Port 305A is directed to Port 305F because Port 305A and Port 305F are both associated with VLAN 310C. (In some embodiments of Access Point 215, a member of VLANs 310A-310D may be configured such that some members of Ports 305A-305G, even if associated with the same VLAN, are hidden from each other. For example, in these embodiments, both Ports 305A and 305B may be in communication with Port 305F but not with each other.)

**[0046]** The associations between members of Ports 305A-305G and VLANs 310A-310D are controlled by Switch Logic 317 which is accessible to other devices, for example through Port 305G. Switch Logic 317 is configured for configuring and reconfiguring members of Ports 305A-305G responsive to received commands. For example, by receiving an appropriate command, Switch Logic 317 is configured to reconfigure Port 305A to be associated with VLAN 310A, as illustrated in FIG. 3B below. In this configuration, data received at Port 305A is directed to Port 305D via VLAN 310A, rather than to Port 305F.

**[0047]** As is discussed further below, the commands received by Switch Logic 317 may be generated by GateKeeper 225. This communication between GateKeeper 225 and Switch Logic 317 may be accomplished using SNMP (Simple Network Management Protocol), telnet, SSH (Secure Shell), RADIUS (Remote Authentication User Dial-In Service), EAP (Extensible Authentication Protocol), or the like.

**[0048]** In some embodiments, Switch Logic 317 includes a memory (not shown) configured to store the status of Ports 305A-305G and/or identification data regarding Access Device 230. This identification data may include, for example, MAC addresses, IP (internet protocol) addresses, or other data that may be used to identify Access Device 230 or data sent by Access Device 230.

**[0049]** Data passed through members of Ports 305D-305G are received by Router 220 and may be communicated to other elements of Protected Network 200 responsive to access control lists (ACL 340A-340D) associated with Ports 335A-335D of Router 220. ACL 340A through 340D are each communication filters that deny or allow communication to be passed to specific elements or sets of elements within Protected Network 200. For example, ACL 340C may be an access control list that specifically allows communication to network addresses used by GateKeeper 225 and DHCP 260, and blocks communication to all other network addresses. In this case, communication through Port 335C of Router 220 would only be allowed to reach these elements of Restricted Subset 205 and would not be allowed to reach elements of Less-Restricted Subset 210.

**[0050]** ACL 340A-340D of Router 220 may be used to limit communication from Access Device 230 to specific elements of Protected Network 200. For example, in the embodiments illustrated by FIG. 3A, if ACL 340C is configured to restrict communication to Restricted Subset 205, and Ports 305A-305C are associated with VLAN 310C as indicated by Lines 315, then communication via these members of Ports 305A-305G will be restricted to Restricted Subset 205. In typical embodiments, at least one member of ACL 340A-340D is configured to allow communication to Restricted Subset 205 but not to Less-Restricted Subset 210. As is discussed further herein, by

reconfiguring a member of Ports 305A-305C to be associated with a different member of VLANs 310A-310D, not subject to the filtering of ACL 340C, communications from Access Device 230 can be directed to elements within Less-Restricted Subset 210, and optionally Restricted Subset 205, rather than merely to Restricted Subset 205.

**[0051]** When Access Point 215 is embodied in a wireless access point, some or all of Ports 305A-305G may be wireless connections rather than physical ports. In these embodiments, Lines 315 may represent logical associations used to control data flow between wireless connections to Access Point 215 and/or members of Ports 305A-305G that are physical communication ports. For example, in some embodiments, MAC addresses are used to distinguish wireless communications from different instances of Access Device 230 and the logical associations (represented by Lines 315) are used to direct these communications to various output channels. The output channels may be other wireless connections or physical members of Ports 305A-305G. These logical associations may be altered by Switch Logic 317 just as associations with members of VLANs 310A-310D are modified. Therefore, the teachings herein that use a network switch as an example of Access Point 215, apply equally to wireless access points.

**[0052]** Switch Logic 317 is controlled by an Access Control 320 included in GateKeeper 225. Access Control 320 is configured to send commands to Switch Logic 317 in order to reconfigure members of Ports 305A-305G. This reconfiguration includes modifying the association of members of Ports 305A-305G with different members of VLANs 310A-310D. In some embodiments, as described further herein, Access Control 320 is also configured to read a status of members of Ports 305A-305G and/or device identification data from Switch Logic 317.

**[0053]** Access Control 320 is responsive to a Policy Auditor 325 included in GateKeeper 225. Policy Auditor 325 is configured to receive a request for access to Less-Restricted Subset 210 from Access Device 230, to determine which of Security Policy 330A or optional Security Policy 330B applies to the current request, to perform a security audit of Access Device 230 based on the appropriate member of Security Policies 330A-330B, and to notify Access Control 320 if the audit is passed. This notice

typically causes Access Control 320 to reconfigure a member of Ports 305A-305G using Switch Logic 317. For example, in some embodiments, if Security Policy 330A applies and if Access Device 230 satisfies requirements of Security Policy 330A, then Policy Auditor 325 provides a notice to Access Control 320. In response, Access Control 320 sends appropriate commands to Switch Logic 317. These commands cause changes in Port 305A, such that communication from Access Device 230 is no longer blocked by ACL 340C and can now be received by elements of Less-restricted Subset 310. In alternative embodiments, Security Policies 330A-330B are stored elsewhere in Protected Network 200 accessible to Policy Auditor 325. Restricted Subset 205 optionally includes one, two, or more security policy, such as Security Policies 330A-330B.

**[0054]** FIG. 3B is a block diagram showing further details of Access Point 215, Router 220 and GateKeeper 225 of FIG. 2, after access has been granted to elements of Less-Restricted Subset 210, according to various embodiments of the invention. Port 305A has been reconfigured to be associated with VLAN 310A rather than VLAN 310C. Because VLAN 310A is communicatively coupled to Port 305D and Port 335A (of Router 220) via ACL 340A, any communication received at Port 305A from Access Device 230 is now subject to the filtering effects of ACL 340A rather than ACL 340C. If ACL 340A allows communication to network addresses associated with one or more elements of Less-Restricted Subset 210, the above reconfiguration of Port 305A results in a granting of access to Less-Restricted Subset 210 from Access Device 230. In some embodiments, if ACL 340A is configured to allow access to members of Less-Restricted Subset 210 it is also configured to allow access to members of Restricted Subset 205. Once Port 305A has been reconfigured to be associated with VLAN 310A, future general network traffic between Access Device 230 and Less-Restricted Subset 210 may pass through Ports 305A, 305D and 335A without passing through GateKeeper 225 or other elements of Restricted Subset 205. Further, communication related to access to security of Protected Network 200 may still be received by GateKeeper 225 via Port 305A. For example, GateKeeper 225 may still receive control traffic such as DNS lookups or DHCP requests,

or requests to access additional elements of Protected Network 200, or requests to continue to access the Less-Restricted Subset 210.

[0055] In some embodiments, members of VLAN 310A-310D and ACL 340A-340D are optionally used to grant or bar access to different subsets of Protected Network 200, Less-Restricted Subset 210, or Restricted Subset 205. For example, ACL 340B may be configured to grant access to File Server 235, Policy Manager 250 and GateKeeper 225. In this case, associating a member of Ports 305A-305C with VLAN 310B may provide access to these devices from an instance of Access Device 230. Granting of access to a specific region of Less-Restricted Subset 210 is optionally responsive to which member of Security Policies 330A-330B has been satisfied.

[0056] FIG. 4 is a flowchart illustrating a method of granting access to Less-Restricted Subset 210 (FIG. 2), according to various embodiments of the invention. In these embodiments, an Update Port Log Step 410 and a Restrict Port Step 420 are used to prepare an open (unused) communication port on Access Point 215 for receiving a request for access to Less-Restricted Subset 210. This request is received from Access Device 230 in a Receive Access Request Step 430. In response, GateKeeper 225 authenticates a user, obtains audit data, and applies a security policy in an Authenticate User Step 440, an Obtain Audit Data Step 450 and an Apply Security Policy Step 460, respectively. If the security policy is satisfied, then in a Reconfigure Port Step 470, GateKeeper 225 reconfigures the communication port of Access Point 215 to which Access Device 230 has connected. Finally, the reconfigured communication port is used to pass communication between Access Device 230 and one or more element of Less-Restricted Subset 210 in a Communicate Step 480. Further details of these steps are discussed herein.

[0057] In Update Port Log Step 410, Access Control 320 reads port configuration data from Access Point 215 to determine the current configuration of Ports 305A-305G. If any of Ports 305A-305G have been configured by an administrator of Access Point 215, then in Update Port Log Step 410 the administrator specified configuration(s) are stored for later use during Reconfigure Port Step 470. Typically, the read configuration data is

stored in a port configuration table, for example within GateKeeper 225. Update Port Log Step 410 is optional, as discussed further herein.

**[0058]** In Restrict Port Step 420, Access Control 320 configures those members of Ports 305A-305G that may be accessed by external devices, such as Access Device 230. These communication ports are configured to be associated with VLAN 310C such that any data (e.g., communications) they receive from external devices are directed to Port 305F and, thus, to subject to ACL 340C. ACL 340C is configured to allow communication to, for example, DHCP 260 and GateKeeper 225. As a result, any requests for access received from external devices are prevented from reaching Less-Restricted Subset 210 and instead are received by elements of Restricted Subset 205. Restrict Port Step 420 results in a configuration such as that illustrated in FIG. 3A. In this configuration, those members of Ports 305A-305G that may be accessed by external devices include Port 305A, Port 305B and Port 305C. As a result of Restrict Port Step 420, these members of Ports 305A-305G are associated with VLAN 310C and communicatively coupled to Protected Network 200 through ACL 340C. Restrict Port Step 420 is optional, for example when members of Ports 305A-305C have been configured to communicate data to elements of Restricted Subset 205 by an administrator of Access Point 215.

**[0059]** In Receive Access Request Step 430, a request for access to Less-Restricted Subset 210 is received at one of Ports 305A-305C configured to pass data to DHCP 260 and Gatekeeper 225. Typically, this request is received from an external device such as Access Device 230. Because Port 305A, Port 305B and Port 305C are configured to pass data to DHCP 260 and Gatekeeper 225, the received access request passes through Access Point 215 and is received by either DHCP 260 or Gatekeeper 225. In typical embodiments, an initial access request is first acknowledged by DHCP 260 which assigns a dynamic network address (e.g., IP address) to Access Device 230 and returns, to Access Device 230, a network address associated with GateKeeper 225 or more specifically Policy Auditor 325. Using this network address, Access Device 230 may engage in further communication with GateKeeper 225 or Policy Auditor 325. In some

embodiments, DHCP 260 and instances of GateKeeper 225 are associated with a local domain name service configured to provide network addresses associated with a particular instance of GateKeeper 225 configured to manage (reconfigure) the particular Access Point 215 to which Access Device 230 is connected.

**[0060]** In optional Authenticate User Step 440, Policy Auditor 325 authenticates the identity of Access Device 230 and/or a user of Access Device 230. This authentication may be required by a member of Security Policies 330A-330B. In various embodiments, the authentication may include receipt of a user name and password, receipt of a MAC address, reading of data stored on Access Device 230, communication with an agent executing on Access Device 230, or the like.

**[0061]** In optional Obtain Audit Data Step 450, Policy Auditor 325 collects further data to perform a security audit of Access Device 230 responsive to Security Policy 330A or Security Policy 330B. In some embodiments, Obtain Audit Data Step 450 includes sending system data requests to Access Device 230, Router 220, or Access Point 215. The requested system data may include, for example, operating system status (version, updates, etc.), antivirus software status, information concerning devices connected to Access Device 230, Windows registry information, MAC address, IP addresses, cookies, status of applications executing on Access Device 230, or the like.

**[0062]** In some embodiments, Obtain Audit Data Step 450 is facilitated by an agent running on Access Device 230. For example, Access Device 230 may include a software agent configured to monitor local security and to report results of this monitoring to Policy Auditor 325.

**[0063]** In Apply Security Policy Step 460, a security audit of Access Device 230 is performed by Policy Auditor 325 responsive to a member of Security Policy 330A or Security Policy 330B. The particular member of Security Policy 330A or Security Policy 330B used to perform the audit may be responsive to the identity of Access Device 230, an identity of a user of Access Device 230, a part of Less-Restricted Subset 210 to which access is requested, or the like. The security audit typically includes determining if Access Device 230 satisfies requirements of the security policy. The security audit

optionally includes active probing, scanning, and/or collection of third party data regarding Access Device 230. In some embodiments, Authenticate User Step 440 is considered part of the security policy audit.

**[0064]** As is discussed further herein, in some embodiments, satisfaction of all the requirements of a particular security policy results in access to Less-Restricted Subset 210, while satisfaction of a subset of the requirements associated with the particular security policy is considered partial satisfaction of the security policy and may result in a more limited access to Less-Restricted Subset 210.

**[0065]** In some embodiments, Apply Security Policy Step 460 includes using Update Module 255 (FIG. 2) to overcome deficiencies in the security of Access Device 230. For example, in one embodiment, Apply Security Policy Step 460 includes updating antivirus software on Access Device 230 in response to a security audit that determined that the current antivirus software is out-of-date.

**[0066]** In Reconfigure Port Step 470, the communication port of Access Point 215, to which Access Device 230 is communicatively connected, is reconfigured responsive to a successful security audit in Apply Security Policy Step 460. This communication port is reconfigured such that data received by the communication port is passed to one or more elements of Less-Restricted Subset 210 rather than merely elements of Restricted Subset 205 (e.g., GateKeeper 225). For example, FIG. 3A shows Port 305A prior to execution of Reconfigure Port Step 470 and FIG. 3B shows Port 305A following execution of Reconfigure Port Step 470. In FIG. 3B, Port 305A is associated with VLAN 310A and, thus, communicatively coupled through Port 305D to Protected Network 200 subject to the restrictions of ACL 340A. The restrictions of ACL 340A allow access to all or part of Less-Restricted Subset 210, as well as optionally all or part of Restricted Subset 205.

**[0067]** In typical embodiments, reconfiguration of Port 305A is accomplished by sending commands from Access Control 320 to Switch Logic 317. These commands or responses to requests from Switch Logic 317 are optionally sent via SNMP, telnet, SSH, RADIUS, EAP, or the like, and are responsive to data received in Authenticate User Step

440 and Obtain Audit Data Step 450, and/or to the security audit performed in Apply Security Policy Step 460. In response to these commands, Switch Logic 317 configures Port 305A to be associated with VLAN 310A and, thus, communicate through Port 305D.

**[0068]** While access control lists (ACL 340A-340D) within Router 220 are typically configured prior to Receive Access Request Step 430, in some embodiments, Reconfigure Port Step 470 further includes configuring one or more members of ACL 340A-340D. In alternative embodiments, reconfiguring of members of ACL 340A-340D may be used to grant access to elements of Less-Restricted Subset 210 as an alternative to associating members of Ports 305A-305G to different members of VLANs 310A-310D.

**[0069]** Access Control 320 may selectively grant access to different parts of Protected Network 200 if ACL 340B is configured to allow access to different elements within Protected Network 200 than ACL 340A is configured. For example, in one embodiment, Access Device 230 will receive access to all of Less-Restricted Subset 210 if Port 305A is associated with VLAN 310A, or alternatively Access Device 230 will receive access to only a part of Less-Restricted Subset 210 if Port 305A is associated with VLAN 310B. When Port 305A is associated with VLAN 310A, as in FIG. 3B, communication from Access Device 230 is directed through Port 335A of Router 220 subject to ACL 340A and, thus, may access only those elements of Protected Network 200 allowed by ACL 340A. When Port 305A is associated with VLAN 310B, communication from Access Device 230 is instead passed through Port 335B subject to ACL 340B and may access only those elements of Protected Network 200 permitted by ACL 340B. A selection between granting access to a first or second part of Protected Network 200 can, therefore, be made using Access Control 320. The selection is optionally responsive to the security policy used in Apply Security Policy Step 460, to whether the security policy was fully or partially satisfied, to data obtained in Authenticate User Step 440 or Obtain Audit Data Step 450, or the like.

**[0070]** As illustrated in the above example, a member of Ports 305A-305G, through which Access Device 230 is requesting access, may be reconfigured to more than one alternative setting in Reconfigure Port Step 470. For example, in various embodiments a

communication port may be reconfigured to a prior administrator specified configuration previously read in Update Port Log Step 410, reconfigured to be linked to a specific port responsive to the request received in Receive Access Request Step 430, reconfigured to grant access to a particular part of Less-Restricted Subset 210, reconfigured to a default setting, and/or the like. By reading administrator specified port configurations in Update Port Log Step 410 and reconfiguring communication ports back to these read configurations in Reconfigure Port Step 470, an administrator may reconfigure Protected Network 200 without concern that their specifications will be lost or permanently overwritten by methods of the invention. In embodiments wherein a communication port is not reconfigured to a previous administrator specified configuration, Update Port Log Step 410 is optional.

[0071] In Communicate Step 480, communication occurs between Access Device 230 and elements of Less-Restricted Subset 210 via the communication port reconfigured in Reconfigure Port Step 470. However, in some embodiments, ACL 340A is configured to allow access to GateKeeper 225 as well as Less-Restricted Subset 210. Thus, general network traffic does not need to pass through GateKeeper 225, while communication regarding security of Protected Network 200 is optionally received by GateKeeper 225. Further communication between Access Device 230 and GateKeeper 225 may provide a variety of advantages. For example, further communication between GateKeeper 225 and an agent executing on Access Device 230 may allow for continuing audits of security aspects of Access Devices 230. These audits may be similar to those performed in Apply Security Policy Step 460. In one embodiment, ACL 340A is configured to grant access to all of Protected Network 200.

[0072] Further communication between GateKeeper 225 and an agent executing on Access Device 230 may also allow for a user of Access Device 230 to explicitly logoff Protected Network 200. An explicit logoff will result in reconfiguration of Port 305A such that access is again restricted to Restricted Subset 205. A logoff may alternatively be responsive to a timeout of communication with Access Device 230, a SNMP trap message indicating a connection has been broken, or the like.

**[0073]** According to embodiments like that disclosed in U.S. Provisional Patent Application No. 60/513,080, the disclosure of which has been incorporated herein by reference, an AP (e.g., a switch or wireless access point (WAP) which is used to connect end points to the corporate network) may be programmed to prohibit access by the PC (e.g., notebook, desktop PC, PDA, or similar computing device) to the corporate network until authentication with the authentication server passes AND an audit with the software agent with the GK (e.g., software that acts as a gatekeeper by granting or denying access to the corporate network from end points after auditing the end point based on certain criteria) passes, while still supporting the existing encryption and authentication functionality. The method used to support auditing functionality over the existing 802.1x protocol implementation is complicated and not an obvious variation of the 802.1x protocol.

**[0074]** According to an embodiment like that disclosed in U.S. Provisional Patent Application No. 60/513,080, the disclosure of which has been incorporated herein by reference, the auditing protocol takes place between the EP (e.g., end point which can either be a PC or network device) agent software and the GK. A client filter redirects calls for audit information to an agent on the EP and sends the responses to the 802.1x compliant AP which relays them to the EAP server. The EAP server then calls a server filter which sends the responses to the GK for evaluation. The GK sends requests for more information on the reverse path and this continues until the audit is completed. If the audit is successful, the server sends a message to the AP which enables the EP's port allowing access for the PC. If the audit fails, the port on the AP is left disabled.

**[0075]** According to an exemplary embodiment, client filters (CF) and server filters (SF) are added along with an agent and GK to perform audits, as highlighted in FIG. 5. There may be one or more instances of the CF and SF, which correspond to the separate EAP Authentication Modules (EAPM) that are supported. Note that the agent and GK are logical components. The functionality of the agent and GK can be embedded into the CF and SF, respectively, or in the case of the GK, may reside on a separate server.

[0076] [0079][The CF and SF APIs have APIs which correspond to the EAPM APIs. Therefore, the EAP Client Layer (ECL) or EAP Server Layer (ESL) can call the CF and SF instances corresponding to a particular authentication method as shown in FIGs. 6A and 6B. To the ECL and ESL, each instance of the CF and SF appears to be an EAPM which incorporates the functionality of the original EAPM prior to completion of the success response by the server EAPM.

[0077] To use the invention as disclosed in U.S. Provisional Patent Application No. 60/513,080, the disclosure of which has been incorporated herein by reference, the ECL and ESL are configured to use the instance of the CF and SF corresponding to the desired authentication method. This authentication method corresponds to an authentication method supported by one of the EAPMs.

[0078] The ECL calls the corresponding CF to perform authentication, which at first calls the appropriate EAPM to obtain the proper authentication response. The authentication response is returned by the CF to the ESL, which sends the response to the server's ESL, SF, and EAPM. This process continues until the authentication either succeeds or fails, at which time the server's authentication EAPM returns a success or failure response to the SF.

[0079] If the SF receives a success response from the server EAPM as shown in FIG. 7, the SF changes to the audit state and calls GK to obtain audit requests to send back to the client. In this state, the SF returns specially formatted audit requests to the ESL which are passed to the ECL, and eventually to the CF which sends back audit responses to the SF requests.

[0080] On the client, audit requests are passed to the agent API instead of to the client EAPM. The agent returns information about the local system, which is converted to audit responses that are sent to the server.

[0081] During the audit state, the SF and CF exchange audit requests and responses about the EP as shown in FIGs. 8A and 8B. The ECL and ESL continue to communicate with the CF and SF, but instead of calling the EAPM, the CF and SF call the agent and

GK respectively, to perform this exchange. The audit session continues until the necessary audit information has been passed to the SF.

[0082] If the audit indicates the client EP is in compliance, the SF returns a success response. If the VLAN for the EP is specified in the policy, then the VLAN that should be used for this EP is passed back as well.

[0083] If the GK determines that the EP has failed the audit, GK returns a failure response to SF which causes one of the following: (1) the SF returns a failure to ECL, and the corresponding port on the AP is left disabled, or (2) the SF returns a success response to the ECL but specifies that the EP should be set to a restricted VLAN where the EP has limited network access. In either case, the EP is isolated from the company network until it successfully passes an audit with the GK.

[0084] After the audit has been performed, “keep alives” and updates regarding changes to previous audit information are exchanged. Changes are reevaluated and if inconsistent with the current state, access to the network is modified appropriately by changing the VLAN used for the EP or by terminating access by the EP by communicating with the AP.

[0085] Several embodiments are specifically illustrated and/or described herein. However, it will be appreciated that modifications and variations are covered by the above teachings and within the scope of the appended claims without departing from the spirit and intended scope thereof. For example, the teachings herein may be applied to embodiments wherein Access Point 215 is a wireless access point and MAC addresses, or the like, are used instead of VLANs to separate traffic from different instances of Access Device 230. It is, thus, anticipated that network management techniques other than VLANs may be used to distinguish Less-Restricted Subset 210 from Restricted Subset 205. In some embodiments, various aspects of GateKeeper 225 may be incorporated into Access Point 215 and/or Router 220. GateKeeper 225 and Policy Manager 250 are each optionally implemented on a plurality of computing devices within Restricted Subset 205.

[0086] In some embodiments, GateKeeper 225 uses DHCP 260 to assign IP addresses from a restricted IP address range depending on the compliance of Access Device 230 to security policies 330A-330B. GateKeeper 225 inserts DHCP options and/or modifies the IP source addresses of DHCPDISCOVER and DHCPREQUEST packets, based on the compliance of the Access Device 230 to security policies 330A-330B. DHCP 260 is configured to provide an address from the restricted address range or the less-restricted address range based on the source address and/or options present in the DHCP request or discover packets that have been modified by GateKeeper 225. In some embodiments, the insertion of DHCP options and/or modification of IP source addresses may be used to characterize restricted and less-restricted subnets, rather than configuring port associations with VLANs as discussed herein.

[0087] The embodiments discussed herein are illustrative of the present invention. As these embodiments of the present invention are described with reference to illustrations, various modifications or adaptations of the methods and or specific structures described may become apparent to those skilled in the art. All such modifications, adaptations, or variations that rely upon the teachings of the present invention, and through which these teachings have advanced the art, are considered to be within the spirit and scope of the present invention. Hence, these descriptions and drawings should not be considered in a limiting sense, as it is understood that the present invention is in no way limited to only the embodiments illustrated.

## CLAIMS

### WHAT IS CLAIMED IS:

1. A network access control system, comprising:
  - an authentication module stored in memory and executable by a processor to authenticate a device seeking network access based at least on authentication information received from the device;
  - a gatekeeper stored in memory and executable to :
    - formulate an audit request,
    - send the audit request to the device,
    - evaluate device information received from the device in response to the audit request, and
    - approve the device based on evaluation of the device information; and
  - an extensible authentication protocol (EAP) server layer (SL) stored in memory and executable to :
    - receive the authentication information from the device using an EAP encryption protocol, and
    - configure an access point in response to approval of the device by the gatekeeper.
2. The network access control system of claim 1, wherein the gatekeeper is hosted at the same computing device as the EAPM, ESL, and SF.
3. The network access control system of claim 2, wherein the computing device is an access point or router.
4. The network access control system of claim 1, wherein the gatekeeper is hosted at a computing device distinct from a computing device hosting the EAPM, ESL, and SF.
5. The network access control system of claim 1, wherein the SF is part of the ESL.
6. The network access control system of claim 1, wherein the EAPM includes a plurality of authentication modules configured to perform different authentication operations.

## **ABSTRACT**

A new approach to network security includes manipulating an access point such that an initial communication from an external device is passed to a restricted subset of a computing network including a gatekeeper. The gatekeeper is configured to enforce a security policy against the external device before granting access to a less-restricted subset of the computing network. If requirements of the security policy are satisfied, then the gatekeeper reconfigures the access point such that further communication from the external device may be received by elements of the less-restricted subset. Enforcement of the security policy optionally includes performing a security audit of the external device.

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|                        |               |
|------------------------|---------------|
| Application Number     | UNKNOWN       |
| Filing Date            | HEREWITH      |
| First Named Inventor   | Stacey C. Lum |
| Art Unit               | Unknown       |
| Examiner Name          | Unknown       |
| Attorney Docket Number | PA5252US      |

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Assignee of record of the entire interest.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).Attorney or agent of record. Registration Number 50,565.Registered practitioner named in the application transmittal letter in an application without an  
executed oath or declaration. See 37 CFR 1.33(a)(1). Registration Number \_\_\_\_\_.

Signature

/Tam Thanh Pham/

Typed or Printed  
Name

Tam Thanh Pham

Date June 7, 2011

Telephone

650-812-3400

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

\*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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| <b>PATENT APPLICATION FEE DETERMINATION RECORD</b><br>Substitute for Form PTO-875                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                               |                                    |                 |              |                    | Application or Docket Number<br>13/157,309 |          |                               |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------|--------------|--------------------|--------------------------------------------|----------|-------------------------------|--|
| <b>APPLICATION AS FILED - PART I</b>                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                               |                                    |                 |              |                    |                                            |          |                               |  |
| (Column 1)                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                               | (Column 2)                         |                 | SMALL ENTITY |                    | OR<br>OTHER THAN SMALL ENTITY              |          |                               |  |
| FOR                                                                                                                                                                                                                                                                                                                                                                                                        | NUMBER FILED                                                                                                                                                                                                                  | NUMBER EXTRA                       | RATE(\$)        | FEE(\$)      |                    | RATE(\$)                                   | FEE(\$)  |                               |  |
| BASIC FEE<br><small>(37 CFR 1.16(a), (b), or (c))</small>                                                                                                                                                                                                                                                                                                                                                  | N/A                                                                                                                                                                                                                           | N/A                                | N/A             | 82           |                    | N/A                                        |          |                               |  |
| SEARCH FEE<br><small>(37 CFR 1.16(k), (i), or (m))</small>                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                           | N/A                                | N/A             | 270          |                    | N/A                                        |          |                               |  |
| EXAMINATION FEE<br><small>(37 CFR 1.16(o), (p), or (q))</small>                                                                                                                                                                                                                                                                                                                                            | N/A                                                                                                                                                                                                                           | N/A                                | N/A             | 110          |                    | N/A                                        |          |                               |  |
| TOTAL CLAIMS<br><small>(37 CFR 1.16(i))</small>                                                                                                                                                                                                                                                                                                                                                            | 6                                                                                                                                                                                                                             | minus 20 = *                       | x 26 =          | 0.00         | OR                 |                                            |          |                               |  |
| INDEPENDENT CLAIMS<br><small>(37 CFR 1.16(h))</small>                                                                                                                                                                                                                                                                                                                                                      | 1                                                                                                                                                                                                                             | minus 3 = *                        | x 110 =         | 0.00         |                    |                                            |          |                               |  |
| APPLICATION SIZE FEE<br><small>(37 CFR 1.16(s))</small>                                                                                                                                                                                                                                                                                                                                                    | If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$270 (\$135 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). |                                    |                 | 0.00         |                    |                                            |          |                               |  |
| MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                               |                                    |                 | 0.00         |                    |                                            |          |                               |  |
| * If the difference in column 1 is less than zero, enter "0" in column 2.                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                               |                                    | TOTAL           | 462          |                    | TOTAL                                      |          |                               |  |
| <b>APPLICATION AS AMENDED - PART II</b>                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                               |                                    |                 |              |                    |                                            |          |                               |  |
| (Column 1)                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                               | (Column 2)                         |                 | (Column 3)   |                    | SMALL ENTITY                               |          | OR<br>OTHER THAN SMALL ENTITY |  |
| AMENDMENT A                                                                                                                                                                                                                                                                                                                                                                                                | CLAIMS REMAINING AFTER AMENDMENT                                                                                                                                                                                              | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA   | RATE(\$)     | ADDITIONAL FEE(\$) |                                            | RATE(\$) | ADDITIONAL FEE(\$)            |  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Total<br><small>(37 CFR 1.16(i))</small>                                                                                                                                                                                      | *                                  | Minus **        | =            | x =                |                                            | x =      |                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Independent<br><small>(37 CFR 1.16(h))</small>                                                                                                                                                                                | *                                  | Minus ***       | =            | x =                |                                            | x =      |                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Application Size Fee (37 CFR 1.16(s))                                                                                                                                                                                         |                                    |                 |              |                    |                                            |          |                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))                                                                                                                                                               |                                    |                 |              |                    |                                            |          |                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                               |                                    | TOTAL ADD'L FEE |              |                    | TOTAL ADD'L FEE                            |          |                               |  |
| AMENDMENT B                                                                                                                                                                                                                                                                                                                                                                                                | CLAIMS REMAINING AFTER AMENDMENT                                                                                                                                                                                              | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA   | RATE(\$)     | ADDITIONAL FEE(\$) |                                            | RATE(\$) | ADDITIONAL FEE(\$)            |  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Total<br><small>(37 CFR 1.16(i))</small>                                                                                                                                                                                      | *                                  | Minus **        | =            | x =                |                                            | x =      |                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Independent<br><small>(37 CFR 1.16(h))</small>                                                                                                                                                                                | *                                  | Minus ***       | =            | x =                |                                            | x =      |                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Application Size Fee (37 CFR 1.16(s))                                                                                                                                                                                         |                                    |                 |              |                    |                                            |          |                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))                                                                                                                                                               |                                    |                 |              |                    |                                            |          |                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                               |                                    | TOTAL ADD'L FEE |              |                    | TOTAL ADD'L FEE                            |          |                               |  |
| * If the entry in column 1 is less than the entry in column 2, write "0" in column 3.<br>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".<br>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".<br>The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1. |                                                                                                                                                                                                                               |                                    |                 |              |                    |                                            |          |                               |  |



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|-----------------------|--------------------------|-----------------|---------------|------------------|------------|------------|
| 13/157,309            | 06/10/2011               | 2447            | 462           | PA5252US         | 6          | 1          |

CONFIRMATION NO. 6924

22830  
CARR & FERRELL LLP  
120 CONSTITUTION DRIVE  
MENLO PARK, CA 94025

FILING RECEIPT



0000000048249143

Date Mailed: 06/16/2011

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

**Applicant(s)**

Stacey C. Lum, Los Altos, CA;  
Yuhshiow Alice Lee, Saratoga, CA;

**Assignment For Published Patent Application**

InfoExpress, Inc., Mountain View, CA

**Power of Attorney:** The patent practitioners associated with Customer Number 22830

**Domestic Priority data as claimed by applicant**

This application is a CON of 12/273,037 11/18/2008  
which is a CON of 10/949,179 09/24/2004 PAT 7,523,484  
which claims benefit of 60/513,080 10/21/2003

**Foreign Applications** (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)

**If Required, Foreign Filing License Granted:** 06/16/2011

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/157,309**

**Projected Publication Date:** 09/22/2011

**Non-Publication Request:** No

**Early Publication Request:** No

**\*\* SMALL ENTITY \*\***

page 1 of 3

**Title**

SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

**Preliminary Class**

709

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**REVOCATION OF ATTORNEY AND POWER OF ATTORNEY**

The undersigned, having authority to act on behalf of InfoExpress, Inc., assignee of all right, title, and interest in the attached schedule of patent applications (Schedule A), hereby revokes all powers of attorney previously given and hereby appoints the attorneys and agents associated with Customer Number 28661 as its attorney to act on applicant's behalf before the United States Patent and Trademark Office for the attached schedule of patent applications (Schedule A) and to transact all business in the Patent and Trademark Office in connection herewith.

**STATEMENT UNDER 37 CFR 3.73(b)**

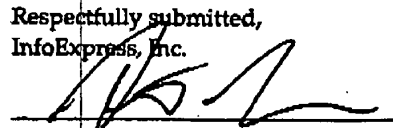
The undersigned certifies that it is the assignee of the entire right, title, and interest in the attached schedule of patent applications (Schedule A). The chain of title from the inventors to the assignee of record for each of the patent applications identified in the attached schedule of patent applications (Schedule A) is attached hereto as Schedule B. The undersigned is empowered and authorized to act on behalf of the assignee.

Kindly address all communications regarding this application to:

Customer No. 28661  
Lewis and Roca LLP

Respectfully submitted,  
InfoExpress, Inc.

Date: 6/21/11

  
Stacey Lum  
President & CEO

Schedule A

| <u>Application No.</u> | <u>Filing Date</u> | <u>Patent No.</u> | <u>Issue Date</u>  |
|------------------------|--------------------|-------------------|--------------------|
| 10/949,179             | September 24, 2004 | 7,523,484         | April 21, 2009     |
| 11/227,679             | September 14, 2005 | 7,590,733         | September 15, 2009 |
| 12/273,037             | November 18, 2008  | n/a               | n/a                |
| 12/550,321             | August 28, 2009    | 7,890,658         | February 15, 2011  |
| 13/157,308             | June 10, 2011      | n/a               | n/a                |
| 13/157,309             | June 10, 2011      | n/a               | n/a                |
| 13/157,310             | June 10, 2011      | n/a               | n/a                |

Schedule B

CHAIN OF TITLE INFORMATION

STATEMENT UNDER 37 CFR 3.73(b)

Application No. 13/157,309

Filed: June 10, 2011

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Document(s) Being Transmitted:

Revocation and Power of Attorney in connection with USSN 13/157,309

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<<Client/Matter No.>>

PAGE 1/4 \* RCVD AT 6/24/2011 1:14:08 PM [Eastern Daylight Time] \* SVR:W-PTOFAX-001/17 \* DNS:2738300 \* CSID:7755869550 \* DURATION (mm-ss):00-44



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| APPLICATION NUMBER | FILING OR 371(C) DATE | FIRST NAMED APPLICANT | ATTY. DOCKET NO./TITLE |
|--------------------|-----------------------|-----------------------|------------------------|
| 13/157,309         | 06/10/2011            | Stacey C. Lum         | PA5252US               |

28661  
LEWIS AND ROCA LLP  
1663 Hwy 395, Suite 201  
Minden, NV 89423

**CONFIRMATION NO. 6924**  
**POA ACCEPTANCE LETTER**



\*OC000000048652979\*

Date Mailed: 07/14/2011

**NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 06/24/2011.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/syemanc/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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| APPLICATION NUMBER | FILING OR 371(C) DATE | FIRST NAMED APPLICANT | ATTY. DOCKET NO./TITLE |
|--------------------|-----------------------|-----------------------|------------------------|
| 13/157,309         | 06/10/2011            | Stacey C. Lum         | PA5252US               |

22830  
CARR & FERRELL LLP  
120 CONSTITUTION DRIVE  
MENLO PARK, CA 94025

**CONFIRMATION NO. 6924**  
**POWER OF ATTORNEY NOTICE**



\*OC000000048652963\*

Date Mailed: 07/14/2011

**NOTICE REGARDING CHANGE OF POWER OF ATTORNEY**

This is in response to the Power of Attorney filed 06/24/2011.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/syemane/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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|                                                                                 |             |                      |                         |                        |
|---------------------------------------------------------------------------------|-------------|----------------------|-------------------------|------------------------|
| APPLICATION NO.                                                                 | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO.       |
| 13/157,309                                                                      | 06/10/2011  | Stacey C. Lum        | INFO-002COC             | 6924                   |
| 28661 7590<br>LEWIS AND ROCA LLP<br>1663 Hwy 395, Suite 201<br>Minden, NV 89423 |             | 07/19/2011           | EXAMINER<br>SONG, HOSUK |                        |
|                                                                                 |             |                      | ART UNIT<br>2435        | PAPER NUMBER           |
|                                                                                 |             |                      | MAIL DATE<br>07/19/2011 | DELIVERY MODE<br>PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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MAILED

JUN 18 2011

DIRECTOR OFFICE  
TECHNOLOGY CENTER 2400

Tam Thanh Pham  
LEWIS AND ROCA LLP  
1663 Hwy 395, Suite 201  
Minden, NV 89423

In re Application of: LUM, S. et al.

Serial No.: 13/157,309

Filed: June 10, 2011

Atty Docket No: INFO-002COC

Title: SYSTEMS AND METHODS OF  
CONTROLLING NETWORK ACCESS

::  
:: DECISION ON PETITION TO  
: MAKE SPECIAL FOR NEW  
:: APPLICATION UNDER 37  
C.F.R. § 1.102 & M.P.E.P. §  
708.02

This is a decision on the petition filed on **June 10, 2011** to make the above-identified application special for accelerated examination procedure under 37 C.F.R. § 1.102(d).

The petition to make the application special is **GRANTED**.

The application is eligible for accelerated examination and the petition complies with the conditions for granting the application special status pursuant to the "Change to Practice for Petitions in Patent Applications to Make Special and for Accelerated Examination" published June 26, 2006, in the Federal Register. (71 Fed. Reg. 36323).

The prosecution of the instant application will be conducted expeditiously according to the following guidelines.

1. The application will be docketed to an examiner and taken up for action within two weeks of the date of this decision.
2. Restriction Practice:  
If the examiner determines that the claims are not directed to a single invention, a telephone request to elect one single invention will be made pursuant to MPEP 812.01. As a prerequisite to the grant of this petition, the applicant has agreed to make an oral election, by telephone, without traverse. If the applicant refuses to make an election without traverse, or the examiner cannot reach the applicant after a reasonable effort, the examiner will treat the first claimed invention (invention defined by claim 1) as having being constructively elected without traverse for examination.

3. Office action:

If it is determined that, after appropriate consultation, there is a potential rejection or any other issue to be addressed, the examiner will telephone the applicant and arrange an interview to discuss and resolve the issue. An Office action, other than a Notice of Allowance and Fee(s) Due (Notice of Allowance), will not be issued unless either: 1) an interview was conducted but did not result in agreed to action that places the application in condition for allowance, or, 2) a determination is made that an interview would be unlikely to result in the application being placed in condition for allowance, and 3) an internal conference has been held to review any rejection of any claim.

4. Time for Reply:

An Office action other than a Notice of Allowance or a final Office action will set a shortened statutory period of one month or thirty days, whichever is longer, for reply with no extension of time available under 37 CFR 1.136(a). Failure to timely file a reply within this non-extendible period for reply will result in the abandonment of the application.

5. Reply by Applicant:

A timely reply to an Office action other than the Notice of Allowance must be submitted electronically via EFS or EFS-web and limited to addressing the rejections, objections and requirement made. Any amendment that attempts to: 1) add claims which would result in more than three pending independent claims or more than twenty pending total claims; 2) present claims not encompassed by the pre-examination search or an updated accelerated examination support document; or 3) present claims that are directed a non-elected invention or an invention other than that previously claimed and examined in the application, will be treated as not fully responsive and will not be entered.

For any amendment to the claims (including any new claim) that is not encompassed by the accelerated examination support document, applicant must provide an updated accelerated examination support document that encompasses the amended or new claims at the time of filing of the amendment.

To proceed expeditiously with the examination, it is recommended that a reply with amendments made to any claim or with any new claim being added be accompanied by an updated accelerated examination support document or a statement explaining how the amended or new claim is supported by the original accelerated examination support document.

6. Information Disclosure Statement (IDS):

Any IDS filed during prosecution must be submitted electronically via EFS or EFS-web, accompanied by an updated accelerated examination support document, and be in compliance with 37 CFR 1.97 and 1.98.

7. Post-Allowance Processing:

To expedite processing of the allowed application into a patent, the applicant must: 1) pay the required fees within one month of the date of the Notice of Allowance, and 2) not file any post allowance papers not required by the Office. In no event may the

issue fee be paid and accepted later than three months from the date of the Notice of Allowance.

8. After-Final and Appeal Procedures:

To expedite prosecution, after receiving the final Office action, applicant must: 1) promptly file a notice of appeal, an appeal brief and appeal fees; and 2) not request a pre-appeal brief conference.

Any amendment, affidavit or other evidence filed after final Office action must comply with applicable rules and the requirements outlined in numbered paragraphs 5 and 6 above.

On appeal, the application will proceed according to normal appeal procedures. After appeal, the application will again be treated special.

9. Proceedings Outside the Normal Examination Process:

If the application becomes involved in a proceeding that is outside the normal examination process (e.g., a secrecy order, national security review, interference proceeding, petitions under 37 CFR 1.181, 182 or 183), the application will be treated special before and after such proceeding.

10. Final Disposition:

The twelve-month goal of this accelerated examination procedure ends with a final disposition. The mailing of a final Office action, a Notice of Allowance, the filing of a Notice of Appeal, or the filing of a Request for Continued Examination (RCE) is the final disposition.

If, during prosecution, a paper is not filed electronically using EFS-web, a reply is filed but is not fully responsive, the application is involved in an appeal, or a proceeding outside normal examination process, the application will still be examined expeditiously, however, the final disposition may occur more than twelve months from the filing of the application. In addition, Applicant is reminded that due to the dismissal of the previous petition submission, examination may not be completed within twelve months of the filing date of the application.

Any inquiry regarding this decision should be directed to Beatriz Prieto, Quality Assurance Specialist, at (571) 272-3902. A second point of contact is Kim Huynh at (571) 272-4147.

/Beatriz Prieto/

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Beatriz Prieto, Quality Assurance Specialist  
Technology Center 2400  
Networking, Multiplexing, Cable and Security



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| APPLICATION NO.                                                   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO.       |
|-------------------------------------------------------------------|-------------|----------------------|-------------------------|------------------------|
| 13/157,309                                                        | 06/10/2011  | Stacey C. Lum        | INFO-002COC             | 6924                   |
| 28661                                                             | 7590        | 08/04/2011           |                         |                        |
| LEWIS AND ROCA LLP<br>1663 Hwy 395, Suite 201<br>Minden, NV 89423 |             |                      | EXAMINER<br>SONG, HOSUK |                        |
|                                                                   |             |                      | ART UNIT<br>2435        | PAPER NUMBER           |
|                                                                   |             |                      | MAIL DATE<br>08/04/2011 | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                                                                                     |                                      |                                   |  |
|-------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------|--|
| <b>Office Action Summary<br/>for Applications<br/>Under Accelerated Examination</b> | <b>Application No.</b><br>13/157,309 | <b>Applicant(s)</b><br>LUM ET AL. |  |
|                                                                                     | <b>Examiner</b><br>HOSUK SONG        | <b>Art Unit</b><br>2435           |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Since this application has been granted special status under the accelerated examination program,**  
**NO extensions of time under 37 CFR 1.136(a) will be permitted and a SHORTENED STATUTORY PERIOD FOR**  
**REPLY IS SET TO EXPIRE:**

**ONE MONTH OR THIRTY (30) DAYS, WHICHEVER IS LONGER,**  
 FROM THE MAILING DATE OF THIS COMMUNICATION – if this is a non-final action or a *Quayle* action.  
 (Examiner: For **FINAL** actions, please use PTOL-326.)

The objective of the accelerated examination program is to complete the examination of an application within twelve months from the filing date of the application. Any reply must be filed electronically via EFS-Web so that the papers will be expeditiously processed and considered. If the reply is not filed electronically via EFS-Web, the final disposition of the application may occur later than twelve months from the filing of the application.

**Status**

1) ☒ Responsive to communication(s) filed on 10 June 2011.

2) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

3) ☒ Claim(s) 1-6 is/are pending in the application.  
     3a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

4) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

5) ☒ Claim(s) 1-6 is/are rejected.

6) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

7) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

8) ☐ The specification is objected to by the Examiner.

9) ☒ The drawing(s) filed on 10 June 2011 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

10) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

11) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

- See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

|                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/10/11</u> . | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____.<br>5) <input type="checkbox"/> Notice of Informal Patent Application<br>6) <input type="checkbox"/> Other: _____. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## **DETAILED ACTION**

### ***Accelerated Examination***

Applicant is reminded that for any amendments to the claims (including any new claim) that is not encompassed by the preexamination search and accelerated examination support documents previously filed, applicant is required to provide updated preexamination search and accelerated examination support documents that encompass the amended or new claims at the time of filing the amendment. Failure to provide such updated preexamination search and accelerated examination support documents at the time of filing the amendment will cause the amendment to be treated as not fully responsive and not to be entered. See MPEP § 708.02(a) subsection VIII.D. for more information.

Any reply or other papers must be filed electronically via EFS-Web so that the papers will be expeditiously processed and considered. If the papers are not filed electronically via EFS-Web, the final disposition of the application may occur later than twelve months from the filing of the application.

Any reply to this communication filed via EFS-Web must include a document that is filed using the document description of "Accelerated Exam - Transmittal amendment/reply."

Applicant is reminded to use proper indexing for documents to avoid any delay in processing of follow on papers. Currently document indexing is not automated in EFS-Web and applicant must select a particular document description for each attached file. An incorrect document description for a particular file may potentially delay processing of the application. A complete listing of all document codes currently supported in EFS-Web is available at <http://www.uspto.gov/ebc/portal/efs/docindexing.pdf>.

Any payment of fees via EFS-Web must be accompanied by selection of a proper fee code. An improper fee code may potentially delay processing of the application. Instructions on payment of fees via EFS-Web are available at <http://www.uspto.gov/ebc/portal/efs/quick-start.pdf>.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 13/157310. Although the conflicting claims are not identical, they are not patentably distinct from each other.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### **USPTO Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOSUK SONG whose telephone number is (571)272-3857. The examiner can normally be reached on mon-fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KIM VU can be reached on 5712723859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HOSUK SONG/  
Primary Examiner, Art Unit 2435

|                                   |                                       |                                                          |             |
|-----------------------------------|---------------------------------------|----------------------------------------------------------|-------------|
| <b>Notice of References Cited</b> | Application/Control No.<br>13/157,309 | Applicant(s)/Patent Under<br>Reexamination<br>LUM ET AL. |             |
|                                   | Examiner<br>HOSUK SONG                | Art Unit<br>2435                                         | Page 1 of 1 |

**U.S. PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Name          | Classification |
|---|---|--------------------------------------------------|-----------------|---------------|----------------|
| * | A | US-7,325,246                                     | 01-2008         | Halasz et al. | 726/2          |
| * | B | US-7,194,763                                     | 03-2007         | Potter et al. | 726/7          |
|   | C | US-                                              |                 |               |                |
|   | D | US-                                              |                 |               |                |
|   | E | US-                                              |                 |               |                |
|   | F | US-                                              |                 |               |                |
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|   | K | US-                                              |                 |               |                |
|   | L | US-                                              |                 |               |                |
|   | M | US-                                              |                 |               |                |

**FOREIGN PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Country | Name | Classification |
|---|---|--------------------------------------------------|-----------------|---------|------|----------------|
|   | N |                                                  |                 |         |      |                |
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**NON-PATENT DOCUMENTS**

| * |   | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|-------------------------------------------------------------------------------------------|
|   | U |                                                                                           |
|   | V |                                                                                           |
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\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

|                                                                                                                         |  |                                       |  |                                                       |  |
|-------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------|--|-------------------------------------------------------|--|
| <div>Index of Claims</div> <div></div> |  | Application/Control No.<br>13/157,309 |  | Applicant(s)/Patent under Reexamination<br>LUM ET AL. |  |
|                                                                                                                         |  | Examiner<br>HOSUK SONG                |  | Art Unit<br>2435                                      |  |

√ Rejected

= Allowed

— (Through numeral) Cancelled

÷ Restricted

N Non-Elected

I Interference

A Appeal

O Objected

| Claim |          | Date    |  |  |  |  |  |
|-------|----------|---------|--|--|--|--|--|
| Final | Original | 7/25/11 |  |  |  |  |  |
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| Claim |          | Date |  |  |  |  |  |
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| Claim |          | Date |  |  |  |  |  |
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IPR2024-00678

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|----------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|--|
| <div>Search Notes</div> <div></div> | Application/Control No. | Applicant(s)/Patent under Reexamination |  |
|                                                                                                                      | 13/157,309              | LUM ET AL.                              |  |
|                                                                                                                      | Examiner                | Art Unit                                |  |
|                                                                                                                      | HOSUK SONG              | 2435                                    |  |

| SEARCHED |                 |           |          |
|----------|-----------------|-----------|----------|
| Class    | Subclass        | Date      | Examiner |
| 726      | 1-4<br>11-12,15 | 7/25/2011 | HS       |
| 713      | 150,153         | 7/25/2011 | HS       |
| 713      | 155,168         | 7/25/2011 | HS       |
| 380      | 270             | 7/25/2011 | HS       |
| 709      | 224-225         | 7/25/2011 | HS       |
| 709      | 228-229         | 7/25/2011 | HS       |
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| INTERFERENCE SEARCHED |          |      |          |
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| Class                 | Subclass | Date | Examiner |
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| SEARCH NOTES<br>(INCLUDING SEARCH STRATEGY) |           |      |
|---------------------------------------------|-----------|------|
|                                             | DATE      | EXMR |
| conference with primary Zee                 | 7/22/2011 | HS   |
| EAST, foreign patent database<br>IBM TDB    | 7/25/2011 | HS   |
| NPL                                         | 7/25/2011 | HS   |
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## BIB DATA SHEET

CONFIRMATION NO. 6924

| SERIAL NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                   | FILING or 371(c)<br>DATE                                                                                          | CLASS                                                    | GROUP ART UNIT                | ATTORNEY DOCKET<br>NO.                                                                                                                                                                                                                                                    |                          |                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------|
| 13/157,309                                                                                                                                                                                                                                                                                                                                                                                                                      | 06/10/2011                                                                                                        | 726                                                      | 2435                          | INFO-002COC                                                                                                                                                                                                                                                               |                          |                                |
| <b>APPLICANTS</b><br>Stacey C. Lum, Los Altos, CA;<br>Yuhshiow Alice Lee, Saratoga, CA;<br><b>** CONTINUING DATA *****</b><br>This application is a CON of 12/273,037 11/18/2008<br>which is a CON of 10/949,179 09/24/2004 PAT 7,523,484<br>which claims benefit of 60/513,080 10/21/2003<br><b>** FOREIGN APPLICATIONS *****</b><br><b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY **</b><br>06/16/2011 |                                                                                                                   |                                                          |                               |                                                                                                                                                                                                                                                                           |                          |                                |
| Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Verified and Acknowledged <u>/Hosuk Song/</u><br>Examiner's Signature                                                                                                                                                     |                                                                                                                   | <input type="checkbox"/> Met after Allowance<br>Initials | <b>STATE OR COUNTRY</b><br>CA | <b>SHEETS DRAWINGS</b><br>10                                                                                                                                                                                                                                              | <b>TOTAL CLAIMS</b><br>6 | <b>INDEPENDENT CLAIMS</b><br>1 |
| <b>ADDRESS</b><br>LEWIS AND ROCA LLP<br>1663 Hwy 395, Suite 201<br>Minden, NV 89423<br>UNITED STATES                                                                                                                                                                                                                                                                                                                            |                                                                                                                   |                                                          |                               |                                                                                                                                                                                                                                                                           |                          |                                |
| <b>TITLE</b><br>SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                   |                                                          |                               |                                                                                                                                                                                                                                                                           |                          |                                |
| <b>FILING FEE RECEIVED</b><br>462                                                                                                                                                                                                                                                                                                                                                                                               | FEES: Authority has been given in Paper<br>No. _____ to charge/credit DEPOSIT ACCOUNT<br>No. _____ for following: |                                                          |                               | <input type="checkbox"/> All Fees<br><input type="checkbox"/> 1.16 Fees (Filing)<br><input type="checkbox"/> 1.17 Fees (Processing Ext. of time)<br><input type="checkbox"/> 1.18 Fees (Issue)<br><input type="checkbox"/> Other _____<br><input type="checkbox"/> Credit |                          |                                |

**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits | Search Query  | DBs                                                     | Default Operator | Plurals | Time Stamp          |
|-------|------|---------------|---------------------------------------------------------|------------------|---------|---------------------|
| S535  | 2566 | 726/1.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/07/25<br>16:43 |
| S536  | 2519 | 726/2.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/07/25<br>16:44 |
| S537  | 2611 | 726/3.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/07/25<br>16:44 |
| S538  | 3675 | 726/4.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/07/25<br>16:44 |
| S539  | 1124 | 726/11.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/07/25<br>16:45 |
| S540  | 1023 | 726/12.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/07/25<br>16:45 |
| S541  | 727  | 726/15.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/07/25<br>16:46 |
| S542  | 1707 | 713/150.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/07/25<br>16:48 |

|      |       |                                                              |                                                         |    |     |                     |
|------|-------|--------------------------------------------------------------|---------------------------------------------------------|----|-----|---------------------|
| S543 | 1675  | 713/153.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/07/25<br>16:48 |
| S544 | 1745  | 713/155.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/07/25<br>16:49 |
| S545 | 4256  | 713/168.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/07/25<br>16:49 |
| S546 | 1703  | 380/270.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/07/25<br>16:49 |
| S547 | 14116 | 709/224.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/07/25<br>16:49 |
| S548 | 5618  | 709/225.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/07/25<br>16:49 |
| S549 | 4338  | 709/228.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/07/25<br>16:49 |
| S550 | 6246  | 709/229.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/07/25<br>16:49 |
| S551 | 2341  | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2011/07/25<br>17:01 |

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| S552 | 1978 | (EAPM or extensible adj3 authentication adj4 protocol) and (authenticat\$7 or verrif\$9 or validat \$7) near6 (device or apparatus or computer or PC or server or hardware or unit)                                                                                  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/07/25 17:03 |
| S553 | 5    | (EAPM or extensible adj3 authentication adj4 protocol) and (authenticat\$7 or verrif\$9 or validat \$7) near6 (device or apparatus or computer or PC or server or hardware or unit) and (ESL or extensible adj3 authentication adj5 protocol adj6 server adj9 layer) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/07/25 17:06 |
| S554 | 5    | (EAPM or extensible adj3 authentication adj4 protocol) and (ESL or extensible adj3 authentication adj5 protocol adj6 server adj9 layer)                                                                                                                              | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/07/25 17:06 |
| S555 | 1335 | (EAPM or extensible adj3 authentication adj4 protocol) and (authenticat\$7 or verrif\$9 or validat \$7) near6 (device or apparatus or computer or PC or server or hardware or unit) and (access adj3 point)                                                          | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/07/25 17:07 |

|      |     |                                                                                                                                                                                                                                                                                                                                                                             |                                                         |    |    |                     |
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| S556 | 878 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (access<br>adj3 point) and<br>(gatekeeper or<br>firewall or IDS or<br>intrusion adj3<br>detection)                                                       | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:08 |
| S557 | 10  | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) near4 (filter<br>\$5) and (access<br>adj3 point) and<br>(gatekeeper or<br>firewall or IDS or<br>intrusion adj3<br>detection)                                 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:09 |
| S558 | 857 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (access<br>adj3 point) and<br>(gatekeeper or<br>firewall or IDS or<br>intrusion adj3<br>detection) and<br>(network) near4<br>(access\$4 or enter<br>\$4) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:11 |

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| S559 | 42   | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and 726/1.<br>ccls.           | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:12 |
| S560 | 58   | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and 726/2.<br>ccls.           | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:12 |
| S561 | 67   | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and 726/2.<br>ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:13 |
| S562 | 2522 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit)                     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:14 |

|      |      |                                                                                                                                                                                                                                                                                                                                                                           |                                                         |    |    |                     |
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| S563 | 197  | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) near5<br>(layer)                                                                                                                                 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:14 |
| S564 | 1715 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4)                                                                                              | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:15 |
| S565 | 1604 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion<br>adj3 detection) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:16 |

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| S566 | 95  | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion<br>adj3 detection) and<br>S537        | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:16 |
| S567 | 95  | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion<br>adj3 detection) and<br>726/3.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:17 |
| S568 | 106 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion<br>adj3 detection) and                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>17:17 |

|      |    |                                                                                                                                                                                                                                                                                                                                                                                               |                                                         |    |    |                     |
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|      |    | 726/4.ccls.                                                                                                                                                                                                                                                                                                                                                                                   |                                                         |    |    |                     |
| S569 | 13 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion<br>adj3 detection) and<br>726/11.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>18:19 |
| S570 | 26 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion<br>adj3 detection) and<br>726/12.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>18:19 |
| S571 | 31 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion                                        | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>18:20 |

|      |    |                                                                                                                                                                                                                                                                                                                                             |                                             |    |    |                  |
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|      |    | adj3 detection) and 726/15.ccls.                                                                                                                                                                                                                                                                                                            |                                             |    |    |                  |
| S572 | 23 | (EAPM or extensible adj3 authentication adj4 protocol or EAP) and (authenticat\$7 or verrif\$9 or validat \$7) near6 (device or apparatus or computer or PC or server or hardware or unit) and (encrypt \$4 or cipher\$4 or encipher\$4) and (access adj3 point or router or firewall or IDS or intrusion adj3 detection) and 713/150.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/07/25 18:21 |
| S573 | 36 | (EAPM or extensible adj3 authentication adj4 protocol or EAP) and (authenticat\$7 or verrif\$9 or validat \$7) near6 (device or apparatus or computer or PC or server or hardware or unit) and (encrypt \$4 or cipher\$4 or encipher\$4) and (access adj3 point or router or firewall or IDS or intrusion adj3 detection) and 713/153.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/07/25 18:21 |
| S574 | 65 | (EAPM or extensible adj3 authentication adj4 protocol or EAP) and (authenticat\$7 or verrif\$9 or validat \$7) near6 (device or apparatus or computer or PC or server or hardware or unit) and (encrypt \$4 or cipher\$4 or encipher\$4) and (access adj3 point or router or firewall                                                       | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/07/25 18:22 |

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|      |     | or IDS or intrusion<br>adj3 detection) and<br>713/155.ccls.                                                                                                                                                                                                                                                                                                                                    |                                                         |    |    |                     |
| S575 | 148 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion<br>adj3 detection) and<br>713/168.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>18:25 |
| S576 | 112 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion<br>adj3 detection) and<br>380/270.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>18:27 |
| S577 | 31  | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point                                                                                         | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>18:28 |

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|      |    | or router or firewall<br>or IDS or intrusion<br>adj3 detection) and<br>709/224.ccls.                                                                                                                                                                                                                                                                                                           |                                                         |    |    |                     |
| S578 | 37 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion<br>adj3 detection) and<br>709/225.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>18:28 |
| S579 | 25 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and<br>(access adj3 point<br>or router or firewall<br>or IDS or intrusion<br>adj3 detection) and<br>709/228.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>18:28 |
| S580 | 48 | (EAPM or extensible<br>adj3 authentication<br>adj4 protocol or<br>EAP) and<br>(authenticat\$7 or<br>verrif\$9 or validat<br>\$7) near6 (device or<br>apparatus or<br>computer or PC or<br>server or hardware<br>or unit) and (encrypt<br>\$4 or cipher\$4 or<br>encipher\$4) and                                                                                                               | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2011/07/25<br>18:28 |

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|                                                                                                     | Filing Date            |               | HEREWITH |  |
|                                                                                                     | First Named Inventor   | STACEY C. LUM |          |  |
|                                                                                                     | Art Unit               |               |          |  |
|                                                                                                     | Examiner Name          |               |          |  |
|                                                                                                     | Attorney Docket Number | PA5252US      |          |  |

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|-------------------|---------|---------------|------------------------|------------|-------------------------------------------------|------------------------------------------------------------------------|
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|                   | 1       | 5842002       |                        | 1998-11-24 | SCHNURER                                        |                                                                        |
|                   | 2       | 7752320       |                        | 2006-07-06 | KAPPES                                          |                                                                        |

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|                                     | 1       | 20030229808        |                        | 2003-12-11       | HEINTZ                                          |                                                                        |
|                                     | 2       | 20060147043        |                        | 2006-07-06       | MANN                                            |                                                                        |

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|                                                                                                     | Filing Date            |               | HEREWITH |
|                                                                                                     | First Named Inventor   | STACEY C. LUM |          |
|                                                                                                     | Art Unit               |               |          |
|                                                                                                     | Examiner Name          |               |          |
|                                                                                                     | Attorney Docket Number | PA5252US      |          |

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| Examiner Signature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | /Hosuk Song/ |                                                                                                                                                                                                                                                                 | Date Considered 07/25/2011 |
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Sort by [relevance](#) in [expanded form](#)Result page: [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [next](#)**1** [Extensible authentication protocols for IEEE standards 802.11 and 802.16](#)[David Q. Liu, Mark Caslow](#)September 2008 **Mobility '08**: Proceedings of the International Conference on Mobile Technology, Applications, and Systems**Publisher:** ACM [Request Permissions](#)Full text available: [PDF](#) (226.51 KB)**Bibliometrics:** Downloads (6 Weeks): 21, Downloads (12 Months): 111, Downloads (Overall): 425, Citation Count

In this paper, the challenges involved in authentication over wireless networks including wireless LANs, IEEE 802.11, and WiMAX, IEEE 802.16 are described. Both IEEE 802.11i and 802.16e support EAP (Extensible Authentication Protocol) for authentication, ...

**Keywords:** EAP, IEEE 802.11, extensible authentication protocol, wireless**2** [A system and design of extensible authentication protocols based on ECC and SKE mechanisms for mobile and wireless communications](#)[Natarajan Vijayarangan](#)December 2010 **ISPACT'10**: Proceedings of the 9th WSEAS international conference on Advances in e-activities, information security and privacy**Publisher:** World Scientific and Engineering Academy and Society (WSEAS)Full text available: [Publisher Site](#)**Bibliometrics:** Downloads (6 Weeks): n/a, Downloads (12 Months): n/a, Downloads (Overall): n/a, Citation Count

We have introduced a system and method of extensible authentication protocols (EAPs) based on ECC and SK with a permutation technique evolved. The permutation in our EAPs is a process of cubing a random number w.r. to a prime ( $= 2 \bmod 3$ ). These EAPs ...

**Keywords:** extensible authentication protocols, point-to-point protocol and pseudo random numbers, public Key cryptography, symmetric key encryption**3** [RADIUS \(Remote Authentication Dial In User Service\) Support For Extensible Authentication Protocol \(EAP\)](#)[B. Aboba, P. Calhoun](#)

September 2003 RADIUS (Remote Authentication Dial In User Service) Support For Extensible Authentication Protocol (EAP)

**Publisher:** RFC EditorFull text available: [PDF](#) (104.47 KB)**Bibliometrics:** Downloads (6 Weeks): 1, Downloads (12 Months): 1, Downloads (Overall): 39, Citation Count: 4

This document defines Remote Authentication Dial In User Service (RADIUS) support for the Extensible Authentication Protocol (EAP), an authentication framework which supports multiple authentication mechanism. In the proposed scheme, the Network Access ...

**4** [Extensible Authentication Protocol, Authentication, Wireless LAN, Point-to-Point Protocol, Wi-Fi Protected Access, Internet Engineering Task Force, EAP-SIM, Protected Extensible Authentication Protocol](#)

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

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|                                                                                                     | Filing Date            |             | 2011-06-10 |
|                                                                                                     | First Named Inventor   | Lum et al.  |            |
|                                                                                                     | Art Unit               | 2435        |            |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |
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| Examiner Initial* | Cite No | Patent Number | Kind Code <sup>1</sup> | Issue Date | Name of Patentee or Applicant of cited Document | Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear |
|                   | 1       | 1830383       | A                      | 1931-11-03 | Bos                                             |                                                                        |
|                   | 2       | 1860326       | A                      | 1932-05-24 | Jackson                                         |                                                                        |
|                   | 3       | 2131067       | A                      | 1938-09-27 | Paden                                           |                                                                        |
|                   | 4       | 2247592       | A                      | 1947-07-01 | Swift                                           |                                                                        |
|                   | 5       | 2519435       | A                      | 1956-01-17 | Byrd, Jr.                                       |                                                                        |
|                   | 6       | 2731056       | A                      | 1963-08-13 | Anson                                           |                                                                        |
|                   | 7       | 3100664       | A                      | 1963-08-13 | Duval                                           |                                                                        |
|                   | 8       | 3701557       | A                      | 1972-10-31 | Centofante                                      |                                                                        |

|                                                                                                     |                        |             |
|-----------------------------------------------------------------------------------------------------|------------------------|-------------|
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|                                                                                                     | Filing Date            | 2011-06-10  |
|                                                                                                     | First Named Inventor   | Lum et al.  |
|                                                                                                     | Art Unit               | 2435        |
|                                                                                                     | Examiner Name          | Song, Hosuk |
|                                                                                                     | Attorney Docket Number | INFO-002COC |

|  |    |          |   |            |                  |  |
|--|----|----------|---|------------|------------------|--|
|  | 9  | 4181339  | A | 1980-01-01 | Rigsby           |  |
|  | 10 | 4951984  | A | 1990-08-28 | Huang            |  |
|  | 11 | 50105622 | A | 1991-04-30 | Morita           |  |
|  | 12 | 5606668  | A | 1997-02-25 | Shwed            |  |
|  | 13 | 57501635 | A | 1997-12-30 | Hawkes           |  |
|  | 14 | 5944368  | A | 1999-08-31 | Hastings         |  |
|  | 15 | 5950195  | A | 1999-09-07 | Stockwell et al. |  |
|  | 16 | 5968176  | A | 1999-10-19 | Nessett et al.   |  |
|  | 17 | 6006259  | A | 1999-12-21 | Adelman et al.   |  |
|  | 18 | 6044402  | A | 2000-03-28 | Jacobson et al.  |  |
|  | 19 | 6119162  | A | 2000-09-12 | Li et al.        |  |

|                                                                                                     |                        |             |            |
|-----------------------------------------------------------------------------------------------------|------------------------|-------------|------------|
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     |             | 13157309   |
|                                                                                                     | Filing Date            |             | 2011-06-10 |
|                                                                                                     | First Named Inventor   | Lum et al.  |            |
|                                                                                                     | Art Unit               | 2435        |            |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |

|  |    |         |    |            |                 |  |
|--|----|---------|----|------------|-----------------|--|
|  | 20 | 6304973 | B1 | 2002-05-26 | Williams        |  |
|  | 21 | 6363489 | B1 | 2002-03-26 | Comay et al.    |  |
|  | 22 | 6393484 | B1 | 2002-03-26 | Massarani       |  |
|  | 23 | 6671737 | B1 | 2003-12-30 | Snowden et al.  |  |
|  | 24 | 6678835 | B1 | 2004-01-13 | Shah et al.     |  |
|  | 25 | 6745333 | B1 | 2004-06-01 | Thomsen         |  |
|  | 26 | 6769000 | B1 | 2004-07-27 | Akhtar et al    |  |
|  | 27 | 6834414 | B1 | 2004-12-28 | Chiu            |  |
|  | 28 | 7055173 | B1 | 2006-05-30 | Chaganly et al. |  |
|  | 29 | 7299294 | B1 | 2007-11-20 | Bruck et al.    |  |
|  | 30 | 7350226 | B2 | 2008-03-25 | Moriconi et al. |  |

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| First Named Inventor   | Lum et al.  |            |
| Art Unit               | 2435        |            |
| Examiner Name          | Song, Hosuk |            |
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|--|----|---------|----|------------|--------------------|--|
|  | 31 | 7523484 | B2 | 2009-04-21 | Lum et al.         |  |
|  | 32 | 5835481 | A  | 1998-11-10 | Akyol et al.       |  |
|  | 33 | 5852722 | A  | 1998-12-22 | Hamilton           |  |
|  | 34 | 6988133 | B1 | 2006-01-17 | Zavalkovsky et al. |  |
|  | 35 | 7469418 | B1 | 2008-12-23 | Wilkinson et al.   |  |
|  | 36 | 7523484 | B2 | 2009-04-21 | Lum et al.         |  |
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|                                                                                                     | First Named Inventor   | Lum et al.  |            |  |
|                                                                                                     | Art Unit               | 2435        |            |  |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |  |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |  |

| Examiner Initial* | Cite No | Foreign Document Number <sup>3</sup> | Country Code <sup>2</sup> i | Kind Code <sup>4</sup> | Publication Date | Name of Patentee or Applicant of cited Document | Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear | T <sup>5</sup>           |
|-------------------|---------|--------------------------------------|-----------------------------|------------------------|------------------|-------------------------------------------------|--------------------------------------------------------------------------|--------------------------|
|                   | 1       | 2005-79706                           | JP                          | A                      | 2005-03-24       | NEC Software Ltd.                               | Corresponds to US 20050050365                                            | <input type="checkbox"/> |
|                   | 2       | 2006029217                           | WO                          | A2                     | 2006-03-16       | Swan Labs Corporation                           |                                                                          | <input type="checkbox"/> |

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|                    | 1       | PacketFence Documentation, URL <a href="http://packetfence.org">http://packetfence.org</a> , Release 1.5.1, September 8, 2005, modified July 13, 2006, 40 pages.                                                                                                | <input type="checkbox"/> |
|                    | 2       | "Network Access Control from Mirage Networks," Mirage Networks, 2006, 7 pages.                                                                                                                                                                                  | <input type="checkbox"/> |
|                    | 3       | "Network Access Quarantine Control in Microsoft Windows Server 2003," Windows Server System, Published March 2003, Updated July 29, 2009, 37 pages, Microsoft Corporation, Redmond, WA, USA.                                                                    | <input type="checkbox"/> |
|                    | 4       | WHALEN, SEAN, "An Introduction to ARP Spoofing," at <a href="http://node99.org/projects/arpsspfp">http://node99.org/projects/arpsspfp</a> , updated May 2001, 7 pages.                                                                                          | <input type="checkbox"/> |

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| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     | 13157309    |
|                                                                                                     | Filing Date            | 2011-06-10  |
|                                                                                                     | First Named Inventor   | Lum et al.  |
|                                                                                                     | Art Unit               | 2435        |
|                                                                                                     | Examiner Name          | Song, Hosuk |
|                                                                                                     | Attorney Docket Number | INFO-002COC |

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.

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**OR**

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☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

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|            |                  |                     |            |
|------------|------------------|---------------------|------------|
| Signature  | /tam thanh pham/ | Date (YYYY-MM-DD)   | 2011-08-11 |
| Name/Print | Tam Thanh Pham   | Registration Number | 50,565     |

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|                                                                                                     | First Named Inventor   | Lum et al.  |            |  |
|                                                                                                     | Art Unit               | 2435        |            |  |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |  |
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|                                                                                             | 1       | 20020010869        | A1                     | 2002-01-24       | Kim                                             |                                                                        |
|                                                                                             | 2       | 20020023273        | A1                     | 2002-02-21       | Song                                            |                                                                        |
|                                                                                             | 3       | 20020029276        | A1                     | 2002-03-07       | Bendinelli et al.                               |                                                                        |
|                                                                                             | 4       | 20020120749        | A1                     | 2002-08-29       | Widegren et al.                                 |                                                                        |
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|--|----|-------------|----|------------|---------------------|--|
|  | 6  | 20030023880 | A1 | 2003-01-30 | Edwards et al.      |  |
|  | 7  | 20030046586 | A1 | 2003-03-06 | Bheemarsetti et al. |  |
|  | 8  | 20030126464 | A1 | 2003-07-03 | McDaniel et al.     |  |
|  | 9  | 20030131262 | A1 | 2003-07-10 | Goddard             |  |
|  | 10 | 20030191966 | A1 | 2003-10-09 | Gleichau            |  |
|  | 11 | 20030208694 | A1 | 2003-11-06 | Fang                |  |
|  | 12 | 20040010719 | A1 | 2004-01-15 | Daenen              |  |
|  | 13 | 20040024885 | A1 | 2004-02-05 | Bush, III et al.    |  |
|  | 14 | 20040054926 | A1 | 2004-03-18 | Ocepek et al.       |  |
|  | 15 | 20040098610 | A1 | 2004-05-20 | Hrastar             |  |
|  | 16 | 20040103314 | A1 | 2004-05-27 | Liston              |  |

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|--|----|-------------|----|------------|------------------|--|
|  | 17 | 20040162994 | A1 | 2004-08-19 | Cohen et al      |  |
|  | 18 | 20040181690 | A1 | 2004-09-16 | Rothermel et al. |  |
|  | 19 | 20040193912 | A1 | 2004-09-30 | Li et al.        |  |
|  | 20 | 20040243835 | A1 | 2004-12-02 | Terzis et al.    |  |
|  | 21 | 20050027837 | A1 | 2005-02-03 | Roese et al.     |  |
|  | 22 | 20050044197 | A1 | 2005-02-24 | Lai              |  |
|  | 23 | 20050050365 | A1 | 2005-03-03 | Seki et al.      |  |
|  | 24 | 20050081058 | A1 | 2005-04-15 | Chang et al.     |  |
|  | 25 | 20050278775 |    | 2006-12-15 | Ross             |  |
|  | 26 | 20060050703 | A1 | 2006-03-09 | Foss             |  |
|  | 27 | 20060089938 | A1 | 2006-04-27 | Leonard et al.   |  |

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|  |    |             |    |            |                 |  |
|--|----|-------------|----|------------|-----------------|--|
|  | 28 | 20060095968 | A1 | 2006-04-04 | Portolani et al |  |
|  | 29 | 20060161970 | A1 | 2006-07-20 | Hopen et al.    |  |
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|  | 32 | 20070112574 | A1 | 2007-05-17 | Greene          |  |
|  | 33 | 20070157306 | A1 | 2007-07-05 | Elrod et al.    |  |
|  | 34 | 20080060067 | A1 | 2008-08-06 | Kim et al.      |  |
|  | 35 | 20080209044 | A1 | 2008-08-28 | Forrester       |  |
|  | 36 | 20090043765 | A1 | 2009-02-01 | Pugh            |  |
|  | 37 | 20090083830 | A1 | 2009-03-26 | Lum             |  |
|  | 38 | 20020073337 | A1 | 2002-06-13 | loele et al.    |  |

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| EFS ID:                              | 10721380                                          |
| Application Number:                  | 13157309                                          |
| International Application Number:    |                                                   |
| Confirmation Number:                 | 6924                                              |
| Title of Invention:                  | SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS |
| First Named Inventor/Applicant Name: | Stacey C. Lum                                     |
| Customer Number:                     | 28661                                             |
| Filer:                               | TamThanh Thi Pham/Nancy Thompson                  |
| Filer Authorized By:                 | TamThanh Thi Pham                                 |
| Attorney Docket Number:              | INFO-002COC                                       |
| Receipt Date:                        | 12-AUG-2011                                       |
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|------------------------|----------------------|--------------------------------------------|---------------------------------------------------|------------------|------------------|
| <b>File Listing:</b>   |                      |                                            |                                                   |                  |                  |
| Document Number        | Document Description | File Name                                  | File Size(Bytes)/<br>Message Digest               | Multi Part /.zip | Pages (if appl.) |
| 1                      | Transmittal Letter   | INFO-002COC_11-08-11_IDS_S<br>TATEMENT.pdf | 44558<br>11d8f8344a6a7a4646df75bdbc9692af585e3cf2 | no               | 2                |
| <b>Warnings:</b>       |                      |                                            |                                                   |                  |                  |
| <b>Information:</b>    |                      |                                            |                                                   |                  |                  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                       |                                         |                                                    |    |   |
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| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Transmittal Letter                                    | INFO-002COC_08-11_IDS_COP<br>ENDING.pdf | 23258<br>f6c7b10e5a826a87fba634e9ecd820bbcf41b75   | no | 1 |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                       |                                         |                                                    |    |   |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                       |                                         |                                                    |    |   |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Information Disclosure Statement (IDS)<br>Form (SB08) | INFO-002COC_11-08-11_IDS_1.<br>pdf      | 613951<br>23fa59b4179264c8136b8887cb3d190d51e22c3  | no | 8 |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                       |                                         |                                                    |    |   |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                       |                                         |                                                    |    |   |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Information Disclosure Statement (IDS)<br>Form (SB08) | INFO-002COC-11-08-11_IDS_2.<br>pdf      | 613479<br>5803933812b4dc8a0da0e5a54238a3a59951486e | no | 7 |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                       |                                         |                                                    |    |   |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                       |                                         |                                                    |    |   |
| <b>Total Files Size (in bytes):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                       |                                         | 1295246                                            |    |   |
| <p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b><br/> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b><br/> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b><br/> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p> |                                                       |                                         |                                                    |    |   |

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit: 2435

Examiner: Hosuk Song

Serial No.: 13/157,309

Filed: June 10, 2011

In re Application of: Stacey C. Lum et al.

Confirmation No.: 6924

Customer No.: 28661

Title: SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

---

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

**Under 37 C.F.R. § 1.56, and 1.97-1.98**

\* \* \* Not in Support of the Petition for Accelerated Examination \* \* \*

SIR:

Pursuant to the provisions of 37 C.F.R. §§ 1.56 and 1.97-98 of the Rules of Practice in Patent Cases, enclosed herewith is form PTO-SB-08, listing several references. The Examiner is requested to make these references of official record in the application.

The references cited may be material to examination of the application and are submitted in compliance with the Applicants' duty of disclosure as defined by 37 C.F.R. § 1.56. Additionally, the Applicants wish to make the Examiner aware of, and invite the Examiner to consider, as is appropriate, the following office actions from the following U.S. patent application:

- Office Action mailed February 29, 2008 in U.S. patent application number 10/949,179 filed September 24, 2004, granted as 7,523,484.

- Office Action mailed July 9, 2010 in U.S. patent application number 12/273,037 filed November 18, 2008.
- Office Action mailed August 4, 2011 in U.S. patent application number 13/157,308 filed June 10, 2011.
- Office Action mailed August 4, 2011 in U.S. patent application number 13/157,310 filed June 10, 2011.

Copies of foreign and non-patent references were previously provided in U.S. application number 10/949,179 filed September 24, 2004, to which the present application makes a claim of priority under 35 U.S.C. § 120.

The Commissioner is hereby authorized to charge any necessary fee to Account Number 50-0612.

Respectfully submitted,  
LEWIS AND ROCA LLP

Dated: August 11, 2011

/tam thanh pham/

Tam Thanh Pham  
Reg. No.: 50,565

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1663 Hwy 395, Suite 201  
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit: 2435

Examiner: Hosuk Song

Serial No.: 13/157,309

Filed: June 10, 2010

In re Application of: Stacey C. Lum et al.

Confirmation No.: 6924

Customer No.: 28661

Title: SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

**List of Co-Pending Patents or Patent Applications That May Be Directed Towards  
Similar Subject Matter**

| Examiner's<br>Initials   | Application<br>Number | Docket<br>Number | First-Named<br>Inventor | Title                                                   | Filing<br>Date   |
|--------------------------|-----------------------|------------------|-------------------------|---------------------------------------------------------|------------------|
|                          | 13/157,308            | INFO-<br>002COB  | Stacey C.<br>Lum        | Systems and Methods of<br>Controlling Network<br>Access | June 10,<br>2011 |
|                          | 13/157,310            | INFO-<br>002COD  | Stacey C.<br>Lum        | Systems and Methods of<br>Controlling Network<br>Access | June 10,<br>2011 |
| Examiner's<br>Signature: |                       |                  |                         |                                                         | Date             |
|                          |                       |                  |                         |                                                         |                  |

Document code: WFEE

United States Patent and Trademark Office  
Sales Receipt for Accounting Date: 10/11/2011

|        |      |           |              |            |        |          |
|--------|------|-----------|--------------|------------|--------|----------|
| EBURNS | SALE | #00000001 | Mailroom Dt: | 08/12/2011 | 500612 | 13157309 |
|        |      | 01        | FC : 1806    | 180.00     | DA     |          |

**TERMINAL DISCLAIMER TO OBTAIN A PROVISIONAL DOUBLE PATENTING  
REJECTION OVER A PENDING "REFERENCE" APPLICATION**Docket Number (Optional)  
INFO-002COC

In re Application of: Stacey C. Lum et al.

Application No.: 13/157,309

Filed: June 10, 2011

For: Systems and Methods of Controlling Network Access

The owner\*, InfoExpress, Inc., of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending **reference** Application Number 13/157,310, filed on June 10, 2011, as such term is defined in 35 U.S.C. 154 and 173, and as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the **reference** application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of any patent granted on said **reference** application, "as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application," in the event that: any such patent: granted on the pending **reference** application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

Check either box 1 or 2 below, if appropriate.

1. ☐ For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. ☒ The undersigned is an attorney or agent of record. Reg. No. 50565

/tam thanh pham/  
Signature2011-08-15  
DateTam Thanh Pham  
Typed or printed name(650) 391-1386  
Telephone Number

- ☒ Terminal disclaimer fee under 37 CFR 1.20(d) is included.

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

\*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).  
Form PTO/SB/96 may be used for making this statement. See MPEP § 324.

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

## Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

| Electronic Patent Application Fee Transmittal |          |                                                   |        |                      |
|-----------------------------------------------|----------|---------------------------------------------------|--------|----------------------|
| Application Number:                           |          | 13157309                                          |        |                      |
| Filing Date:                                  |          | 10-Jun-2011                                       |        |                      |
| Title of Invention:                           |          | SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS |        |                      |
| First Named Inventor/Applicant Name:          |          | Stacey C. Lum                                     |        |                      |
| Filer:                                        |          | TamThanh Thi Pham/Nancy Thompson                  |        |                      |
| Attorney Docket Number:                       |          | INFO-002COC                                       |        |                      |
| Filed as Small Entity                         |          |                                                   |        |                      |
| Utility under 35 USC 111(a) Filing Fees       |          |                                                   |        |                      |
| Description                                   | Fee Code | Quantity                                          | Amount | Sub-Total in USD(\$) |
| Basic Filing:                                 |          |                                                   |        |                      |
| Pages:                                        |          |                                                   |        |                      |
| Claims:                                       |          |                                                   |        |                      |
| Miscellaneous-Filing:                         |          |                                                   |        |                      |
| Petition:                                     |          |                                                   |        |                      |
| Patent-Appeals-and-Interference:              |          |                                                   |        |                      |
| Post-Allowance-and-Post-Issuance:             |          |                                                   |        |                      |
| Extension-of-Time:                            |          |                                                   |        |                      |

| Description                      | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|----------------------------------|----------|----------|--------|----------------------|
| <b>Miscellaneous:</b>            |          |          |        |                      |
| Statutory or terminal disclaimer | 2814     | 1        | 70     | 70                   |
| <b>Total in USD (\$)</b>         |          |          |        | <b>70</b>            |

## Electronic Acknowledgement Receipt

|                                             |                                                   |
|---------------------------------------------|---------------------------------------------------|
| <b>EFS ID:</b>                              | 10730735                                          |
| <b>Application Number:</b>                  | 13157309                                          |
| <b>International Application Number:</b>    |                                                   |
| <b>Confirmation Number:</b>                 | 6924                                              |
| <b>Title of Invention:</b>                  | SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS |
| <b>First Named Inventor/Applicant Name:</b> | Stacey C. Lum                                     |
| <b>Customer Number:</b>                     | 28661                                             |
| <b>Filer:</b>                               | TamThanh Thi Pham                                 |
| <b>Filer Authorized By:</b>                 |                                                   |
| <b>Attorney Docket Number:</b>              | INFO-002COC                                       |
| <b>Receipt Date:</b>                        | 15-AUG-2011                                       |
| <b>Filing Date:</b>                         | 10-JUN-2011                                       |
| <b>Time Stamp:</b>                          | 20:20:34                                          |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                       |

### Payment information:

|                                          |                 |
|------------------------------------------|-----------------|
| Submitted with Payment                   | yes             |
| Payment Type                             | Deposit Account |
| Payment was successfully received in RAM | \$70            |
| RAM confirmation Number                  | 7010            |
| Deposit Account                          | 500612          |
| Authorized User                          |                 |

### File Listing:

| Document Number | Document Description | File Name | File Size(Bytes)/<br>Message Digest | Multi Part /.zip | Pages (if appl.) |
|-----------------|----------------------|-----------|-------------------------------------|------------------|------------------|
|-----------------|----------------------|-----------|-------------------------------------|------------------|------------------|

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------|--------------------------------------------------|----|---|
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Terminal Disclaimer Filed | INFO-002COC_11-08-12_TERM<br>NAL_DISCLAIMER.pdf | 207343<br>b3b4fe9155624a68f5480690d0d2d785e6eb4e | no | 2 |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                 |                                                  |    |   |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                 |                                                  |    |   |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Fee Worksheet (SB06)      | fee-info.pdf                                    | 30064<br>818e0c7faabda1a97eeb71181aa02dcc709a0e  | no | 2 |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |                                                 |                                                  |    |   |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                 |                                                  |    |   |
| <b>Total Files Size (in bytes):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                                 | 237407                                           |    |   |
| <p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b><br/> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b><br/> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b><br/> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p> |                           |                                                 |                                                  |    |   |

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit: 2435

Examiner: Hosuk Song

Serial No.: 13/157,309

Filed: June 10, 2011

In re Application of: Lum et al.

Confirmation No.: 6924

Customer No.: 28661

Title: SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

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**REQUEST TO CORRECT FILING RECEIPT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

It is respectfully submitted that the Filing Receipt in the above-identified application is incorrect for the following reason:

Kindly correct the Domestic Priority data as follows:

This application is a CON of 12/273,037 11/18/2008  
which is a CON of 10/949,179 09/24/2004 PAT 7,523,484  
which claims benefit of 60/513,080 10/21/2003  
and 10/949,179 claims the benefit of 60/505,582 09/24/2003

Please issue a corrected filing receipt.

Respectfully submitted,  
LEWIS AND ROCA LLP

Dated: August 24, 2011

/tam thanh pham/

Tam Thanh Pham  
Reg. No.: 50,565

Lewis and Roca LLP  
1663 Hwy 395, Suite 201  
Minden, NV 89423  
(775) 586-9500

## Electronic Acknowledgement Receipt

|                                             |                                                   |
|---------------------------------------------|---------------------------------------------------|
| <b>EFS ID:</b>                              | 10804864                                          |
| <b>Application Number:</b>                  | 13157309                                          |
| <b>International Application Number:</b>    |                                                   |
| <b>Confirmation Number:</b>                 | 6924                                              |
| <b>Title of Invention:</b>                  | SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS |
| <b>First Named Inventor/Applicant Name:</b> | Stacey C. Lum                                     |
| <b>Customer Number:</b>                     | 28661                                             |
| <b>Filer:</b>                               | TamThanh Thi Pham/Stephanie Davis                 |
| <b>Filer Authorized By:</b>                 | TamThanh Thi Pham                                 |
| <b>Attorney Docket Number:</b>              | INFO-002COC                                       |
| <b>Receipt Date:</b>                        | 24-AUG-2011                                       |
| <b>Filing Date:</b>                         | 10-JUN-2011                                       |
| <b>Time Stamp:</b>                          | 16:51:23                                          |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                       |

### Payment information:

|                        |    |
|------------------------|----|
| Submitted with Payment | no |
|------------------------|----|

### File Listing:

| Document Number | Document Description                 | File Name                       | File Size(Bytes)/<br>Message Digest              | Multi Part /.zip | Pages (if appl.) |
|-----------------|--------------------------------------|---------------------------------|--------------------------------------------------|------------------|------------------|
| 1               | Request for Corrected Filing Receipt | INFO-002COC_RQ_Correct_OF R.pdf | 51302<br>6b9f951fb7e62c35502cde09669f7e7a98deae0 | no               | 1                |

### Warnings:

### Information:

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



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| APPLICATION<br>NUMBER | FILING or<br>371(c) DATE | GRP ART<br>UNIT | FIL FEE REC'D | ATTY. DOCKET NO | TOT CLAIMS | IND CLAIMS |
|-----------------------|--------------------------|-----------------|---------------|-----------------|------------|------------|
| 13/157,309            | 06/10/2011               | 2435            | 462           | INFO-002COC     | 6          | 1          |

**CONFIRMATION NO. 6924**

## CORRECTED FILING RECEIPT



0C000000049554674

28661  
LEWIS AND ROCA LLP  
1663 Hwy 395, Suite 201  
Minden, NV 89423

Date Mailed: 08/30/2011

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

### Applicant(s)

Stacey C. Lum, Los Altos, CA;  
Yuhshiow Alice Lee, Saratoga, CA;

### Assignment For Published Patent Application

InfoExpress, Inc., Mountain View, CA

**Power of Attorney:** The patent practitioners associated with Customer Number 28661

### Domestic Priority data as claimed by applicant

This application is a CON of 12/273,037 11/18/2008  
which is a CON of 10/949,179 09/24/2004 PAT 7,523,484  
which claims benefit of 60/513,080 10/21/2003  
and claims benefit of 60/505,582 09/24/2003

**Foreign Applications** (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)

**If Required, Foreign Filing License Granted:** 06/16/2011

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/157,309**

**Projected Publication Date:** 09/22/2011

**Non-Publication Request:** No

**Early Publication Request:** No

**\*\* SMALL ENTITY \*\***

**Title**

SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

**Preliminary Class**

726

**PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

**LICENSE FOR FOREIGN FILING UNDER****Title 35, United States Code, Section 184****Title 37, Code of Federal Regulations, 5.11 & 5.15****GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as

page 2 of 3

set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

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#### **NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group Art Unit: 2435

Examiner: Hosuk Song

Serial No.: 13/157,309

Filed: June 10, 2011

In re Application of: Lum et al.

Confirmation No.: 6924

Customer No.: 28661

Title: SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

---

**AMENDMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the Office Action mailed August 4, 2011 kindly consider the following remarks:

**Remarks/Arguments** begin on page 2.

REMARKS

In the Office Action dated August 4, 2011, the Examiner provisionally rejected claims 1-6 on the ground of nonstatutory obviousness-type double patenting over claims 1-5 of co-pending Application Serial Number 13/157,310

A Terminal Disclaimer was filed August 15, 2011, disclaiming the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Serial Number 13/157,310

Applicants believe that the above-identified application is now in condition for allowance and such action is respectfully requested.

If the Examiner has any questions regarding this application or this response, the Examiner is requested to telephone the undersigned at 775-586-9500.

Respectfully submitted,  
LEWIS AND ROCA LLP

Dated: August 26, 2011

/tam thanh pham/

Tam Thanh Pham  
Reg. No.: 50,565

Lewis and Roca LLP  
2440 W. El Camino Real, 6<sup>th</sup> Floor  
Mountain View, CA 94040-1499  
(775) 586-9500

## Electronic Acknowledgement Receipt

|                                             |                                                   |
|---------------------------------------------|---------------------------------------------------|
| <b>EFS ID:</b>                              | 10827238                                          |
| <b>Application Number:</b>                  | 13157309                                          |
| <b>International Application Number:</b>    |                                                   |
| <b>Confirmation Number:</b>                 | 6924                                              |
| <b>Title of Invention:</b>                  | SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS |
| <b>First Named Inventor/Applicant Name:</b> | Stacey C. Lum                                     |
| <b>Customer Number:</b>                     | 28661                                             |
| <b>Filer:</b>                               | TamThanh Thi Pham/Stephanie Davis                 |
| <b>Filer Authorized By:</b>                 | TamThanh Thi Pham                                 |
| <b>Attorney Docket Number:</b>              | INFO-002COC                                       |
| <b>Receipt Date:</b>                        | 30-AUG-2011                                       |
| <b>Filing Date:</b>                         | 10-JUN-2011                                       |
| <b>Time Stamp:</b>                          | 12:29:46                                          |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                       |

### Payment information:

| Submitted with Payment |                      | no                                     |                                          |                  |                  |
|------------------------|----------------------|----------------------------------------|------------------------------------------|------------------|------------------|
| File Listing:          |                      |                                        |                                          |                  |                  |
| Document Number        | Document Description | File Name                              | File Size(Bytes)/ Message Digest         | Multi Part /.zip | Pages (if appl.) |
| 1                      |                      | INFO-002COC_11-08-26_Amen<br>dment.pdf | 62717                                    | yes              | 2                |
|                        |                      |                                        | 0481fd44c0a2a44349adc4a63deb8ee0eae39ded |                  |                  |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------|-----|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Document Description                                  | Start | End |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Amendment/Req. Reconsideration-After Non-Final Reject | 1     | 1   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Applicant Arguments/Remarks Made in an Amendment      | 2     | 2   |
| Warnings:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                       |       |     |
| Information:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                       |       |     |
| Total Files Size (in bytes):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                       | 62717 |     |
| <p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b><br/>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b><br/>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b><br/>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p> |                                                       |       |     |

|                                                                                                                |                         |                                         |  |
|----------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------|--|
| <b>Application Number</b><br> | Application/Control No. | Applicant(s)/Patent under Reexamination |  |
|                                                                                                                | 13/157,309              | LUM ET AL.                              |  |

|                      |                                 |
|----------------------|---------------------------------|
| Document Code - DISQ | Internal Document – DO NOT MAIL |
|----------------------|---------------------------------|

|                                |                                                       |                                      |
|--------------------------------|-------------------------------------------------------|--------------------------------------|
| <b>TERMINAL<br/>DISCLAIMER</b> | <input checked="" type="checkbox"/> APPROVED          | <input type="checkbox"/> DISAPPROVED |
| Date Filed : 8/15/11           | This patent is subject<br>to a Terminal<br>Disclaimer |                                      |

|                                 |
|---------------------------------|
| <b>Approved/Disapproved by:</b> |
| Janice Ford                     |

U.S. Patent and Trademark Office



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| APPLICATION NUMBER | FILING OR 371(C) DATE | FIRST NAMED APPLICANT | ATTY. DOCKET NO./TITLE |
|--------------------|-----------------------|-----------------------|------------------------|
| 13/157,309         | 06/10/2011            | Stacey C. Lum         | INFO-002COC            |

**CONFIRMATION NO. 6924**

28661  
LEWIS AND ROCA LLP  
1663 Hwy 395, Suite 201  
Minden, NV 89423

**PUBLICATION NOTICE**



**Title:**SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

**Publication No.**US-2011-0231915-A1

**Publication Date:**09/22/2011

**NOTICE OF PUBLICATION OF APPLICATION**

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publicly available Searchable Databases via the Internet at [www.uspto.gov](http://www.uspto.gov). The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at [www.uspto.gov](http://www.uspto.gov) using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <http://pair.uspto.gov/>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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## NOTICE OF ALLOWANCE AND FEE(S) DUE

28661 7590 10/17/2011  
LEWIS AND ROCA LLP  
1663 Hwy 395, Suite 201  
Minden, NV 89423

|             |              |
|-------------|--------------|
| EXAMINER    |              |
| SONG, HOSUK |              |
| ART UNIT    | PAPER NUMBER |
| 2435        |              |

DATE MAILED: 10/17/2011

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/157,309      | 06/10/2011  | Stacey C. Lum        | INFO-002COC         | 6924             |

TITLE OF INVENTION: SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | YES          | \$870         | \$300               | \$0                  | \$1170           | 01/17/2012 |

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail Stop ISSUE FEE**  
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**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**  
or **Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

28661 7590 10/17/2011  
LEWIS AND ROCA LLP  
1663 Hwy 395, Suite 201  
Minden, NV 89423

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

|                    |
|--------------------|
| (Depositor's name) |
| (Signature)        |
| (Date)             |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/157,309      | 06/10/2011  | Stacey C. Lum        | INFO-002COC         | 6924             |

TITLE OF INVENTION: SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | YES          | \$870         | \$300               | \$0                  | \$1170           | 01/17/2012 |

| EXAMINER    | ART UNIT | CLASS-SUBCLASS |
|-------------|----------|----------------|
| SONG, HOSUK | 2435     | 726-002000     |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

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- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (**Please first reapply any previously paid issue fee shown above**)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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| APPLICATION NO.                                                                            | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
| 13/157,309                                                                                 | 06/10/2011  | Stacey C. Lum        | INFO-002COC             | 6924             |
| 28661 7590 10/17/2011<br>LEWIS AND ROCA LLP<br>1663 Hwy 395, Suite 201<br>Minden, NV 89423 |             |                      | EXAMINER<br>SONG, HOSUK |                  |
|                                                                                            |             |                      | ART UNIT<br>2435        | PAPER NUMBER     |

DATE MAILED: 10/17/2011

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

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|                               |                        |                     |  |
|-------------------------------|------------------------|---------------------|--|
| <b>Notice of Allowability</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                               | 13/157,309             | LUM ET AL.          |  |
|                               | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                               | HOSUK SONG             | 2435                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/30/11.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1-6.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_ .  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).  
\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

|                                                                                                                             |                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)                                                            | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                        | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date ____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>8/12/11</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                  | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|                                                                                                                             | 9. <input type="checkbox"/> Other ____.                                               |

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|-------------------------------------------------|--|
| /HOSUK SONG/<br>Primary Examiner, Art Unit 2435 |  |
|-------------------------------------------------|--|



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[B. Aboba, P. Calhoun](#)  
September 2003 RADIUS (Remote Authentication Dial In User Service) Support For Extensible Authentication Protocol (EAP)  
**Publisher:** RFC Editor  
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|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--|--------------------------------------------------------------|--|
| <p align="center"><b>Search Notes</b></p>  | <b>Application/Control No.</b><br>13/157,309 |  | <b>Applicant(s)/Patent under Reexamination</b><br>LUM ET AL. |  |
|                                                                                                                             | <b>Examiner</b><br>HOSUK SONG                |  | <b>Art Unit</b><br>2435                                      |  |
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| SEARCHED |                 |           |          |
|----------|-----------------|-----------|----------|
| Class    | Subclass        | Date      | Examiner |
| 726      | 1-4<br>11-12,15 | 9/29/2011 | HS       |
| 713      | 150,152         | 9/29/2011 | HS       |
| 713      | 155,168         | 9/29/2011 | HS       |
| 713      | 170             | 9/29/2011 | HS       |
| 380      | 270             | 9/29/2011 | HS       |
| 709      | 224-225         | 9/29/2011 | HS       |
| 709      | 228-229         | 9/29/2011 | HS       |
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| INTERFERENCE SEARCHED   |                  |           |           |
|-------------------------|------------------|-----------|-----------|
| Class                   | Subclass         | Date      | Examiner  |
| <b>726</b>              | <b>1-4,11-12</b> | 9/29/2011 | <b>HS</b> |
| 726                     | 15               | 9/29/2011 | HS        |
| 713                     | 150,168          | 9/29/2011 | HS        |
| USPGPUB<br>see printout |                  | 9/29/2011 | HS        |

| SEARCH NOTES<br>(INCLUDING SEARCH STRATEGY) |           |      |
|---------------------------------------------|-----------|------|
|                                             | DATE      | EXMR |
| EAST, foreign patent database<br>IBM TDB    | 9/29/2011 | HS   |
| NPL                                         | 9/29/2011 | HS   |
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**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits | Search Query  | DBs                                                     | Default Operator | Plurals | Time Stamp          |
|-------|------|---------------|---------------------------------------------------------|------------------|---------|---------------------|
| S97   | 2679 | 726/1.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/09/29<br>07:35 |
| S98   | 2611 | 726/2.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/09/29<br>07:35 |
| S99   | 2734 | 726/3.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/09/29<br>07:35 |
| S100  | 3804 | 726/4.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/09/29<br>07:35 |
| S101  | 1169 | 726/11.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/09/29<br>07:35 |
| S102  | 1057 | 726/12.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/09/29<br>07:35 |
| S103  | 746  | 726/15.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/09/29<br>07:35 |
| S104  | 1767 | 713/150.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2011/09/29<br>07:35 |

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|------|-------|--------------------------------------------------------------|---------------------------------------------------------|----|-----|---------------------|
| S105 | 1713  | 713/153.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/09/29<br>07:36 |
| S106 | 1791  | 713/155.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/09/29<br>07:36 |
| S107 | 4395  | 713/168.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/09/29<br>07:36 |
| S108 | 1581  | 713/170.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/09/29<br>07:36 |
| S109 | 1741  | 380/270.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/09/29<br>07:36 |
| S110 | 14613 | 709/224.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/09/29<br>07:36 |
| S111 | 5811  | 709/225.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/09/29<br>07:36 |
| S112 | 4486  | 709/228.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/09/29<br>07:37 |
| S113 | 6385  | 709/229.ccls.                                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2011/09/29<br>07:37 |
| S114 | 2418  | (EAPM or extensible<br>adj3 authenticat\$4<br>adj5 protocol) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2011/09/29<br>08:54 |

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| S115 | 2110 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server)                                                                                                                  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 11:38 |
| S116 | 2112 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer)                                                                                  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 11:39 |
| S117 | 7    | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (ESL or extensible adj3 authentication adj5 protocol adj5 server adj9 layer) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 11:40 |
| S118 | 1412 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point)                                                          | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 11:40 |

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| S120 | 27 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 726/1. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:42 |
| S121 | 28 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 726/2. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:43 |
| S122 | 61 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3                                         | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:45 |

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|      |    | detection adj5 system) and 726/3. ccls.                                                                                                                                                                                                                                                                                                                |                                             |    |    |                  |
| S123 | 64 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 726/4. ccls.  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:48 |
| S124 | 7  | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 726/11. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:48 |

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| S125 | 13 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 726/12. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:48 |
| S126 | 16 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 726/15. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:48 |
| S127 | 7  | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3                                          | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:49 |

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|      |    | detection adj5 system) and 713/150. ccls.                                                                                                                                                                                                                                                                                                               |                                             |    |    |                  |
| S128 | 20 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 713/153. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:49 |
| S129 | 33 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 713/155. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:50 |

|      |    |                                                                                                                                                                                                                                                                                                                                                         |                                             |    |    |                  |
|------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----|----|------------------|
| S130 | 67 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 713/168. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:50 |
| S131 | 14 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 713/170. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:51 |
| S132 | 63 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3                                           | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:52 |

|      |    |                                                                                                                                                                                                                                                                                                                                                         |                                             |    |    |                  |
|------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----|----|------------------|
|      |    | detection adj5 system) and 380/270. ccls.                                                                                                                                                                                                                                                                                                               |                                             |    |    |                  |
| S133 | 25 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 709/224. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:52 |
| S134 | 29 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 709/225. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:52 |

|      |    |                                                                                                                                                                                                                                                                                                                                                         |                                             |    |    |                  |
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| S135 | 25 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 709/228. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:53 |
| S136 | 34 | (EAPM or extensible adj3 authenticat\$4 adj5 protocol) and (authenticat\$4 or verif\$9 or validat\$6) near5 (device or computer or hardware or unit or system or apparatus or machine or server or PC or personal adj3 computer) and (access adj3 point) and (firewall or gatekeeper or IDS or intrusion adj3 detection adj5 system) and 709/229. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2011/09/29 14:53 |
| S137 | 0  | (network and access \$4 and gatekeeper and EAP and point and (authenticat\$4 or validat\$6 or verif \$9) and memory and encrypt\$4 and approv \$4).CLM.                                                                                                                                                                                                 | US-PGPUB; USPAT                             | OR | ON | 2011/09/29 15:25 |

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| S138 | 1 | (network and access<br>\$4 and gatekeeper<br>and EAP and point<br>and (authenticat\$4<br>or validat\$6 or verif<br>\$9) and memory and<br>encrypt\$4 and approv<br>\$4).CLM. | US-PGPUB;<br>USPAT | OR | ON | 2011/09/29<br>15:26 |
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|                                                                                                     | Filing Date            |             | 2011-06-10 |  |
|                                                                                                     | First Named Inventor   | Lum et al.  |            |  |
|                                                                                                     | Art Unit               | 2435        |            |  |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |  |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |  |

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|                   | 1       | 1830383       | A                      | 1931-11-03 | Bos                                             |                                                                        |
|                   | 2       | 1860326       | A                      | 1932-05-24 | Jackson                                         |                                                                        |
|                   | 3       | 2131067       | A                      | 1938-09-27 | Paden                                           |                                                                        |
|                   | 4       | 2247592       | A                      | 1947-07-01 | Swift                                           |                                                                        |
|                   | 5       | 2519435       | A                      | 1956-01-17 | Byrd, Jr.                                       |                                                                        |
|                   | 6       | 2731056       | A                      | 1963-08-13 | Anson                                           |                                                                        |
|                   | 7       | 3100664       | A                      | 1963-08-13 | Duval                                           |                                                                        |
|                   | 8       | 3701557       | A                      | 1972-10-31 | Centofante                                      |                                                                        |

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|                                                                                                     | Examiner Name          | Song, Hosuk |            |  |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |  |

|  |    |          |   |            |                  |  |
|--|----|----------|---|------------|------------------|--|
|  | 9  | 4181339  | A | 1980-01-01 | Rigsby           |  |
|  | 10 | 4951984  | A | 1990-08-28 | Huang            |  |
|  | 11 | 50105622 | A | 1991-04-30 | Morita           |  |
|  | 12 | 5606668  | A | 1997-02-25 | Shwed            |  |
|  | 13 | 57501635 | A | 1997-12-30 | Hawkes           |  |
|  | 14 | 5944368  | A | 1999-08-31 | Hastings         |  |
|  | 15 | 5950195  | A | 1999-09-07 | Stockwell et al. |  |
|  | 16 | 5968176  | A | 1999-10-19 | Nessett et al.   |  |
|  | 17 | 6006259  | A | 1999-12-21 | Adelman et al.   |  |
|  | 18 | 6044402  | A | 2000-03-28 | Jacobson et al.  |  |
|  | 19 | 6119162  | A | 2000-09-12 | Li et al.        |  |

|                                                                                                     |                        |             |            |
|-----------------------------------------------------------------------------------------------------|------------------------|-------------|------------|
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|                                                                                                     | Art Unit               | 2435        |            |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |

|  |    |         |    |            |                 |  |
|--|----|---------|----|------------|-----------------|--|
|  | 20 | 6304973 | B1 | 2002-05-26 | Williams        |  |
|  | 21 | 6363489 | B1 | 2002-03-26 | Comay et al.    |  |
|  | 22 | 6393484 | B1 | 2002-03-26 | Massarani       |  |
|  | 23 | 6671737 | B1 | 2003-12-30 | Snowden et al.  |  |
|  | 24 | 6678835 | B1 | 2004-01-13 | Shah et al.     |  |
|  | 25 | 6745333 | B1 | 2004-06-01 | Thomsen         |  |
|  | 26 | 6769000 | B1 | 2004-07-27 | Akhtar et al    |  |
|  | 27 | 6834414 | B1 | 2004-12-28 | Chiu            |  |
|  | 28 | 7055173 | B1 | 2006-05-30 | Chaganly et al. |  |
|  | 29 | 7299294 | B1 | 2007-11-20 | Bruck et al.    |  |
|  | 30 | 7350226 | B2 | 2008-03-25 | Moriconi et al. |  |

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|                        |             |            |
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| Examiner Name          | Song, Hosuk |            |
| Attorney Docket Number | INFO-002COC |            |

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|--|----|---------|----|------------|--------------------|--|
|  | 31 | 7523484 | B2 | 2009-04-21 | Lum et al.         |  |
|  | 32 | 5835481 | A  | 1998-11-10 | Akyol et al.       |  |
|  | 33 | 5852722 | A  | 1998-12-22 | Hamilton           |  |
|  | 34 | 6988133 | B1 | 2006-01-17 | Zavalkovsky et al. |  |
|  | 35 | 7469418 | B1 | 2008-12-23 | Wilkinson et al.   |  |
|  | 36 | 7523484 | B2 | 2009-04-21 | Lum et al.         |  |
|  | 37 | 7590733 | B2 | 2009-09-15 | Lum                |  |

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|                                                                                                     | Examiner Name        | Song, Hosuk |            |  |
| Attorney Docket Number                                                                              |                      | INFO-002COC |            |  |

| Examiner Initial* | Cite No | Foreign Document Number <sup>3</sup> | Country Code <sup>2</sup> i | Kind Code <sup>4</sup> | Publication Date | Name of Patentee or Applicant of cited Document | Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear | T <sup>5</sup>           |
|-------------------|---------|--------------------------------------|-----------------------------|------------------------|------------------|-------------------------------------------------|--------------------------------------------------------------------------|--------------------------|
|                   | 1       | 2005-79706                           | JP                          | A                      | 2005-03-24       | NEC Software Ltd.                               | Corresponds to US 20050050365                                            | <input type="checkbox"/> |
|                   | 2       | 2006029217                           | WO                          | A2                     | 2006-03-16       | Swan Labs Corporation                           |                                                                          | <input type="checkbox"/> |

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|                    | 2       | "Network Access Control from Mirage Networks," Mirage Networks, 2006, 7 pages.                                                                                                                                                                                  | <input type="checkbox"/> |
|                    | 3       | "Network Access Quarantine Control in Microsoft Windows Server 2003," Windows Server System, Published March 2003, Updated July 29, 2009, 37 pages, Microsoft Corporation, Redmond, WA, USA.                                                                    | <input type="checkbox"/> |
|                    | 4       | WHALEN, SEAN, "An Introduction to ARP Spoofing," at <a href="http://node99.org/projects/arp sppf">http://node99.org/projects/arp sppf</a> , updated May 2001, 7 pages.                                                                                          | <input type="checkbox"/> |

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|                                                                                                     | Examiner Name          | Song, Hosuk |
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|                        |             |
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| Examiner Name          | Song, Hosuk |
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| Signature  | /tam thanh pham/ | Date (YYYY-MM-DD)   | 2011-08-11 |
| Name/Print | Tam Thanh Pham   | Registration Number | 50,565     |

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|                                                                                                     | Examiner Name          | Song, Hosuk |            |  |
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|                                                                                             | 1       | 20020010869        | A1                     | 2002-01-24       | Kim                                             |                                                                        |
|                                                                                             | 2       | 20020023273        | A1                     | 2002-02-21       | Song                                            |                                                                        |
|                                                                                             | 3       | 20020029276        | A1                     | 2002-03-07       | Bendinelli et al.                               |                                                                        |
|                                                                                             | 4       | 20020120749        | A1                     | 2002-08-29       | Widegren et al.                                 |                                                                        |
|                                                                                             | 5       | 20030012205        | A1                     | 2003-01-16       | Foti et al.                                     |                                                                        |

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|                                                                                                     | Attorney Docket Number | INFO-002COC |            |  |

|  |    |             |    |            |                     |  |
|--|----|-------------|----|------------|---------------------|--|
|  | 6  | 20030023880 | A1 | 2003-01-30 | Edwards et al.      |  |
|  | 7  | 20030046586 | A1 | 2003-03-06 | Bheemarsetti et al. |  |
|  | 8  | 20030126464 | A1 | 2003-07-03 | McDaniel et al.     |  |
|  | 9  | 20030131262 | A1 | 2003-07-10 | Goddard             |  |
|  | 10 | 20030191966 | A1 | 2003-10-09 | Gleichau            |  |
|  | 11 | 20030208694 | A1 | 2003-11-06 | Fang                |  |
|  | 12 | 20040010719 | A1 | 2004-01-15 | Daenen              |  |
|  | 13 | 20040024885 | A1 | 2004-02-05 | Bush, III et al.    |  |
|  | 14 | 20040054926 | A1 | 2004-03-18 | Ocepek et al.       |  |
|  | 15 | 20040098610 | A1 | 2004-05-20 | Hrastar             |  |
|  | 16 | 20040103314 | A1 | 2004-05-27 | Liston              |  |

|                                                                                                     |                        |             |            |
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| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     |             | 13157309   |
|                                                                                                     | Filing Date            |             | 2011-06-10 |
|                                                                                                     | First Named Inventor   | Lum et al.  |            |
|                                                                                                     | Art Unit               | 2435        |            |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |

|  |    |             |    |            |                  |  |
|--|----|-------------|----|------------|------------------|--|
|  | 17 | 20040162994 | A1 | 2004-08-19 | Cohen et al      |  |
|  | 18 | 20040181690 | A1 | 2004-09-16 | Rothermel et al. |  |
|  | 19 | 20040193912 | A1 | 2004-09-30 | Li et al.        |  |
|  | 20 | 20040243835 | A1 | 2004-12-02 | Terzis et al.    |  |
|  | 21 | 20050027837 | A1 | 2005-02-03 | Roese et al.     |  |
|  | 22 | 20050044197 | A1 | 2005-02-24 | Lai              |  |
|  | 23 | 20050050365 | A1 | 2005-03-03 | Seki et al.      |  |
|  | 24 | 20050081058 | A1 | 2005-04-15 | Chang et al.     |  |
|  | 25 | 20050278775 |    | 2006-12-15 | Ross             |  |
|  | 26 | 20060050703 | A1 | 2006-03-09 | Foss             |  |
|  | 27 | 20060089938 | A1 | 2006-04-27 | Leonard et al.   |  |

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|                                                                                                     | Examiner Name          | Song, Hosuk |            |  |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |  |

|  |    |             |    |            |                 |  |
|--|----|-------------|----|------------|-----------------|--|
|  | 28 | 20060095968 | A1 | 2006-04-04 | Portolani et al |  |
|  | 29 | 20060161970 | A1 | 2006-07-20 | Hopen et al.    |  |
|  | 30 | 20060164199 | A1 | 2006-07-27 | Glide et al.    |  |
|  | 31 | 20070064689 | A1 | 2007-03-22 | Shin et al.     |  |
|  | 32 | 20070112574 | A1 | 2007-05-17 | Greene          |  |
|  | 33 | 20070157306 | A1 | 2007-07-05 | Elrod et al.    |  |
|  | 34 | 20080060067 | A1 | 2008-08-06 | Kim et al.      |  |
|  | 35 | 20080209044 | A1 | 2008-08-28 | Forrester       |  |
|  | 36 | 20090043765 | A1 | 2009-02-01 | Pugh            |  |
|  | 37 | 20090083830 | A1 | 2009-03-26 | Lum             |  |
|  | 38 | 20020073337 | A1 | 2002-06-13 | loele et al.    |  |

**INFORMATION DISCLOSURE  
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| Application Number     |             | 13157309   |
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| Art Unit               | 2435        |            |
| Examiner Name          | Song, Hosuk |            |
| Attorney Docket Number | INFO-002COC |            |

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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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**INFORMATION DISCLOSURE  
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( Not for submission under 37 CFR 1.99)

|                        |             |
|------------------------|-------------|
| Application Number     | 13157309    |
| Filing Date            | 2011-06-10  |
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| Art Unit               | 2435        |
| Examiner Name          | Song, Hosuk |
| Attorney Docket Number | INFO-002COC |

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**OR**

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☐ See attached certification statement.

☐ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

**SIGNATURE**

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

|            |                  |                     |            |
|------------|------------------|---------------------|------------|
| Signature  | /tam thanh pham/ | Date (YYYY-MM-DD)   | 2011-08-11 |
| Name/Print | Tam Thanh Pham   | Registration Number | 50,565     |

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /H.S./

|                                                                                                             |                                |                                                |  |
|-------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------------------------|--|
| <b>Index of Claims</b><br> | <b>Application/Control No.</b> | <b>Applicant(s)/Patent under Reexamination</b> |  |
|                                                                                                             | 13/157,309                     | LUM ET AL.                                     |  |
|                                                                                                             | <b>Examiner</b>                | <b>Art Unit</b>                                |  |
|                                                                                                             | HOSUK SONG                     | 2435                                           |  |

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| 150   |          |      |  |  |  |  |  |  |  |  |  |



## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or **Fax** (571) 273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

28661 7590  
LEWIS AND ROCA LLP  
1663 Hwy 395, Suite 201  
Minden, NV 89423

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

|                    |
|--------------------|
| (Depositor's name) |
| (Signature)        |
| (Date)             |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/157,309      | 06/10/2011  | Stacey C. Lum        | INFO-002COC         | 6924             |

TITLE OF INVENTION:

SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS

| APPLN. TYPE    | SMALL ENTITY | ISSUE FEE | PUBLICATION FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|--------------|-----------|-----------------|------------------|------------|
| nonprovisional | YES          | \$870     | \$300           | \$1170           | 01/17/2012 |

| EXAMINER | ART UNIT | CLASS-SUBCLASS |
|----------|----------|----------------|
|          |          |                |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Lewis and Roca LLP  
2  
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

INFOEXPRESS, INC.

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Mountain View, California

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☒ Issue Fee
- ☒ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☒ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number 500612

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Tam Thanh Pham/

Date January 17, 2012

Typed or printed name Tam Thanh Pham

Registration No. 50,565

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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**The Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

| Electronic Patent Application Fee Transmittal |          |                                                   |        |                      |
|-----------------------------------------------|----------|---------------------------------------------------|--------|----------------------|
| Application Number:                           |          | 13157309                                          |        |                      |
| Filing Date:                                  |          | 10-Jun-2011                                       |        |                      |
| Title of Invention:                           |          | SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS |        |                      |
| First Named Inventor/Applicant Name:          |          | Stacey C. Lum                                     |        |                      |
| Filer:                                        |          | TamThanh Thi Pham/Adriena Garcia                  |        |                      |
| Attorney Docket Number:                       |          | INFO-002COC                                       |        |                      |
| Filed as Small Entity                         |          |                                                   |        |                      |
| Utility under 35 USC 111(a) Filing Fees       |          |                                                   |        |                      |
| Description                                   | Fee Code | Quantity                                          | Amount | Sub-Total in USD(\$) |
| Basic Filing:                                 |          |                                                   |        |                      |
| Pages:                                        |          |                                                   |        |                      |
| Claims:                                       |          |                                                   |        |                      |
| Miscellaneous-Filing:                         |          |                                                   |        |                      |
| Petition:                                     |          |                                                   |        |                      |
| Patent-Appeals-and-Interference:              |          |                                                   |        |                      |
| Post-Allowance-and-Post-Issuance:             |          |                                                   |        |                      |
| Utility Appl issue fee                        | 2501     | 1                                                 | 870    | 870                  |
| Publ. Fee- early, voluntary, or normal        | 1504     | 1                                                 | 300    | 300                  |

| Description        | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|--------------------|----------|----------|--------|----------------------|
| Extension-of-Time: |          |          |        |                      |
| Miscellaneous:     |          |          |        |                      |
| Total in USD (\$)  |          |          |        | 1170                 |

| Electronic Acknowledgement Receipt          |                                                   |
|---------------------------------------------|---------------------------------------------------|
| <b>EFS ID:</b>                              | 11851500                                          |
| <b>Application Number:</b>                  | 13157309                                          |
| <b>International Application Number:</b>    |                                                   |
| <b>Confirmation Number:</b>                 | 6924                                              |
| <b>Title of Invention:</b>                  | SYSTEMS AND METHODS OF CONTROLLING NETWORK ACCESS |
| <b>First Named Inventor/Applicant Name:</b> | Stacey C. Lum                                     |
| <b>Customer Number:</b>                     | 28661                                             |
| <b>Filer:</b>                               | TamThanh Thi Pham/Adriena Garcia                  |
| <b>Filer Authorized By:</b>                 | TamThanh Thi Pham                                 |
| <b>Attorney Docket Number:</b>              | INFO-002COC                                       |
| <b>Receipt Date:</b>                        | 17-JAN-2012                                       |
| <b>Filing Date:</b>                         | 10-JUN-2011                                       |
| <b>Time Stamp:</b>                          | 15:44:43                                          |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                       |

### Payment information:

|                                                                                                                                                                                                                                                                                                                                                     |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Submitted with Payment                                                                                                                                                                                                                                                                                                                              | yes             |
| Payment Type                                                                                                                                                                                                                                                                                                                                        | Deposit Account |
| Payment was successfully received in RAM                                                                                                                                                                                                                                                                                                            | \$1170          |
| RAM confirmation Number                                                                                                                                                                                                                                                                                                                             | 2770            |
| Deposit Account                                                                                                                                                                                                                                                                                                                                     | 500612          |
| Authorized User                                                                                                                                                                                                                                                                                                                                     |                 |
| <p>The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)</p> <p>Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)</p> |                 |

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### File Listing:

| Document Number | Document Description        | File Name                                     | File Size(Bytes)/ Message Digest         | Multi Part /.zip | Pages (if appl.) |
|-----------------|-----------------------------|-----------------------------------------------|------------------------------------------|------------------|------------------|
| 1               | Issue Fee Payment (PTO-85B) | INFO-002COC_Issue-Fee-Transmittal_1-17-12.pdf | 184907                                   | no               | 2                |
|                 |                             |                                               | 93c90b181d5256e995b722c72f35a86746b60cfc |                  |                  |

#### Warnings:

#### Information:

|   |                      |              |                                          |    |   |
|---|----------------------|--------------|------------------------------------------|----|---|
| 2 | Fee Worksheet (SB06) | fee-info.pdf | 31835                                    | no | 2 |
|   |                      |              | bc7d0816c6aafb8f51c8b03ab79e1a268311735b |    |   |

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#### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

|                                                                                                     |                        |             |            |  |
|-----------------------------------------------------------------------------------------------------|------------------------|-------------|------------|--|
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     |             | 13157309   |  |
|                                                                                                     | Filing Date            |             | 2011-06-10 |  |
|                                                                                                     | First Named Inventor   | Lum et al.  |            |  |
|                                                                                                     | Art Unit               | 2435        |            |  |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |  |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |  |

|                                                             |    |                                             |   |            |                  |  |
|-------------------------------------------------------------|----|---------------------------------------------|---|------------|------------------|--|
|                                                             | 9  | 4181339                                     | A | 1980-01-01 | Rigsby           |  |
|                                                             | 10 | 4951984                                     | A | 1990-08-28 | Huang            |  |
|                                                             | 11 | <del>5,010,622</del><br><del>50406622</del> | A | 1991-04-30 | Morita           |  |
|                                                             | 12 | 5606668                                     | A | 1997-02-25 | Shwed            |  |
| Change(s) applied<br>to document,<br>/B.H.H./<br>10/25/2011 | 13 | <del>5,701,635</del><br><del>57504635</del> | A | 1997-12-30 | Hawkes           |  |
|                                                             | 14 | 5944368                                     | A | 1999-08-31 | Hastings         |  |
|                                                             | 15 | 5950195                                     | A | 1999-09-07 | Stockwell et al. |  |
|                                                             | 16 | 5968176                                     | A | 1999-10-19 | Nessett et al.   |  |
|                                                             | 17 | 6006259                                     | A | 1999-12-21 | Adelman et al.   |  |
|                                                             | 18 | 6044402                                     | A | 2000-03-28 | Jacobson et al.  |  |
|                                                             | 19 | 6119162                                     | A | 2000-09-12 | Li et al.        |  |

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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|-----------------------------------------------------------------------------------------------------|------------------------|-------------|------------|
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     |             | 13157309   |
|                                                                                                     | Filing Date            |             | 2011-06-10 |
|                                                                                                     | First Named Inventor   | Lum et al.  |            |
|                                                                                                     | Art Unit               | 2435        |            |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |

| U.S.PATENTS                                        |         |               |                        |                                  |                                                 | Remove                                                                 |
|----------------------------------------------------|---------|---------------|------------------------|----------------------------------|-------------------------------------------------|------------------------------------------------------------------------|
| Examiner Initial*                                  | Cite No | Patent Number | Kind Code <sup>1</sup> | Issue Date                       | Name of Patentee or Applicant of cited Document | Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear |
|                                                    | 1       | 1830383       | A                      | 1931-11-03                       | Bos                                             |                                                                        |
|                                                    | 2       | 1860326       | A                      | 1932-05-24                       | Jackson                                         |                                                                        |
|                                                    | 3       | 2131067       | A                      | 1938-09-27                       | Paden                                           |                                                                        |
|                                                    | 4       | 2247592       | A                      | 1947-07-01                       | Swift                                           |                                                                        |
|                                                    | 5       | 2519435       | A                      | 1956-01-17                       | Byrd, Jr.                                       |                                                                        |
| Change(s) applied to document, /B.H.H./ 10/25/2011 | 6       | 2731056       | A                      | 01/1956<br><del>1963-08-13</del> | Anson                                           |                                                                        |
|                                                    | 7       | 3100664       | A                      | 1963-08-13                       | Duval                                           |                                                                        |
|                                                    | 8       | 3701557       | A                      | 1972-10-31                       | Centofante                                      |                                                                        |

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**  
( Not for submission under 37 CFR 1.99)

|                        |             |            |
|------------------------|-------------|------------|
| Application Number     |             | 13157309   |
| Filing Date            |             | 2011-06-10 |
| First Named Inventor   | Lum et al.  |            |
| Art Unit               | 2435        |            |
| Examiner Name          | Song, Hosuk |            |
| Attorney Docket Number | INFO-002COC |            |

Change(s) applied  
to document,

/R.K.V./

|            |    |             |    |                                 |                 |  |
|------------|----|-------------|----|---------------------------------|-----------------|--|
| 10/26/2011 | 28 | 20060095968 | A1 | <del>2006-04-04</del><br>5/2006 | Portolani et al |  |
|            | 29 | 20060161970 | A1 | 2006-07-20                      | Hopen et al.    |  |
|            | 30 | 20060164199 | A1 | 2006-07-27                      | Glide et al.    |  |
|            | 31 | 20070064689 | A1 | 2007-03-22                      | Shin et al.     |  |
|            | 32 | 20070112574 | A1 | 2007-05-17                      | Greene          |  |
|            | 33 | 20070157306 | A1 | 2007-07-05                      | Elrod et al.    |  |
|            | 34 | 20080060067 | A1 | 2008-08-06                      | Kim et al.      |  |
|            | 35 | 20080209044 | A1 | 2008-08-28                      | Forrester       |  |
|            | 36 | 20090043765 | A1 | 2009-02-01                      | Pugh            |  |
|            | 37 | 20090083830 | A1 | 2009-03-26                      | Lum             |  |
|            | 38 | 20020073337 | A1 | 2002-06-13                      | loele et al.    |  |

|                                                                                                     |                        |             |            |  |
|-----------------------------------------------------------------------------------------------------|------------------------|-------------|------------|--|
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     |             | 13157309   |  |
|                                                                                                     | Filing Date            |             | 2011-06-10 |  |
|                                                                                                     | First Named Inventor   | Lum et al.  |            |  |
|                                                                                                     | Art Unit               | 2435        |            |  |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |  |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |  |

Change(s) applied

|                                         |    |             |    |                                  |                  |  |
|-----------------------------------------|----|-------------|----|----------------------------------|------------------|--|
| to document,<br>/R.K.V.17<br>10/26/2011 |    | 20040162994 | A1 | 2004-08-19                       | Cohen et al      |  |
|                                         | 18 | 20040181690 | A1 | 2004-09-16                       | Rothermel et al. |  |
|                                         | 19 | 20040193912 | A1 | 2004-09-30                       | Li et al.        |  |
|                                         | 20 | 20040243835 | A1 | 2004-12-02                       | Terzis et al.    |  |
|                                         | 21 | 20050027837 | A1 | 2005-02-03                       | Roese et al.     |  |
|                                         | 22 | 20050044197 | A1 | 2005-02-24                       | Lai              |  |
|                                         | 23 | 20050050365 | A1 | 2005-03-03                       | Seki et al.      |  |
|                                         | 24 | 20050081058 | A1 | 2005-04-15                       | Chang et al.     |  |
|                                         | 25 | 20050278775 |    | 12/2005<br><del>2006-12-15</del> | Ross             |  |
|                                         | 26 | 20060050703 | A1 | 2006-03-09                       | Foss             |  |
|                                         | 27 | 20060089938 | A1 | 2006-04-27                       | Leonard et al.   |  |

|                                                                                                     |                        |             |            |  |
|-----------------------------------------------------------------------------------------------------|------------------------|-------------|------------|--|
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     |             | 13157309   |  |
|                                                                                                     | Filing Date            |             | 2011-06-10 |  |
|                                                                                                     | First Named Inventor   | Lum et al.  |            |  |
|                                                                                                     | Art Unit               | 2435        |            |  |
|                                                                                                     | Examiner Name          | Song, Hosuk |            |  |
|                                                                                                     | Attorney Docket Number | INFO-002COC |            |  |

Change(s) applied

to document,

|                   |            |    |         |    |                                  |                 |  |
|-------------------|------------|----|---------|----|----------------------------------|-----------------|--|
| <del>R.K.V.</del> | 10/26/2011 | 20 | 6304973 | B1 | 10/2001<br><del>2002-05-26</del> | Williams        |  |
|                   | 21         |    | 6363489 | B1 | 2002-03-26                       | Comay et al.    |  |
|                   | 22         |    | 6393484 | B1 | 5/2002<br><del>2002-03-26</del>  | Massarani       |  |
|                   | 23         |    | 6671737 | B1 | 2003-12-30                       | Snowden et al.  |  |
|                   | 24         |    | 6678835 | B1 | 2004-01-13                       | Shah et al.     |  |
|                   | 25         |    | 6745333 | B1 | 2004-06-01                       | Thomsen         |  |
|                   | 26         |    | 6769000 | B1 | 2004-07-27                       | Akhtar et al    |  |
|                   | 27         |    | 6834414 | B1 | 2004-12-28                       | Chiu            |  |
|                   | 28         |    | 7055173 | B1 | 2006-05-30                       | Chaganly et al. |  |
|                   | 29         |    | 7299294 | B1 | 2007-11-20                       | Bruck et al.    |  |
|                   | 30         |    | 7350226 | B2 | 2008-03-25                       | Moriconi et al. |  |

|                                                                                                     |                        |               |          |  |
|-----------------------------------------------------------------------------------------------------|------------------------|---------------|----------|--|
| <b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br>( Not for submission under 37 CFR 1.99) | Application Number     |               | UNKNOWN  |  |
|                                                                                                     | Filing Date            |               | HEREWITH |  |
|                                                                                                     | First Named Inventor   | STACEY C. LUM |          |  |
|                                                                                                     | Art Unit               |               |          |  |
|                                                                                                     | Examiner Name          |               |          |  |
|                                                                                                     | Attorney Docket Number | PA5252US      |          |  |

Change(s) applied

to document,

## U.S.PATENTS

| Examiner Initial* | Cite No | Patent Number | Kind Code <sup>1</sup> | Issue Date                      | Name of Patentee or Applicant of cited Document | Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear |
|-------------------|---------|---------------|------------------------|---------------------------------|-------------------------------------------------|------------------------------------------------------------------------|
| <del>RKV</del>    |         |               |                        |                                 |                                                 |                                                                        |
|                   | 1       | 5842002       |                        | 1998-11-24                      | SCHNURER                                        |                                                                        |
|                   | 2       | 7752320       |                        | 7/2010<br><del>2006-07-06</del> | KAPPES                                          |                                                                        |

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## U.S.PATENT APPLICATION PUBLICATIONS

| Examiner Initial* | Cite No | Publication Number | Kind Code <sup>1</sup> | Publication Date | Name of Patentee or Applicant of cited Document | Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear |
|-------------------|---------|--------------------|------------------------|------------------|-------------------------------------------------|------------------------------------------------------------------------|
|                   | 1       | 20030229808        |                        | 2003-12-11       | HEINTZ                                          |                                                                        |
|                   | 2       | 20060147043        |                        | 2006-07-06       | MANN                                            |                                                                        |

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| APPLICATION NO. | ISSUE DATE | PATENT NO. | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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## ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

### **Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)** (application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

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