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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
61/381,162	09/09/2010		220	RALEP033+		

CONFIRMATION NO. 4610

21912
VAN PELT, YI & JAMES LLP
10050 N. FOOTHILL BLVD #200
CUPERTINO, CA 95014

FILING RECEIPT



OC000000043707821

Date Mailed: 09/30/2010

Receipt is acknowledged of this provisional patent application. It will not be examined for patentability and will become abandoned not later than twelve months after its filing date. 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)

Gregory G. Raleigh, Woodside, CA;

Power of Attorney:

Michael Schallop--44319

If Required, Foreign Filing License Granted: 09/24/2010

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 61/381,162**

Projected Publication Date: None, application is not eligible for pre-grant publication

Non-Publication Request: No

Early Publication Request: No

Title

SERVICE CONTROLLER INTERFACES AND WORKFLOWS

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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

page 1 of 3

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.

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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Doc Code: **TR.PROV**

Document Description: Provisional Cover Sheet (SB16)

PTO/SB/16 (04-07)

Approved for use through 06/30/2010 OMB 0851-0032

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

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Provisional Application for Patent Cover Sheet

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c)

Inventor(s)

Inventor 1

Remove

Given Name	Middle Name	Family Name	City	State	Country i
Gregory	G.	Raleigh	Woodside	CA	US

All Inventors Must Be Listed – Additional Inventor Information blocks may be generated within this form by selecting the **Add** button.

Add

Title of Invention	SERVICE CONTROLLER INTERFACES AND WORKFLOWS
Attorney Docket Number (if applicable)	RALEP033+

Correspondence Address

Direct all correspondence to (select one):

☒ The address corresponding to Customer Number ☐ Firm or Individual Name

Customer Number 21912

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

☒ No.

☐ Yes, the name of the U.S. Government agency and the Government contract number are:

Entity Status

Applicant claims small entity status under 37 CFR 1.27

☐ Yes, applicant qualifies for small entity status under 37 CFR 1.27☒ No**Warning**

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Signature

Please see 37 CFR 1.4(d) for the form of the signature.

Signature	/Michael J. Schallop/			Date (YYYY-MM-DD)	2010-09-07
First Name	Michael	Last Name	Schallop	Registration Number (If appropriate)	44319

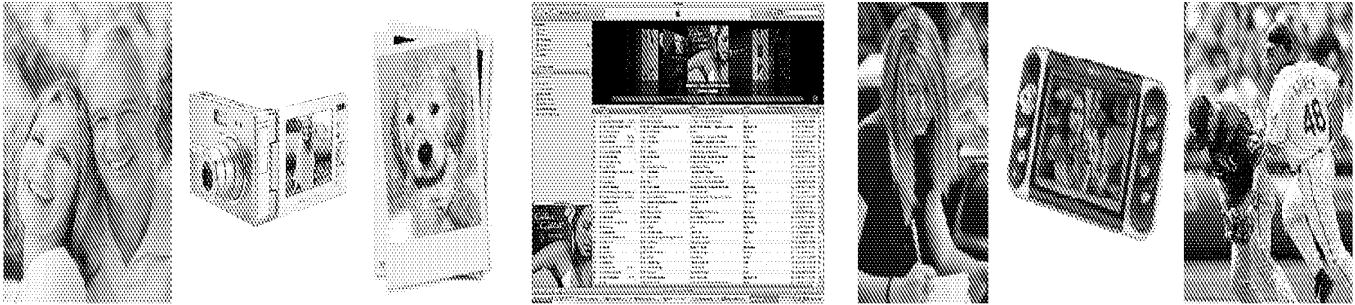
This collection of information is required by 37 CFR 1.51. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 8 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. **This form can only be used when in conjunction with EFS-Web. If this form is mailed to the USPTO, it may cause delays in handling the provisional application.**

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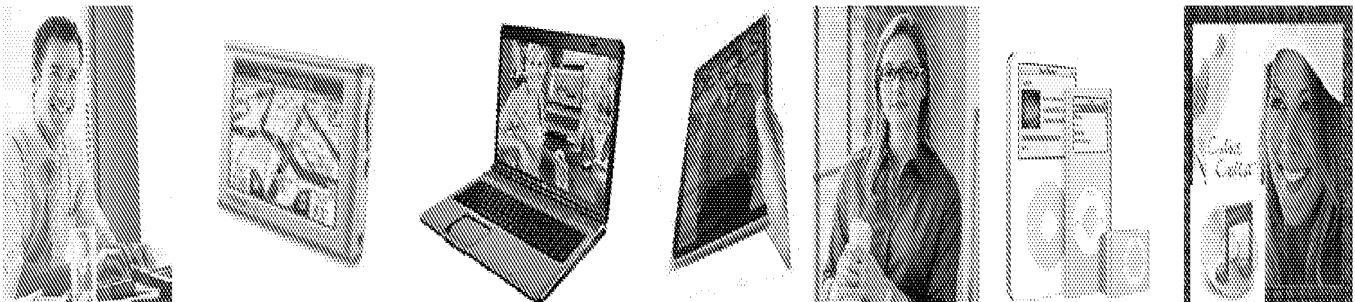
The information provided by you in this form will be subject to the following routine uses:

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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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 a n other 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.

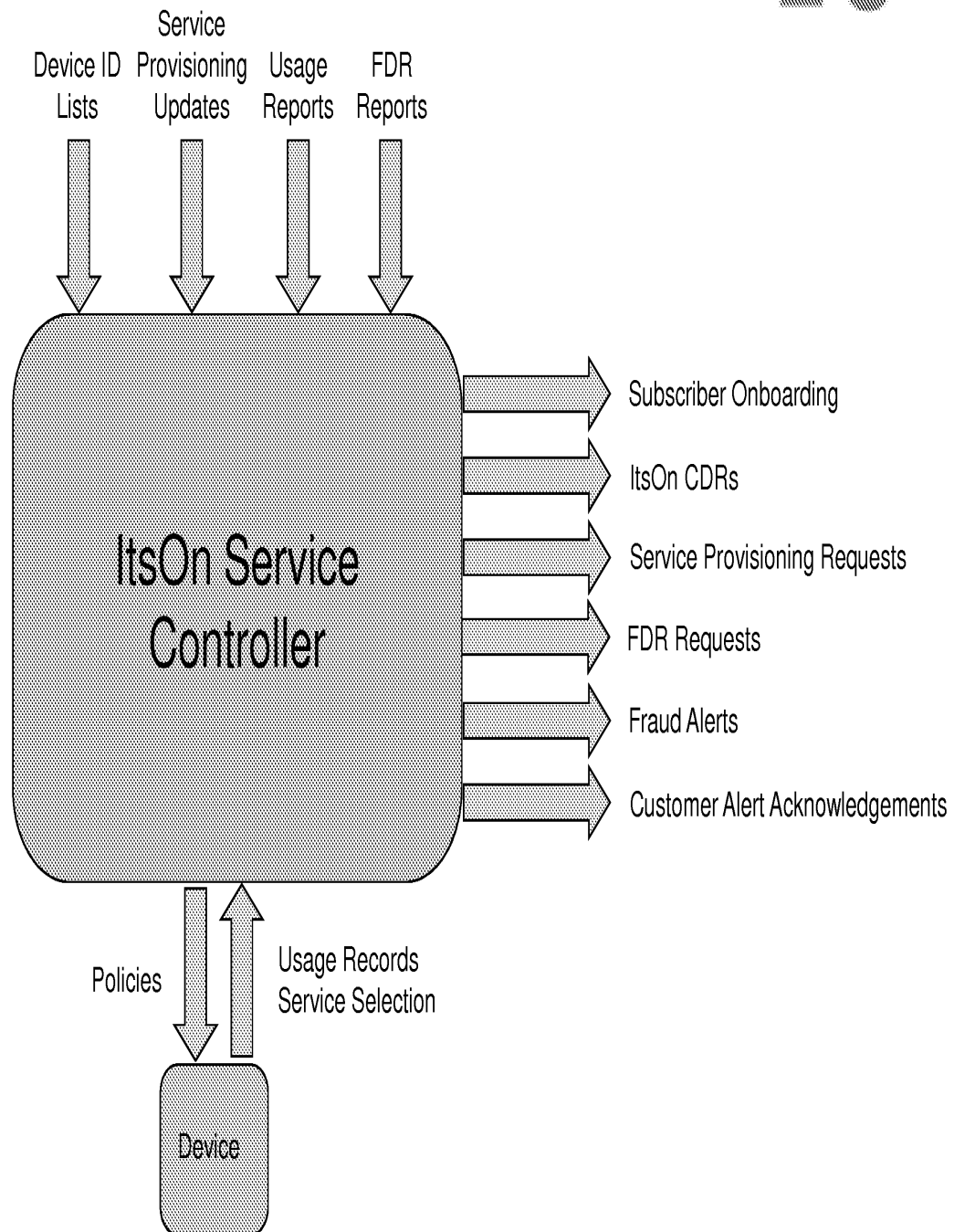
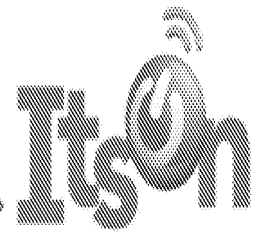


Service Controller Interfaces and Workflows

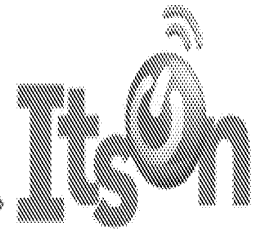
August 31, 2010



High Level Overview

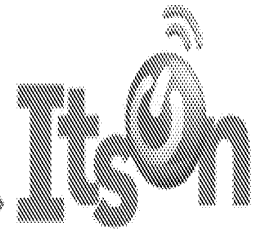


Device List Interface



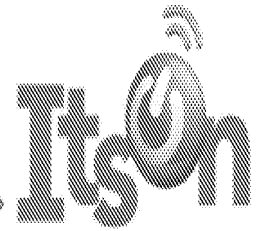
- Purpose: Provide ItsOn Service Controller with device ID and credentials of devices that are ItsOn-enabled. Devices are loaded to the ItsOn Service Controller and associated with the appropriate Device Group. Devices must be loaded to the ItsOn Service Controller prior to the end-user attempting to use the ItsOn Service Processor/Client on the device.
- Interface Strategy: Batch
- Protocol: FTP
- Format: Fixed length records
- Data Elements:
 - IMSI/MSID
 - MDN
 - MEID
 - Device Group

Service Provisioning Update Interface



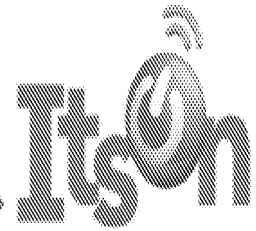
- Purpose: Provide ItsOn Service Controller with updated service plan selections for a device. Service Provisioning Updates are sent only for ItsOn-enabled devices.
- Interface Strategy: Single device
- Protocol: Web service
- Format: XML (via MTAS?)
- Data Elements:
 - IMSI/MSID
 - MDN
 - MEID
 - Service plan selection information
 - Service plan/charging code(s)
 - Plan start/end date/time(s)

Network Usage Report Interface



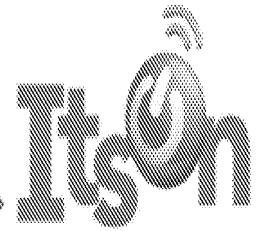
- Purpose: Provide ItsOn Service Controller with data usage information for a device. Network Usage Reports are sent only for ItsOn-enabled devices.
- Interface Strategy: Single device
- Protocol: Web service
- Format: XML (via RTS/CCES?)
- Data Elements:
 - IMSI/MSID
 - MDN
 - MEID
 - Usage report start time
 - Usage report end time
 - MO bytes used
 - MT bytes used
 - Service plan/charging code
 - Percentage of plan used

FDR Report Interface



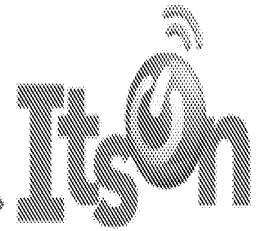
- Purpose: Provide ItsOn Service Controller with detailed data usage information for a device, based on a prior FDR Report request initiated by the ItsOn Service Controller
- Interface Strategy: Single device
- Protocol: Web service
- Format: XML
- Data Elements:
 - IMSI/MSID
 - MDN
 - MEID
 - Usage report start time
 - Usage report end time
 - Usage data []
 - Remote IP address
 - Remote port
 - MO bytes used
 - MT bytes used

Subscriber Onboarding Interface



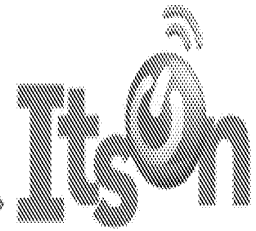
- Purpose: Provide carrier systems with initial subscriber, billing, device and service selection information
- Interface Strategy: Single device
- Protocol: Web service
- Format: XML
- Data Elements:
 - Device data (MEID, IMSI, etc.)
 - Subscriber data (name, address, etc.)
 - Billing data (credit card info, billing address, etc.)
 - Selected service plan(s)/charging code(s)
 - Acceptance of T&C

ItsOn CDR Interface



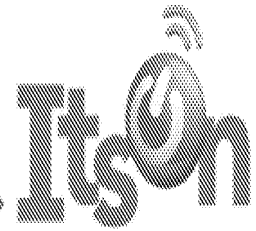
- Purpose: Provide carrier systems with detailed device usage information
- Interface Strategy: Single device
- Protocol: Web service
- Format: XML
- Data Elements:
 - MEID
 - IMSI/MSID
 - MDN
 - Start Time
 - End Time
 - Usage Data[]
 - Service plan/charging code
 - MO bytes used
 - MT bytes used

Service Provisioning Request Interface



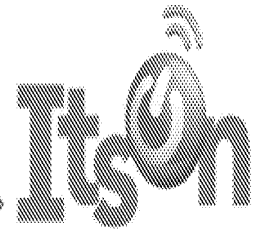
- Purpose: Provide carrier systems with subscriber service selection information
- Interface Strategy: Single device
- Protocol: Web service
- Format: XML (via SPG?)
- Data Elements:
 - MEID
 - IMSI/MSID
 - MDN
 - Selected service plan(s)/charging code(s)
 - T&C Acceptance

FDR Request Interface



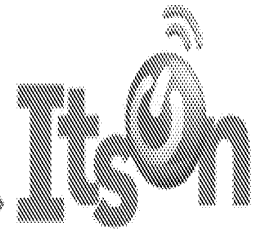
- Purpose: Request FDRs for a specific device for a specific period of time
- Interface Strategy: Single device
- Protocol: Web service
- Format: XML
- Data Elements:
 - MEID
 - IMSI/MSID
 - MDN
 - Start time
 - End time

Fraud Alert Interface



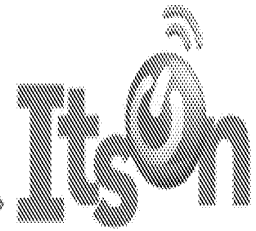
- Purpose: Notify carrier systems of potential fraud detection
- Interface Strategy: Single device
- Protocol: Web service
- Format: XML
- Data Elements:
 - MEID
 - IMSI/MSID
 - MDN
 - Fraud start time
 - Fraud end time
 - Affected service plan/charging code
 - Fraud Reason Code (e.g., no device report, count mismatch, etc.)

Customer Acknowledgement Interface



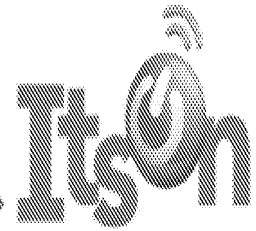
- Purpose: Notify carrier systems of end-user selecting “Acknowledge” on notifications that have an “Acknowledge” option specified
- Interface Strategy: Single device
- Protocol: Web service
- Format: XML
- Data Elements:
 - MEID
 - IMSI/MSID
 - MDN
 - Acknowledge time
 - Acknowledge event (e.g., allow overage)
 - Acknowledge service plan/charging code(e.g., 50 MB browsing plan)

Service Selection/Provisioning Workflow



- Purpose: Enable the end-user to purchase service on the device
- Process:
 - End-user selects service(s) for purchase on the device
 - ItsOn Service Processor (SP) sends service selection(s) to ItsOn Service Controller (SC)
 - ItsOn SC sends message over Service Provisioning Request Interface
 - ItsOn SC receives update on Service Provisioning Update Interface
 - ItsOn SC generates a policy set for the ItsOn SP
 - ItsOn SC sends the policy set to the ItsOn SP
 - ItsOn SP applies policy set to the device

Usage Verification Workflow



- Purpose: Validate ItsOn device data usage reports with carrier usage reports
- Process:
 - ItsOn SP sends periodic usage updates to the ItsOn SC
 - Carrier usage reporting system sends device usage report to ItsOn SC
 - For the time period specified in the carrier usage report, the ItsOn SC performs validation of ItsOn SP records vs. policy limits, usage metrics, etc. If an error is detected:
 - ItsOn SC requests FDR data for the time period specified in the carrier usage report
 - ItsOn SC sets the "potential fraud" indicator for this device and time period
 - For the time period specified in the carrier usage report, ItsOn SC compares aggregated usage counts in the carrier usage report vs. ItsOn SP usage reports. If an error is detected:
 - ItsOn SC requests FDR data for the time period specified in the carrier usage report
 - ItsOn SC sets the "potential fraud" indicator for this device and time period
 - If the "potential fraud" indicator is not set, ItsOn SC generates ItsOn CDR records (with detailed charging codes) for the device usage for the time period specified in the carrier usage record and sends the CDRs to the carrier via the ItsOn CDR Interface.
 - If the "potential fraud" indicator is set:
 - ItsOn SC waits for the FDRs report for the device
 - When the FDR report is received, ItsOn SC performs validation of device usage reports vs. FDR usage reports. If the counts do not agree, ItsOn SC sends a Fraud Alert message via the Fraud Alert interface
 - If the counts agree, ItsOn SC generates ItsOn CDR records (with detailed charging codes) for the device usage for the time period specified in the carrier usage record and sends the CDRs to the carrier via the ItsOn CDR Interface.

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		SERVICE CONTROLLER INTERFACES AND WORKFLOWS		
First Named Inventor/Applicant Name:		Gregory G. Raleigh		
Filer:		Michael J. Schallop/Veronica Pula		
Attorney Docket Number:		RALEP033+		
Filed as Large Entity				
Provisional Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Provisional application filing	1005	1	220	220
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(\$)
Miscellaneous:				
Total in USD (\$)				220

Electronic Acknowledgement Receipt	
EFS ID:	8368165
Application Number:	61381162
International Application Number:	
Confirmation Number:	4610
Title of Invention:	SERVICE CONTROLLER INTERFACES AND WORKFLOWS
First Named Inventor/Applicant Name:	Gregory G. Raleigh
Customer Number:	21912
Filer:	Michael J. Schallop/Veronica Pula
Filer Authorized By:	Michael J. Schallop
Attorney Docket Number:	RALEP033+
Receipt Date:	09-SEP-2010
Filing Date:	
Time Stamp:	13:10:46
Application Type:	Provisional

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$220
RAM confirmation Number	9707
Deposit Account	500685
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 1.17 (Patent application and reexamination processing 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)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Provisional Cover Sheet (SB16)	RALEP033plus_Provisional_Coversheet_Efile.pdf	1000044	no	3
			3cf99e61aee18597b2753336da8f8af1f26416ae		
Warnings:					
Information:					
2	Specification	RALEP033plus_App.pdf	389156	no	14
			5b694232b7f5c5ab4f6c18f09df76aa4cdac6872		
Warnings:					
Information:					
3	Fee Worksheet (PTO-875)	fee-info.pdf	29403	no	2
			356168775c54f07baccae00fa9bbc4088505fee9		
Warnings:					
Information:					
Total Files Size (in bytes):			1418603		
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. <u>New Applications Under 35 U.S.C. 111</u> 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. <u>National Stage of an International Application under 35 U.S.C. 371</u> 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. <u>New International Application Filed with the USPTO as a Receiving Office</u> 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.					