



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/201,087	07/01/2016	Vipul Pabari	367894-991101	1450
26379	7590	02/26/2019		
DLA PIPER LLP (US) 2000 UNIVERSITY AVENUE EAST PALO ALTO, CA 94303-2248			EXAMINER MUSA, ABDELNABI O	
			ART UNIT	PAPER NUMBER
			2472	
			NOTIFICATION DATE	DELIVERY MODE
			02/26/2019	ELECTRONIC

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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PatentDocketingUS-PaloAlto@dlapiper.com

Notice of Pre-AIA or AIA Status

1. The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

2. Acknowledgment is made for the applicant's response and amendment filed on 01/07/2019.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/07/2019 has been entered.

Remarks

4. The claims are presented as follows:

- Claims 1-16 are pending.

Response to Amendment

5. Applicant's arguments filed 01/07/2019 have been fully considered but they are not persuasive. The amendment submitted by the applicant does not overcome the rejection made by the examiner in the last office action. The applicant's argument has been considered carefully and does not provide the evidence for lack of motivation.

• Applicant Argument-1

Applicant recites that the references do not disclose, teach or suggest:

“providing a virtualization system that has an inventory that includes physical resources and virtual assets managed by a virtualization layer running on the physical resources; wherein virtual assets are software instantiations of computer systems.”

- **Examiner Response to Argument-1**

Vasilevsky teaches a virtual management system (**Vasilevsky: 101-FIG.1**) a virtualization layer is provided that allows operating systems (OSs) and their applications to be executed on a virtual server that spans more than one physical node to manage resources (**Vasilevsky: [0009]**) resources may be managed without changes at the application or operating system interface levels (**Vasilevsky: [0009-10]**). FIG.1 shows a management system that is used to execute one or more data center applications, a virtualization layer 104 isolating the operating system layer 103 and the hardware layer 105, which are in communication with application layer 102, such applications may be server application, web-based application, or other application that provides resources to other systems. Such applications communicate directly with virtualization layer 104 or may communicate indirectly through operating system layer 103. Virtualization layer 104 maps functions performed by one or more virtual processors to functions performed by one or more physical entities (physical nodes) in the hardware layer 105 (**Vasilevsky: [0058]**) Virtualization layer 104 presents to layers 102 and 103 a single system in the form of a virtual server, where a single instance of OS is executed by the virtual server (**Vasilevsky: [0059]**) The physical nodes communicate with each other to share access to resources within the hardware layer 105 (**Vasilevsky: [0060]**) which allows for an expansion (or a contraction) of resources used by executing the virtual computing system for the purpose of performing configuration changes, monitoring performance, and performing other administrative functions associated with system 100 (**Vasilevsky:**

[0070]) Therefore Vasilevsky teaches providing a virtualization system that has an inventory that includes physical resources and virtual assets managed by a virtualization layer running on the physical resources; wherein virtual assets are software instantiations of computer systems.

- **Argument-2**

Applicant argument with respect to claim 9 have been fully considered. Examiner mapped the claim language in light of the new amendment. The newly added computer device with a processor and memory are taught in **Vasilevsky** reference as cited in the office action in claim 9 below, for applicant's connivance, see claim 9 as mapped.

Double Patenting

6. 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 double patenting rejection is appropriate where the claims at issue 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 reference 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. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit <http://www.uspto.gov/forms/>. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more

information about eTerminal Disclaimers, refer to
<http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-l.jsp>.

Claims 1-16 are rejected on the ground of nonstatutory double patenting over **claims 1-24 of U.S. Patent No. 8,799,431 B2** since the claims, if allowed, would improperly extend the “right to exclude” already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

The dependent claims in the instant application contain similar limitations contained in the dependent claims in the patented application.

Although the conflicting claims are not identical, they are not patentably distinct from each other. The instant application claims a limitations that are present in the patented application. It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified the instant application by the teaching of the patented application.

This is a Non-statuary obviousness type double patenting rejection because the conflicting claims have in fact been patented.

Claims 1-16 are rejected on the ground of nonstatutory double patenting over **claims 1-24** of **U.S. Patent No. 9,444,762 B2** since the claims, if allowed, would improperly extend the “right to exclude” already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

The dependent claims in the instant application contain similar limitations contained in the dependent claims in the patented application.

Although the conflicting claims are not identical, they are not patentably distinct from each other. The instant application claims a limitations that are present in the patented application. It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified the instant application by the teaching of the patented application.

This is a Non-statuary obviousness type double patenting rejection because the conflicting claims have in fact been patented.

Claim Rejections - 35 USC § 103

7. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any

correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under pre-AIA 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Vasilevsky et al. Pub. No (US. 2005/0044301 A1)** in view of **Yan et al. Pub. No. (US 2003/0236882 A1)**.

Regarding **claim 1**, **Vasilevsky** teaches a method for on demand provisioning of virtual asset via a self-service portal in a virtualization system, the method comprising:

providing a virtualization system (**virtualization environment 100 FIG.1 [0058]**) that has an inventory that includes physical resources (**data center provides resources [0058] FIG.1**) and virtual assets (**and operating system layer 103 FIG.1**) managed by a virtualization layer (**virtualization layer 104 FIG.1 [0058]**) running on the physical resources; wherein virtual assets are software instantiations of computer systems (**the virtualization layer managing the execution of the operating system [0017] [0042] Manager 212 connected to the virtual computing system 201 over a network that communicates with a management agent executed by one or more virtual servers of system 201 for the purpose of performing configuration changes, monitoring performance, and performing other administrative functions associated with system 201 [0070-71] FIG.2**));

receiving a virtual asset provisioning request that specifies parameters to be considered for the virtual asset provisioning request (**receive a request to allocate and/or de-allocate resources from an administrator through an user input [0074] executing the management agent as an overhead process at a different priority and at any level of a virtual computing system hierarchy and at any protection or priority level [0087] [0112-114]**);

receiving data on inventory available in the virtualization system (**allocate and/or de-allocate resources from an administrator through an user input [0074] executing the management agent as an overhead process at a different priority and at any level of a virtual computing system hierarchy and at any protection or priority level [0087-88]**);

assigning the provisioned virtual asset to the virtual asset provisioning request **(specify an unassigned resources may be grouped into a "pool" of unassigned resources via assign such assets and presented to an administrator or program as being available for assignment [0082-83]); and**

providing user access to the provisioned virtual asset **(providing the virtual assets to allocate and/or de-allocate resources from an administrator through an interface (e.g., a CLI, or GUI or a programmatic interface' [0074-75]).**

Vasilevsky does not explicitly teach,

automatically provisioning of a particular virtual asset to a particular physical resource in the virtualization system that matches the parameters in the virtual asset provisioning request.

Yan teaches automatically provisioning of a particular virtual asset to a particular physical resource in the virtualization system that matches the parameters in the virtual asset provisioning request **(Yan: a management system includes a set of auto-deployment components that receives requirement update requests from a corresponding virtual operating environment and in response, automatically conduct resource allocation and service re-deployment to adjust behavior at runtime [0030] [0062] FIG.6)**

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified **Vasilevsky** by the teaching of **Yan** to have an automatic determination of a reallocation of the virtual assets in order to achieve an efficient virtualization management of network resources (**Yan: [0030] [0062] FIG.6**).

Regarding **claim 2, Vasilevsky** teaches the method of claim 1 further comprising determining one or more performance metrics of the provisioned virtual asset **(a virtual computing system is provided that allows a network administrator to provision computing resources in real-time ("on-the-fly") without a restart of a virtual computing system [0076-77])**.

Regarding **claim 3, Vasilevsky** teaches the method of claim 1 further comprising providing a user interface for submitting the virtual asset provisioning request **(a capability is provided to allocate and/or de-allocate resources from an administrator through an interface (e.g., a CLI, or GUI or a programmatic interface' for the user [0074-75])**.

Regarding **claim 4, Vasilevsky** teaches the method of claim 3, wherein providing the user interface further comprises providing a user interface to access one or more images in a virtual asset image repository **(the management agent may be responsible for a number of tasks, including alarm propagation and alert messages [0086-88 [0157])**.

Regarding **claim 5, Vasilevsky** teaches the method of claim 2, wherein determining the one or more performance metrics further comprises determining one or more real time performance metrics **(a virtual computing system is provided that allows a network administrator to provision computing resources in real-time ("on-the-fly") without a restart of a virtual computing system [0076-77])**.

Regarding **claim 6, Vasilevsky** teaches the method of claim 1, wherein the inventory further comprises one or more application programs **(resources include processing, memory, networking, storage, etc. to a virtual computing system including application programs provide control to an administrator through an GUI interface or to other programs [0074-75])**.

Regarding **claim 7, Vasilevsky** teaches the method of claim 6, wherein one of the application programs comprises one of a network load balancer, a router, a firewall and a storage server **(the virtual computing system may be scaled up/scaled down as necessary by the distributed server e.g., a load balancer [0072])**.

Regarding **claim 8, Vasilevsky** teaches the method of claim 6, wherein one of the application programs comprises a network server **(resources may be allocated or de-allocated by a distributed server [0072])**.

Regarding **claim 9, Vasilevsky** teaches an apparatus that performs automatic management of a virtualization environment in a computer network comprising:

a virtualization environment **(virtualization environment 100 FIG.1 [0058])** having a computer device with a processor and memory and a control center computer coupled to the computer device **(Virtualization layer 104 in turn maps functions performed by one or more virtual processors to functions performed by one or more physical entities in hardware layer 105 [0058-59])**, the virtualization environment

having an inventory that includes network resources (**data center provides resources [0058] FIG.1**) and virtual assets (**and operating system layer 103 FIG.1**) being software instantiations of computer systems hosted on the computer device and a virtualization layer (**virtualization layer 104 FIG.1 [0058]**) executed by the computer device that manages the virtual assets (**the virtualization layer managing the execution of the operating system [0017] [0042] Manager 212 connected to the virtual computing system 201 over a network that communicates with a management agent executed by one or more virtual servers of system 201 for the purpose of performing configuration changes, monitoring performance, and performing other administrative functions associated with system 201 [0070-71] FIG.2**);

the control center computer executing a virtual mapping layer that determines an inventory of network resources and virtual assets available to the virtualization environment (**specify an unassigned resources may be grouped into a "pool" of unassigned resources via assign such assets and presented to an administrator or program as being available for assignment [0082-83]**), wherein the virtual mapping layer determines the inventory without regard to processors, operating systems, virtualization platforms, and application software of the virtualization environment (**a virtual computing system 101 contains processors, operating systems, virtualization platforms, and application software of the virtualization environment [0058-59] FIG.1**); and

the control center computer executing a provisioning manager that communicates with the virtual mapping layer, the processor being configured to receive a virtual asset provisioning request that specifies parameters to be considered for the virtual asset

provisioning request **(receive a request to allocate and/or de-allocate resources from an administrator through an user input [0074] executing the management agent as an overhead process at a different priority and at any level of a virtual computing system hierarchy and at any protection or priority level [0087] [0112-114]), (allocate and/or de-allocate resources from an administrator through an user input [0074] executing the management agent as an overhead process at a different priority and at any level of a virtual computing system hierarchy and at any protection or priority level [0087-88]),** assign the provisioned virtual asset to the virtual asset provisioning request and provide user access to the provisioned virtual asset **(specify an unassigned resources may be grouped into a "pool" of unassigned resources via assign such assets and presented to an administrator or program as being available for assignment [0082-83]).**

Vasilevsky does not explicitly teach,
automatically provision a particular virtual asset to a particular physical resource in the virtualization system that matches the parameters in the virtual asset provisioning request.

Yan teaches automatically provision a particular virtual asset to a particular physical resource in the virtualization system that matches the parameters in the virtual asset provisioning request **(Yan: a management system includes a set of auto-deployment components that receives requirement update requests from a corresponding virtual operating environment and in response, automatically conduct resource allocation and service re-deployment to adjust behavior at runtime [0030] [0062] FIG.6)**

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified **Vasilevsky** by the teaching of **Yan** to have an automatic determination of a reallocation of the virtual assets in order to achieve an efficient virtualization management of network resources (**Yan: [0030] [0062] FIG.6**).

Regarding **claims 10-16**, each dependent claim are related to the same limitation set for hereinabove in **claims 2-8**, where the difference used is "**apparatus**" and the wordings of the claims were interchanged within the claim itself and some of the claims were presented as a combination of two or more previously presented claims. **This change does not affect the limitation of the above treated claims.** Adding these phrases to the claims and interchanging the wording did not introduce new limitations to these claims. **Therefore these claims were rejected for similar reasons as stated above.**

Conclusion

8. When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111 (c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDELNABI O MUSA whose telephone number is (571)270-1901, and email address is abdelnabi.musa@uspto.gov 'preferred'. The examiner can normally be reached on M-F 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou, Hassan can be reached on 571-2723088. 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.

/ABDELNABI O MUSA/
Primary Examiner, Art Unit 2472



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/201,087	07/01/2016	Vipul Pabari	367894-991101	1450

26379 7590 12/21/2017
DLA PIPER LLP (US)
2000 UNIVERSITY AVENUE
EAST PALO ALTO, CA 94303-2248

EXAMINER

MUSA, ABDELNABI O

ART UNIT	PAPER NUMBER
----------	--------------

2472

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

12/21/2017

ELECTRONIC

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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PatentDocketingUS-PaloAlto@dlapiper.com

Office Action Summary	Application No. 15/201,087	Applicant(s) PABARI, VIPUL	
	Examiner ABDELNABI O. MUSA	Art Unit 2472	AIA (First Inventor to File) Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/02/2017.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ 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.
- 4) ☐ 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*

- 5) ☒ Claim(s) 1-16 is/are pending in the application.
5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) _____ is/are allowed.
- 7) ☒ Claim(s) 1-16 is/are rejected.
- 8) ☐ Claim(s) _____ is/are objected to.
- 9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 07/01/2016 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).

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- 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)).

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

Attachment(s)

- | | |
|---|---|
| 1) ☐ Notice of References Cited (PTO-892) | 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date _____ | 4) ☐ Other: _____ |

1. The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

2. Acknowledgment is made for the applicant's response and amendment filed on 10/02/2017.

Remarks

3. The claims are presented as follows:

- Claim 9 is amended.
- Claims 1-16 are pending.

Response to Amendment

4. Applicant's arguments filed 10/02/2017 have been fully considered but they are not persuasive. The amendment submitted by the applicant does not overcome the rejection made by the examiner in the last office action. The applicant's argument has been considered carefully and does not provide the evidence for lack of motivation.

• Applicant Argument-1

Applicant recites that the references do not disclose, teach or suggest:

"providing a virtualization system that has an inventory that includes physical resources and virtual assets managed by a virtualization layer running on the physical resources; wherein virtual assets are software instantiations of computer systems."

• Examiner Response to Argument-1

Vasilevsky teaches a virtual management system (**Vasilevsky: 101-FIG.1**) a virtualization layer is provided that allows operating systems (OSs) and their applications to be executed on a virtual server that spans more than one physical node

Art Unit: 2472

to manage resources (**Vasilevsky: [0009]**) resources may be managed without changes at the application or operating system interface levels (**Vasilevsky: [0009-10]**). FIG.1 shows a management system that is used to execute one or more data center applications, a virtualization layer 104 isolating the operating system layer 103 and the hardware layer 105, which are in communication with application layer 102, such applications may be server application, web-based application, or other application that provides resources to other systems. Such applications communicate directly with virtualization layer 104 or may communicate indirectly through operating system layer 103. Virtualization layer 104 maps functions performed by one or more virtual processors to functions performed by one or more physical entities (physical nodes) in the hardware layer 105 (**Vasilevsky: [0058]**) Virtualization layer 104 presents to layers 102 and 103 a single system in the form of a virtual server, where a single instance of OS is executed by the virtual server (**Vasilevsky: [0059]**) The physical nodes communicate with each other to share access to resources within the hardware layer 105 (**Vasilevsky: [0060]**) which allows for an expansion (or a contraction) of resources used by executing the virtual computing system for the purpose of performing configuration changes, monitoring performance, and performing other administrative functions associated with system 100 (**Vasilevsky: [0070]**) Therefore Vasilevsky teaches providing a virtualization system that has an inventory that includes physical resources and virtual assets managed by a virtualization layer running on the physical resources; wherein virtual assets are software instantiations of computer systems.

- **Argument-2**

Applicant argument with respect to claim 9 have been fully considered. Examiner mapped the claim language in light of the new amendment. The newly added computer device with a processor and memory are taught in **Vasilevsky** reference as cited in the office action in claim 9 below, for applicant's connivance, see claim 9 as mapped.

- **Argument-3**

Applicant's arguments with respect to the rejection made under 35 U.S.C. 112 have been fully considered and are persuasive in light of the amendment made to the claims. Therefore, the 35 U.S.C. 112 rejection has been withdrawn.

Double Patenting

5. 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 double patenting rejection is appropriate where the claims at issue 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 reference 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. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit <http://www.uspto.gov/forms/>. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled

Art Unit: 2472

out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to <http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp>.

Claims 1-16 are rejected on the ground of nonstatutory double patenting over **claims 1-24** of **U.S. Patent No. 8,799,431 B2** since the claims, if allowed, would improperly extend the “right to exclude” already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

The dependent claims in the instant application contain similar limitations contained in the dependent claims in the patented application.

Although the conflicting claims are not identical, they are not patentably distinct from each other. The instant application claims a limitations that are present in the patented application. It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified the instant application by the teaching of the patented application.

This is a Non-statuary obviousness type double patenting rejection because the conflicting claims have in fact been patented.

Claims 1-16 are rejected on the ground of nonstatutory double patenting over **claims 1-24** of **U.S. Patent No. 9,444,762 B2** since the claims, if allowed, would improperly extend the “right to exclude” already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

The dependent claims in the instant application contain similar limitations contained in the dependent claims in the patented application.

Although the conflicting claims are not identical, they are not patentably distinct from each other. The instant application claims a limitations that are present in the patented application. It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified the instant application by the teaching of the patented application.

This is a Non-statuary obviousness type double patenting rejection because the conflicting claims have in fact been patented.

Claim Rejections - 35 USC § 103

6. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Vasilevsky et al. Pub. No (US. 2005/0044301 A1)** in view of **Yan et al. Pub. No. (US 2003/0236882 A1)**.

Regarding **claim 1**, **Vasilevsky** teaches a method for on demand provisioning of virtual asset via a self-service portal in a virtualization system, the method comprising:

providing a virtualization system (**virtualization environment 100 FIG.1 [0058]**) that has an inventory that includes physical resources (**data center provides resources [0058] FIG.1**) and virtual assets (**and operating system layer 103 FIG.1**) managed by a virtualization layer (**virtualization layer 104 FIG.1 [0058]**) running on the physical resources; wherein virtual assets are software instantiations of computer systems (**the virtualization layer managing the execution of the operating system**

[0017] [0042] Manager 212 connected to the virtual computing system 201 over a network that communicates with a management agent executed by one or more virtual servers of system 201 for the purpose of performing configuration changes, monitoring performance, and performing other administrative functions associated with system 201 [0070-71] FIG.2));

receiving a virtual asset provisioning request that specifies parameters to be considered for the virtual asset provisioning request **(receive a request to allocate and/or de-allocate resources from an administrator through an user input [0074] executing the management agent as an overhead process at a different priority and at any level of a virtual computing system hierarchy and at any protection or priority level [0087] [0112-114]);**

receiving data on inventory available in the virtualization system **(allocate and/or de-allocate resources from an administrator through an user input [0074] executing the management agent as an overhead process at a different priority and at any level of a virtual computing system hierarchy and at any protection or priority level [0087-88]);**

assigning the provisioned virtual asset to the virtual asset provisioning request **(specify an unassigned resources may be grouped into a "pool" of unassigned resources via assign such assets and presented to an administrator or program as being available for assignment [0082-83]); and**

providing user access to the provisioned virtual asset **(providing the virtual assets to allocate and/or de-allocate resources from an administrator through an interface (e.g., a CLI, or GUI or a programmatic interface' [0074-75])**.

Vasilevsky does not explicitly teach,

automatically provisioning of a particular virtual asset to a particular physical resource in the virtualization system that matches the parameters in the virtual asset provisioning request.

Yan teaches automatically provisioning of a particular virtual asset to a particular physical resource in the virtualization system that matches the parameters in the virtual asset provisioning request **(Yan: a management system includes a set of auto-deployment components that receives requirement update requests from a corresponding virtual operating environment and in response, automatically conduct resource allocation and service re-deployment to adjust behavior at runtime [0030] [0062] FIG.6)**

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified **Vasilevsky** by the teaching of **Yan** to have an automatic determination of a reallocation of the virtual assets in order to achieve an efficient virtualization management of network resources **(Yan: [0030] [0062] FIG.6)**.

Regarding **claim 2**, **Vasilevsky** teaches the method of claim 1 further comprising determining one or more performance metrics of the provisioned virtual asset **(a virtual**

Art Unit: 2472

computing system is provided that allows a network administrator to provision computing resources in real-time ("on-the-fly") without a restart of a virtual computing system [0076-77]).

Regarding **claim 3, Vasilevsky** teaches the method of claim 1 further comprising providing a user interface for submitting the virtual asset provisioning request **(a capability is provided to allocate and/or de-allocate resources from an administrator through an interface (e.g., a CLI, or GUI or a programmatic interface' for the user [0074-75])).**

Regarding **claim 4, Vasilevsky** teaches the method of claim 3, wherein providing the user interface further comprises providing a user interface to access one or more images in a virtual asset image repository **(the management agent may be responsible for a number of tasks, including alarm propagation and alert messages [0086-88 [0157])).**

Regarding **claim 5, Vasilevsky** teaches the method of claim 2, wherein determining the one or more performance metrics further comprises determining one or more real time performance metrics **(a virtual computing system is provided that allows a network administrator to provision computing resources in real-time ("on-the-fly") without a restart of a virtual computing system [0076-77])).**

Regarding **claim 6, Vasilevsky** teaches the method of claim 1, wherein the inventory further comprises one or more application programs **(resources include processing, memory, networking, storage, etc. to a virtual computing system including application programs provide control to an administrator through an GUI interface or to other programs [0074-75])**.

Regarding **claim 7, Vasilevsky** teaches the method of claim 6, wherein one of the application programs comprises one of a network load balancer, a router, a firewall and a storage server **(the virtual computing system may be scaled up/scaled down as necessary by the distributed server e.g., a load balancer [0072])**.

Regarding **claim 8, Vasilevsky** teaches the method of claim 6, wherein one of the application programs comprises a network server **(resources may be allocated or de-allocated by a distributed server [0072])**.

Regarding **claim 9, Vasilevsky** teaches an apparatus that performs automatic management of a virtualization environment in a computer network comprising:

a virtualization environment **(virtualization environment 100 FIG.1 [0058])** having a computer device with a processor and memory and a control center computer coupled to the computer device **(Virtualization layer 104 in turn maps functions performed by one or more virtual processors to functions performed by one or more physical entities in hardware layer 105 [0058-59])**, the virtualization

Art Unit: 2472

environment having an inventory that includes network resources **(data center provides resources [0058] FIG.1)** and virtual assets **(and operating system layer 103 FIG.1)** being software instantiations of computer systems hosted on the computer device and a virtualization layer **(virtualization layer 104 FIG.1 [0058])** executed by the computer device that manages the virtual assets **(the virtualization layer managing the execution of the operating system [0017] [0042] Manager 212 connected to the virtual computing system 201 over a network that communicates with a management agent executed by one or more virtual servers of system 201 for the purpose of performing configuration changes, monitoring performance, and performing other administrative functions associated with system 201 [0070-71] FIG.2);**

the control center computer executing a virtual mapping layer that determines an inventory of network resources and virtual assets available to the virtualization environment **(specify an unassigned resources may be grouped into a "pool" of unassigned resources via assign such assets and presented to an administrator or program as being available for assignment [0082-83])**, wherein the virtual mapping layer determines the inventory without regard to processors, operating systems, virtualization platforms, and application software of the virtualization environment **(a virtual computing system 101 contains processors, operating systems, virtualization platforms, and application software of the virtualization environment [0058-59] FIG.1);** and

the control center computer executing a provisioning manager that communicates with the virtual mapping layer, the processor being configured to receive a virtual asset provisioning request that specifies parameters to be considered for the virtual asset provisioning request **(receive a request to allocate and/or de-allocate resources from an administrator through an user input [0074] executing the management agent as an overhead process at a different priority and at any level of a virtual computing system hierarchy and at any protection or priority level [0087] [0112-114]), (allocate and/or de-allocate resources from an administrator through an user input [0074] executing the management agent as an overhead process at a different priority and at any level of a virtual computing system hierarchy and at any protection or priority level [0087-88]),** assign the provisioned virtual asset to the virtual asset provisioning request and provide user access to the provisioned virtual asset **(specify an unassigned resources may be grouped into a "pool" of unassigned resources via assign such assets and presented to an administrator or program as being available for assignment [0082-83]).**

Vasilevsky does not explicitly teach,

automatically provision a particular virtual asset to a particular physical resource in the virtualization system that matches the parameters in the virtual asset provisioning request.

Yan teaches automatically provision a particular virtual asset to a particular physical resource in the virtualization system that matches the parameters in the virtual asset provisioning request **(Yan: a management system includes a set of auto-**

Art Unit: 2472

deployment components that receives requirement update requests from a corresponding virtual operating environment and in response, automatically conduct resource allocation and service re-deployment to adjust behavior at runtime [0030] [0062] FIG.6)

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified **Vasilevsky** by the teaching of **Yan** to have an automatic determination of a reallocation of the virtual assets in order to achieve an efficient virtualization management of network resources (**Yan**: [0030] [0062] FIG.6).

Regarding **claims 10-16**, each dependent claim are related to the same limitation set for hereinabove in **claims 2-8**, where the difference used is “**apparatus**” and the wordings of the claims were interchanged within the claim itself and some of the claims were presented as a combination of two or more previously presented claims. **This change does not affect the limitation of the above treated claims.** Adding these phrases to the claims and interchanging the wording did not introduce new limitations to these claims. **Therefore these claims were rejected for similar reasons as stated above.**

Conclusion

7. **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action

When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelnabi O. Musa whose telephone number is 571-2701901, and email address is abdelnabi.musa@uspto.gov 'preferred'. The examiner can normally be reached on Monday thru Friday: 7:30am to 5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou, Hassan, can be reached on 571-2723088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2472

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.

/ABDELNABI O. MUSA/

Primary Examiner, Art Unit 2472



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/201,087	07/01/2016	Vipul Pabari	367894-991101	1450

26379 7590 04/04/2017
DLA PIPER LLP (US)
2000 UNIVERSITY AVENUE
EAST PALO ALTO, CA 94303-2248

EXAMINER

MUSA, ABDELNABI O

ART UNIT	PAPER NUMBER
----------	--------------

2472

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

04/04/2017

ELECTRONIC

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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PatentDocketingUS-PaloAlto@dlapiper.com

Office Action Summary	Application No. 15/201,087	Applicant(s) PABARI, VIPUL	
	Examiner ABDELNABI O. MUSA	Art Unit 2472	AIA (First Inventor to File) Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/01/2016.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ 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.
- 4) ☐ 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*

- 5) ☒ Claim(s) 1-16 is/are pending in the application.
5a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) _____ is/are allowed.
- 7) ☒ Claim(s) 1-16 is/are rejected.
- 8) ☐ Claim(s) _____ is/are objected to.
- 9) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 07/01/2016 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).

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- 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)).

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

Attachment(s)

- | | |
|--|---|
| 1) ☒ Notice of References Cited (PTO-892) | 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)
Paper No(s)/Mail Date <u>07/01/2016</u> | 4) ☐ Other: _____ |

1. The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

2. This action is responsive to the application filed on 07/01/2016 has a total of 16 claims pending in the application; there are 2 independent claims and 14 dependent claims, all of which are ready for examination by the examiner.

Double Patenting

3. 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 double patenting rejection is appropriate where the claims at issue 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 reference 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. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit <http://www.uspto.gov/forms/>. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to <http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp>.

Claims 1-16 are rejected on the ground of nonstatutory double patenting over **claims 1-24** of **U.S. Patent No. 8,799,431 B2** since the claims, if allowed, would improperly extend the “right to exclude” already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

The dependent claims in the instant application contain similar limitations contained in the dependent claims in the patented application.

Although the conflicting claims are not identical, they are not patentably distinct from each other. The instant application claims a limitations that are present in the patented application. It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified the instant application by the teaching of the patented application.

This is a Non-statuary obviousness type double patenting rejection because the conflicting claims have in fact been patented.

Claims 1-16 are rejected on the ground of nonstatutory double patenting over **claims 1-24** of **U.S. Patent No. 9,444,762 B2** since the claims, if allowed, would improperly extend the “right to exclude” already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

The dependent claims in the instant application contain similar limitations contained in the dependent claims in the patented application.

Although the conflicting claims are not identical, they are not patentably distinct from each other. The instant application claims a limitations that are present in the patented application. It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified the instant application by the teaching of the patented application.

This is a Non-statuary obviousness type double patenting rejection because the conflicting claims have in fact been patented.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2472

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 9-16, the following limitations are recited:

- “a virtual **environment** ...” as recited in claim 9.
- “a virtual mapping **layer** ...” as recited in claim 9.
- “a provisioning **manger**...” as recited in claim 9.

Dependent claims 10-16 are also rejected since they are depended upon rejection claims set forth above.

The limitations noted immediately above are means-plus-function limitations that invoke 35 U.S.C. 112, sixth paragraph. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function.

Applicant is required to:

(a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or

(b) Amend the written description of the specification such that it expressly recites what structure, material, or acts perform the claimed function without introducing any new matter (35 U.S.C. 132(a)).

If applicant is of the opinion that the written description of the specification already implicitly or inherently discloses the corresponding structure, material, or acts so that one of ordinary skill in the art would recognize what structure, material, or acts

Art Unit: 2472

perform the claimed function, applicant is required to clarify the record by amending the written description of the specification such that it expressly recites the corresponding structure, material, or acts for performing the claimed function and clearly links or associates the structure, material, or acts to the claimed function, without introducing any new matter (35 U.S.C. 132(a)).

Claim Rejections - 35 USC § 103

5. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over **Vasilevsky et al. Pub. No (US. 2005/0044301 A1)** in view of **Yan et al. Pub. No. (US 2003/0236882 A1)**.

Regarding **claim 1**, **Vasilevsky** teaches a method for on demand provisioning of virtual asset via a self-service portal in a virtualization system, the method comprising:

providing a virtualization system (**virtualization environment 100 FIG.1 [0058]**) that has an inventory that includes physical resources (**data center provides resources [0058] FIG.1**) and virtual assets (**and operating system layer 103 FIG.1**) managed by a virtualization layer (**virtualization layer 104 FIG.1 [0058]**) running on the physical resources; wherein virtual assets are software instantiations of computer systems (**the virtualization layer managing the execution of the operating system [0017] [0042] Manager 212 connected to the virtual computing system 201 over a network that communicates with a management agent executed by one or more virtual servers of system 201 for the purpose of performing configuration changes, monitoring performance, and performing other administrative functions associated with system 201 [0070-71] FIG.2**));

receiving a virtual asset provisioning request that specifies parameters to be considered for the virtual asset provisioning request (**receive a request to allocate and/or de-allocate resources from an administrator through an user input [0074] executing the management agent as an overhead process at a different priority and at any level of a virtual computing system hierarchy and at any protection or priority level [0087] [0112-114]**);

receiving data on inventory available in the virtualization system (**allocate and/or de-allocate resources from an administrator through an user input [0074] executing the management agent as an overhead process at a different priority and at any level of a virtual computing system hierarchy and at any protection or priority level [0087-88]**);

assigning the provisioned virtual asset to the virtual asset provisioning request **(specify an unassigned resources may be grouped into a "pool" of unassigned resources via assign such assets and presented to an administrator or program as being available for assignment [0082-83]).;** and

providing user access to the provisioned virtual asset **(providing the virtual assets to allocate and/or de-allocate resources from an administrator through an interface (e.g., a CLI, or GUI or a programmatic interface' [0074-75]).**

Vasilevsky does not explicitly teach,

automatically provisioning of a particular virtual asset to a particular physical resource in the virtualization system that matches the parameters in the virtual asset provisioning request.

Yan teaches automatically provisioning of a particular virtual asset to a particular physical resource in the virtualization system that matches the parameters in the virtual asset provisioning request **(Yan: a management system includes a set of auto-deployment components that receives requirement update requests from a corresponding virtual operating environment and in response, automatically conduct resource allocation and service re-deployment to adjust behavior at runtime [0030] [0062] FIG.6)**

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified **Vasilevsky** by the teaching of **Yan** to have an automatic determination of a reallocation of the virtual assets in order to

Art Unit: 2472

achieve an efficient virtualization management of network resources (Yan: [0030] [0062] FIG.6).

Regarding **claim 2, Vasilevsky** teaches the method of claim 1 further comprising determining one or more performance metrics of the provisioned virtual asset **(a virtual computing system is provided that allows a network administrator to provision computing resources in real-time ("on-the-fly") without a restart of a virtual computing system [0076-77])**.

Regarding **claim 3, Vasilevsky** teaches the method of claim 1 further comprising providing a user interface for submitting the virtual asset provisioning request **(a capability is provided to allocate and/or de-allocate resources from an administrator through an interface (e.g., a CLI, or GUI or a programmatic interface' for the user [0074-75])**.

Regarding **claim 4, Vasilevsky** teaches the method of claim 3, wherein providing the user interface further comprises providing a user interface to access one or more images in a virtual asset image repository **(the management agent may be responsible for a number of tasks, including alarm propagation and alert messages [0086-88 [0157])**.

Regarding **claim 5**, **Vasilevsky** teaches the method of claim 2, wherein determining the one or more performance metrics further comprises determining one or more real time performance metrics **(a virtual computing system is provided that allows a network administrator to provision computing resources in real-time ("on-the-fly") without a restart of a virtual computing system [0076-77])**.

Regarding **claim 6**, **Vasilevsky** teaches the method of claim 1, wherein the inventory further comprises one or more application programs **(resources include processing, memory, networking, storage, etc. to a virtual computing system including application programs provide control to an administrator through an GUI interface or to other programs [0074-75])**.

Regarding **claim 7**, **Vasilevsky** teaches the method of claim 6, wherein one of the application programs comprises one of a network load balancer, a router, a firewall and a storage server **(the virtual computing system may be scaled up/scaled down as necessary by the distributed server e.g., a load balancer [0072])**.

Regarding **claim 8**, **Vasilevsky** teaches the method of claim 6, wherein one of the application programs comprises a network server **(resources may be allocated or de-allocated by a distributed server [0072])**.

Regarding **claims 9-16**, the independent claim and each dependent claim are related to the same limitation set for hereinabove in **claims 1-8**, where the difference used is **"apparatus"** and the wordings of the claims were interchanged within the claim itself and some of the claims were presented as a combination of two or more previously presented claims. **This change does not affect the limitation of the above treated claims.** Adding these phrases to the claims and interchanging the wording did not introduce new limitations to these claims. **Therefore these claims were rejected for similar reasons as stated above.**

Conclusion

6. When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelnabi O. Musa whose telephone number is 571-2701901, and email address is abdelnabi.musa@uspto.gov 'preferred'. The examiner can normally be reached on Monday thru Friday: 7:30am to 5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou, Hassan, can be reached on 571-2723088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2472

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.

/Abdelnabi O Musa/

Primary Examiner, Art Unit 2472