



# FEATURE LIST



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**RESIDENTIAL SERVICES**



## RESIDENTIAL SERVICES

<b>PIN CHANGE</b>	Allows subscriber to alter the Personal Identification Number used to secure access to some services.
<b>SCREENING LIST EDITING</b>	Allows subscriber to manage the list of Directory Numbers to which a particular call treatment is applied.
<b>UNCONDITIONAL CALL FORWARDING</b>	Forwards all incoming calls to a different number.
<b>BUSY CALL FORWARDING</b>	Forwards incoming calls to a different number when the dialed number is busy.
<b>DELAYED CALL FORWARDING</b>	Forwards incoming calls to a different number if the call is not answered within a specified length of time or number of rings.
<b>UNAVAILABLE CALL FORWARDING</b>	Forwards incoming calls to a different number when the dialed number is unavailable, for example if the telephone is unplugged or has lost power.
<b>SELECTIVE CALL FORWARDING</b>	Forwards incoming calls from numbers selected by the subscriber.
<b>FIXED NUMBER VARIANT OF CALL FORWARDING</b>	Forwards incoming calls to a number that has been predetermined by the subscriber. Enables quick activation/de-activation without entering the destination number each time.
<b>BASIC LINE HUNTING</b>	Allows subscriber to specify a list of numbers for calls to be forwarded to. If the subscriber's line is busy when a call comes in, these numbers are called in sequence until one is not busy and can accept the call.
<b>SIMRING</b>	Allows subscriber to specify a list of numbers which are rung (in addition to his own number) whenever his line is called. Any of the numbers that are rung can answer the call.
<b>FIND ME FOLLOW ME</b>	Allows subscriber to specify a list of numbers that are rung whenever his line is called, and an order for those numbers. Each number is rung in order (and several numbers can be rung simultaneously) until one of them answers the call, or the list is exhausted.
<b>IVR ACCESS TO CALL FORWARDING</b>	Allows subscriber to change call forwarding settings from his own phone.
<b>REMOTE ACCESS TO CALL FORWARDING</b>	Allows subscriber to change call forwarding settings from any location (not just from his own phone).
<b>REMOTE CALL FORWARDING</b>	Allows subscriber to have a number provisioned on the Metaswitch NE, for which all incoming calls are forwarded to another number (typically off the switch). This service is typically used by businesses that want to have one or more numbers in a particular calling area even though they do not have service in this calling area.
<b>CALLING NUMBER DELIVERY</b>	Displays the number of the incoming caller before the subscriber answers the call.
<b>CALLING NUMBER DELIVERY BLOCKING/CALLER ID PRESENTATION RESTRICTION</b>	Specifies whether the subscriber's number is delivered to the called party by default. The subscriber can override this configuration on a call-by-call basis by dialing a code before dialing the number.
<b>CALLING NAME DELIVERY</b>	Displays the name of the incoming caller before the subscriber answers the call.
<b>CALLING NAME DELIVERY BLOCKING</b>	Calling name delivery may be blocked for each subscriber or on a call-by-call basis as for Calling Number Delivery.
<b>AUTOMATIC RECALL (AR)</b>	Allows subscriber to return the most recent incoming call.

<b>AUTOMATIC CALLBACK (AC)</b>	Automatically redials the last outgoing call made by a subscriber.
<b>AR ON BUSY / AC ON BUSY</b>	Allows user to be called back automatically when a busy subscriber to whom he attempted to return a call using AR or AC becomes free.
<b>CUSTOMER ORIGINATED TRACE</b>	Traces an offending incoming call immediately after it is received. The subscriber invokes the service by dialing a code, and the Service Provider traces the call and passes the originating number to the law enforcement agency handling the complaint.
<b>LAST CALLER ID ERASURE</b>	Allows user to erase the last caller ID held by the switch for privacy reasons.
<b>SELECTIVE CALL REJECTION</b>	Rejects calls from specified numbers.
<b>ANONYMOUS CALL REJECTION</b>	Automatically rejects all calls from callers who have withheld their number.
<b>DO NOT DISTURB</b>	Allows subscriber to block his line temporarily to prevent incoming calls.
<b>SELECTIVE CALL ACCEPTANCE</b>	Accepts calls from specified numbers when Do Not Disturb is enabled.
<b>PRIORITY CALL (DISTINCTIVE RINGING)</b>	Enables subscriber to have a distinctive ring tone for incoming calls from selected numbers. Also includes distinctive tones on Call Waiting for numbers selected for Priority Call.
<b>MESSAGE CENTER</b>	Forwards calls to an external voicemail service if they are unanswered or if the subscriber line is busy.
<b>MESSAGE WAITING INDICATION</b>	Provides an audible indication (stutter dial-tone) to the subscriber when there are voicemail messages waiting at an external voicemail service.
<b>VISUAL MESSAGE WAITING INDICATION</b>	Provides a visual indication to the subscriber when there are voicemail message waiting at an external voicemail service.
<b>REMINDER CALL</b>	Allows subscriber to schedule reminder calls, either once or at regular intervals (for example daily or weekly).
<b>REMINDER CALL CANCEL</b>	Allows subscriber to cancel scheduled reminder calls.
<b>THREE-WAY CALLING</b>	Allows subscriber to talk to two people in different locations at the same time.
<b>THREE-WAY CALLING RINGBACK</b>	If the subscriber hangs up after setting up the second leg of a three-way call, he receives an immediate ringback and is connected to the first party (still on hold).
<b>CALL TRANSFER</b>	Allows subscriber to transfer a call to another number.
<b>CALL HOLD</b>	Allows subscriber to put a call on hold in order to dial another number, and then switch between the two calls.
<b>CALL WAITING</b>	Informs the subscriber on a busy line that there is another incoming call.
<b>CALL WAITING WITH CALLER ID</b>	As for Call Waiting, but also displays the number and/or name of the new caller.
<b>HOME INTERCOM (REVERTIVE RING)</b>	Provides an intercom service for subscribers with extensions spread across a large site or building.
<b>OFF-PREMISES EXTENSION (OPX)</b>	A facility for making a second subscriber line act as if it is an extension to an existing line. When the main number is called, both that line and the OPX line ring. If both parties answer, they are bridged into the call.
<b>SPEED CALLING (1 DIGIT)</b>	Enables subscriber to call frequently used numbers by dialing a one digit short code.

<b>SPEED CALLING (2 DIGIT)</b>	Enables subscriber to call frequently used numbers by dialing a two digit short code.
<b>CALL BARRING (OUTGOING CALL BLOCKING)</b>	Enables subscriber to prevent access to specific types of numbers (for example international or premium-rate calls) from his line.
<b>MANDATORY ACCOUNT CODES</b>	Allows classes of outgoing calls (e.g. Long Distance) to require that an account code is entered. Typically used to allow call association with specific client accounts.
<b>MANDATORY VALIDATED ACCOUNT CODES</b>	Mandatory account codes can be validated against configured permitted values.
<b>HOT LINE</b>	Provides a preconfigured number that is called as soon as the phone goes off hook. This is typically used for providing a courtesy line such as, for example, a direct line to a local taxi firm at an airport. When the phone is taken off the hook, instead of receiving a dial tone, the line immediately dials the preconfigured number.
<b>WARM LINE</b>	Provides a preconfigured number that is called if no numbers are dialed during a configurable time limit (for example, fifteen seconds) after the phone goes off hook.
<b>TEEN LINE</b>	Allows up to 4 Directory Numbers to be assigned to a single subscriber access line. Distinctive ringing cadences are played on incoming calls depending on the called Directory Number. Each Teen Line number can optionally have separate settings for Call Forwarding etc.
<b>TOLL RESTRICTION</b>	Disallows long distance calls from a subscriber line.
<b>CODE RESTRICTION</b>	Allows calls to only a specific set of local area codes.
<b>LINE IDENTIFICATION</b>	Reads back the configured Directory Number for the line invoking this service.
<b>CALL JUMP</b>	Use star-codes to transfer incoming or outgoing calls to one of two pre-determined numbers (i.e. mobile).

**BUSINESS SERVICES**



## BUSINESS SERVICES (HOSTED IP PBX)

<b>BUSINESS GROUP</b>	Definition of a logical Hosted IP PBX group for each Hosted IP PBX customer. Each Business Group has separately configured options and dialing plan.
<b>BUSINESS GROUP LINE</b>	Allows subscriber line to be assigned to a particular Business Group.
<b>BUSINESS GROUP DIALING PLAN</b>	Customizable dialing plan per Business Group that encompasses abbreviated intra-Business Group calls, external calls and feature access codes. For example, some dialing plans require the subscriber press “9” for external calls; some assume “9”.
<b>CRITICAL INTERDIGIT TIMING</b>	Distinguishes potentially conflicting dial plan entries based on dial string length. This allows easier configuration of Business Group dialing codes that would otherwise conflict with, for example, the PSTN numbering plan.
<b>INTERCOM DIALING</b>	Permits dialing of intra-Business Group calls using dial codes of 1-7 digits (generally configured for 3 or 4 digits). The Business Group Dialing Plan may optionally allow access to non-Business Group lines using Intercom Dialing.
<b>SHORT CODES (FOR GROUP SPEED DIALING)</b>	Permits the use of short codes from 1-7 digits (generally configured for 3 or 4 digits) that are specific to the Business Group, which can be used to access external numbers or as substitutes for standard access codes.
<b>SPECIAL INTERCEPT ANNOUNCEMENTS</b>	Allows calls to or within a Business Group that are blocked, for example because the Business Group line dialed is currently not in service, to be directed to a specific announcement.
<b>BUSINESS GROUP DIRECT INWARD DIALING / BUSINESS GROUP DIRECT OUTWARD DIALING</b>	Business Group lines can make calls to or receive calls from the PSTN without the intervention of an attendant.
<b>BUSINESS GROUP AUTOMATICALLY IDENTIFIED OUTWARD DIALING</b>	Identifies in the AMA CDRs the Business Group line that made a call outside the Business Group.
<b>DISTINCTIVE RINGING INTERNAL / EXTERNAL</b>	Different ring cadences for calls to a Business Group line from within the Business Group vs. external calls from outside the Business Group.
<b>MANDATORY VALIDATED ACCOUNT CODES</b>	Allows use of account codes that can be entered as part of the Business Group dialing plan. These account codes are recorded in the AMA CDRs and are validated against the list of codes configured by the Business Group administrator.
<b>CALL PARK</b>	Allows user of a Business Group line to put a call on hold so that it can be retrieved at any other Business Group line within the group.
<b>CALL PICKUP</b>	Allows call to a Business Group line within a preconfigured call pickup group to be answered at any other Business Group line within the call pickup group by dialing a feature code.
<b>DIRECTED CALL PICKUP WITHOUT BARGE IN</b>	Allows user to answer any specific phone within a Business Group.
<b>MULTI LINE HUNT GROUP (MLHG)</b>	Allows calls to a Pilot Directory Number to be routed to a free line within the Hunt Group, based on one of a number of algorithms including Round Robin, Longest Idle, Circular or Linear. Additionally, calls to a busy line within the Hunt Group can optionally be handled in the same way as calls to the Pilot Directory Number. When all lines are busy, incoming calls may be held in a queue.
<b>MLHG STATISTICS</b>	A service provider can obtain statistics showing the performance of a MLHG and individual agents over an extended period of time, and make this information available to business customers.

<b>MAKE SET BUSY</b>	A line within a MADN or MLHG can exclude itself from being called using the Do Not Disturb subscriber call service.
<b>SIMULATED FACILITY GROUPS</b>	Business Groups can be configured with limits for the total number of externally routed calls (incoming and outgoing), and separate limits for incoming calls and outgoing calls.
<b>INTRA/EXTRA BUSINESS GROUP CLID</b>	Provides the Intra-Business Group intercom dialing code as the CLID for an intra-Business Group call, or the full Directory Number of extra-Business Group calls.
<b>LINE STATE MONITORING</b>	Allows a SIP Business Group line to be connected to an attendant console that is then notified with the state of any line (SIP or other) within the same Business Group: Idle, Ringing, Active Call, Do Not Disturb.
<b>BRIDGED / SHARED LINE APPEARANCE</b>	Allows a Business Group line to be shared by multiple SIP phones.
<b>ADVANCED ALERTING</b>	Allows Alert-Info information to be sent on calls between two SIP phones in a Business Group, allowing the calling phone to specify how the called phone is to be alerted. This feature is typically used for push-to-talk calls or for customized distinctive ringing.
<b>PBX LINE</b>	Support for lines that are connected to a PBX system rather than an individual subscriber phone.
<b>PBX LINE - FEATURES</b>	Feature interactions and restrictions required for PBX lines to avoid accidental misconfiguration.
<b>DIRECT INWARD DIALING / DIRECT INWARD SYSTEM ACCESS</b>	External callers can make calls direct to a particular terminal on a PBX without the intervention of an attendant.
<b>PBX IN BUSINESS GROUP</b>	One or more PBXs can be included in a Business Group so that subscribers on the PBX can use the Intercom Dialing codes and Short Codes defined for the Business Group, and so that other lines in the Business Group can call the PBX and its Direct Inward Calling Numbers using intercom codes.
<b>CALLER NAME AND CALLER ID ON BUSINESS GROUP LINES</b>	Business subscribers can choose to present personal calling names to their colleagues, while still presenting their company name to the outside world. Or they may choose to present caller ID internally but block caller ID on external calls entirely.
<b>PREMIUM ATTENDANT</b>	<p>A subscriber-configurable automated receptionist service targeted at your high-value business subscribers. Premium Attendant offers a number of high-end added features, including:</p> <ul style="list-style-type: none"> <li>» Multi-level menus with intuitive, consistent navigation.</li> <li>» Fine-grained control over scheduling – configure up to ten separate TUIs, to be played at different times or on different days.</li> <li>» Configurable option to transfer directly to a voicemail box selected by extension or by name</li> <li>» The option to upload recordings – for example provided by a voice talent agency – through CommPortal, as well as recording them over the phone.</li> <li>» Configurable behavior for special keys (* and #) and configurable responses for errors such as bad user input.</li> </ul>
<b>DEPARTMENT-LEVEL MUSIC ON HOLD</b>	Allows default MOH to be defined on a Department basis.
<b>CALL RECORDING</b>	SIPRec Interface to split voice media to SIPRec compliant call recording solution.
<b>PER-DEPARTMENT CALL PARK ORBIT CODE RANGES</b>	Allows you to configure Call Park Orbit Code Ranges for use by a particular Department within a Business Group. This provides more control over the use of Call Park within Business Groups by ensuring that parked calls can only be accessed by users in the appropriate Department or Departments.

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<b>CUSTOMER ORIGINATED TRACE</b>	Traces an offending incoming call immediately after it is received. The subscriber invokes the service by dialing a code, and the Service Provider traces the call and passes the originating number to the law enforcement agency handling the complaint.
<b>LAST CALLER ID ERASURE</b>	Allows user to erase the last caller ID held by the switch for privacy reasons.
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<b>ANONYMOUS CALL REJECTION</b>	Automatically rejects all calls from callers who have withheld their number.
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<b>SELECTIVE CALL ACCEPTANCE</b>	Accepts calls from specified numbers when Do Not Disturb is enabled.
<b>PRIORITY CALL (DISTINCTIVE RINGING)</b>	Enables subscriber to have a distinctive ring tone for incoming calls from selected numbers. Also includes distinctive tones on Call Waiting for numbers selected for Priority Call.
<b>MESSAGE CENTER</b>	Forwards calls to an external voicemail service if they are unanswered or if the subscriber line is busy.
<b>MESSAGE WAITING INDICATION</b>	Provides an audible indication (stutter dial-tone) to the subscriber when there are voicemail messages waiting at an external voicemail service.
<b>VISUAL MESSAGE WAITING INDICATION</b>	Provides a visual indication to the subscriber when there are voicemail message waiting at an external voicemail service.
<b>REMINDER CALL</b>	Allows subscriber to schedule reminder calls, either once or at regular intervals (for example daily or weekly).
<b>REMINDER CALL CANCEL</b>	Allows subscriber to cancel scheduled reminder calls.
<b>THREE-WAY CALLING</b>	Allows subscriber to talk to two people in different locations at the same time.
<b>THREE-WAY CALLING RINGBACK</b>	If the subscriber hangs up after setting up the second leg of a three-way call, he receives an immediate ringback and is connected to the first party (still on hold).
<b>CALL TRANSFER</b>	Allows subscriber to transfer a call to another number.
<b>CALL HOLD</b>	Allows subscriber to put a call on hold in order to dial another number, and then switch between the two calls.
<b>CALL WAITING</b>	Informs the subscriber on a busy line that there is another incoming call.
<b>CALL WAITING WITH CALLER ID</b>	As for Call Waiting, but also displays the number and/or name of the new caller.
<b>HOME INTERCOM (REVERTIVE RING)</b>	Provides an intercom service for subscribers with extensions spread across a large site or building.
<b>OFF-PREMISES EXTENSION (OPX)</b>	A facility for making a second subscriber line act as if it is an extension to an existing line. When the main number is called, both that line and the OPX line ring. If both parties answer, they are bridged into the call.
<b>SPEED CALLING (1 DIGIT)</b>	Enables subscriber to call frequently used numbers by dialing a one digit short code.
<b>SPEED CALLING (2 DIGIT)</b>	Enables subscriber to call frequently used numbers by dialing a two digit short code.
<b>CALL BARRING (OUTGOING CALL BLOCKING)</b>	Enables subscriber to prevent access to specific types of numbers (for example international or premium-rate calls) from his line.

<b>MANDATORY ACCOUNT CODES</b>	Allows classes of outgoing calls (e.g. Long Distance) to require that an account code is entered. Typically used to allow call association with specific client accounts.
<b>MANDATORY VALIDATED ACCOUNT CODES</b>	Mandatory account codes can be validated against configured permitted values.
<b>HOT LINE</b>	Provides a preconfigured number that is called as soon as the phone goes off hook. This is typically used for providing a courtesy line such as, for example, a direct line to a local taxi firm at an airport. When the phone is taken off the hook, instead of receiving a dial tone, the line immediately dials the preconfigured number.
<b>WARM LINE</b>	Provides a preconfigured number that is called if no numbers are dialed during a configurable time limit (for example, fifteen seconds) after the phone goes off hook.
<b>TEEN LINE</b>	Allows up to 4 Directory Numbers to be assigned to a single subscriber access line. Distinctive ringing cadences are played on incoming calls depending on the called Directory Number. Each Teen Line number can optionally have separate settings for Call Forwarding etc.
<b>TOLL RESTRICTION</b>	Disallows long distance calls from a subscriber line.
<b>CODE RESTRICTION</b>	Allows calls to only a specific set of local area codes.
<b>LINE IDENTIFICATION</b>	Reads back the configured Directory Number for the line invoking this service.
<b>CALL JUMP</b>	Use star-codes to transfer incoming or outgoing calls to one of two pre-determined numbers (i.e. mobile).

## INTEGRATED AUTOMATIC CALL DISTRIBUTION (ACD) FEATURES

HOSTED IP PBX SERVICES INCLUDE A GROUP OF RELATED FUNCTIONS USED IN CALL CENTER AND HELPDESK ENVIRONMENTS FOR QUEUING AND ROUTING INCOMING CALLS SO THAT THEY CAN BE HANDLED QUICKLY AND EFFICIENTLY.

FOR SMALL CALL CENTERS REQUIRING ACD ROUTING AND QUEUING WITH BASIC SUPERVISORY AND AGENT FEATURES, METASWITCH OFFERS OUR INTEGRATED ACD PRODUCT WITH TWO LEVELS OF FUNCTIONALITY TO MEET YOUR ACD NEEDS: INTEGRATED ACD BASIC AGENT AND INTEGRATED ACD PREMIUM AGENT.

<b>AGENT LOGIN/LOGOUT</b>	A user of a Business Group line can dynamically join and leave a MLHG as call volumes change or at the start and end of a shift.
<b>AGENT DASHBOARD</b>	Displays calls in queue, wait time, call details including originating queue.
<b>SUPERVISOR DASHBOARD</b>	Displays calls in queue and agent activity, allows supervisors to view and download detailed statistics.
<b>SUPERVISOR FEATURES</b>	(Integrated ACD Premium Agent only) Monitor, whisper, barge-in, agent wrap-up, customizable agent status codes, customizable disposition codes.
<b>AGENTS LOGGED INTO MULTIPLE QUEUES</b>	Agents may be logged into multiple queues simultaneously.
<b>CUSTOMIZABLE AGENT ACTIVITY CODES</b>	Activity codes allow supervisors to manage and report on the activities performed by agents when they are not logged into a queue taking calls. These may include items such as 'on break', 'at lunch', etc. Supervisors can create up to 30 activity codes in addition to the 6 standard activities per Business Group.
<b>CUSTOMIZABLE CALL DISPOSITION CODES</b>	Disposition codes are used to determine how the agent handled a call. This may be things like 'Sold Yellow Widget', 'Sold Blue Widget', etc. Supervisors can create up to 30 disposition codes per ACD group.
<b>AGENT WRAP-UP</b>	After a call from the queue, the agent is automatically placed into a wrap-up state to allow time for any post-call activities prior to receiving a new call from the queue.
<b>AGENT WRAP-UP TIMER (CUSTOMIZABLE)</b>	Agents can be configured to be automatically removed from the wrap-up state and placed back into a queue.
<b>MULTIPLE INBOUND PILOT NUMBERS</b>	Each queue may have multiple inbound DIDs that terminate to the queue.
<b>ZERO OUT OF QUEUE</b>	Allows a caller waiting in a queue to press zero to exit the queue. Exiting calls are then either redirected to voicemail or forwarded to a defined phone number.
<b>AGENT PRESENCE/CHAT</b>	When used with our Accession Desktop UC client, agents have the ability to see the status of other agents as well as the ability to instant message with other agents.
<b>AD-HOC REPORTS</b>	Provides the ability to generate reports that can be either displayed on the supervisor's screen or emailed to one or more email addresses.
<b>SCHEDULED REPORTS</b>	Provides the ability to schedule rich reports on queues, agents and calls to be automatically generated based on a specific schedule (Daily, Weekly, Monthly) and automatically emailed to one or more email addresses.

<b>CRM - URL TRIGGERS</b>	When used with our Accession Desktop UC client, agents can perform CRM (Salesforce.com, SugarCRM, etc) screen pops based on the calling number or calling name for inbound calls, or from the contact directory for outbound calls.
<b>MULTIPLE ANNOUNCEMENTS</b>	Supports a primary and secondary announcement file.
<b>WALLBOARD VIEW</b>	Allows supervisors to display contact center statistics in a large view suitable for a big screen monitor.
<b>DOWNLOAD AGENT STATISTICS</b>	Allows supervisors to download raw statistics for all agents within the Business Group.
<b>DOWNLOAD QUEUE STATISTICS</b>	Allows supervisors to download raw statistics for all queues within the Business Group.
<b>MONITOR WHISPER BARGE-IN</b>	Allows supervisors to silently monitor an agent and speak to the agent without the caller hearing, as well as the ability to barge into the call as a full 3-way conference.
<b>CALL RECORDING</b>	SIPRec Interface to split voice media to SIPRec compliant call recording solution.

## METASWITCH CLOUD CONTACT CENTER

### POWERED BY TELAX

**METASWITCH CLOUD CONTACT CENTER INCLUDES FULL MULTIMEDIA QUEUES FOR VOICE, EMAIL AND IM AS WELL AS ADVANCED SUPERVISORY FEATURES FOR AGENT MONITORING SUCH AS CALL RECORDING, SCREEN CAPTURE, AND CALL MONITORING AS WELL AS A COMPLETE WORKFORCE MANAGEMENT SOLUTION THAT INCLUDES AGENTS SCHEDULING AND SHIFT MARKETPLACE.**

**THE CALL CENTER MARKET IS SEGMENTED BASED ON FUNCTIONALITY, SO METASWITCH PROVIDES A TIERED FEATURE SET FOR MID-TIER AND FULL FEATURE CALL CENTERS. THE GOLD PACKAGE INCLUDES ALL OF THE MUST HAVE FEATURES OF THE INBOUND CALL CENTER, WHILE THE PLATINUM PACKAGE INTRODUCES MULTI-MEDIA QUEUES, WORKFORCE MANAGEMENT AND CRM INTEGRATION. FOR MORE INFORMATION, CONTACT YOUR METASWITCH ACCOUNT MANAGER.**

## LONG DISTANCE SERVICES

<b>FULLY MANAGED CLOUD BASED SOLUTION</b>	No capital investment required, you simply purchase the licenses you need as you need them.
<b>MULTI-TIERED FEATURE SET</b>	<p>The Metaswitch Cloud Contact Center Gold feature package includes all of the routing and management features you would expect in an advanced contact center product including:</p> <ul style="list-style-type: none"> <li>))) Inbound and Outbound voice queues</li> <li>))) Priority Queues</li> <li>))) Advanced Routing Methods</li> <li>))) Advanced Skillsets</li> <li>))) Advanced IVR</li> <li>))) Web Based Dashboards (Executive, Supervisor and Agent)</li> <li>))) CRM Screen Pop</li> </ul>

- ))) Agent Scripting/Workflows
- ))) Hosted Call Recording
- ))) Over 260 Standard Reports
- ))) Much more

The Metaswitch Cloud Contact Center Platinum feature package adds to the features of the Gold package high value items including:

- ))) Multimedia Queueing (IM, Email, Social Media)
- ))) Advanced IVR Integration to Back-End Systems and CRM to enable advanced routing and IVR self-service
- ))) Automated Call-Backs
- ))) End of Call Surveys
- ))) Advanced Workforce Management - includes Advanced Forecasting, Automated Agent Scheduling, Vacation Automation, Agent Shift-Trade Marketplace, Real-Time Adherence and Reporting
- ))) Much more

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**ANI SCREENING**

Enables a long distance call attempt to be checked against a table of acceptable calling numbers.

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**AUTHORIZATION CODES**

Supports calling card services, typically accessed by a toll-free number.

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**MANDATORY ACCOUNT CODES**

Allows classes of long distance calls to require that an account code is entered.

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**MANDATORY VALIDATED ACCOUNT CODES**

Mandatory account codes can be validated against configured permitted values.

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## CLASS 4/5 FEATURES

<b>DIAL TONE/DTMF</b>	Provides reliable dial tone service, according to the availability requirements of GR-512-CORE, together with DTMF detection for in-band dial digits and for call service invocation mid-call.
<b>FAX/MODEM CALLS</b>	Detects fax/modem tones and automatically disables compression for data calls.
<b>LOCAL NUMBER PORTABILITY</b>	Local Number Portability (LNP) (see Bellcore GR-2936 and Illinois Number Portability Workshop requirements).
<b>NON-GEOGRAPHIC NUMBERS</b>	Supports the following non-geographic number features: <ul style="list-style-type: none"> <li>))) Routing of calls to Toll Free numbers, Service Access Codes and other non-geographic numbers to a predefined tandem switch/trunk exchange.</li> <li>))) Toll-Free number look-ups using TCAP, which may also be performed on behalf of another switch.</li> </ul>
<b>EMERGENCY SERVICES, OPERATOR SERVICES AND DIRECTORY ASSISTANCE</b>	Supports access to emergency services, operator services and directory assistance over dedicated or shared trunks to a tandem switch, using the following signaling protocols: <ul style="list-style-type: none"> <li>))) MF.</li> <li>))) ANSI ISUP/SS7 (GR-1277-CORE with basic and modified NOA field options).</li> </ul>
<b>E911 SUPPORT FOR NOMADIC VOIP SUBSCRIBERS</b>	Allows subscribers to change registered address with interoperable 911 providers.
<b>EMERGENCY AND OPERATOR SERVICES ACCESS</b>	<ul style="list-style-type: none"> <li>))) Presentation of Automatic Number Information (ANI).</li> <li>))) Busy line verification (not available for SIP subscribers).</li> <li>))) Reverse make busy.</li> <li>))) Called party hold supervision (analog subscribers only).</li> <li>))) Ringback.</li> <li>))) Operator override.</li> <li>))) Operator recall.</li> </ul>
<b>FLAT RATE/MESSAGE RATE</b>	Supports flat rate, message rate, FX Rate service for local calls, and flat rate or usage-sensitive billing for call services.
<b>FEATURE GROUP B</b>	Supports routing calls to alternative carriers using Feature Group B (950-CCCC) dial patterns in the North American Number Plan.
<b>FEATURE GROUP D</b>	Supports routing calls to alternative carriers using Feature Group D (101-CCCC) dial patterns in the North American Number Plan.
<b>MULTIPLE LOCAL AREAS</b>	Supports multiple local areas and network number ranges per switch.

**ROUTING AND CONGESTION CONTROL**

Supports a flexible hierarchical routing model, allowing calls to be routed to individual PSTN interconnects or packet backbone network ports based on calling number, called number, calling party category, Time and Date Matching in Number Validation, and a number of policy mechanisms such as congestion level, call gapping and random selection.

**ROUTING POLICIES AND CONTROLS**

- ))) Automatic Alternative Routing (AAR).
- ))) Automatic Re-Routing (ARR).
- ))) Dynamic Automatic Routing (DAR).
- ))) Proportional Traffic Distribution.
- ))) Trunk Reservation.
- ))) Call Gapping.
- ))) Automatic Congestion Control (ACC).
- ))) Release Cause Routing.

**LOCALIZED ANNOUNCEMENTS**

Announcement files are available for:

- ))) US English.
- ))) Canadian French.
- ))) Latin American Spanish.
- ))) UK English (see BTNR 1080 Tones, Ringing and Announcements Specification).

**DUAL-LANGUAGE ANNOUNCEMENTS**

Allows subscribers to hear announcements first in one language, then a second (particularly useful when the subscriber's phone is likely to be used by people speaking different languages, for example a public payphone or a PBX in a hotel).

**LEGAL INTERCEPTION (CALEA)**

Supports lawful intercept features using the TIA J-STD-025A protocol, including intercept of call identification information and call content information.

**TEST CALLS**

Supports US test calls 100, 101, 102, 105, 108, and ANI Test Service.

**GR-303 DOWNSTREAM TO LEGACY DLCS**

Supports the GR-303 IDT (central office) functions for the connection of downstream legacy DLCS using T1 links. It supports the following GR-303 functions:

- ))) Timeslot Management Channel.
- ))) Embedded Operation Channel, with flow-through management via the MetaView Server.
- ))) Path Protection.
- ))) Hybrid GR-303 and VoB systems.
- ))) Echo cancellation when connecting to a VoB customer.

**STP FUNCTION**

Can act as an STP, for example forwarding SS7 messages to an existing Class 5 during migration from the legacy network to an NGN solution.

<b>TRANSIT ROUTING</b>	Supports transit of calls between packet and TDM trunks, as well as acting as Class 5 termination of subscribers connected directly to it. This transit capability allows carrier to employ least-cost routing of calls within a network of Metaswitch NEs.
<b>TANDEM SUPPORT</b>	<p>The Metaswitch NE can also act as a tandem providing the following features:</p> <ul style="list-style-type: none"> <li>))) Access Tandem: terminating and transit CDRs for inter-carrier settlement (with configurable CDR types).</li> <li>))) Echo cancellation where required, depending on the technology used on each access / trunk line.</li> <li>))) Integration with pre-pay / post-pay platforms from our partners.</li> <li>))) Enhanced routing capabilities, including anti-looping measures.</li> <li>))) Overflow records to allow tracking of trunk congestions.</li> <li>))) LNP tandem/"proxy" to add LNP capability to downstream legacy Class 5 switches that do not have this feature.</li> </ul>
<b>SUBSCRIBER CUTOFF</b>	Disallows call termination or origination on subscriber line, apart from 911 calls or calls to a service number.
<b>CALLER NAME</b>	Supports both the U.S. and Canadian approaches for providing calling name (CNAM).
<b>AIN TRIGGERS</b>	Supports a range of AIN triggers and response types, which may be used in conjunction with appropriate Service Control Point solutions from third party vendors to implement AIN services.
<b>RECENTLY MOVED NUMBER ANNOUNCEMENT</b>	Can route all incoming calls for a subscriber to an announcement giving details of the new number for that subscriber, and then optionally connect the call to the new number.
<b>DIRECT IXC INTERCONNECTION</b>	Direct interconnection to IXC Points of Presence/Tandem Switches.
<b>POINT CODE PROXY</b>	Provides a Point Code Proxy function to enable easy migration from a legacy switch without needing to change the point code known to the rest of the SS7 network.
<b>CIP SCREENING</b>	Can be configured to reject terminating calls where the Carrier Identification Parameter (CIP) is missing from the call setup signaling, or where the CIP is present but black-listed.
<b>ISDN ADVICE OF CHARGE (AOC)</b>	Provides charging information to ISDN business and residential subscribers at the end of calls and/or in regular subtotal updates during the call.
<b>CONNECTED NUMBER DELIVERY</b>	Allowing ISDN subscribers who have a Caller Display screen or Caller Display Unit to view the number that their call was connected to (in the same way that they would view Caller ID for an incoming call). This might not be the same as the number they originally dialed – for example if the call has been forwarded.
<b>CONNECTED LINE ID PRESENTATION</b>	Specify whether each subscriber's number is presented back to callers who have the Connected Number Delivery service.
<b>MS LYNC QUALIFIED SIP TRUNKS</b>	SIP Trunks are qualification ready for Microsoft Lync 2013 integration.

**METASPHERE ENHANCED  
APPLICATIONS**



# METASPHERE ENHANCED APPLICATIONS TELEPHONE USER INTERFACE (TUI) FEATURES

<b>VOLUME CONTROL</b>	Subscriber can increase or decrease volume using telephone keypad.
<b>GUIDED SETUP</b>	When logging in for the first time, the subscriber is prompted to change his PIN, record his name, and select a greeting.
<b>FAST LOGIN</b>	When calling from his own telephone, the subscriber does not need to enter the telephone number he wants to log into. This feature may be disabled by the subscriber if he has multiple mailboxes.
<b>SKIP PIN</b>	When calling from his own telephone, the subscriber does not need to enter PIN.
<b>ADMINISTRATIVE BROADCASTS</b>	Record messages to be played to all subscribers, or a selection of subscribers, when they log into their accounts. Used to announce important events such as maintenance windows.
<b>MARKETING BROADCASTS</b>	Record marketing messages, for example to announce new features. These are handled similarly to administrative broadcasts, but subscribers may opt out of receiving them.
<b>TIME ZONE SELECTION</b>	Subscriber can configure a preferred time zone, from a list of preconfigured options.
<b>SELF-CARE LANGUAGE</b>	Subscriber can select the language used for self-care from a list of preconfigured options. This can be a different language from that played to the subscriber's callers.
<b>HELPFUL HINTS</b>	Subscriber can listen to a summary of the main features of the TUI.
<b>TELEPHONE USER INTERFACE BRANDING</b>	Allows you to brand the TUI presented to your subscribers by replacing prompts and announcements with your own recordings. Also allows you to run multiple TUI customizations concurrently.

**ACCESSION FEATURES**



# ACCESSION COMMUNICATOR FOR MOBILE FEATURES

**ACCESSION COMMUNICATOR IS METASWITCH'S NEXT-GENERATION SOFTPHONE FOR MOBILE DEVICES. AVAILABLE ON APPLE AND ANDROID DEVICES, ACCESSION DELIVERS SUPERIOR VOICE AND VIDEO QUALITY WITHOUT DRAINING YOUR DEVICE'S BATTERY. FEATURES INCLUDE UNIFIED CONTACTS, CALL LOGS, VISUAL VOICEMAIL, AND CALL MANAGER. ACCESSION IS EASY FOR ANYONE TO USE AND IS SIMPLE FOR SERVICE PROVIDERS TO DEPLOY.**

<b>DEVICE TWINNING</b>	Twin Accession Communicator for Mobile with an office phone number to present the calling features, dial plans and outgoing caller ID of the twinned office phone.
<b>HD VOICE AND VIDEO</b>	Features HD voice (G.711, SILK), and HD video (H.264), with great voice quality in lossy conditions often found when using WiFi. One-click uplifting of audio calls to video.
<b>METAQR</b>	MetaQR algorithms improve video quality by minimizing packet loss in lossy conditions often found when using WiFi.
<b>CALL CONTROL</b>	User can push and pull calls between Accession clients on different devices. Users can also Click-to-Dial to make calls from their business number from other lines, such as the native cellular dialler or configurable other lines (e.g. hotel line or home worker landline).
<b>IM AND PRESENCE</b>	IM and Presence enabled by Extensible Messaging and Presence Protocol (XMPP). Business Group member auto-population for IM and Presence. Reject with IM option for incoming calls.
<b>UNIFIED MESSAGING</b>	Centralized personal and Business Group address book integrated with the device's native contacts. Network-based universal call logs. Visual voicemail with optional speech-to-text. SMS messaging integration on Accession line, via Accession Messaging Server and SMS interconnect provider.
<b>BUSINESS SERVICES</b>	Call Hold, Call transfer and Three-way calls supported.
<b>CALL MANAGEMENT</b>	Integration with Easy Call Manager and Business Call Manager enables users to set status to Available, Do Not Disturb, or Forward Calls (to a specified number). Integration with Incoming Call Manager enables users to apply a predefined rule-set.
<b>LOW IMPACT ON BATTERY LIFE</b>	Efficient maintenance of network connection reduces battery drain.
<b>IN-CALL NOTIFICATION</b>	Improved user experience by alerting the subscriber to difficult Wi-Fi network conditions and offering the option to switch the call to a cellular network.
<b>DEPLOYMENT IN APP STORES</b>	CDAP-ready clients available and continuously updated on Google Play and Apple App Store. Tailored branding also supported to provide greater customization options and distinct identity in Google Play and Apple App Store.
<b>NETWORK SUPPORT</b>	Works on mobile 3G/4G or WiFi networks.
<b>DEVICE SUPPORT</b>	Compatible with iPhone 3GS or newer (iOS 5.0 or above), iPad (iOS 5.0 or above), and Android devices (Android 2.3.3 or above).

## ACCESSION COMMUNICATOR FOR DESKTOP FEATURES

ACCESSION COMMUNICATOR FOR DESKTOP IS METASWITCH'S NEXT GENERATION SOFTPHONE FOR WINDOWS PC AND MAC. ACCESSION COMMUNICATOR FOR DESKTOP ALLOWS USERS TO COLLABORATE WITH CONTACTS USING HD-VOICE, VIDEO AND INSTANT MESSAGING THROUGH AN INTUITIVE INTERFACE. FEATURES INCLUDE PHONE TWINNING, VISUAL VOICEMAIL, CONTACT MANAGEMENT, CALL MANAGEMENT AS WELL AS MULTI-PARTY CALL HANDLING.

<b>DEVICE TWINNING</b>	Twin Accession Communicator for Desktop with an office phone number to present the calling features, dial plans and outgoing caller ID of the twinned office phone.
<b>HD VOICE AND VIDEO</b>	Features HD voice (G.722, SILK), and HD video (H.264) with great voice quality in lossy conditions often found when using WiFi. One-click uplifting of audio calls to video.
<b>BUSINESS SERVICES</b>	Call Hold, Call transfer and Multiple-way calls supported.
<b>CONTACT MANAGEMENT</b>	Personal contacts can be accessed from centralized or device-based contact stores. Personal contacts marked as “favorites” appear in dedicated tab for quick access. Corporate contact information can be accessed with LDAP and Active Directory integration.
<b>CALL MANAGEMENT</b>	Integration with Easy Call Manager and Business Call Manager enables user to set status to Available, Do Not Disturb, or Forward Calls (to a specified number). Integration with Incoming Call Manager enables users to apply a predefined rule-set.
<b>CALL PARK</b>	Easy visual access to place calls onto, and retrieve calls from, Park Orbits.
<b>CALL CONTROL</b>	Click-to-Dial: use Accession to set up calls from a business number using other devices, such as a twinned deskphone or cellular.
<b>IM AND PRESENCE</b>	IM and Presence enabled by Extensible Messaging and Presence Protocol (XMPP). Business Group member auto-population for IM and Presence. Reject with IM option for incoming calls.
<b>UNIFIED MESSAGING</b>	Message Waiting indicator and single button access to voice and video mails with optional speech-to-text. Network-based universal call logs.
<b>CONFERENCING</b>	Easy access to conferencing widget that allows users to initiate and manage voice conferences.
<b>OUTLOOK INTEGRATION</b>	<ul style="list-style-type: none"> <li>))) Presence information: displays phone presence for contacts within Outlook, including within email windows.</li> <li>))) Click to IM: allows Click to IM for contacts from within email and contacts windows.</li> <li>))) Click to Call: allows Click to Call for contacts from within email and contacts windows.</li> <li>))) Address Book synchronisation.</li> </ul>

**URL TRIGGERS**

))) Allows user to launch CRM applications, such as Salesforce.com, directly from the in-call dialog and Accession contacts, opening to the contact's page.

))) Allows user to launch Web Conference Services, Audio Conferencing and other productivity applications deployed by the enterprise, such as Google apps like Gmail, Hangout and more.

))) Business Group Admin configures the services launched by users within the Business Group.

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**DEPLOYMENT IN APP STORES**

CDAP-ready clients available for easy deployment. Tailored branding also supported to provide greater customization options.

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**SIMPLE PROVISIONING**

SIP Provisioning Server automates provisioning of large-scale Accession Communicator for Desktop deployments.

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**DEVICE SUPPORT**

Compatible with Windows 7 & 8 and Mac OS X versions 10.7 or above.

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**COMMPORTAL FEATURES**

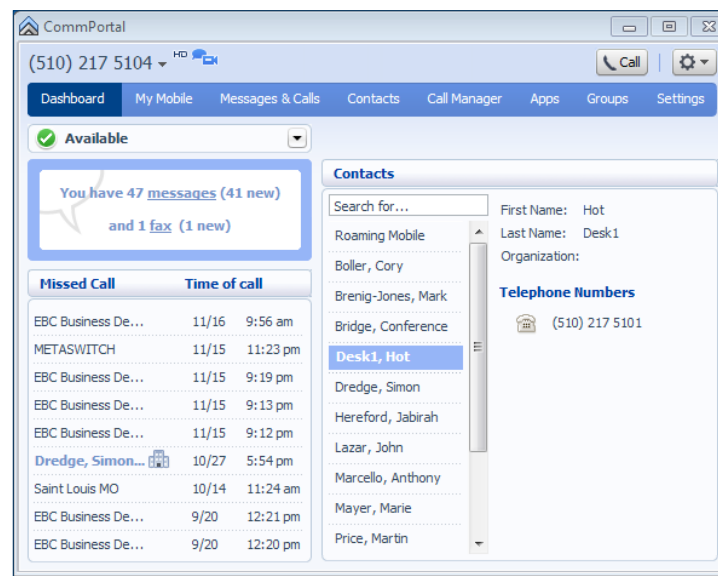


## COMMPORTAL™ FEATURES

COMMPORTAL IS METASWITCH'S NEXT-GENERATION SUBSCRIBER INTERFACE, DELIVERING NETWORK BASED SERVICES AND CONFIGURATION CAPABILITIES VIA WEB, BUSINESS PHONE, MOBILE DEVICE AND TV. COMMPORTAL ALLOWS SUBSCRIBERS TO ACCESS AND MANAGE THEIR INDIVIDUAL TELEPHONY SERVICES, ENABLING GRANULAR CUSTOMIZATION OF CALL FEATURES, ACCESS TO CONTACTS, MISSED CALLS AND VISUAL VOICEMAIL.

### DASHBOARD

Displays a summary of subscriber account settings and recent activity, customized to the set of services available to the subscriber.



### COMMPORTAL DASHBOARD

### FULL TEXT SEARCH

The subscriber can look up a contact by name, organization name, telephone number or address.

### CALL LISTS

Whenever a subscriber makes a call, receives a call, or misses a call, the details of the call are recorded and displayed in CommPortal.

### MISSED CALLS

Lists calls not answered on the line.

### DIALED CALLS

Lists outgoing calls from the line.

### RECEIVED CALLS

Lists calls answered on the line.

### REJECTED CALLS

Lists calls rejected by the subscriber according to rules the subscriber sets using Incoming Call Manager.

### CALL MANAGEMENT

Integration with Business Call Manager, Easy Call Manager and Incoming Call Manager, enabling the user to set their status and configure call handling rules.

### VIEW CONTACT DETAILS

If the calling number or name is already in the subscriber's Contact List, he can click through to see the full details for that contact.

<b>CNAM SUPPORT</b>	If the subscriber has Calling Name Delivery (CNAM) enabled, the Message and Call Lists make use of this information to display the names of callers, rather than just their numbers – even if the names are not in the subscriber’s contact list.
<b>COPY TO CONTACTS</b>	If the calling number or name is not already in the subscriber’s Contact List, he can click through to create a new Contact with that number.
<b>CLICK-TO-DIAL</b>	Subscriber can make a call or return a call by clicking on any entry in the Contact List or Call List display, or on the Click-to-Dial icons that appear on every CommPortal screen. The call may be made from the subscriber’s own phone, or at a remote phone number configured by the subscriber.
<b>CALL LIST EXPORT</b>	Subscriber can export Call Lists in Comma Separated Value (CSV) format, for use with a spreadsheet or other data processing application.
<b>CALL ME BUTTON</b>	Adds Click-to-Dial functionality to a subscriber’s own website, HTML email signature or social networking portals – allowing a third party to call a subscriber with a single click.
<b>SINGLE SIGN-ON</b>	Provides an alternative login mechanism for CommPortal. Subscribers can log in to CommPortal directly from their web site, without needing to log in separately or enter a CommPortal password or PIN.
<b>INCOMING CALL POP-UP</b>	Displays the calling number and, where available, the caller’s name – drawn automatically from the subscriber’s CommPortal contact lists, Business Group configuration, or network-supplied information.
<b>QUICKDIAL ACCELERATOR FOR INTERNET EXPLORER</b>	Speeds up the click to dial capability by placing calls directly to numbers within the text of a web page – by simply selecting the number and clicking on a menu.

## NETWORK ADDRESS BOOK

<b>CONTACT LIST</b>	CommPortal’s address book, allowing subscribers to record frequently-used numbers and addresses in a convenient online display.
<b>DETAILED CONTACT INFORMATION</b>	Subscriber can record multiple phone numbers for a contact (for example, home and work), addresses, email addresses and other detailed contact information.
<b>CONTACT GROUPS</b>	Subscriber can set up groups of contacts (for example, friends or family) for use when sending voicemails and configuring rules in Incoming Call Manager.
<b>IMPORT AND EXPORT</b>	Subscriber can import and export contacts in Comma Separated Value (CSV) format, for exchange with other contact management applications.

## VOICEMAIL FEATURES

**METASPHERE VOICEMAIL DELIVERS ALL THE CAPABILITIES OF A TRADITIONAL HOSTED VOICE MESSAGING SYSTEM - AND MORE. FULL INTEGRATION WITH OUR COMMPORTAL™ WEB-BASED GRAPHICAL USER INTERFACE (GUI), ALONG WITH MOBILE VISUAL VOICEMAIL APPLICATIONS AND CLOUD-BASED SERVICES SUCH AS SPEECH-TO-TEXT, CAN REVITALIZE TRADITIONAL VOICEMAIL OFFERINGS.**

<b>SPOKEN NAME</b>	Subscribers can record their own names, to be substituted for their phone numbers in the system greeting.
<b>PERSONAL GREETING</b>	Instead of using the system greeting, subscribers can record a personal greeting of their choice.
<b>BUSY GREETING</b>	Subscriber may choose to record a separate greeting to be played when the line is busy.
<b>ALL-CALLS-FORWARDED GREETING</b>	Subscriber may choose to record a separate greeting to be played when unconditional call forwarding is active on the line.
<b>OUT-OF-HOURS GREETING</b>	Subscriber may configure a set of business hours, and record a separate greeting to be played outside of these.
<b>EXTENDED ABSENCE GREETING</b>	Subscriber may choose to record a separate greeting to be played during extended absences such as holidays and business trips. The extended absence greeting can be turned off and on without the need to re-record it. When turned on, optionally, message deposit may be prohibited.
<b>ANNOUNCEMENT ONLY MAILBOX</b>	Plays a greeting but does not allow a message to be deposited.
<b>TRANSFER TO ATTENDANT</b>	Transfers to a configured attendant (operator) number, instead of leaving a voicemail.
<b>MARK MESSAGE URGENT</b>	Causes the message to play before non-urgent messages (depending on the recipient's preferences).
<b>MARK MESSAGE PRIVATE</b>	Prevents the recipient from forwarding the message.
<b>DESTINATION NUMBER</b>	Icons indicate whether the call was received on the subscriber's landline, fax or a wireless device when the subscriber has multiple phone numbers configured. Hovering over the icon displays the phone number.
<b>CALLER INFORMATION</b>	If the caller is in the subscriber's Contact List, displays whether the caller called from his home, office, mobile or other device.
<b>COMMPORTAL MOBILE</b>	Enables iOS (iPhone), Android and Blackberry mobile phone subscribers to scan their MetaSphere Voicemail mailboxes at a glance, and without navigating through a TUI menu.
<b>VOICEMAIL SPEECH-TO-TEXT</b>	Allows voicemail messages to be transcribed into text and read across all CommPortal's graphical interfaces, including CommPortal Web, CommPortal Assistant, and CommPortal Voicemail for mobile phones.
<b>LIVE MESSAGE SCREENING</b>	Identified by a distinctive ring, allows a subscriber to listen to voicemail messages as they are deposited and break-in.
<b>SUPPORT FOR APPLE IPHONE NATIVE VISUAL VOICEMAIL APPLICATION</b>	Subscribers can use the Native iPhone Visual Voicemail application integrated into the dialler on the iPhone to listen to and delete voice messages. Subscribers can also use the Native iPhone Visual Voicemail application to playback and record a mailbox greeting.

## MESSAGE CREATION FEATURES

COMPOSE AND SEND VOICEMAILS TO INDIVIDUAL SUBSCRIBERS OR A GROUP OF SUBSCRIBERS VIA OUR TELEPHONE USER INTERFACE (TUI), OR WHILE LOGGED IN TO COMMPORTAL WEB - WITHOUT EVER HAVING TO PLACE A DISRUPTIVE CALL TO THE INTENDED RECIPIENT(S). IDEAL FOR DELIVERING QUICK, PERSONAL, MESSAGES, GREETINGS OR UPDATES.

<b>REQUEST DELIVERY REPORT</b>	Notifies the sender when message is delivered to the recipient's mailbox.
<b>REQUEST READ REPORT</b>	Notifies the sender when recipient listens to the message.
<b>FUTURE DELIVERY</b>	Schedules the message for delivery at a later time.
<b>ADDITIONAL RECIPIENTS</b>	Allows the subscriber to send a single voice message to more than one recipient.
<b>GROUP LISTS</b>	Allows the subscriber to use a short access code for frequently-used groups of recipients.
<b>WITHHOLD IDENTITY</b>	If a subscriber withholds identity when dialing into the TUI, his identity is withheld in any voicemails he sends (even though he is logged in).

## MESSAGE RETRIEVAL OPTIONS

SUBSCRIBERS CAN CUSTOMIZE THEIR MESSAGE RETRIEVAL EXPERIENCE VIA EITHER OUR TELEPHONE USER INTERFACE (TUI) OR COMMPORTAL WEB BY SELECTING FROM THE FOLLOWING OPTIONS.

<b>AUTOPLAY</b>	Subscriber can configure new messages to play immediately upon login to the mailbox, skipping the main menu. Combined with Fast Login and Skip PIN, this enables hands-free message retrieval.
<b>HEADER PLAYBACK</b>	Subscriber can select whether the date and time of message deposit are played back automatically.
<b>MESSAGE PLAYBACK SPEED</b>	Subscriber can speed up or slow down message playback via telephone keypad.
<b>PAUSE</b>	Subscriber can pause or resume TUI or message playback via telephone keypad.
<b>FORWARD TO SECURITY MANAGER</b>	Subscriber can forward inappropriate or improper voicemail messages directly to a designated security manager for investigation.
<b>LIVE REPLY</b>	After listening to a voicemail, the subscriber can press a key to call the sender's line.
<b>REPLY BY VOICEMAIL</b>	After listening to a voicemail, the subscriber can send a voicemail in reply to another subscriber on the same MetaSphere Service Delivery Center.
<b>FORWARD VOICEMAIL</b>	After listening to a voicemail, the subscriber can forward it to another subscriber on the same MetaSphere Service Delivery Center.
<b>FORWARD TO EMAIL</b>	Using CommPortal, the subscriber can forward a voicemail as an email attachment to multiple email addresses, either automatically or as required.

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#### CLICK-THROUGH TO COMMPORTAL

For subscribers who use an external email system as their primary message aggregation point, this feature allows forwarded messages to also contain links, allowing the subscriber to delete the message or mark it as read without first having to log in to his MetaSphere account. This saves your subscribers time by turning these common tasks into one-click operations direct from their email application. Alternatively, a convenient link can take them directly to their CommPortal login page.

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#### DELETED MESSAGES FOLDER

Subscribers can access the Deleted Messages folder to review and undo message deletions before deleting them permanently.

If a subscriber has accidentally deleted a message, he can readily return it from the Deleted folder to his Messages folder using a simple Restore option.

The Deleted Messages folder is equally accessible from other parts of the CommPortal suite:

- ))) The CommPortal Voicemail Widget also has a newly Deleted tab, offering full access to messages in the new folder. Again, subscribers can restore messages to return them to their inbox as well as permanently deleting them.
- ))) CommPortal Voicemail for iPhone includes a Deleted Messages option, similarly enabling message review or restoration.
- ))) CommPortal Assistant users can view the Deleted Messages folder by using the existing menu option to launch CommPortal.

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## STORAGE MANAGEMENT

**MANAGE THE AMOUNT OF STORAGE REQUIRED FOR A SUBSCRIBER'S MAILBOX USING THE FOLLOWING OPTIONS:**

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#### MESSAGE QUOTA

Limits the total size of messages which may be deposited in a mailbox, or the total number, or both. Maximum Message Length or Size Limits the length of any individual message, or its size, or both.

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#### MESSAGE EXPIRY

Old messages are removed from the subscriber's mailbox and Deleted folder after a configurable time.

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## ADDITIONAL DEVICE FEATURES

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#### FAST LOGIN

Subscriber may access the TUI, without first entering the telephone number, from any of the linked devices.

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#### COMMON PIN

The subscriber's PIN number is valid when calling from any of his additional devices.

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#### SINGLE MAILBOX

Messages left for any of the numbers are deposited in a single mailbox. The subscriber may hear all his messages by logging in from any of his devices.

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#### GREETING OPTIONS

Using CommPortal or the Telephone User Interface (TUI), the subscriber may choose to use the same greeting for all lines, or may record different greetings for some or all additional lines.

## UNIFIED MESSAGING

**METASPHERE UNIFIED MESSAGING INTEGRATES DIVERSE COMMUNICATIONS MEDIA, SUCH AS FAX AND VOICEMAIL, INTO A SINGLE INTERFACE, ACCESSIBLE FROM A VARIETY OF DEVICES IN MANY DIFFERENT FORMATS. WITH OPTIONAL SPEECH-TO-TEXT TRANSCRIPTION, USERS CAN CHOSE TO EITHER LISTEN TO, OR READ, DEPOSITED VOICEMAILS VIA OUR COMMPORTAL USER INTERFACE, A MOBILE DEVICE OR EMAIL APPLICATION.**

<b>VIRTUAL FAX LINE</b>	Configure the subscriber with a dedicated number hosting a virtual fax machine. Third parties may send faxes to this number as they would to a normal fax line.
<b>SHARED VOICE AND FAX NUMBERS</b>	Subscribers can also receive faxes through any of their existing numbers – without the need for either a personal fax machine or a dedicated fax number. Once a call has been forwarded to voicemail, MetaSphere automatically detects the presence of fax tones, and triggers fax processing if required. Best suited for occasional users who know when a fax is expected and can let it ring through to voicemail.
<b>FAX DISPLAY</b>	Via CommPortal, the subscriber can view the fax message on a PC in either TIFF or PDF format or on a mobile device (via MetaSphere Mobile Voicemail).
<b>EASY ACCESS TO FAXES</b>	Faxes can be downloaded in PDF format, providing a slicker and easier experience for your subscribers.
<b>FORWARD AS EMAIL</b>	Using CommPortal, the subscriber can forward the fax message as an email attachment to his choice of address, either automatically or as required.
<b>CLICK-THROUGH TO COMMPORTAL</b>	For subscribers who use an external email system as their primary message aggregation point, this feature allows forwarded messages to also contain links, allowing the subscriber to delete the message or mark it as read without first having to log in to his MetaSphere account. This saves your subscribers time by turning these common tasks into one-click operations direct from their email application. Alternatively, a convenient link can take them directly to their CommPortal login page.
<b>HEADER PLAYBACK</b>	Using the Telephone User Interface (TUI), the subscriber can hear details of the sender and date and time the fax was received.
<b>FAX PRINT</b>	Using the TUI or CommPortal, the subscriber can send the fax message to a physical fax machine. MetaSphere dials out to the fax machine and sends the fax.
<b>FAVORITE FAX NUMBER</b>	Using the TUI, the subscriber can configure a favorite fax number for rapid access with the fax print feature.
<b>MOBILE MAILBOX FUSION</b>	Integrate a 3rd. party mobile voicemail service with a Metaswitch mailbox and leverage the complete range of CommPortal interfaces and features to receive and manage them.

## GROUP MAILBOXES

ENABLE MEMBERS OF AN INDIVIDUAL HOUSEHOLD OR BUSINESS SUBSCRIBERS IN AN OFFICE ENVIRONMENT TO SHARE AN ACCOUNT.

<b>SELF-CARE</b>	Using CommPortal or the Telephone User Interface (TUI), the primary subscriber can enable and disable secondary subscribers' accounts and make configuration changes which affect the group as a whole.
<b>AGGREGATED MWI</b>	When selected, the primary line's MWI light turns on when there is a message for any of the group's mailboxes.
<b>INDIVIDUAL ACCESS NUMBERS</b>	When selected, each member of the group account has his own phone number. To callers, it appears that each member has his own phone.
<b>SHARED ACCESS NUMBER</b>	When selected, all members of the group account share a phone number. If a caller to this number is transferred to voicemail, he hears a menu prompt asking him to select the subscriber for whom he'd like to leave a message.
<b>COMMUNAL PRIMARY</b>	When selected, for group accounts with a shared access number, allows any group member to access the primary account. Allows creation of a shared "family" mailbox, or a company mailbox any employee can monitor.
<b>INDIVIDUAL QUOTA</b>	When selected, each member of the group account has his own quota. If one subscriber reaches his quota, other members are not affected.
<b>SHARED QUOTA</b>	When selected, all members of the group account share a quota. If the total quota is reached, no member can receive messages until some existing messages are deleted.

## NOTIFICATIONS

METASWITCH OFFERS A RANGE OF OPTIONS TO NOTIFY SUBSCRIBERS OF A NEWLY DEPOSITED VOICEMAIL MESSAGE.

<b>MESSAGE WAITING INDICATOR (MWI)</b>	Turns on MWI on the subscriber's phone. Depending on the phone and switch, this may be a light on the handset, or an interrupted "stutter" dial tone.
<b>AUDIBLE ALERT</b>	Plays a tone if a message arrives while the subscriber is already logged into the Telephone User Interface (TUI).
<b>EMAIL</b>	Sends an email to a preconfigured address. The email contains a link to log into CommPortal and hear/retrieve the message.
<b>OUTDIAL</b>	Calls a configured number. If the subscriber answers the call, he is invited to log into his mailbox to hear the message. If the subscriber does not answer, the outdial is retried a configurable number of times.
<b>PAGER OVER EMAIL</b>	Sends a message to a numeric or alphanumeric pager through an external email-to-pager gateway.
<b>OUTDIAL TO PAGER</b>	Sends a "beep" to a pager accessed by calling a service center number. The subscriber may configure the access number and the digits to dial once connected.

**SMPP** Turns on the message-waiting indicator on a mobile phone by sending a special-format SMS message through an external SMS gateway.

## FIND ME FOLLOW ME

**A SUBSCRIBER LOCATION SERVICE, INVOKED ONCE AN INCOMING CALL HAS BEEN FORWARDED TO A SUBSCRIBER'S MAILBOX.**

**OUTREACH NUMBERS** Subscriber may specify one or more outreach numbers to be called in an attempt to locate him, setting the order in which these numbers should be called.

**RING DURATION** For each outreach number, the subscriber may specify how many times it should ring before moving on to the next number.

**SIM-RING** Subscriber may configure outreach numbers to ring simultaneously. When the call is answered on any line, all lines stop ringing.

**WEEKLY SCHEDULE** Subscriber may configure a weekly schedule for each outreach number, specifying that it should be used only at certain times of day or certain days of the week.

**CALLER CHALLENGE** Subscriber may require the caller to record his name. When the subscriber answers an outreach call, he can choose to accept the call or to send it to voicemail.

**CUSTOM GREETING** Using the Telephone User Interface (TUI), the subscriber may record a greeting to be played to the caller, before the attempt to locate the subscriber begins.

**SUSPEND FMFM** Using the TUI or CommPortal, the subscriber may suspend FMFM and allow all incoming calls to ring the originally-dialed phone.

## REMINDERS

**AN ALARM-CALL SERVICE, WHICH ALLOWS SUBSCRIBERS TO CONFIGURE EITHER ONE-OFF REMINDERS FOR A SPECIFIC DATE IN THE FUTURE, OR REGULAR CALLS AT THE SAME TIME EACH DAY.**

**LINE SELECTION** Reminder calls may be delivered to any line associated with an account that is specified when the reminder is set up.

**ONE-OFF REMINDER** A reminder may be scheduled for any date up to 1 year from today.

**RECURRING REMINDER** A reminder may be scheduled for every day, or for every weekday.

**RECORDED MESSAGE** Using the Telephone User Interface (TUI) or CommPortal, the subscriber may record his own message to be played back during the reminder call.

**DO NOT DISTURB** Using the TUI or CommPortal, the subscriber may suspend all reminder calls.

## CALL ROUTER

A SIMPLE TELEPHONE USER INTERFACE (TUI) CREATION SERVICE, WHICH ALLOWS THE CALLER TO SELECT FROM A NUMBER OF OPTIONS USING HIS TELEPHONE KEYPAD.

<b>REPLAY MENU</b>	Repeat the call router announcement.
<b>LEAVE MESSAGE</b>	Leave a voicemail for a subscriber specified by the menu option.
<b>TRANSFER TO NUMBER</b>	Transfer the call to a number specified by the menu option. This number need not belong to a MetaSphere subscriber.
<b>TRANSFER TO OPERATOR</b>	Transfer the call to the operator (receptionist) number associated with the call router. The special key o always selects this option, if an operator number is configured for the call router.
<b>TRANSFER TO CALL ROUTER</b>	Transfer the call to another call router, enabling a simple multi-level TUI hierarchy.

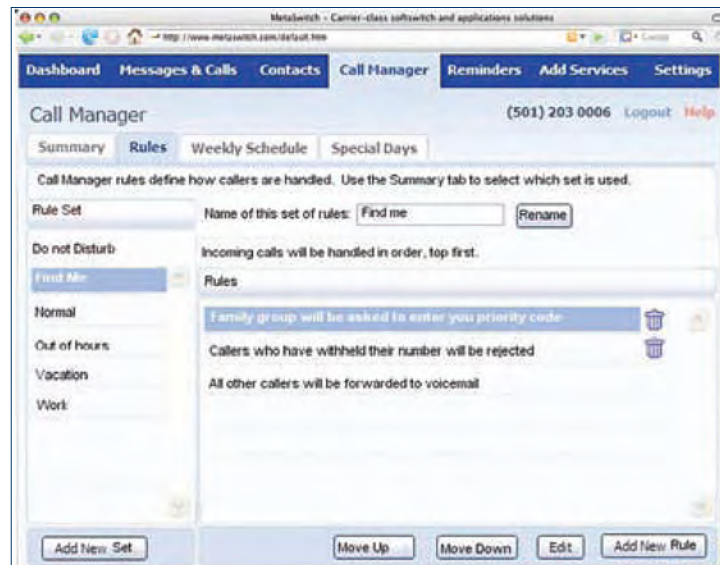
## LIVE MESSAGE SCREENING™

REPLICATE THE ANSWERING MACHINE EXPERIENCE BY ENABLING SUBSCRIBERS TO LISTEN AS VOICEMAILS ARE BEING DEPOSITED AND BREAK-IN TO THE CALL AT THE PUSH OF A BUTTON.

<b>ONE-WAY MEDIA</b>	Subscribers can listen-in anonymously while a caller leaves a message.
<b>DISTINCTIVE RING</b>	The system notifies the subscriber via a pulse (analog phone) or other distinctive tone, when a caller is prompted to leave a message.
<b>AUTO-ANSWER</b>	Subscribers with a SIP phone may choose to have Live Message Screening automatically activate the speakerphone function instead of alerting them via distinctive ring.
<b>INTERRUPT MESSAGE</b>	Subscribers may choose to connect to the call at anytime while listening-in as the caller leaves a message.

## INCOMING CALL MANAGER

AN ADVANCED CALL HANDLING SERVICE THAT ENABLES INDIVIDUAL SUBSCRIBERS TO CONFIGURE POWERFUL RULE-SETS WHICH ARE APPLIED TO INCOMING CALLS, FACILITATING REAL-TIME ACTIONS SUCH AS FORWARDING OR REJECTION.



EASILY APPLY RULES FOR INCOMING CALLS FROM ANY WEB BROWSER WITH METASPHERE INCOMING CALL MANAGER (ICM)

### WEEKLY SCHEDULE

Using CommPortal, the subscriber can split his week into defined periods, during which he wishes different call processing rules to be applied. For example, he might split his week into office hours, lunch breaks, and out-of-office hours, and assign a different set of call processing rules to each.

### SPECIAL DAYS

Using CommPortal, the subscriber can define specific dates on which his normal weekly schedule does not apply, and alternative rules should be applied instead. For example, he may define dates when on holiday or on a business trip.

### OVERRIDE RULES

Using CommPortal, the subscriber can override his usual schedule and instead apply a single set of rules irrespective of the day and time.

### FORWARD ALL CALLS

Using CommPortal or the Telephone User Interface (TUI), the subscriber can override his usual schedule and forward all calls to a number of his choosing.

### SUSPEND ICM

Using CommPortal or the TUI, the subscriber can override his usual schedule and allow all incoming calls to ring the originally-dialed phone.

### INDIVIDUAL CONTACT

Applies to calls received from a specific individual selected from the subscriber's contact list. Contacts are configured by the subscriber within CommPortal. The rule applies when the call is from any of the numbers recorded for this contact (for example, their business line or mobile phone).

### GROUP OF CONTACTS

As for "Individual contact", above, but applies to all members of a contact group. Contact groups are configured by the subscriber within CommPortal.

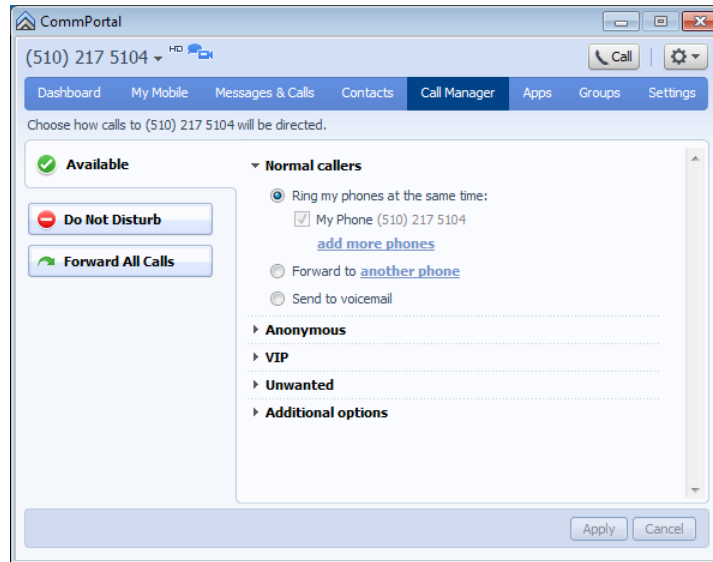
### WHOLE CONTACT LIST

Applies to calls received from any number the subscriber has added to his contact list.

<b>PHONE NUMBER</b>	Applies to calls received from a specific phone number, which need not be in the contact list.
<b>WITHHELD NUMBER</b>	Applies to calls where the caller withheld his number.
<b>RING ORIGINAL PHONE</b>	Delivers the call to the originally-dialed phone, as though it had not been handled by ICM.
<b>DISTINCTIVE RING</b>	Delivers the call to the originally-dialed phone, applying a distinctive ringing cadence.
<b>FORWARD TO VOICEMAIL</b>	Does not ring the subscriber's phone and directs the call immediately to voicemail.
<b>FORWARD TO NUMBER</b>	Forwards the call to another number.
<b>REJECT CALL</b>	Plays a message stating that the caller is not available, then ends the call.
<b>CALLER CHALLENGE</b>	Asks the caller to record his name, then rings the originally-dialed phone. When the subscriber answers, he can choose to accept the call or to send it to voicemail.
<b>RING MULTIPLE PHONES</b>	Rings a number of lines, in turn or simultaneously. The subscriber can specify the numbers and for how long the line should ring. Answering a call on one line stops any other lines from ringing. If the call is not answered on any line, it is forwarded to voicemail.

## EASY CALL MANAGER

SIMPLIFIED CALL HANDLING OPTION THAT PRESENTS A SIMPLE INTERFACE FOR CONFIGURING OUR MOST COMMONLY USED RULES, SUCH AS DND, CALL FORWARDING, SIM-RING, ANONYMOUS CALL REJECT, VIP CALL HANDLING, ETC.



QUICKLY SET COMMON INCOMING CALL RULES FROM THE EASY CALL MANAGER USER INTERFACE

### HOT BUTTONS

Set and clear rules at the push of a button.

### SIM-RING

Configure phones for find-me / follow-me

### CALL FORWARDING

Set phone number or voicemail

### ANONYMOUS CALL HANDLING

Call screening or send directly to voicemail

### VIP CALLERS

Selective Sim-Ring or call forwarding based on CLID

### UNWANTED CALLERS

Reject or send to directly to voicemail

### ADDITIONAL OPTIONS

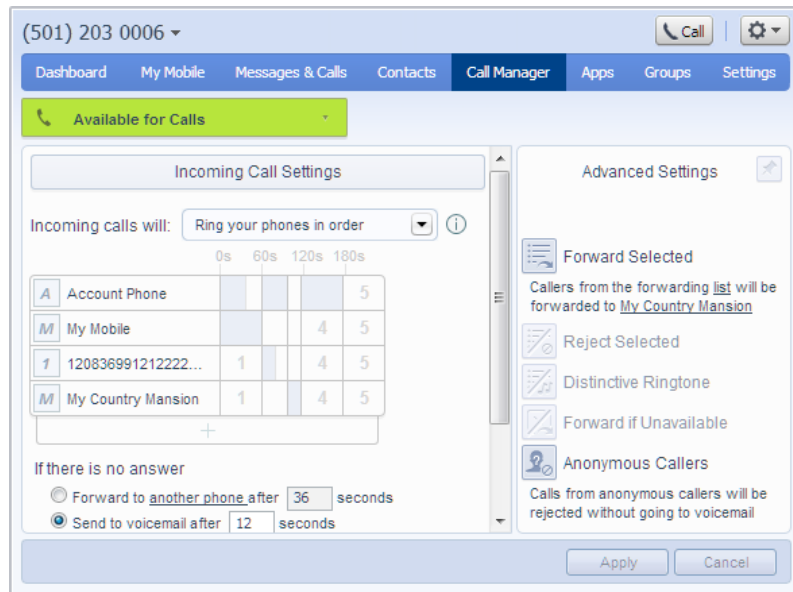
In-call and ring-no-answer handling

### ACCESSION INTEGRATION

Configurable in Accession Communicator for Desktop and Mobile.

## BUSINESS CALL MANAGER

SIMPLIFIED CALL HANDLING OPTION FOR CONFIGURING CFS CALL FEATURES, PROVIDING EXCELLENT SCALABILITY AND A SIMPLE, INTUITIVE INTERFACE.



MANAGE INCOMING CALLS USING THE BUSINESS CALL MANAGER USER INTERFACE

### STATUS UPDATE

Set and update status and call rules with a single button press.

### SYNCHRONISED STATUS

Do Not Disturb status synchronised between SIP phones and servers.

### ACCESSION INTEGRATION

Configurable in Accession Communicator for Desktop and Mobile.

### SIM-RING

Configure phones for find-me/follow-me.

### CALL FORWARDING

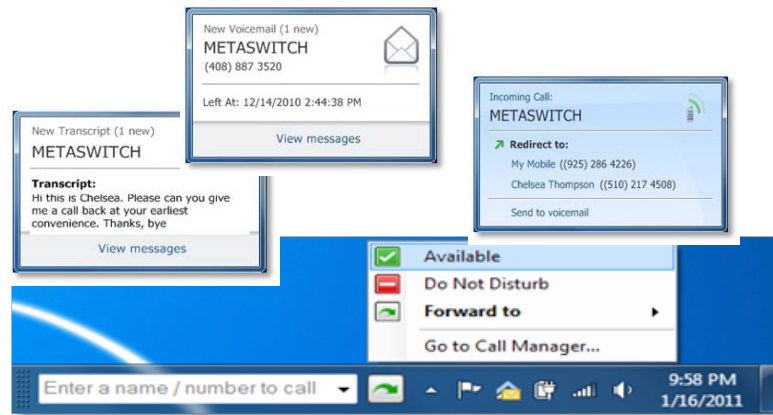
CFS call forwarding services configurable.

### CALL SCREENING

Anonymous call rejection, selective call rejection and selective call acceptance.

## COMMPORTAL ASSISTANT

A LIGHTWEIGHT SOFTWARE CLIENT THAT RUNS ON A SUBSCRIBER'S PC, COMMPORTAL ASSISTANT AUGMENTS THE STANDARD COMMPORTAL WEB INTERFACE WITH POP-UPS, DESKTOP TOOLBARS AND MORE.

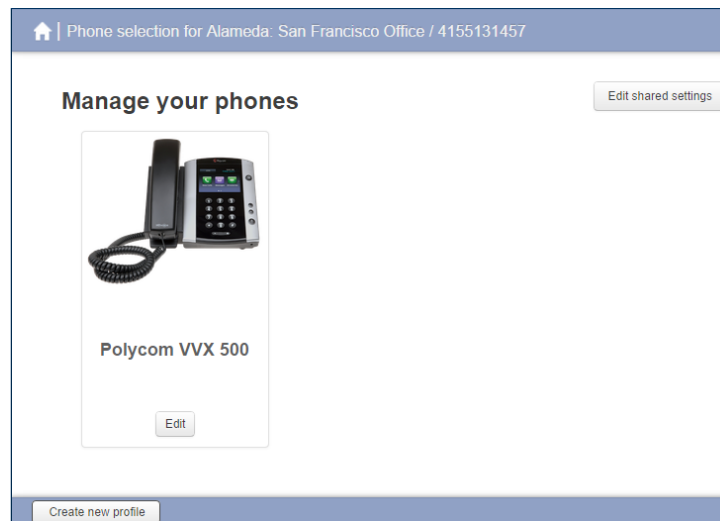


A FEATURE-RICH TOOLBAR THAT DELIVERS INSTANT ACCESS TO CONTACTS AND CALL RULES

<b>SINGLE-CLICK INSTALLATION</b>	Via CommPortal.
<b>NOTIFICATION ICON</b>	A system tray icon indicates whether subscriber has new messages.
<b>TOASTER POP-UP</b>	A pop-up next to the system tray appears when a new message first arrives in the subscriber's mailbox.
<b>TOOLBAR CONTACT SEARCH</b>	Subscriber can do a fast search for a contact in the Contact List by entering the first few letters in the toolbar search box.
<b>LDAP CONTACT SEARCH</b>	Subscriber can search for a contact in the enterprise address list (e.g. Microsoft Active Directory) from the toolbar.
<b>CLICK-TO-DIAL</b>	Subscriber can click on any number found via a contact search to launch a call to that number, either at the subscriber's own phone or at a remote phone.
<b>OUTLOOK INTEGRATION</b>	If the subscriber uses Microsoft Outlook, he can use the existing "Call Contact" button in Outlook Contacts to place a call.
<b>OUTLOOK SYNCHRONIZATION</b>	Supports automatic synchronization of Outlook and CommPortal contacts.
<b>INTRA-BUSINESS GROUP SEARCH</b>	Allows Business Group users to search for other Business Group lines by name – directly from the CommPortal Assistant toolbar and, in particular, to initiate Click-to-Dial calls within a Business Group.
<b>INSTANT COMMPORTAL LOGIN</b>	From the right-click menu on the system tray icon, the subscriber can open CommPortal at the Messages page, without having to enter a user name and password.
<b>CHANGE STATUS</b>	From the right-click menu on the toolbar, the subscriber can select Do Not Disturb or activate phone forwarding.

## COMMPORTAL PHONE CONFIGURATOR

THE ONLINE GRAPHICAL USER INTERFACE FOR THE METAVIEW SIP PROVISIONING SERVER, AN INTEGRATED SOFTWARE SOLUTION OFFERING PLUG-AND-PLAY CONFIGURATION OF SIP DESK PHONES.



### COMMPORTAL PHONE CONFIGURATOR

#### SUBSCRIBER VIEW

Subscriber views an image of a wide selection of actual phone models. Clicks to provision soft keys on the phone images to assign functions to those keys that correspond to their actual phone.

#### BUSINESS GROUP ADMINISTRATOR VIEW

Assign phones to users. Create or edit phone profiles, describing the configuration settings for each model of phone or for a particular Business Group. Lock or hide items of configuration which should not be changed by individuals.

#### SERVICE PROVIDER VIEW

Lock or hide any item of configuration.

#### VALUE ADDED RESELLER VIEW

Add new phones by supplying MAC address and model information (manually or via standard bar code reader). Assign phones to Business Groups or subscribers.

## COMMPORTAL WIDGETS

EMBEDDED APPLETS THAT DELIVER THE MOST POWERFUL COMMPORTAL FEATURES DIRECTLY TO A SUBSCRIBER'S INTERNET HOMEPAGE OR ACTIVE COMPUTER DESKTOP.

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### MULTI-ENVIRONMENT SUPPORT

Widgets are available for the following environments:

- ))) Windows 7 and Windows Vista Sidebar, 32-bit and 64-bit versions.
- ))) The Mac OS X Dashboard.
- ))) Mac OS X Snow Leopard.
- ))) Gmail.
- ))) Google Calendar.

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### WIDGETS FUNCTIONS

- ))) Voicemail – Audio and transcribed message lists, playback and management (including new message notification).
  - ))) Call Lists – recent call information.
  - ))) Dialer – Click-to-Dial from a voicemail, call record, or contact.
  - ))) Quick-launch button to open CommPortal (bypassing the login screen).
  - ))) View faxes directly from the Widget, eliminating the need to open CommPortal.
  - ))) Displays a warning if the subscriber's mailbox is nearly full, or has reached its limit and is rejecting messages.
  - ))) Messages and faxes can be deleted, or marked as new or heard.
  - ))) Conference Widget, allows subscribers with MetaSphere Conferencing to access its most important features from their desktop rather than having to navigate to the Conferencing UI.
-

## CALL ME BUTTON

SUBSCRIBERS CAN ADD A GRAPHICAL 'BUTTON' TO THEIR PERSONAL WEBSITES, SOCIAL NETWORKING PORTALS OR EMAIL SIGNATURES - ALLOWING THIRD PARTIES TO CALL, FOR FREE, WITH SIMPLY THE CLICK OF A MOUSE - WHILE NEVER ACTUALLY ADVERTISING THEIR PHONE NUMBER.



CALL ME BUTTON SELECTOR

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### BUSINESS AND RESIDENTIAL APPLICATIONS

- ))) HTML mailers.
- ))) Email signatures.
- ))) Websites.
- ))) Blogs.

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### CONFIGURATION / MANAGEMENT

Subscribers configure/manage via a simple wizard within CommPortal.

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## COMMPORTAL – CALL FEATURE SUPPORT

THE FOLLOWING METASWITCH CALL SERVICES CAN BE CONFIGURED AND MODIFIED VIA COMMPORTAL:

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### UNCONDITIONAL / BUSY / DELAYED CALL FORWARDING

Subscribers can activate or de-activate each type of forwarding, and configure the forward-to number in each case.

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### REMINDERS

Subscribers can configure one-off or regular reminder calls.

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### FIND ME FOLLOW ME

Subscribers can configure outreach numbers, ring duration and sim-ring settings.

---

### DO NOT DISTURB

Subscribers can activate or de-activate Do Not Disturb.

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### CALLING NUMBER / NAME DELIVERY

Subscribers can activate or de-activate the display of this information on their phones.

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### CALLER ID PRESENTATION

Subscribers can configure whether to withhold or present their numbers by default.

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### SPEED CALLING

Subscribers can configure their speed-call numbers.

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### PRIORITY CALL (DISTINCTIVE RINGING)

Subscribers can activate or de-activate the service, and edit the screening list(s) for the distinctive cadence.

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### SELECTIVE CALL ACCEPTANCE / REJECTION

Subscribers can activate or de-activate the service, and edit the screening list.

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### SELECTIVE CALL FORWARDING

Subscribers can activate or de-activate the service, and edit the screening list and forwarding numbers.

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### CALL BARRING

Subscribers can configure barred call types.

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### MANDATORY ACCOUNT CODES

Subscribers can activate or de-activate the service, set call types which require account codes, and edit the list of permitted codes.

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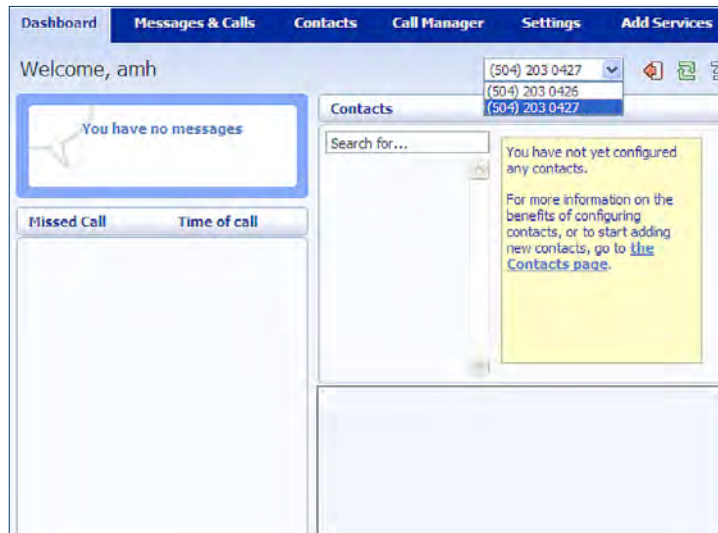
### E911

Subscribers can specify their current locations for integration with interoperable 911 providers.

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### TEEN LINE

Subscribers can log on to CommPortal using a Teen Line number, and manage only the services of that line; or using a primary number, and manage services for the primary line or any of its Teen Lines.



COMMPORTAL TEEN LINE PRIMARY LINE DISPLAY

**PRIVACY FOR TEEN LINE**

Provides the option to prevent owners of parent lines from listening to teen lines' voicemail.

**BUSINESS GROUP ADMINISTRATORS**

Business Group Administrators can view and change the account details of Business Group line Users. They can create Departments, Dialing Plans and Short Codes; attach Line Users to Multiple Appearance Directory Numbers (MADNs), Multi-Line Hunt Groups (MLHGs) and Call Pickup Groups; manage Messaging features; and reset and reallocate Lines to new users.

**BUSINESS GROUP LINE USERS**

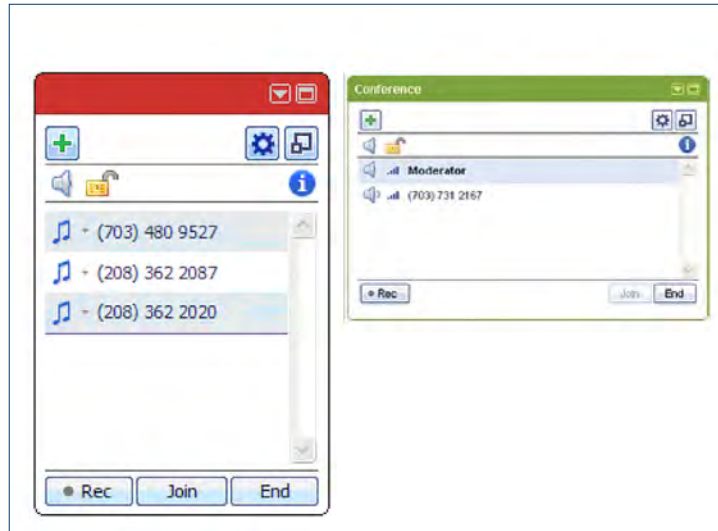
Business Group line users can view and change their account details, including membership of MADNs and MLHGs.

**SELF-SUBSCRIPTION**

Subscribers can sign up for additional Metaswitch services.

## CONFERRNCING

RESERVATIONLESS MEET-ME CONFERRNCING FOR UP TO 500 ATTENDEES.



CONFERRNCING WIDGET DISPLAYS

### WEB INTERFACE

Allows subscribers to control participant interaction and call flow through the web.

### PHONE INTERFACE

Allows subscribers to control participant interaction and call flow via the phone.

### DYNAMICALLY UPDATED PARTICIPANT LIST

Automatically displays and updates participant details on-screen, via network Caller ID while also allowing manual assignment of a name to an unlabeled or mislabeled participant "icon".

### GRANULAR PARTICIPANT/SPEAKER VOLUME CONTROL

Visible indication of current speaker and audio levels with ability to mute or adjust volume of any or all participants.

### CONFERRNCING RECORDING

Ability to record conference calls for archival, sharing and review via phone key press or web interface.

Provides moderators with control over the use of conference recording, including an option to disable conference recording completely.

Moderators can control whether announcements are played when recording starts or stops, and configure historical conference recordings to be automatically deleted after a suitable time period to avoid filling up disk space.

### BILLING FLEXIBILITY

Supports multiple conference dial-in numbers.

Provides the ability to create a dial-in number for each company, available only to moderators within that company, and/or one or more global dial-in numbers for use by all moderators. The dial-in number is logged in billing records, so you can offer different numbers to different groups of users and easily distinguish between them for subsequent billing purposes.

### GREETING

Moderators can record and upload personalized greetings to play when participants dial into the conference.

**USABILITY**

- »»» When viewing their conference history via the web UI, moderators can see a list of participants, and assign a name to the conference for future reference.
- »»» Moderators may choose for conferences to start as soon as the first two participants join (instead of playing music on hold until the moderator is present).
- »»» Moderators can mute or unmute all participants using a single key press in the Telephone User Interface (TUI).

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**ACCOUNT SECURITY**

Moderators can change both their participant and moderator codes. In addition, service providers are able to change both the participant and moderator codes for a given user through the service provider admin UI.

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**LOCK CONFERENCE**

The moderator may prohibit additional attendees from joining the conference to ensure a secure and uninterrupted call.

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**ROLL CALL**

Without alerting participants, Moderator can instruct system to announce:

- »»» Names of participants currently in the conference.
- »»» A count of participants.
- »»» Name of last participant to join.

---

**MEDIA ON HOLD**

Messages or music may be played to participants while they wait for a conference to begin. These may be service provider specified, or customer uploaded audio files.

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**CONFERENCE WIDGET**

Enables your subscribers to set up and moderate a conference, view an automatically-updated list of attendees and invite further participants, all from their desktop.

Subscribers also have easy access to conference audio settings, including the ability to mute individual participants and adjust individual volumes.

---

**MOBILE CONFERENCING**

CommPortal Mobile also offers powerful functionality to users on the move, with applications for the iPhone and Android-based devices that provide similar function to the Conference Widget. The CommPortal Conference applications fit seamlessly into your users' everyday work patterns. Integrating with contact lists stored on the phone, the applications make it easy to invite people into a conference and to manage existing participants – so that setting up a conference can now be as natural and straightforward as making a call.

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**HD QUALITY**

Standards-based G.722 high definition / wideband audio support delivers crystal-clear conferences and eliminates conference fatigue.

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## FIREBAR / INSTANT CONFERENCE

**METASPHERE FIREBAR IS AN INDISPENSABLE EMERGENCY COMMUNICATIONS TOOL DESIGNED TO ADDRESS A SPECIFIC NEED OF IMPORTANCE TO MANY COMMUNITIES: TO ESTABLISH AN EMERGENCY AUDIO CONFERENCE WITH A GROUP OF FIRST RESPONDERS.**

Home | Firebar calls

**Firebar call report**

Account firebars: LAFD Firebar (5072000180)

Download call report

Date	Status	Calling Number	Caller ID	Attempts	Completions	Duration	1st Responder
2009-09-22 06:34:24 PM	Incomplete	504-203-0772		0	0	00:00:08	N/A
2009-09-22 03:43:29 PM	Complete	504-203-8907	Maric Franais	1	1 ( 100%)	00:01:15	00:00:14
2009-09-22 12:03:08 PM	Incomplete	504-203-8907	Maric Franais	0	0	00:00:08	N/A
2009-09-22 11:13:03 AM	Complete	504-203-8907	Maric Franais	3	2 ( 66%)	00:00:36	00:00:09
2009-09-21 05:10:01 PM	Incomplete	504-203-8907	Maric Franais	0	0	00:00:03	N/A

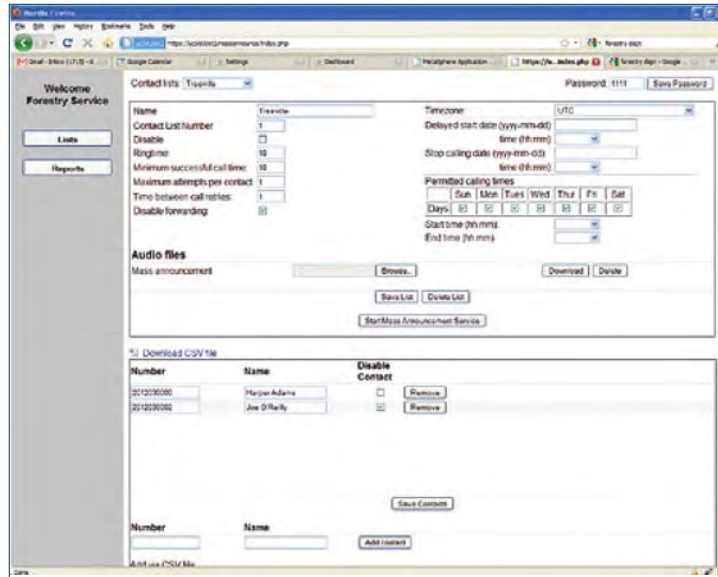
### FIREBAR CALL REPORT

Firebar provides the means to rapidly establish an emergency audio conference with a group of first responders, using a preconfigured list of contacts.

When a call is received on a dedicated number, Firebar immediately attempts to establish simultaneous calls to a preconfigured list of contacts. As these calls are answered, the responders are placed into a multiway conference with the caller. Responders can also dial in to emergency conferences that are in progress, allowing them, for example, to drop out of a conference on their landline and dial back in from their mobile phone.

## MASS ANNOUNCEMENT SERVICE

THE MASS ANNOUNCEMENT SERVICE AUTOMATICALLY PLACES CALLS TO CONTACTS ON A PREDEFINED CONTACT LIST AND PLAYS THEM A PRERECORDED MESSAGE.



METASPHERE MASS ANNOUNCEMENT SERVICE VIA AN INTUITIVE ON-SCREEN USER-INTERFACE

The Mass Announcement Service allows users to automate the process of calling a large number of contacts and playing each one a prerecorded announcement. Users with Mass Announcement Service accounts access the service via a Web UI that permits them to:

- » Configure the list of numbers that should be called when the service is activated, by either entering the numbers online or uploading a CSV file.
- » Upload the announcement that they wish to play.
- » Activate the service (that is, start placing calls and playing announcements), or configure a date and time in the future when the service should activate automatically.
- » Configure options such as how long a call attempt should ring before being terminated, how long to wait before retrying an unsuccessful call, and whether call attempts should only be made between certain times (to avoid calling people during inappropriate hours).
- » View reports showing, for example, which contacts have or have not been contacted successfully.

Users can also record announcements and/or activate the service by dialing in via Telephone User Interface (TUI).

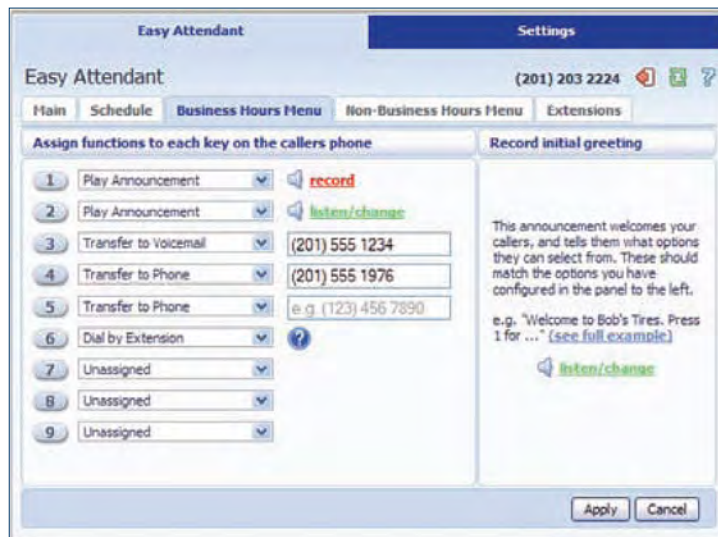
## AUTO ATTENDANT

A HOSTED, FULLY CUSTOMIZABLE, AUTOMATED RECEPTIONIST.

<b>AUTOMATIC CALL ANSWERING</b>	System provides recorded response for all calls.
<b>OUT-OF-HOURS AND HOLIDAYS</b>	Allows the administrator to define separate menus to be played outside business hours or on public holidays.
<b>DIAL-BY-EXTENSION DIRECTORY</b>	Callers may dial an extension number on the telephone keypad to reach the intended party.
<b>DIAL-BY-NAME DIRECTORY</b>	Callers may dial a name on the telephone keypad to reach the intended party.
<b>ADMINISTRATION</b>	Via Telephone User Interface (TUI) or web.

## EASY ATTENDANT™

AN AUTOMATED RECEPTIONIST THAT IS SPECIFICALLY TAILORED TO MEET THE NEEDS OF SMALL BUSINESSES.



METASPHERE EASY ATTENDANT'S COMMPORTAL USER INTERFACE.

<b>CUSTOMIZABLE SCHEDULE</b>	Allows businesses to define separate menus to be played during and outside business hours.
<b>WEB INTERFACE</b>	Entirely configurable using CommPortal.
<b>DIAL BY EXTENSION</b>	Allows Easy Attendant to transfer calls based on an extension number input by the caller either at any time, or within a dedicated IVR menu.
<b>DIAL BY NAME</b>	Allows Easy Attendant to transfer calls based on name rather than extension number – reducing the need for a live receptionist.

## PREMIUM ATTENDANT

SUBSCRIBER-CONFIGURABLE AUTOMATED RECEPTIONIST SERVICE TARGETED AT HIGH-VALUE BUSINESS SUBSCRIBERS.

The screenshot shows the 'Settings' page for 'Sam's Secretarial Services' (ID: 5042033270). The page has tabs for Main, Schedule, Menus, Announcements, Extensions, and Advanced. The 'Main' tab is active, showing the 'Activation Status' (currently ON with a 'Turn OFF' button) and 'Service Status' (currently Business Hours). On the right, there are five configuration options: 'Configure your weekly schedule and holidays', 'Define the menus', 'Record the announcements', 'Manage the extensions', and 'Configure the advanced settings'.

The screenshot shows the 'Schedule' page for 'Sam's Secretarial Services'. It displays a calendar grid for the week of Monday to Sunday. The 'Lunch' period is highlighted in green, spanning from 12:00 pm to 1:00 pm on Monday through Friday. The 'Out Of Hours' menu is selected for this period. The left sidebar shows 'Periods' including Business Hours, Lunch, All other times, and Special Days. Buttons at the bottom include 'Add New Period', 'Rename', 'Delete', 'Apply', and 'Cancel'.

The screenshot shows the 'Announcements' page for 'Sam's Secretarial Services'. It features a search bar and a table of announcements. The table has columns for Name and Description. Three announcements are listed:

Name	Description
100 Business Hours Main	Business hours main menu
102 Contact information	Information about contact details and where t...
101 Out Of Hours Main	Out of hours main menu

Buttons at the bottom include 'Add New Announcement', 'Delete', and 'Download recording report...'.

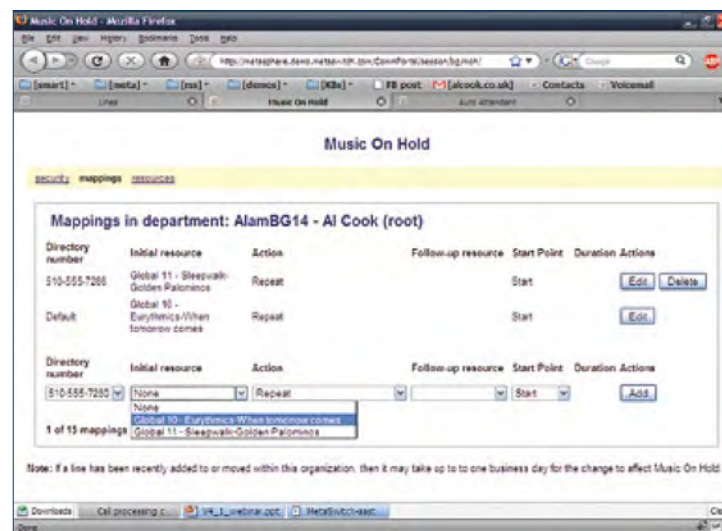
Offers a number of high-end features, including:

- ))) Multi-level menus with intuitive, consistent navigation.
- ))) More fine-grained control over scheduling – configure up to ten separate TUIs, to be played at different times or on different days.
- ))) Configurable option to transfer directly to a voicemail mailbox selected by extension or by name.
- ))) The option to upload recordings – for example provided by a voice talent agency – through CommPortal, as well as recording them over the phone.
- ))) Configurable behavior for special keys (\* and #) and configurable responses for errors such as bad user input.

Both Easy Attendant and Premium Attendant support integration with Business Groups of up to 1,000 members – with an extension list populated in near real-time with members of the Business Group.

## MUSIC ON HOLD

**ENABLES SERVICE PROVIDERS TO OFFER THEIR BUSINESS USERS A OPTION TO PLAY CUSTOMIZED MEDIA, SUCH AS MUSIC, ANNOUNCEMENTS OR ADVERTIZING, WHILE THEIR CUSTOMERS ARE ON HOLD.**



METASPHERE MUSIC ON HOLD PUTS YOU IN CONTROL OF THE MEDIA YOUR CALLERS HEAR.

### STREAMING AUDIO

Plays for all calls on hold or in queue.

### MAJOR AUDIO FORMAT SUPPORT

Includes WAV and MP3.

### COMMPORTAL INTEGRATION

Upload audio resources via CommPortal.

### RECORD BY PHONE

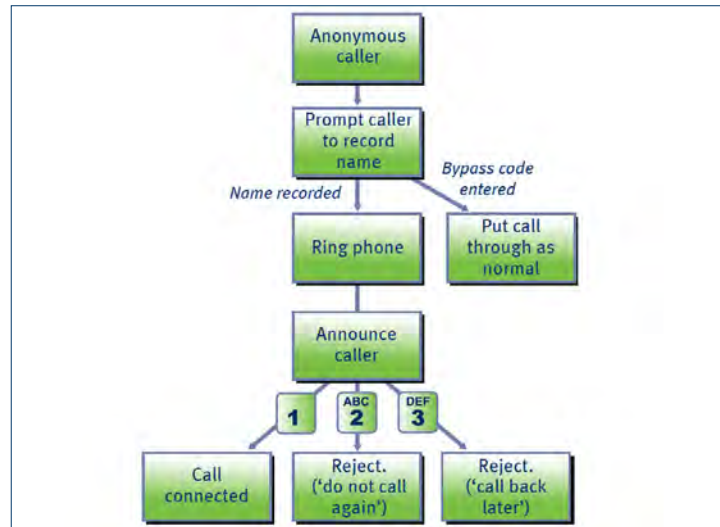
Administrators may record audio resources via phone.

### ASSIGN RESOURCES

Resources may be attached to specific Business Groups or Business Group lines.

## PRIVACY DEFENDER

ELIMINATES NUISANCE CALLS BY ENSURING THAT ALL CALLERS ARE IDENTIFIABLE.



### AUTOMATED CHALLENGE

If no caller ID is available on an incoming call, then the caller is presented with the opportunity to record his or her name and request to be connected.

### RESPONSE OPTIONS

After the system plays the caller's recorded name to the subscriber, the subscriber can then choose to play a message informing the caller that the subscriber does not accept telemarketing calls and asking to be removed from his or her calling list; or that the subscriber cannot accept the call at this time and to please call back later.

### BYPASS CODE

Subscribers may enable specific callers to bypass Privacy Defender by inputting a bypass code.

## PHONE APPLICATIONS

DELIVERS COMMPORTAL FUNCTIONALITY DIRECTLY TO SELECT DESKTOP HANDSETS

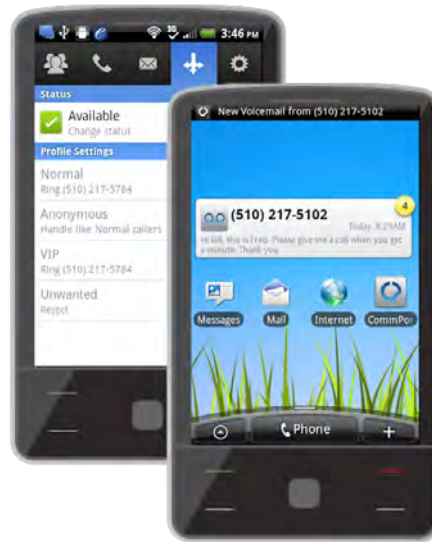
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<b>MESSAGE LIST</b>	Allows message retrieval and management from the phone, without having to navigate through IVR menus or enter DTMF commands.
<b>VOICEMAIL SPEECH-TO-TEXT</b>	Allows voicemail messages to be transcribed into text and read across all CommPortal's graphical interfaces.
<b>NETWORK CONTACTS</b>	Subscribers can use and update their CommPortal contact list directly from their phone handset.
<b>NETWORK CALL LISTS</b>	Displays missed, dialed, received and rejected calls, allowing the user to return calls with a single key press.
<b>HOT DESKING/HOTELLING</b>	Allows users to log on and off from individual phone handsets, simply by entering their phone number and password.
<b>SERVICE PROVISIONING</b>	Enables small business administrators to add new phone handsets to their Business Group via an on-phone UI.

---

## COMMPORTAL MOBILE

COMMPORTAL MOBILE EXTENDS HOME OR OFFICE UNIFIED MESSAGING, CONTACT ADMINISTRATION AND CALL CONTROL DIRECTLY TO iOS, ANDROID AND BLACKBERRY SMARTPHONE DEVICES

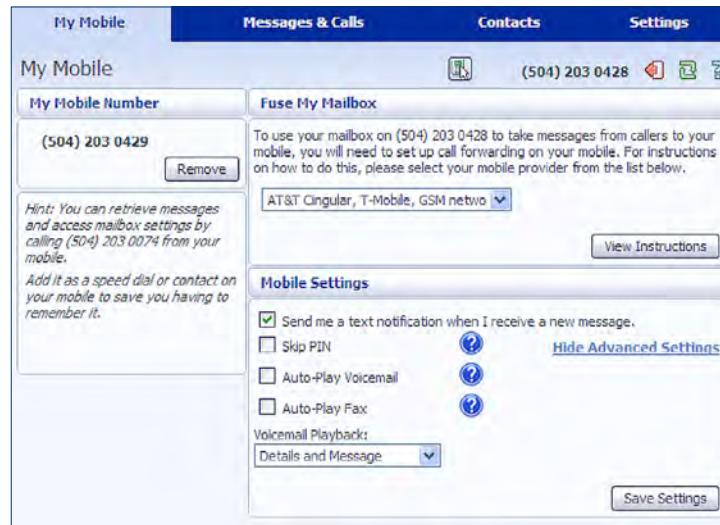


COMMPORTAL MOBILE ON ANDROID OS WITH VOICEMAIL WIDGET AND EASY CALL MANAGER

<b>INTEGRATED CONTACTS</b>	View, add, edit and interact with both CommPortal network-based contacts and the mobile handset contact from a single screen.
<b>3RD PARTY CALL CONTROL</b>	Initiate a call from the Metaswitch platform to a 3rd party that either terminates on the mobile handset or another endpoint. Call mobile contacts from a fixed line at the touch of a button.
<b>VISUAL VOICEMAIL</b>	View, play, read or forward messages deposited on a Metaswitch mailbox.
<b>CALL MANAGER</b>	View and change your Easy Call Manager settings.
<b>DEPLOYMENT</b>	Leverages CommPortal Deployment Acceleration Program (CDAP). Point your customers to the CommPortal application on Apple App Store or Android Market. They select your name from a list of Service Providers. The application is automatically branded and configured to your specifications.
<b>SUPPORTED PLATFORMS</b>	Apple iOS 3.0 and above. Android 2.1 and above. Stand-alone visual voicemail solution - without CDAP option - for BlackBerry.

## MOBILE MAILBOX FUSION

THE COMMPORTAL MOBILE TAB IS USED BY METASPHERE FUSION SUBSCRIBERS TO ASSOCIATE A MOBILE PHONE FROM ANOTHER SERVICE PROVIDER WITH THEIR METASPHERE ACCOUNT.



COMMPORTAL'S 'MOBILE' TAB

### SINGLE MAILBOX

Easily configure a mobile phone to use an existing CommPortal voicemail account, thereby replacing a mobile voicemail and reducing the number of mailboxes a subscriber must manage and maintain.

### UNIFIED INTERFACE

View, play, read or forward messages deposited on both the mobile service providers mailbox and a Metaswitch mailbox from any CommPortal interface.

### COMMON NOTIFICATION

Configure CommPortal to send a text message to a mobile handset every time a new message arrives in an account.

# METAVIEW FEATURES



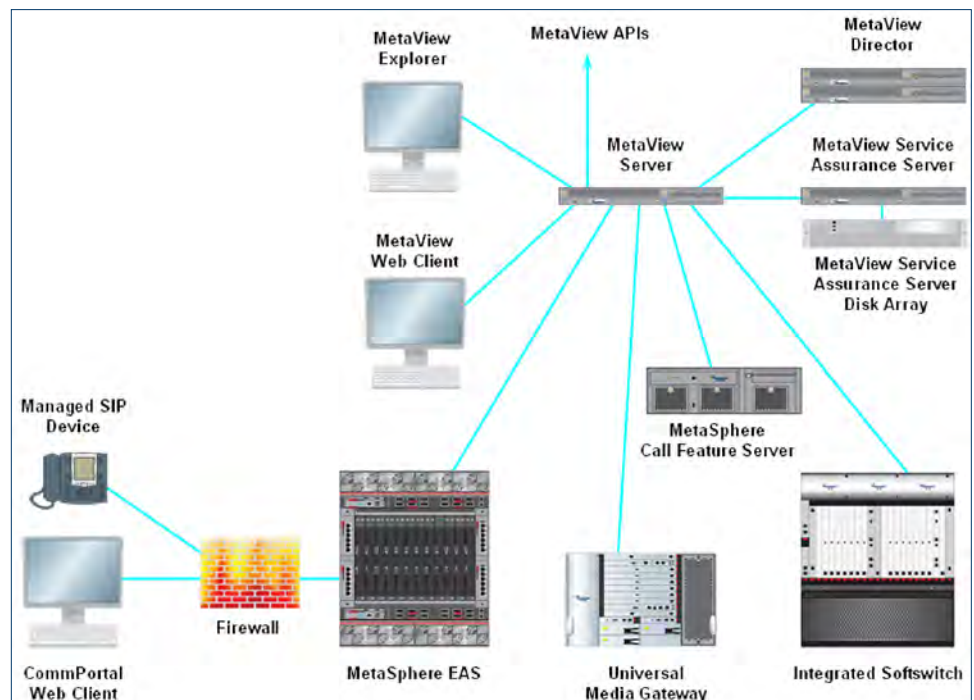
## METAVIEW NETWORK MANAGEMENT SYSTEM FEATURES

METAVIEW IS THE MANAGEMENT SOLUTION FOR VOICE NETWORKS AND APPLICATIONS BASED ON THE METASWITCH PRODUCT SUITE. AT THE CORE OF EVERY METASWITCH NETWORK, METAVIEW PROVIDES PROVISIONING, CONFIGURATION, FAULT REPORTING, STATISTICS AND TROUBLE-SHOOTING SERVICES ACROSS THE ENTIRE METASWITCH PRODUCT RANGE.

METAVIEW ADDRESSES THE FULL RANGE OF MANAGEMENT NEEDS FOR VOICE NETWORKS AND APPLICATIONS ACROSS ALL FIVE OF THE FUNCTIONAL CATEGORIES DEFINED BY THE ITU-T "FCAPS" MODEL: FAULT MANAGEMENT, CONFIGURATION, ACCOUNTING, PERFORMANCE AND SECURITY.

## METAVIEW SERVER

METAVIEW SERVER IS THE CORE COMPONENT OF THE METAVIEW SOLUTION. IT COMMUNICATES WITH THE VARIOUS MANAGED SYSTEMS USING SNMP. THE METAVIEW SERVER PROVIDES ACCESS TO THE DATABASE OF CONFIGURATION INFORMATION AND PROVIDES THE ADMINISTRATION FUNCTIONS TO MAINTAIN, UPDATE, AND REPORT THIS INFORMATION. A SINGLE METAVIEW SERVER CAN MANAGE MULTIPLE METASPHERE CALL FEATURE SERVERS, UNIVERSAL MEDIA GATEWAYS AND METASPHERE ENHANCED APPLICATIONS SERVER SYSTEMS. MULTIPLE METAVIEW SERVERS MAY BE DEPLOYED TO MANAGE LARGER NETWORKS.



METAVIEW DEPLOYMENT ARCHITECTURE

## METAVIEW SERVER FUNCTIONS

### PRIMARY FUNCTIONS

- ))) Maintains details of management users and their privileges.
- ))) Communicates with other Metaswitch products using SNMP to read and write configuration.
- ))) Communicates with MetaSphere CFS, UMG and MetaSphere EAS systems to obtain alarm and log information, and to obtain statistics, all of which are stored in its local database.
- ))) Supports a variety of APIs to external systems, including CORBA, SNMP, SOAP and SQL. These APIs are intended to allow the MetaView solution to be integrated with higher layer management functions such as Operations Support Systems and alarm management systems.
- ))) Supports local user interfaces including MetaView Explorer.
- ))) Generates and stores configuration files for remotely managed SIP devices, including SIP business phones and analog telephony adapters.
- ))) Maintains configuration of various management functions including destination addresses for SNMP alarm notifications and SMTP email notifications.
- ))) Supports the Install Server function, which is needed to manage the upgrade process for MetaSphere Call Feature Server and the Universal Media Gateway, and the VPN Server function, which enables Metaswitch support staff to remotely access the MetaView Server.

### CORBA SUPPORT

MetaView Server offers a CORBA API that is designed to support provisioning and management of subscriber lines and services.

### SOAP (WEB SERVICES API)

MetaView Server offers a Web Services API that is designed to support provisioning and management of subscriber lines and services.

### SNMP SUPPORT

MetaView Server supports an SNMP management agent that allows most management operations on MetaSphere CFS and the UMG, including configuration changes and statistics retrieval, to be carried out using SNMPv2c or SNMPv3.

MetaView Server can also be configured to send SNMP Trap or Inform messages to external alarm management systems.

### SQL (STRUCTURED QUERY LANGUAGE)

MetaView Server supports a SQL API to enable statistics data to be retrieved from its local database. The database technology used in MetaView Server is the popular PostgreSQL. Applications such as Microsoft Excel can easily be set up to retrieve statistics data from MetaView Server for subsequent analysis.

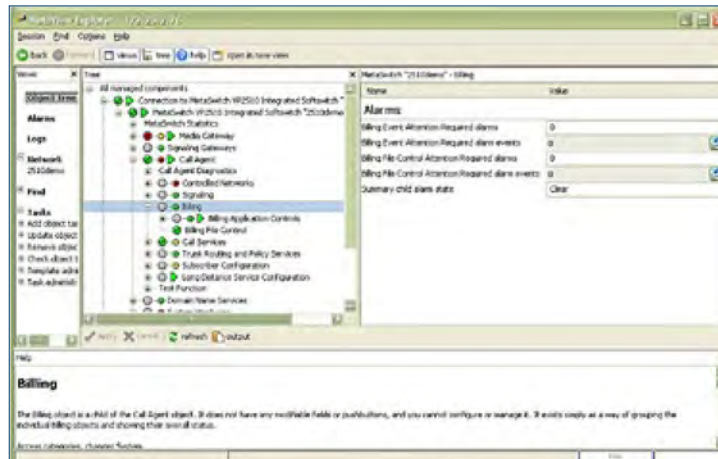
### METAVIEW SERVER SECURITY

Connections between MetaView Server and other elements of the network, including all managed MetaSphere CFS, UMG and MetaSphere EAS systems, may be configured as secure to prevent eavesdropping and to block unauthorized access at these interfaces. This requires the generation and installation of appropriate security certificates.

MetaView Server can be configured to generate audit trails of all management activity, regardless of its source. Audit trails contain details of every change to any object managed by MetaView, whether they result from administrator activity on MetaView Explorer or MetaView Web, from subscriber activity on CommPortal, or from some other system that communicates with MetaView Server via CORBA, SNMP or SOAP.

## METAVIEW EXPLORER

**METAVIEW EXPLORER IS A JAVA-BASED CLIENT THAT PROVIDES PROVISIONING, CONFIGURATION, FAULT REPORTING, STATISTICS AND TROUBLESHOOTING SERVICES ACROSS THE ENTIRE METASWITCH PRODUCT RANGE, INCLUDING METASPHERE, COMMPORTAL, UNIVERSAL MEDIA GATEWAY AND MEDIA RESOURCE SERVER.**



METAVIEW EXPLORER MAKES IT EASY TO MANAGE A METASWITCH NETWORK.

## METAVIEW EXPLORER FUNCTIONS

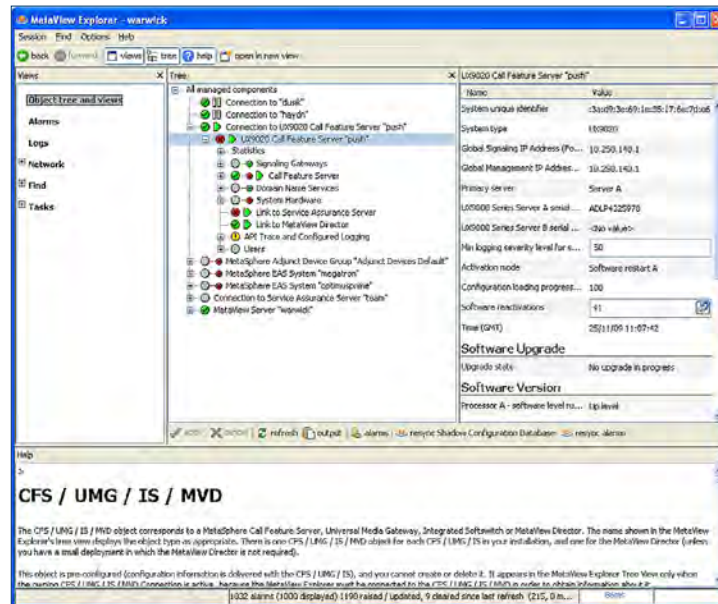
**METAVIEW EXPLORER DELIVERS A SUITE OF VERY POWERFUL FEATURES THAT SIMPLIFY THE MANAGEMENT OF YOUR NETWORK. METAVIEW EXPLORER PROVIDES A NUMBER OF DIFFERENT VIEWS OF THE MANAGED SYSTEMS TO MEET VARIOUS MANAGEMENT AND ADMINISTRATION NEEDS.**

### LOGICAL, HIERARCHICAL VIEW

Presents the entire network as a logical hierarchy, from the top level of network elements down to individual subscribers.

**OBJECT TREE VIEW**

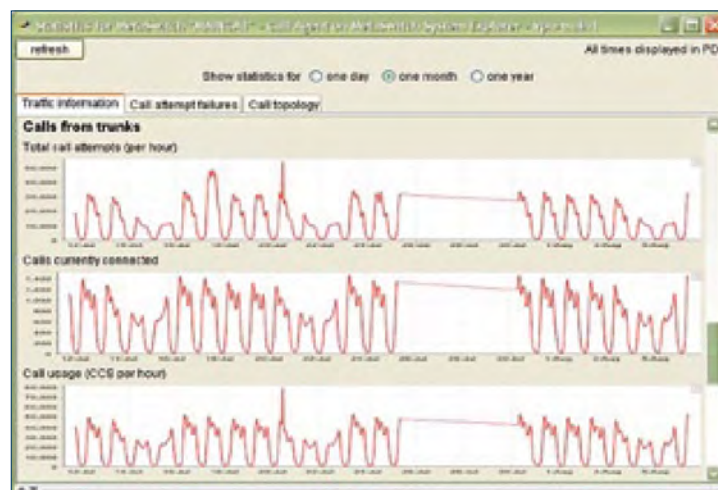
The object tree shows the complete hierarchy of objects that are managed by MetaView. You can expand any level of the tree by clicking on it, so that you can progressively drill down to the particular object to be managed. In addition, you can create additional tree views by selecting any object and clicking on “open in new view”.



**STATISTICS VIEW**

MetaView collects many types of statistics from MetaSphere Call Feature Server (CFS), Universal Media Gateway (UMG) and MetaSphere Enhanced Applications Server (EAS). Each statistical measure is captured at intervals of 5 minutes. In addition, some statistics are captured as instantaneous values, for example the total number of calls currently being handled by MetaSphere CFS. You can view a graphical display of these statistics covering the most recent day, month or year.

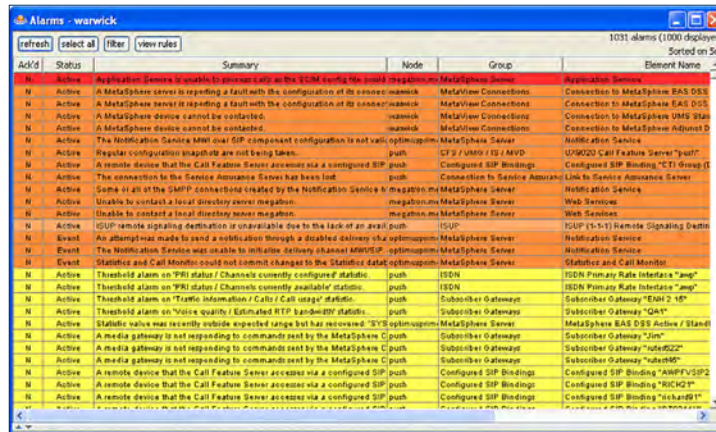
The Statistics View also enables you to set alarm thresholds on any given statistic.



ALARMS VIEW

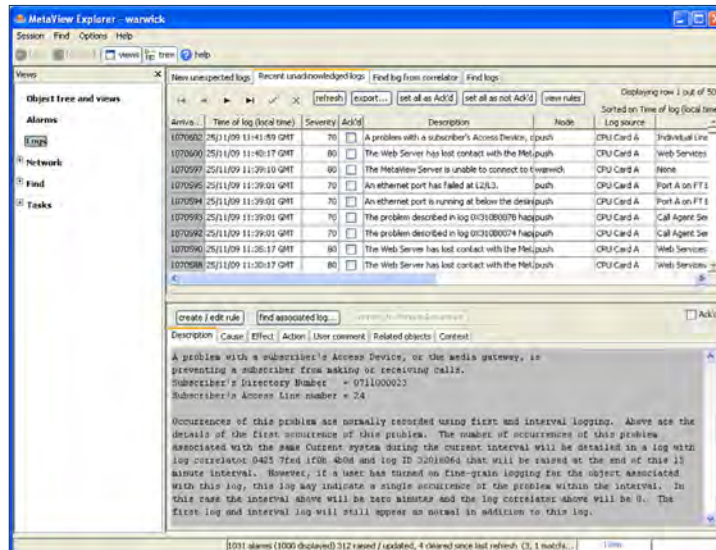
The Alarms view shows all of the current alarm conditions that are present on any of the managed systems. Alarms are displayed in a customizable table format. You can customize the alarm function as follows:

- ))) You can raise or lower the severity of particular alarms, for example to ensure that you see all instances of a particular low-severity alarm condition or to suppress alarm reporting for a specific known issue.
- ))) You can suppress alarms or alter the severity of alarms on particular objects, for example while the objects are being provisioned or undergoing maintenance (because alarms are expected during this process and do not need investigation).



LOGS VIEW

The Logs view displays details of recently logged events that may be associated with fault or alarm conditions. Each log is annotated with detailed information explaining its likely cause and effect.

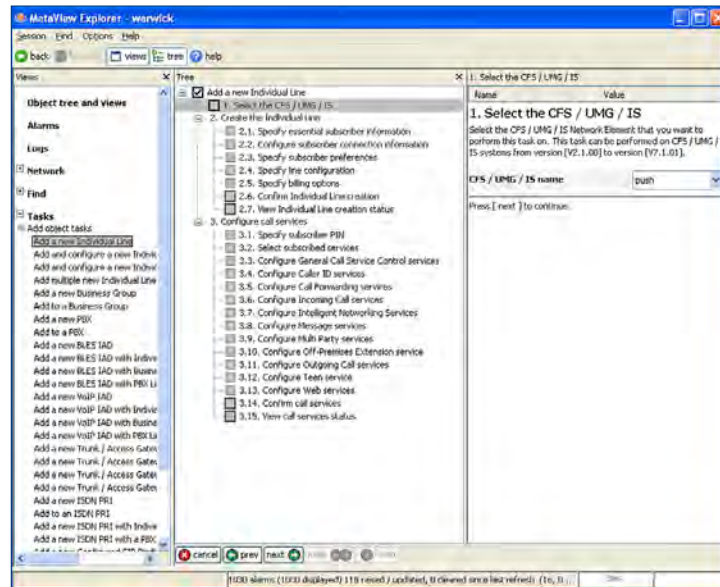


**NETWORK VIEW**

The Network view is available only if MetaView is configured with the optional Voice Quality Monitoring function. This view provides a graphical display of the “nodes” (representing areas of the network) and “interconnects” (representing links between these network areas) that have been configured for voice quality monitoring purposes.

**TASKS VIEW**

The Tasks view provides a step-by-step forms-based approach to performing a wide range of frequently-used operations, such as provisioning a new subscriber line, or modifying the services that are provisioned on an existing line. The user can at all times see the complete list of steps and their current completion status.



**NETWORK-WIDE FAULT MANAGEMENT**

MetaView Explorer provides a single management interface to correlate and report alarms across multiple MetaSphere application servers, media gateway, media resource, and signaling gateway components, in addition to selected third-party equipment.

**FINDING FUNCTION**

MetaView Explorer provides a mechanism for finding all the objects that match a specified set of requirements, such as Directory Number or name. For example, you can find all the subscriber lines that are associated with a particular media gateway, or all those with Directory Numbers in a particular range. MetaView Explorer displays a list of all matching objects, so that you can click on an entry in the list to go straight to the object without having to navigate through the object tree.

Wildcard searching is supported for many types of objects, to make it easier to find objects whose exact name or number is not known.

**ADVANCED DIAGNOSTICS**

Provides real-time monitoring of statistics and resource utilization with configurable alarm thresholds. In addition, MetaView Explorer allows administrators to store the diagnostics for all calls for later analysis.

**“OUT-OF-THE-BOX” INTEGRATED PROVISIONING**

New services on Metaswitch platforms can be rapidly and easily deployed without the cost of interfacing multiple systems into a third-party Network Management System.

**DYNAMIC SCRIPTING**

A Java/Python-based real-time scripting interface allowing users to easily and quickly handle bulk provisioning and management tasks.

**PROFILES AND TEMPLATES**

Subscribers are easily provisioned using customized templates that simplify provisioning with wizard-like workflows. Persistent profiles ensure that any updates are automatically applied to selected subscribers.

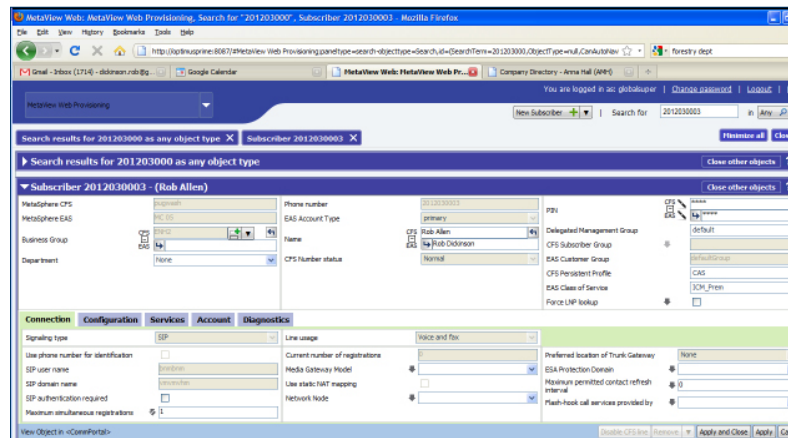
**BULLET-PROOF SECURITY**

The highest standards of security are applied throughout MetaView with session encryption, multiple account types, secure password rules, and a comprehensive audit trail.

## METAVIEW WEB

**METAVIEW WEB IS A WEB-BASED APPLICATION THAT PROVIDES POWERFUL INTERFACES FOR ADMINISTERING YOUR SUBSCRIBERS: METAVIEW SUBSCRIBER MANAGEMENT FOR DETAILED CONFIGURATION OF SUBSCRIBERS AND THEIR ACCESS HARDWARE, METAVIEW PROVISIONING FOR STANDARD CONFIGURATION AND MANAGEMENT PERFORMED BY PROVISIONING STAFF, AND METAVIEW CSR FOR CUSTOMER SUPPORT REPRESENTATIVES.**

**METAVIEW WEB WORKS IN A STANDARD WEB BROWSER SUCH AS FIREFOX OR INTERNET EXPLORER, AND DOES NOT REQUIRE THE INSTALLATION OF AN APPLICATION ON THE USER'S PC OR WORKSTATION. METAVIEW WEB ALSO CONTAINS STREAMLINED INTERFACES FOR MANAGING PERSISTENT PROFILES, CLASSES OF SERVICE AND NUMBER RANGES, TO HELP YOU PROVISION AND CONFIGURE SUBSCRIBERS QUICKLY.**



METAVIEW WEB FEATURES AN INTUITIVE WEB-STYLE INTERFACE

## METAVIEW WEB FUNCTIONS

**METAVIEW SUBSCRIBER MANAGEMENT, METAVIEW PROVISIONING AND METAVIEW CSR CAN RUN ON EITHER METASPHERE EAS OR METAVIEW SERVER HARDWARE, AND DELIVER A NUMBER OF MAJOR BENEFITS.**

---

### METAVIEW WEB FUNCTIONS

All MetaView Web interfaces allow you to:

- ))) Diagnose issues by viewing any current alarms for the subscriber and their access hardware, and by seeing all active SIP endpoint registrations.
- ))) View and manage SIP phones assigned to the subscriber (when deployed with the MetaView SIP Provisioning Server).
- ))) Click through to MetaSphere EAS Provisioning or MetaView Service Assurance Server to access further configuration and diagnostics.

---

### USER ROLE

You can set up different MetaView Web users according to the tasks that they will perform, so that each user has access only to the MetaView Web functions and configuration that he or she requires.

MetaView Web supports the following user roles:

- ))) Subscriber Management Representatives have comprehensive, detailed access to all aspects of subscriber-related configuration. They can perform all provisioning and management operations, including all those that a Provisioning Representative, Customer Support Representative or Phone Operations Representative can perform. They can create, update and delete subscribers, Business Groups, PBXs, ISDN PRIs, MGCP/NCS subscriber gateways and SIP bindings.
- ))) Provisioning Representatives have streamlined access to the most common subscriber-related configuration, allowing them to create, update and delete SIP, MGCP/NCS, T1 CAS and GR-303 subscribers, all in a single easy-to-use screen.

These users are responsible for provisioning standard subscribers (using call services defined by a Persistent Profile) and their access devices. They may be CFS and EAS Provisioning Representatives (with access to subscribers on both MetaSphere CFS and MetaSphere EAS), CFS-only Provisioning Representatives, or EAS-only Provisioning Representatives.

- ))) Customer Support Representatives (CSR) can easily access key subscriber configuration and diagnostics on a single screen. They can easily carry out common administrative tasks such as:
  - ))) Suspending and resuming a subscriber's service.
  - ))) Resetting PINs and passwords.
  - ))) Controlling access to features using Persistent Profiles and Classes of Service.

Phone Operations Representatives send out physical SIP phones to subscribers and configure them on the system. They can locate a Business Group, Individual Line or phone quickly, and configure phones on the system.

Service Profiles Representatives can create, edit, clone and delete Persistent Profiles and Classes of Service, which other MetaView Web users can use to quickly add and configure new classes of subscriber line.

Number Management Representatives can assign Delegated Management Groups to specific Number Ranges, and allocate a subset of numbers to each DMG within a Number Range.

---

## DELEGATED MANAGEMENT GROUPS

You can set up Delegated Management Groups (DMGs) to partition your subscribers, so that a DMG contains a specific subset of Individual Lines and/or Business Groups, and you can restrict each MetaView Web user to supporting subscribers in a single DMG.

You can also restrict each DMG to using a particular set of Number Ranges, templates, Persistent Profiles and Classes of Service.

---

## SUPERVISORS

Supervisors can add and manage other MetaView Web users. They can also set up templates (predefined sets of configuration values) and control security settings (the password expiry duration and session timeout for MetaView Web logins).

---

## SEARCH CAPABILITY

))) Metaview Web allows you to rapidly locate subscriber configurations by phone number, name or MAC address, with flexible partial searching on names and prefix- and suffix- matching on numbers.

))) Within a Business Group, you can additionally search for subscribers or SIP phones by extension number or Department.

))) When MetaView Web is deployed together with MetaView Director, searches work across the entire network, including MetaView Servers and Enhanced Applications Server systems.

---

## TEMPLATES, PERSISTENT PROFILES, CLASSES OF SERVICE

Subscribers are easily provisioned using customized templates that simplify provisioning with wizard-like workflows.

))) You can use templates to specify in advance an initial set of default values that certain fields should take when configuring a particular type of object. You can also use templates to specify in detail which fields your users can subsequently edit and which should become read-only.

))) You can use Persistent Profiles (for MetaSphere CFS subscribers) and Classes of Service (for MetaSphere EAS subscribers) to define common configuration values for a subscriber and the subscriber's call services.

A Persistent Profile or Class of Service remains associated with the subscribers it is applied to, so if you modify the Persistent Profile or Class of Service later this will automatically update the configuration of all the associated subscribers.

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## BULLET-PROOF SECURITY

The highest standards of security are applied throughout MetaView with session encryption, multiple account types, secure password rules, and a comprehensive audit trail.

---

## METAVIEW DIRECTOR

**METAVIEW DIRECTOR IS A METAVIEW INFRASTRUCTURE COMPONENT THAT IS REQUIRED FOR LARGE NETWORKS WHERE MULTIPLE METAVIEW SERVERS ARE DEPLOYED. IT MAINTAINS AN INDEX OF MANAGED OBJECTS ACROSS THE NETWORK AS A WHOLE, ENABLING SEAMLESS MANAGEMENT ACROSS A POPULATION OF MILLIONS OF SUBSCRIBERS.**

## METAVIEW DIRECTOR FUNCTIONS

### METAVIEW DIRECTOR FUNCTIONS

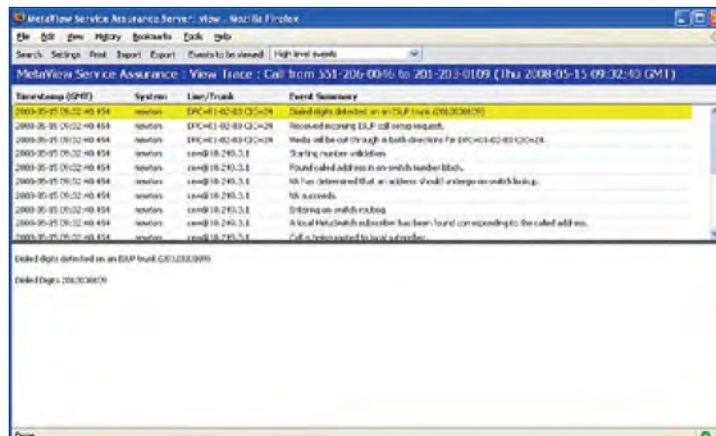
Maintains knowledge of all subscriber-related objects in the network and which MetaSphere CFS or MetaSphere EAS each such object is associated with.

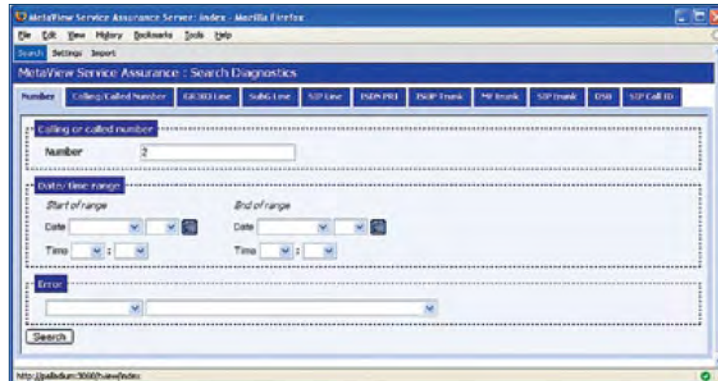
MetaView Director provides fast access to information in a large deployment such as:

- ))) Identifying the MetaSphere CFS that owns a particular subscriber.
- ))) Informing the appropriate MetaSphere CFS and MetaSphere EAS applications about changes, for example call status, call service settings, or whether a subscriber should have the Message Waiting Indicator set.

## METAVIEW SERVICE ASSURANCE SERVER

**METAVIEW SERVICE ASSURANCE SERVER™ IS AN OPTIONAL COMPONENT OF THE METAVIEW SOLUTION THAT STORES DETAILED DIAGNOSTIC DATA FOR EVERY CALL HANDLED BY METASWITCH PRODUCTS, AND FOR ACTIVITY BY COMMPORTAL USERS SUCH AS LOGIN ATTEMPTS OR CONFIGURATION UPDATES. METAVIEW SERVICE ASSURANCE SERVER PROVIDES FAST ACCESS TO EXTREMELY DETAILED DIAGNOSTICS BY LOGGING DETAILS OF ALL CALLS HANDLED BY METASPHERE, MAKING IT POSSIBLE TO SOLVE MANY COMMON NETWORK PROBLEMS WITHOUT REQUIRING EXTRA TIME AND EFFORT TO SET UP TRACING AND REPRODUCE THE PROBLEM.**





THE METAVIEW SERVICE ASSURANCE SERVER ENABLES SUMMARY AND DETAILED VIEWS OF INDIVIDUAL CALLS

## METAVIEW SERVICE ASSURANCE SERVER FUNCTIONS

**METAVIEW SERVICE ASSURANCE SERVER™ PROVIDES DETAILED DIAGNOSTICS FOR ALL CALLS, OVER ALL PROTOCOLS, ALL THE TIME.**

### DIAGNOSTICS

#### Problem diagnosis

MetaView Service Assurance Server provides access to low-level engineering logs for each call, and this can greatly assist with diagnosing the causes of unexpected behavior.

#### Customer issues

MetaView Service Assurance Server enables support personnel to quickly locate the call or calls in question and view detailed information such as voice quality statistics, call routing analysis, etc.

#### Interoperability issues

MetaView Service Assurance Server enables technicians to view the detailed timeline for protocol flows during call setup and service invocation, and to drill down into the content of each signaling message exchanged over the wire.

### SEARCH FACILITIES

MetaView Service Assurance Server provides a rich set of search facilities for locating calls and their saved details, and allows for searching with the following criteria:

- ))) Called number.
- ))) Calling number.
- ))) GR-303 line.
- ))) Subscriber gateway line
- ))) SIP endpoint address
- ))) SIP trunk identity
- ))) ISDN PRI identity

- ))) ISUP trunk identity
- ))) MF trunk identity
- ))) TDM DSo identity
- ))) CommPortal error condition.

Searching displays a summary list of calls that match the entered search type and criteria.

---

## SERVICE INFORMATION VIEWS

MetaView Service Assurance Server provides four different views of information about each call:

- ))) Summary view lists the call legs associated with the call, and the facilities used by each call leg.
- ))) User Experience view provides a summary timeline of the main events experienced by the calling and called parties during the call.
- ))) Detailed Timeline view provides a chronological step-by-step history of the processing associated with the call. This view may be filtered at four different levels of detail, ranging from high level events through protocol flows right down to engineering level events.
- ))) Call Records view shows the complete content of any CDRs that were generated as a result of the call.

---

## ACCESS TO DIAGNOSTICS

When the diagnostics are enabled on a Metaswitch system, traces are recorded for all calls and transferred to an external database. Traces related to particular lines or subscribers can be easily searched and viewed or even printed or exported for offline storage.

---

## COLLECTED TRACES

- ))) Decoded signaling messages.
- ))) Routing and number validation events.
- ))) Call service actions/decisions.
- ))) Codec selection.
- ))) Echo cancellation programming.
- ))) Media events such as digit and tone detection, tone.
- ))) Generation, and digit outpulsing.
- ))) Billing records and concise call logs.

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## SERVICE ASSURANCE SERVER STATISTICS

MetaView Service Assurance Server tracks all statistics including those covering its own operation and presents trends in a graphical format to help you keep your service assurance server running optimally.

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## STATISTICS GRAPHING

- ))) Graphs show how the size of the Service Assurance Server event database changes over time. As the size of the database relates to the amount of time required for searches, these statistics help you assess the trade-offs involved in enabling more detailed logging or setting a longer retention period for events.
- ))) Graphs show the rate at which the Service Assurance Server is processing events. By monitoring statistics such as peak queue lengths, you can determine when your Service Assurance Server is running close to its capacity, empowering you to make an informed decision to upgrade your hardware or reduce the number of optional events configured.

**SEARCH INTERFACE**

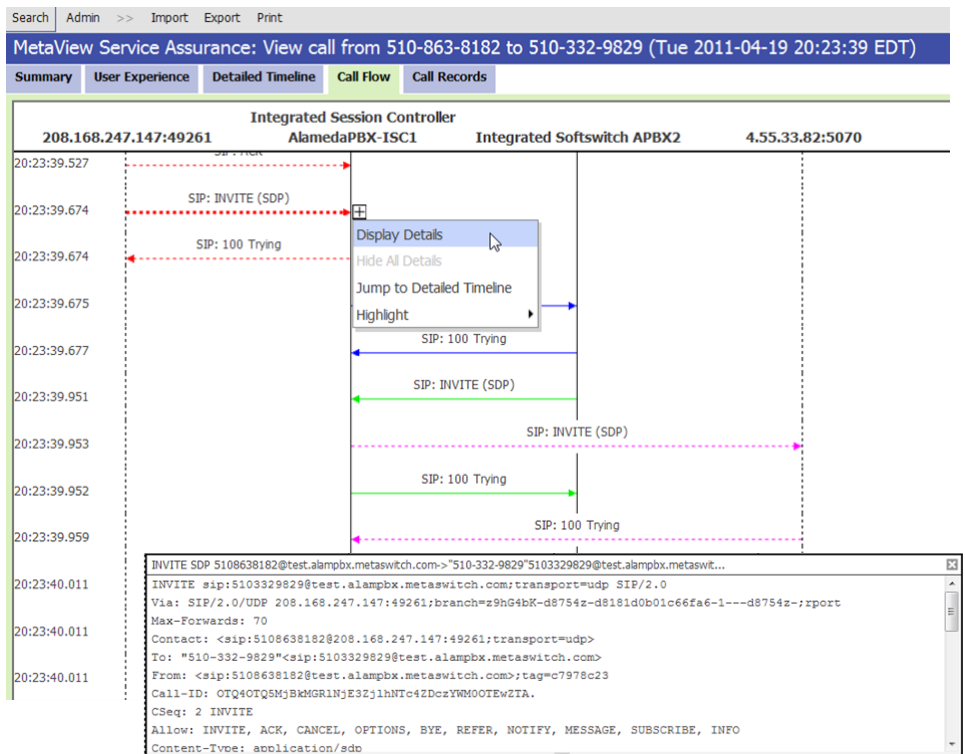
- ))) Offers drop-down lists for certain fields, eliminating the need to remember the configured names of ISUP or SIP trunks.
- ))) Allows search for calls with MetaSphere errors alone (for deployments which include MetaSphere EAS).
- ))) Allows you to view multiple calls side-by-side in separate browser windows, and avoid the need to re-run searches.

**PROTOCOLS DECODED**

- ))) SIP
- ))) ISDN PRI
- ))) SS7
- ))) GR-303
- ))) H.248

**PROTOCOL VISUALIZATION**

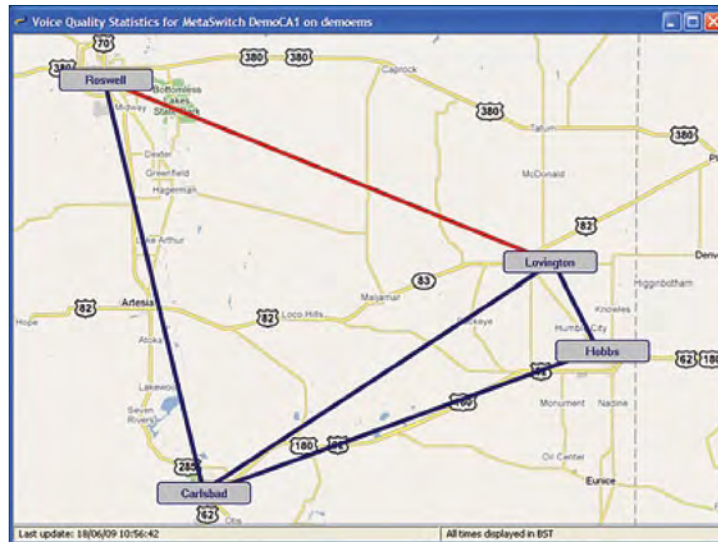
- ))) Ladder diagrams enable users to quickly and easily identify and analyze problems with call-flows, dramatically reducing mean-time-to-repair metrics.



SAS BOUNCE / LADDER DIAGRAMS WITH PROTOCOL DECODE

## METAVIEW VOICE QUALITY MONITORING (VQM)

VQM ENABLES YOU TO VIEW IN REAL TIME THE QUALITY OF CALLS TRAVERSING YOUR VOIP NETWORK. THIS ENABLES YOU TO MORE EASILY DIAGNOSE THE CAUSE AND REMEDY FOR QUALITY ISSUES. IT COLLECTS, ANALYZES AND REPORTS STATISTICS FOR VOICE QUALITY IN YOUR VOIP NETWORK, PROVIDING CALL-BY-CALL DETAILS TO ASSIST IN MANAGING CUSTOMER ISSUES.



METAVIEW VQM GRAPHICALLY DEPICTS YOUR NETWORK FOR SIMPLIFIED DIAGNOSIS OF POTENTIAL PROBLEMS.

## METAVIEW VOICE QUALITY MONITORING (VQM) FUNCTIONS

### STATISTICAL REPORTS

- ))) Packet loss
- ))) Jitter
- ))) Round trip time

### STATISTICAL REPORTING PROTOCOLS

- ))) MGCP (RFC 3435)
- ))) H.248, (H.248.1)
- ))) SIP (RTCP)

**CALL LOGGING OBJECTS**

- »»» Global system
- »»» Individual line
- »»» Business Group
- »»» Business Group line
- »»» PBX line

**GRAPHICAL DISPLAY**

- »»» Configured network nodes (representing areas of the network) can be displayed graphically in MetaView Explorer, with their interconnects (representing links between these network areas) represented by lines between each pair of nodes.
- »»» These lines vary in thickness with call volume, and in color with whether the real-time values of any of the statistics are in breach of their configured thresholds.

**CONFIGURED THRESHOLDS**

VQM may be used to debug a specific subscriber’s problems or to help identify more general concerns within your VoIP network. Using configured thresholds, the system will alert you when a network problem arises.

**VIEWING STATISTICAL ANALYSIS**

- VQM statistics are viewable in any of the following ways:
- »»» In a display panel in the MetaView Explorer (Client).
  - »»» As aggregated statistics in the NMS statistics panel for a range of NMS objects.
  - »»» In the historical statistics database for a range of NMS objects.

**STATISTICAL ANALYSIS OBJECTS**

- »»» MetaSphere Application Server.
- »»» Network Node.
- »»» Network Interconnect.
- »»» Trunk/Access Gateway.
- »»» Subscriber Gateway.
- »»» Configured SIP binding.

**STATISTICAL ANALYSIS AND ALARMING**

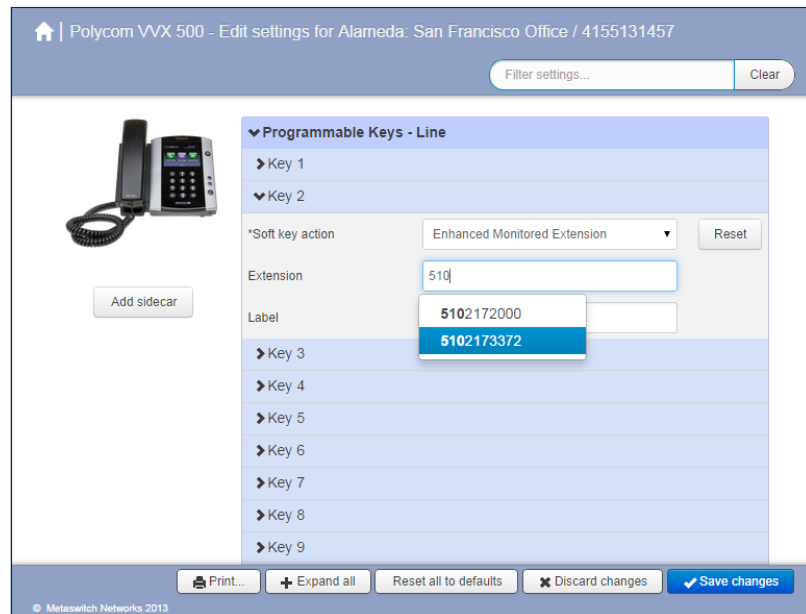
- »»» Available for real-time statistics.
- »»» Minimum / Maximum thresholds.
- »»» Configurable for system or individual objects.
- »»» MetaView’s Alarm Viewer or via SNMP notifications.

**INTEROPERABILITY**

Metaswitch supports receiving voice quality statistics from a variety of tested interoperable partner devices, including access, trunk and customer premises products.

## METAVIEW SIP PROVISIONING SERVER™

THE METAVIEW SIP PROVISIONING SERVER ALLOWS YOU TO SET UP SIP PHONES FOR USE IN YOUR DEPLOYMENT. METAVIEW SIP PROVISIONING SERVER REMOTELY MANAGES THE CONFIGURATION AND FIRMWARE LEVEL OF A WIDE RANGE OF SIP PHONES AND ACCESS DEVICES.



EASILY CONFIGURE PHONE FEATURES VIA COMMPORTAL WEB PHONE CONFIGURATOR

## METAVIEW SIP PROVISIONING SERVER FUNCTIONS

### MULTI-TIERED APPROACH OPERATIONS

- ))) Streamlines provisioning, enabling simpler, more cost effective and scalable operations via your MetaView Network Management System client and optional barcode scanner (for device MAC address scanning).
- ))) Simplifies phone management for your enterprise customer administrators via CommPortal Web.
- ))) Integrates user-friendly phone configurations for end users, also via CommPortal Web.

**PLUG AND PLAY DEPLOYMENT**

Provides the ability to:

- ))) Set up phones extremely rapidly, and with no duplication of existing provisioning data, affording subscribers plug-and-play functionality.
- ))) Reduce costs by eliminating engineer involvement with enterprise installations of individual telephones (either onsite, or over the phone).
- ))) Easily deploy IP Centrex services, without having to manually configure SIP business phone handsets
- ))) Simplify roll-out and support of advanced phone features.
- ))) Deliver a robust end-to-end solution by rolling out automatic phone firmware updates, and preventing users from inadvertently changing important settings.
- ))) Delegate the day-to-day administration of most phone features and settings to SMB employees (administrators or end-users) through a powerful but intuitive web interface.
- ))) Create a tiered service offering, allowing both low cost basic packages and advanced options for more demanding customers.

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**SERVICE PROVIDER CONFIGURATION OPTIONS**

Offers following configuration options:

- ))) MetaView Explorer and Web clients support global view of all SIP phones deployed; grouped by customer network; tagged by MAC address and short name.
- ))) Master level control of all enterprise administrator and individual end user options.
- ))) Master level of permissions for lock down / hide settings.
- ))) Language Support: US English, Spanish, Canadian French.

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**SERVICE PROVIDER SECURITY**

Supports the following:

- ))) RSA encryption between servers.
- ))) Authentication certificates: X.509.
- ))) Validation: ITU-T X.690.
- ))) MetaView Client identity validation.
- ))) Craft script access via SSH.
- ))) Access for customization/branding via Secure FTP.

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**RESELLER INTERFACE**

Allows resellers to

- ))) Easily add new phones (by supplying MAC address and phone model information).
- ))) Assign phones to a Business Group (by entering the Business Group name), or to an end user (by entering the end user's Directory Number).
- ))) Delete phones.
- ))) Speed up and ensure accuracy through an integrated barcode scanner.

**WEB-BASED INTERFACE**

- ))) Allows limited, secured access to service provider-specified configuration fields in MetaView NMS.
- ))) Streamlined workflow between service providers and their resellers ensures accuracy and reduces duplication of work.

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**ENTERPRISE ADMINISTRATOR CONFIGURATION** Offers the following configuration options to enterprise administrator:

- ))) Multiple tier administration: entire Business Group or department administrator.
- ))) Modify all individual end user configurations.
- ))) Create template for different phone model configurations.
- ))) Lock down / hide specific settings (preventing user changes).
- ))) Barcode scanner for accelerated device registration.

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**END USER CONFIGURATION**

Provides end-user the following benefits (dependent on support provided by each individual phone model):

- ))) Provision soft keys.
- ))) Backlight settings.
- ))) Hands-free calls default: to the speaker, or a headset.
- ))) Speed-dial-and-conference: allowing a predefined party to be conferenced in with a single key press.
- ))) Assign one-key access to frequently used call services:
  - ))) Speed Dial, Do Not Disturb, Monitored Extension, Park Call, Retrieve parked call, Automatic Recall, Call List, Directory, Intercom, Voicemail, Last Caller ID Erasure, Line Identity, Trace Call, Group Pickup, Directed Pickup.
- ))) Integrated with CommPortal contacts for simple drop-down menu assignment.

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**END USER SECURITY**

- ))) Secure HTTP log-in through CommPortal.
- ))) Log-in with Directory Number and password.

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**OPTIONAL BARCODE SCANNER**

Barcode scanner is provided for accelerated device registration.

- ))) Supports any standard USB(HID) or PS/2 barcode scanner, fixed or handheld, laser or CCD, capable of being configured to append a “tab” character to the end of each barcode string.

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**PHONE PROFILES**

A phone profile is a collection of default settings, for example key configuration or SIP proxy information, that can apply to multiple phones of the same type.

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## PHONE PROFILE HIERARCHY

All SIP phone devices' dynamic configuration is constructed by combining configuration from the following scopes:

- ))) Global (per-deployment).
- ))) Persistent Profile.
- ))) Business Group.
- ))) Department (potentially one per level in the department hierarchy).
- ))) Subscriber.

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## FIRMWARE AND CONFIGURATION FILES

SIP Phones are provisioned using phone-specific Endpoint Packs, containing the associated firmware and configuration schemas, that are uploaded to the SIP Provisioning Server. The SIP Provisioning Server builds and provides a static configuration file to each SIP phone based on the Endpoint Pack schema for that phone model.

These can also be customized by the Service Provider using Pack Extensions to meet deployment-specific requirements.

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## SECURE CONFIGURATION

HTTPS secures the connection between your SIP phones and the SIP Provisioning Server. When authenticated, each phone is given a secure tokenized URL to retrieve its configuration, which can only be used by that phone.

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## UPDATING CONFIGURATION

SIP phones are configured to poll every night to check for changes to their firmware and configuration files. You can configure the range of times between which phones should poll for new configuration (the out-of-the-box default is anytime between midnight and 6am).

Phones will only check for new configuration and reboot themselves if they are not active on a call at the allotted time.

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## SIP PHONE CONFIGURABLE FEATURES

SIP Provisioning server supports the following configuration features on your SIP phones (dependent on support provided by each individual phone model):

- ))) Firmware version.
- ))) Lines assigned to the phone.
- ))) Ring tones.
- ))) Phone Applications, both invoked through keys and other "triggers", e.g. boot-up, incoming call.
- ))) Call service access codes and settings.
- ))) Paging groups, allowing the phones to act as a public address system.
- ))) Logo and text to display when phone is idle.
- ))) Locale, including country, language, timezone and date/time format.
- ))) Preferences, such as backlight and hands-free.
- ))) Dial plans, either automatically-generated or manually-configured.

- ))) Network settings.
    - ))) IP settings, including IP TOS, VLAN tag, VLAN QoS and Cisco Discovery Protocol.
    - ))) NTP servers.
    - ))) SIP transport (UDP/TCP), proxies, timer durations.
  - ))) Provisioning settings.
    - ))) Source URL for configuration file and time of day to poll security settings, including user and administrator passwords, and web UI lock-down.
    - ))) Diagnostics, including level and destination syslog server.
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## PHONE APPLICATIONS

Depending on the model of SIP phone being used, subscribers can run the following CommPortal Phone Applications on their SIP phones, and in many cases can use the CommPortal Phone Configurator to assign these applications to soft keys on their phone:

- ))) Network Contacts – gives subscribers CommPortal contacts function on their SIP phone.
  - ))) Network Call Lists – gives subscribers CommPortal call lists function on their SIP phone.
  - ))) Network Call Lists - dialed calls – an alternative version of Network Call Lists that opens on the dialed call page and is designed to be assigned to the phone's redial button.
  - ))) Message List – allows subscribers to see and manage a list of their voicemail messages, including text transcriptions, on their phone. You must be running Aastra firmware version 2.5 or later to use this application on Aastra phones.
  - ))) Hot Desking /Hotelling – allows subscribers to log into and out of any available phone, as and when they need to.
  - ))) Service Provisioning – allows subscribers to log into a phone which then registers itself with the SIP Provisioning Server.
  - ))) Services – lists the applications available to the subscriber on their phone.
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## SHADOW CONFIGURATION DATABASE

THE METAVIEW SHADOW CONFIGURATION DATABASE PROVIDES A READ-ONLY COPY OF THE CONFIGURATION YOU HAVE SET UP FOR YOUR METASPHERE CALL FEATURE SERVER (CFS) SUBSCRIBERS, BUSINESS GROUPS, MGCP/NCS SUBSCRIBER GATEWAYS, ISDN PRIS AND CONFIGURED SIP BINDINGS. SHADOW CONFIGURATION DATABASE ENABLES YOU TO FIX MIS-CONFIGURATIONS, TO UNDERSTAND WHICH OF YOUR SUBSCRIBERS WILL BE AFFECTED BY AN UPGRADE, OR TO TARGET YOUR MARKETING OF A NEW SERVICE.

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### STANDARDS-BASED SQL

- ))) The standards-based SQL database is deployed on your MetaView server(s), and allows you to use the tools of your choice for reporting and analysis – including Microsoft Excel.
- ))) The database includes all of the configuration that you have set up for your MetaSphere CFS subscribers, Business Groups, MGCP/NCS subscriber gateways, ISDN PRIs and Configured SIP Bindings.

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### DATA STRUCTURE

- ))) The shadow configuration database is made up of tables, one for each object type. It supports the SOAP (Web Services) API.
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