Dialogic®

Dialogic® PowerMedia™ XMS

Quick Start Guide

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www.dialogic.com

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Revision History

Revision	Release Date	Notes
05-2701-005	March 2013	PowerMedia XMS Overview: Updated with clarification that NETANN and VXML media options are currently audio-only. VoiceXML (VXML): Updated with clarification that VXML is audio-only. Verification Options: Updated with clarification that VXML verification demos are audio-only.
05-2701-004	February 2013	Updates to support PowerMedia XMS Release 2.0. Installation Process: Added a note regarding Internet Explorer and file renaming at download. Configuring PowerMedia XMS: Added sections for Network Announcement (NETANN), VoiceXML (VXML), and Media Resource Control Protocol (MRCP). PowerMedia XMS Verification Demo: Updated section. PowerMedia XMS Logging: Updated section.
05-2701-003	August 2012	Installation Process: Added information to the RPM Method section.
05-2701-002	July 2012	General update to support PowerMedia XMS Release 1.1. This is a 64-bit only release. Installation Process: Updated and added a stand-alone RPM Method section.
05-2701-001	March 2012	Initial release of this document.
Last modified: March 2013		

Refer to www.dialogic.com for product updates and for information about support policies, warranty information, and service offerings.

1. Welcome

This Quick Start Guide provides instructions necessary to install and configure the Dialogic® PowerMedia™ Extended Media Server (also referred to herein as "PowerMedia XMS" or "XMS"). This guide will also show how to get the PowerMedia XMS running with a simple Verification Demo, and then allows you to try sample applications or to start developing your own.

The basic operation of the system is contained in this guide, which is primarily intended for users who do not have extensive experience working with PowerMedia XMS. For advanced operation, please refer to the *Dialogic® PowerMedia™ XMS Installation and Configuration Guide*.

2. PowerMedia XMS Overview

PowerMedia XMS Overview

PowerMedia XMS energizes application delivery by boosting performance with:

- State of the art mixing of media-rich communications
- Software providing a seamless transition to virtualization and cloud delivery
- Telco hardened scalability

PowerMedia XMS elevates what developers can create for their customers, from virtually any development environment, connecting to virtually any type of communication endpoint.

PowerMedia XMS is a powerful next-generation media server software that enables standards-based, real-time multimedia communications solutions. PowerMedia XMS offers a rich variety of advanced media processing functions, including audio and video play/record, multimedia conferencing and mixing, as well as transcoding with HD Voice and video codecs. It can be used to build numerous real-time multimedia processing solutions from traditional voice messaging, IVR, and conferencing to innovative video conferencing and social interaction applications.

PowerMedia XMS is controlled by the business logic of applications deployed on SIP application servers and web application servers. PowerMedia XMS offers multiple media control protocols that can be used in a variety of network infrastructures. For example, a SIP application server (AS) can drive PowerMedia XMS using the MSML control interface or use Network Announcement (NETANN) to direct the PowerMedia XMS VoiceXML (VXML) browser to execute VXML scripts. For Web 2.0 and Cloud development, a web application written in an appropriate language (such as, Python or JavaScript) can control PowerMedia XMS using the HTTP RESTful interface.

Note: Network Announcement (NETANN) and VoiceXML (VXML) with Media Resource Control Protocol (MRCP) are new interfaces and integral components of PowerMedia XMS Release 2.0, and instructions for using them are included in this guide.

The MSML and RESTful interfaces support multimedia – both audio and video, using a variety of codecs. NETANN and VXML media options are currently audio-only.

PowerMedia XMS provides powerful and user-friendly OA&M functionality, and can be managed remotely through a web-based operator console and the HTTP RESTful Management interface.

A wide variety of SIP endpoints can be handled by PowerMedia XMS, resulting in the delivery of rich full-duplex audio and video media streams to a variety of fixed and mobile devices.

The following figure illustrates an example of a video conferencing delivery platform for a PowerMedia XMS-based multimedia conferencing solution.

Related Information

See the following for additional information:

- PowerMedia XMS datasheet at http://www.dialogic.com.
- PowerMedia XMS documentation at http://www.dialogic.com/manuals.
- Dialogic technical support at http://www.dialogic.com/support.

Related Documentation

The following documents are available for the PowerMedia XMS Release 2.0 at http://www.dialogic.com/manuals/xms/xms2.0.aspx.

Document	Description
Dialogic® PowerMedia™ XMS Release 2.0 Release Notes	Addresses new features and issues associated with PowerMedia XMS Release 2.0.
Dialogic® PowerMedia™ XMS Quick Start Guide	Describes how to install software, access the PowerMedia Admin XMS Console for configuration management, and run the verification demo.
Dialogic® PowerMedia™ XMS Installation and Configuration Guide	Provides instructions for installing, configuring, administering, and maintaining PowerMedia XMS.
Dialogic® PowerMedia™ XMS RESTful API Developer's Guide	Provides information for application developers using this media control and a SIP Call Control interface to control the features provided by PowerMedia XMS.

Document	Description
Dialogic® PowerMedia™ XMS RESTful Management API Developer's Guide	Provides an alternative method of performing PowerMedia XMS system management tasks in an automated or distributed manner.
Dialogic® PowerMedia™ XMS VoiceXML Reference Guide	Contains an alphabetical reference of supported VoiceXML elements and provides information about application properties, SSML support, session variables, and application variables.
Dialogic® MSML Media Server Software User's Guide	Provides guidelines for using the Media Sessions Markup Language (MSML) software. The MSML media server software enables a remote client, also known as an Application Server (AS), to control media resources on a media server (MS). The connection between the AS and MS is established using the SIP protocol, thereafter media control commands/responses (in the form of MSML control syntax) are exchanged in SIP messages, such as the INFO message or the 200 OK response.
JSR 309 Connector Software for Dialogic® PowerMedia™ XMS Quick Start Guide	Describes the JSR 309 Connector, provides installation and configuration information, and describes the test servlets included in PowerMedia XMS.

3. Installation Process

Installation Process

This section provides the steps required to successfully install PowerMedia XMS. There are two installation methods available:

- ISO Method
- RPM Method (used for a CentOS or RHEL installation)

System Requirements

Regardless of the installation method used, the recommended **minimum** and **recommended** system requirements are as follows:

Item	Requirement
Hardware	Intel Architecture-based server
Operating System	**Note:** 32-bit operating systems are not supported. Community ENTerprise Operating System (CentOS) 6.2 or higher (provided with the installation) Red Hat Enterprise Linux (RHEL) 6.2 or higher **Note:** The *perl-core-5.10.1-xxxxx.x86_64.rpm* is required if using the RPM Method.
Processor	**Minimum:** Intel Xeon E5420 Quad-Core (2.50 GHz, 1333 MHz FSB, 80W) **Recommended:** Intel Xeon X5650 Dual Hex-Core (2.66 GHz, 1333 MHz FSB) or better for performance systems
Ethernet	Dual 1000Base-TX (RJ-45)
Memory	**Minimum:** 4 GB RAM **Recommended:** 8 GB RAM or higher
Storage	60 GB HDD
Note: The recommended server configuration is applicable for higher density audio solutions of 1500 or greater sessions, video transcoding solutions, or solutions utilizing virtualization.	

Supported Web Browsers

The following web browsers are supported:

- Mozilla Firefox
- Google Chrome
- Internet Explorer
- Safari

Note: If you download the PowerMedia XMS RPM distribution file (*dialogic_xms_x.x.xxx.tgz*) from the web server using Internet Explorer, the distribution file will be renamed with a .gz extension when downloaded. The file should be renamed back to a .tgz extension so that the PowerMedia XMS Web GUI upgrade process can recognize the file.

ISO Method

The ISO installation method is a complete system installation that includes the CentOS, OS optimizations, and PowerMedia XMS software. The ISO can be installed from a DVD drive or to a Virtual Machine.

Note: ISO install is now 64-bit only.

This installation requires the following steps:

1. Download a single .ISO file which contains CentOS and all required PowerMedia XMS software.
2. Burn the .ISO image onto a PowerMedia XMS installation DVD.
3. Ensure the target system on which PowerMedia XMS will be installed is connected to your network.
4. Boot the target PowerMedia XMS system from the installation DVD. The DVD will install CentOS 6.2 operating system and required software.

   Caution: The PowerMedia XMS installation will reformat the system hard drive.
5. Perform licensing and configuration.

Getting and Preparing the .ISO File

CentOS is an Enterprise-class Linux Distribution source that provides a simple method for quickly and easily setting up a PowerMedia XMS.

Proceed as follows:

1. Download a single .ISO file which contains CentOS and PowerMedia XMS packages. Go to http://www.dialogic.com/products/media-server-software/xms for information about downloading the .ISO file.
2. Using a DVD drive that has write capabilities, along with the appropriate DVD burning software, burn the .ISO image onto a bootable DVD.

Note: A bootable DVD must be created from the downloaded ISO file rather than simply copying the file to the DVD.

Installing the Operating System from the DVD

Caution: This installation will erase all data on the system and reformat your hard drive.

Once the bootable DVD is created, proceed as follows:

1. Insert the bootable DVD in the system drive on which the installation will be done and boot the system from the DVD.
2. Press **Enter** at the boot prompt.

Note: Do not use any other boot options or the automatic installation will not take place.

The installation requires little interaction. The main task is setting up the IP characteristics for the PowerMedia XMS. The IP characteristics are set at the start of the installation using a text-based setup tool and are handled as follows:

- The default setting is to set up an Ethernet interface (eth0) to receive its addresses via DHCP. With this option, it is necessary that PowerMedia XMS be installed in an environment that provides a networked DHCP server to provide it with an IP address.
- Eth0 may also be given a static IP address. This option is preferable when setting up a server. Set the IP address, Netmask and Gateway, as well as the DNS server address if desired.

Once the IP characteristics are complete, the remainder of the installation is "hands off". Once the CentOS install reaches the final screen, click **Reboot** to complete the installation process.

Note: Be sure to remove the installation DVD before the final reboot is done.

RPM Method

The stand-alone RPM installation method is used for installing PowerMedia XMS on existing Linux installations. Instead of an .ISO file, the RPM distribution of PowerMedia XMS uses a gzipped tar file (.tgz). The .tgz file is extracted to a directory on the machine where the PowerMedia XMS will be installed. The PowerMedia XMS installation script is run from that directory.

Note: The default PowerMedia XMS configuration uses the following ports:
tcp: 22, 80, 81, 443, 5060, 15001
udp: 5060, 49152-53152, 57344-57840

Ensure that your PowerMedia XMS system firewall is configured accordingly.

For more information about the RPM Method, refer to the *Dialogic® PowerMedia™ XMS Installation and Configuration Guide.*

4. Configuring PowerMedia XMS

Configuring PowerMedia XMS

PowerMedia XMS configuration and operation is done though a secure web-based operator console called the PowerMedia XMS Admin Console (also referred to herein as "Console"). The Console can be reached using a web browser and the PowerMedia XMS IP address.

If DHCP is used to provide the PowerMedia XMS IP address, it will be necessary to access the system to determine the address assigned to it. Shell access to the system may be done either by the terminal used during installation or by secure shell (ssh) access. The "root" user's default password is "powermedia". If you wish to change the password, do so before proceeding.

Note: For stand-alone RPM installations, password modification is not necessary as the installation script does not change the password to "powermedia" as it does with the .ISO install.

CentOS HTTPS Setup for Console Use

Secure HTTP is used to communicate between the administrator's browser and the PowerMedia XMS Admin Console's interface. HTTPS usually requires a security certificate linked to the provider's domain and signed by a trusted third party.

With PowerMedia XMS, it is not possible to provide a certificate tied to any one domain because the PowerMedia XMS is intended to be installed in many different situations by different administrators. For this reason, a "self-signed" (non-verified) certificate is shipped with PowerMedia XMS. The procedure for creating and installing a non-verified certificate on CentOS can be found at http://wiki.centos.org/HowTos/Https. The web browser used to access the Console will detect the use of this self-signed certificate and flag it as a security exception.

Access the Console directly using HTTPS by adding the IP address in browser's address space. For example, https://<ip_address_of _eth0>.

Note: If HTTP is used the query will be redirected to HTTPS on port 443.

Accessing the console will trigger a security exception. Handling the security exception depends on the web browser being used. Refer to the following table for instructions when using one of the four most common browsers.

Browser	Security Exception	Action	Comment
Firefox	Connection is not trusted	Understand the Risks/Add Exception/Confirm Security Exception	Security exception remains permanently in effect
Google Chrome	Site's security certificate is not trusted	Proceed Anyway	Security exception will be seen again on starting Google Chrome

Browser	Security Exception	Action	Comment
Internet Explorer	Problem with website's security certificate	Continue	Security exception will be seen again on starting new Internet Explorer window
Safari	Cannot verify identity of the website	Continue	Security exception will be seen again on starting Safari

Recurring security exceptions can be overcome on Google Chrome, Internet Explorer, and Safari. First, add mapping in the "hosts" file:

xms.localhost <xms_server_ip_address>

Next, add the xms.localhost certificate into the Trusted Root Certification Authorities store. Hosts may be found on Linux systems under */etc*, and on Windows systems under *C:\windows\system32\drivers\etc*. This differs depending on the web browser in use.

- **Google Chrome**
  Crossed-out lock and https symbols will be seen when the Console screen is accessed. Click on the **Lock Symbol > Certificate Information > Details > CopytoFile** and work through the Certificate Export Wizard to save the xms.localhost certificate. It can then be imported into Chrome. Use **Tools > Options > Under the Hood > HTTPS-SSL Manage Certificates > Trusted Root Certification Authorities** to import.
- **Internet Explorer**
  A Certificate Error will be seen next to the URL entry. Install the xms.localhost certificate using **Certificate Error > View Certificates > General Tab > Install Certificate** and work through the Certificate Import Wizard. The xms.localhost certificate will end up in the Trusted Root Certification Authorities store.
- **Safari**
  A pop-up warning will be seen on accessing the Console. Install the xms.localhost certificate using **Show Certificate > Install Certificate** and work through the Certificate Import Wizard. The xms.localhost certificate will end up in the Trusted Root Certification Authorities store.

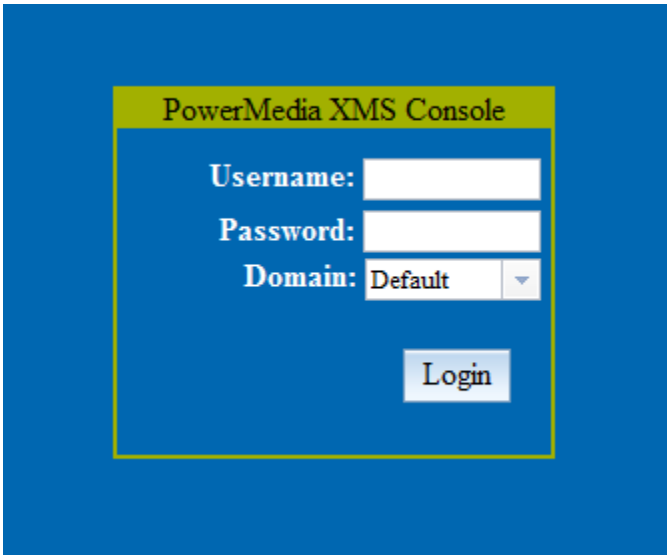
Note: A permanent, publicly accessible PowerMedia XMS should have a valid certificate from a signed certificate authority. Refer to the *Dialogic® PowerMedia™ XMS Installation and Configuration Guide* for more information.

Connecting to the Console

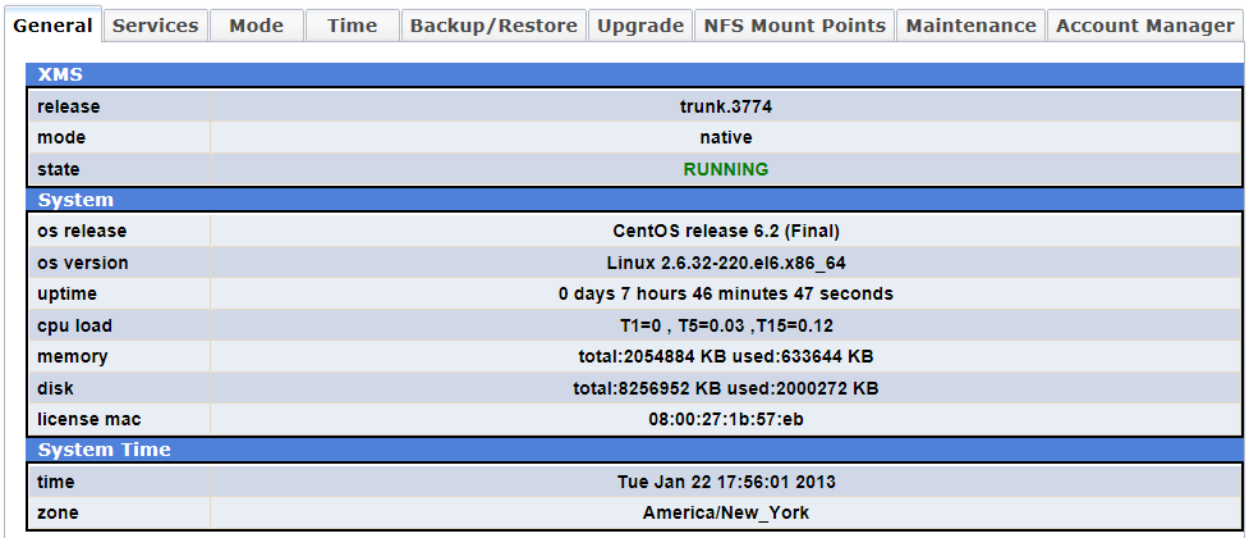
Connect to the Console using the following URL:

https://<ip_address_of _eth0>

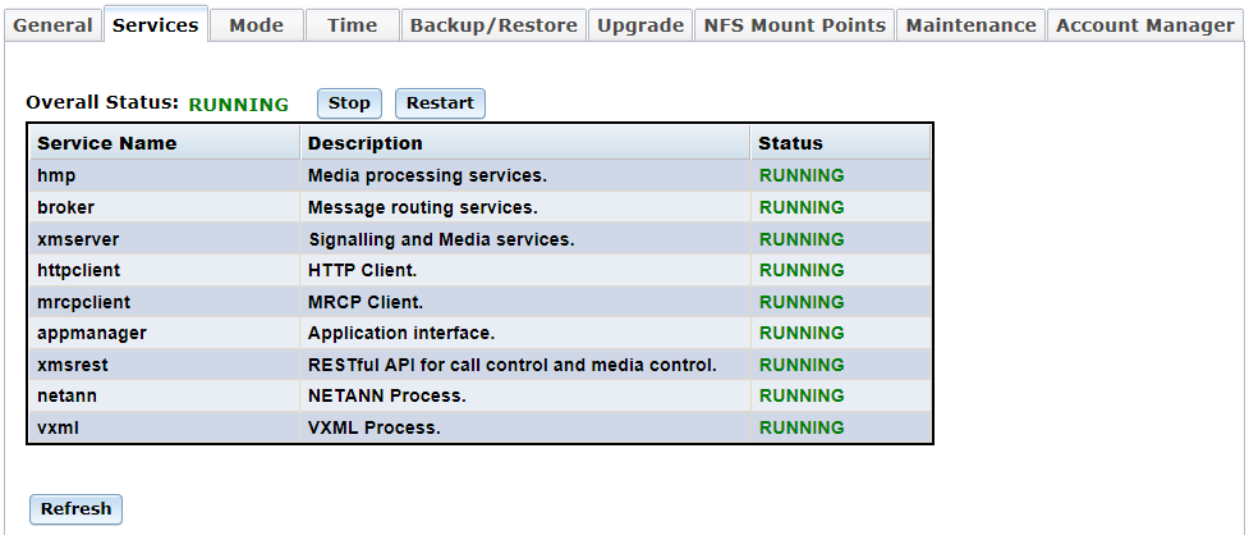
The Login page appears.



Log in with "superadmin" for the **Username** field and "admin" for the **Password** field. The superadmin has access to all configuration functions available on the Console.



On the **System > General** page, verify system data and system operation by noting that PowerMedia XMS is in a RUNNING state.

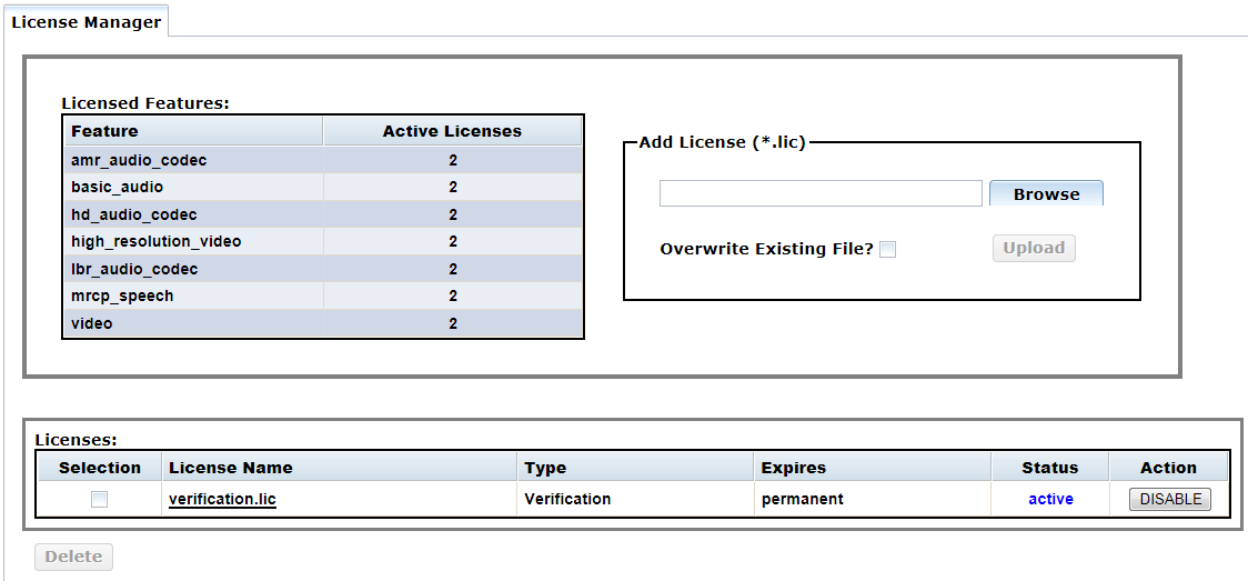


On the **System > Services** page, the status will indicate that "hmp" and "xmserver" are RUNNING as well.

Verifying Licenses

The PowerMedia XMS comes with a two-port audio/video license to get started. The license name is *verification.lic*.

On the **License > License Manager** page, you can view the licensed features currently enabled on PowerMedia XMS.



For detailed License Manager actions and other Console operations, refer to the *Dialogic® PowerMedia™ XMS Installation and Configuration Guide*.

Network Announcement (NETANN)

Network Announcement (NETANN) is an announcement server that can be directed to play media files and put callers into a conference by adding directives to the SIP URL used to contact PowerMedia XMS.

Routing a SIP call to a specific application server is accomplished through the **Routing > Routes** page from the Console. By default, any SIP call whose URL begins with sip:annc or sip:conf= will be directed to the NETANN service. Refer to the *Dialogic® PowerMedia™ XMS Installation and Configuration Guide* for more information.

Setup and Configuration

NETANN uses Native mode rather than the default MSML mode. After installing PowerMedia XMS using either the ISO or RPM installation method (refer to the Installation Process section), access the PowerMedia XMS Admin Console (also referred to herein as "Console") to change the mode.

Switching to Native mode is accomplished as follows:

1. From the Console, click the **System > Mode** page.
2. Click the **Native** radio button.
3. Click **Apply**.

Note: System services must be restarted each time you change the mode. To do this, select **System > Services** page.

VoiceXML (VXML)

Voice Extensible Markup Language (VoiceXML or VXML) for PowerMedia XMS is designed for creating audio-only dialogs that feature synthesized speech, digitized audio, speech recognition, DTMF key input, speech recording, telephony, and mixed initiative conversations.

ECMAScript, also known as JavaScript, is a programming language adopted by the European Computer Manufacturer's Association as a standard for performing computations in Web applications. ECMAScript is the official client-side scripting language of VoiceXML. ECMAScript is a limited programming model for simple data manipulation. The VoiceXML language described by W3C is used to create plain text pages using specific XML-based language.

The PowerMedia XMS VoiceXML service provides interactive dialogs with a remote caller by interpreting VoiceXML pages. The dialogs are SIP-based, as described in RFC 5552 (SIP Interface to VoiceXML Media Services).

Setup and Configuration

Install PowerMedia XMS Release 2.0 using either the ISO or RPM installation methods. Refer to the Installation Process section for this information.

VXML uses Native mode rather than the default MSML mode. After installing PowerMedia XMS using either the ISO or RPM installation method (refer to the Installation Process section), access the PowerMedia XMS Admin Console (also referred to herein as "Console") to change the mode.

Switching to Native mode is accomplished as follows:

1. Select the **Mode** tab from the System menu.
2. Click the **Native** radio button.
3. Click **Apply**.

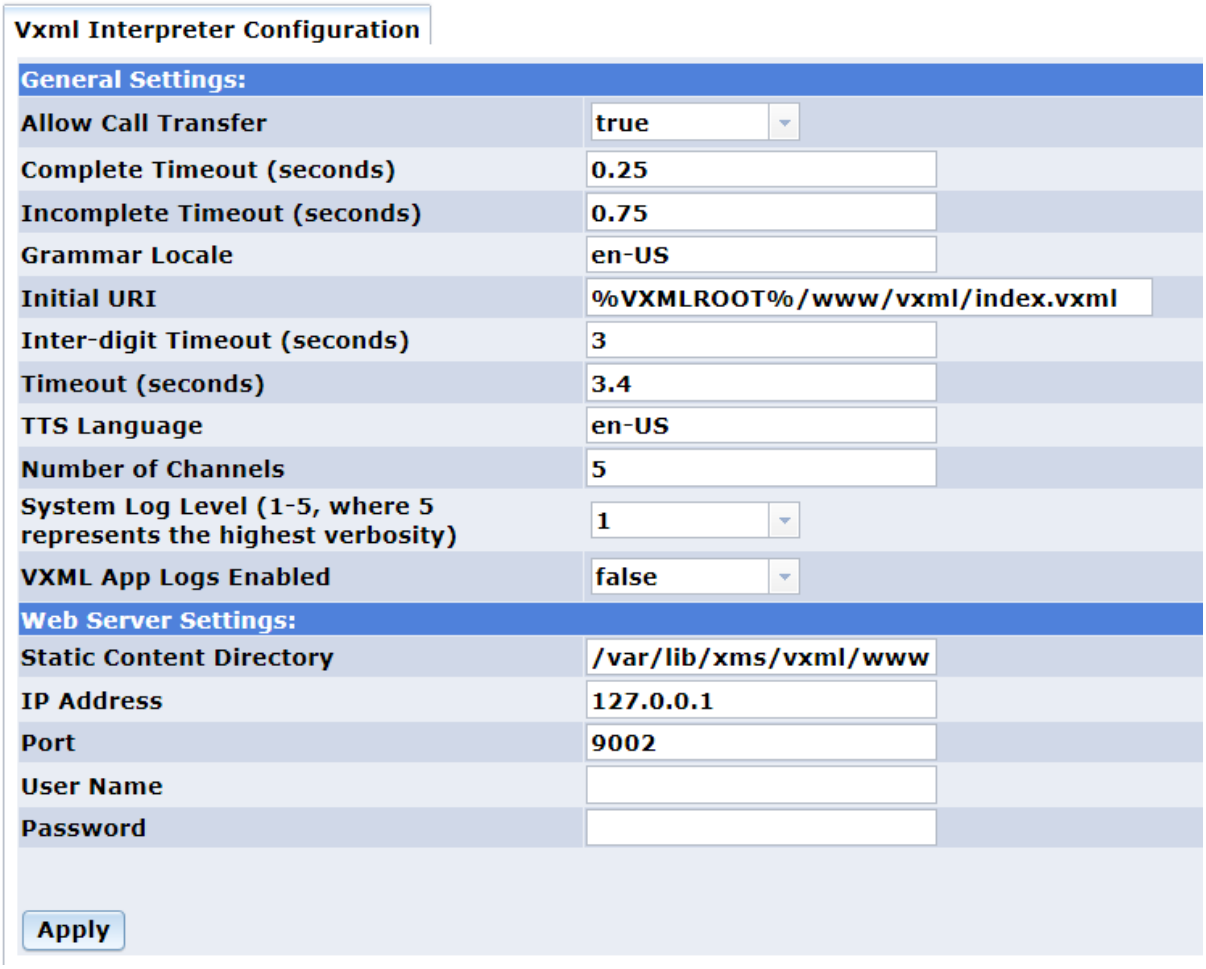
Note: System services must be restarted each time you change the mode. To do this, select **System > Services** page.

Considerations

- Routing a SIP call to a specific application server is accomplished through the **Routing > Routes** page from the Console. By default, any SIP call whose URL begins with sip:annc or sip:conf= will be directed to the VXML service.
- VXML Interpreter logs are located in the same location as all other PowerMedia XMS services logs: *vxmlinterpreter_<year>_<month>_<day>_<number>.log*. Consulting this and the corresponding xmserver log should help to troubleshoot any VXML issues.
- PowerMedia XMS will attempt to contact an MRCP server. If one is not available, the MRCP request will time out and the call will be dropped.

VXML Interpreter Configuration

The **VXML** menu from the Console is used to configure VXML Interpreter parameters. Refer to the *Dialogic® PowerMedia™ XMS Installation and Configuration Guide* for more information.



VXML Scripting and Demos

Two VXML demos are available to verify VXML. The first is a simple audio-only IVR script to take menu choices via DTMF and play and record audio. It uses audio prompts already installed on the media server, and will be automatically accessed when a SIP call is made to the default "dialog" user. This demo requires only the verification license that is automatically installed on PowerMedia XMS.

The second demo is a company directory application. This demo requires:

- An operating MRCP ASR/TTS server for voicing prompts and recognizing responses.
- A four-port (or greater) trial or permanent license that must be manually installed on PowerMedia XMS using the Console. The license is required for call transfer functionality.

The demo is located on the PowerMedia XMS server in the default VXML script directory: */var/lib/xms/vxml/www/vxml/company_directory.vxml*.

To test the transfer function part of the demo, the script must be modified so that the "transferaddr" VXML variable at the top of the script is set to a SIP address that is waiting to accept a call. A call can then be placed to the application. The employee can be selected by DTMF extension or by name. It the extension is not answered, an option of leaving voicemail will be presented. The message will be replayed/re-recorded until the caller chooses to save it.

Media Resource Control Protocol (MRCP)

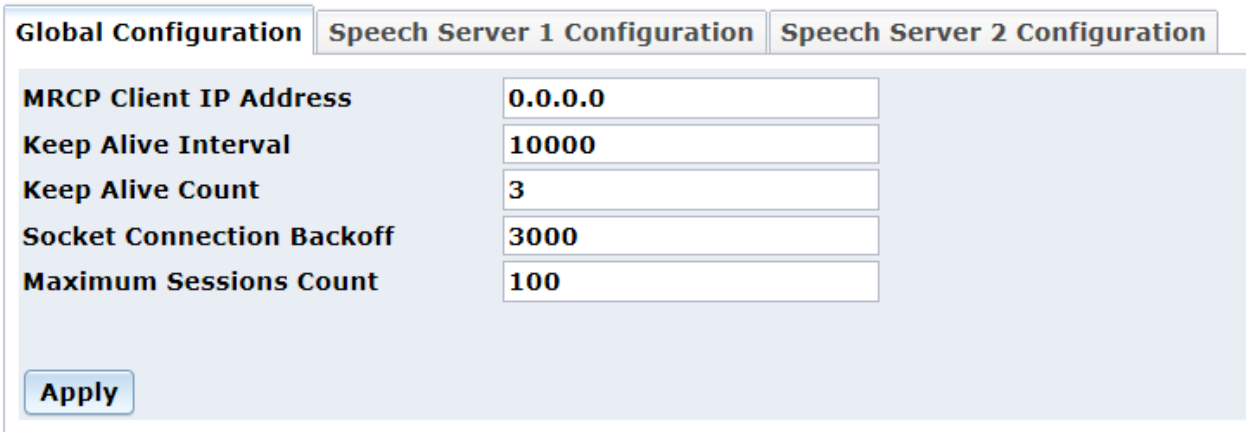
Media Resource Control Protocol (MRCP), accessible only through VXML, is used by PowerMedia XMS as an interface to Automatic Speech Recognition (ASR) and Text-to-Speech (TTS) systems. MRCP provides an easy way to build voice user interfaces, allowing grammar to be built for speech input and providing a way to easily translate text into voice prompts without reading and recording them.

The MRCP interface may be used as part of the VXML Interpreter in PowerMedia XMS Release 2.0. An ASR/TTS system vendor's MRCP server must first be installed and configured, followed by the MRCP client side being configured on the PowerMedia XMS server.

Note: VXML must also be enabled and configured on PowerMedia XMS. For VXML setup, see the VoiceXML (VXML) section of this guide.

PowerMedia XMS MRCP Configuration

The **MRCP Client** menu from the Console is used to configure the PowerMedia XMS client side of the MRCP server. Refer to the *Dialogic® PowerMedia™ XMS Installation and Configuration Guide* for more information.



Global Configuration

1. From the Console, click **MRCP Client > Global Configuration** page.
2. Set the **MRCP Client IP Address** field to the IP address of the PowerMedia XMS.

Speech Server 1 Configuration

1. From the Console, click **MRCP Client > Speech Server 1 Configuration** page.
2. Set the **Speech Server IP Address** field to the IP address of the MRCP server.
3. Set **Speech Server Port** field to 5060 unless the MRCP server is set otherwise.
4. Set **Transport** field to UDP (TCP is default).
5. Set **ASR** and **TTS** fields to true.

For more information about Speech Servers, refer to the *Dialogic® PowerMedia™ XMS Installation and Configuration Guide.*

5. Verifying PowerMedia XMS

Verification Options

The following table shows the options for verifying the operation of PowerMedia XMS depending on the desired application technology.

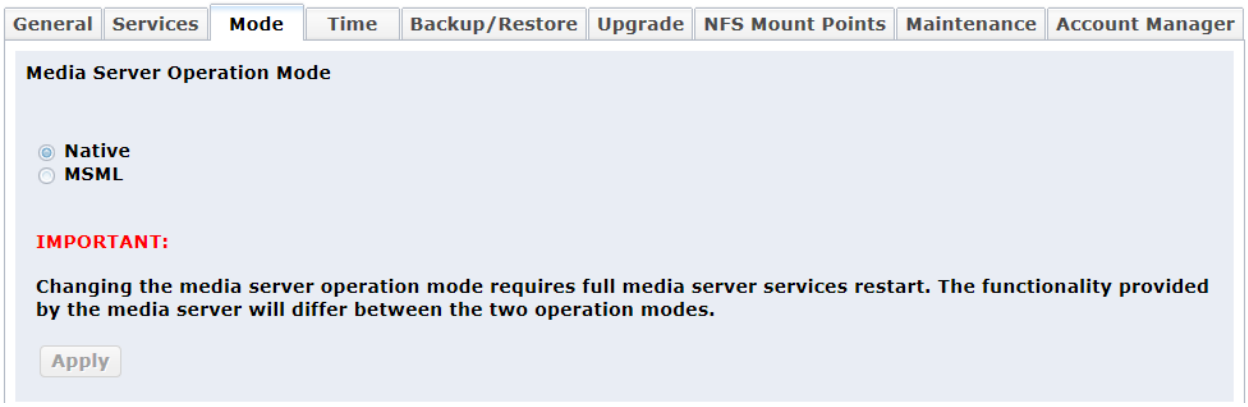
Application	Considerations
MSML Media Server Markup Language	A separate MSML application server is required to verify PowerMedia XMS operation. For this reason, using one of the supplied VXML or RESTful applications is suggested.
VXML Voice Extensible Markup Language	Two VXML verification scripts, including all required media, are included in the PowerMedia XMS distribution. These verification demos are audio-only. One script plays and records audio files to verify operation, and the second script requires a Media Resource Control Protocol (MRCP) server for Automatic Speech Recognition (ASR) and Text-to-Speech (TTS). **Note:** Do not attempt to run the second verification script until basic operation of PowerMedia XMS has been verified.
RESTful Representational State Transfer	Included with PowerMedia XMS distribution, this Java-based RESTful application provides the same play/record demo as the basic VXML script. However, this verification demo uses both audio and video. **Note:** This option requires a Java Runtime Environment.

PowerMedia XMS Verification Demo

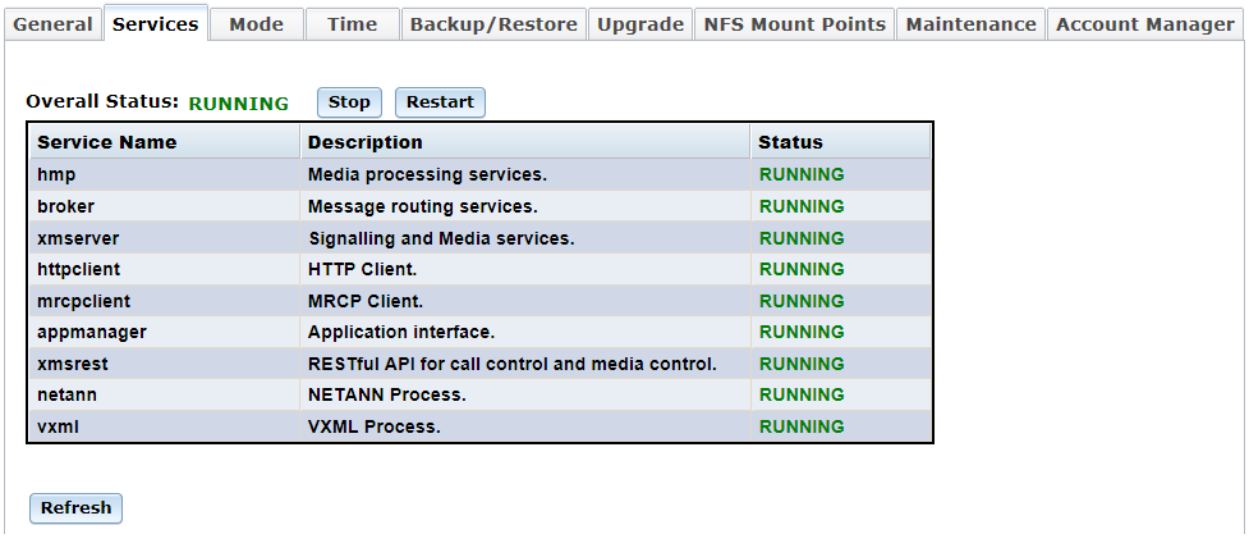
PowerMedia XMS comes with RESTful Client Verification Demo. This Verification Demo is a Java application that can be run from a system with a Java Runtime Environment (JRE). The usual choice would be the system used for the Console via a web browser.

The PowerMedia XMS first comes up in MSML mode. This mode allows it to use MSML for application control. For the Verification Demo, the PowerMedia XMS must run in Native mode, where application control can be done via a Java-based RESTful application.

Switching to Native mode is accomplished in the **System > Mode** page from the Console. Click the **Native** radio button and then click **Apply**.



Once Native mode has been selected, services are automatically stopped and then restarted. Verify this by viewing the **System > Services** page from the Console.



Downloading the Demo

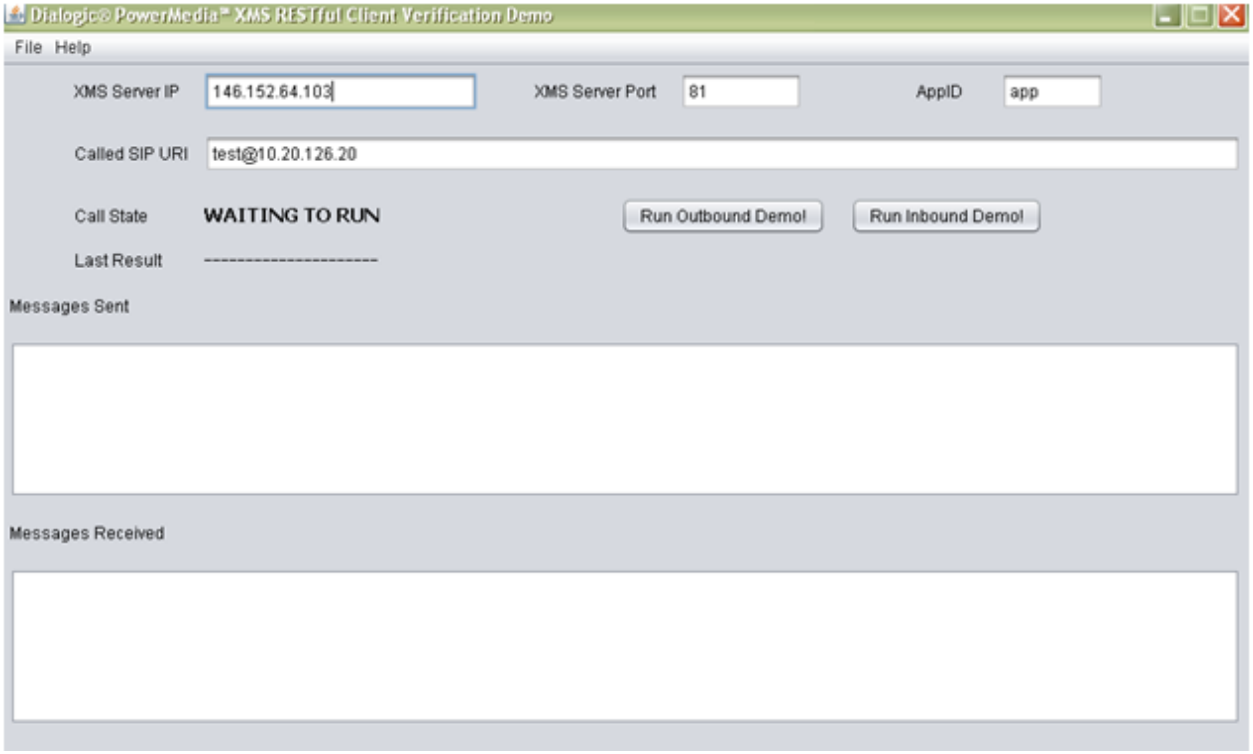
The Verification Demo is available through the Console's Downloads page. Before running the demo, you must set up a SIP softphone to receive calls. For more information, see Verification Using a SIP Softphone. Be sure to have a SIP softphone ready before running the demo.

Note: The Verification Demo is audio only.

To run the demo, follow these steps:

1. From the Console, click **Downloads > Tools** page.
2. Select the **XMS Verification Demo**.
3. Save the XMSVerificationDemo directory to your local location from the pop up window. The demo file is a .zip file.
4. Unzip the file.
5. Navigate to the */dist* directory.
6. Double-click on the *XMSVerificationDemo.jar* file to open the demo (Windows) or run the demo directly from Java "java –jar XMSVerificationDemo.jar" (Windows or Linux).

The Demo's main screen will appear. It includes a Call State to show progress. All messages sent and received will appear in their respective boxes.

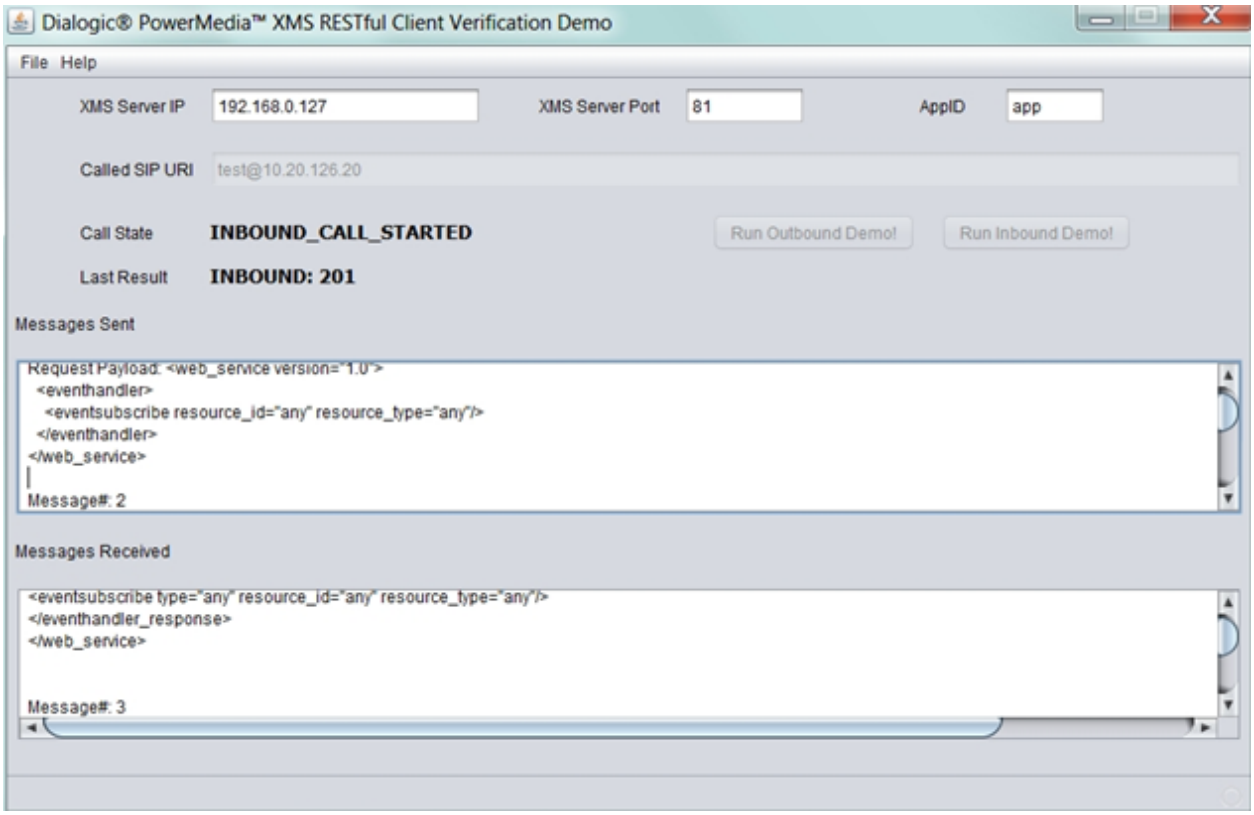


Running the Demo

The demo can be run in either an Inbound mode where the PowerMedia XMS will expect a call from a SIP softphone, or in an Outbound mode where it will place a call to a SIP softphone.

Run the Inbound demo as follows:

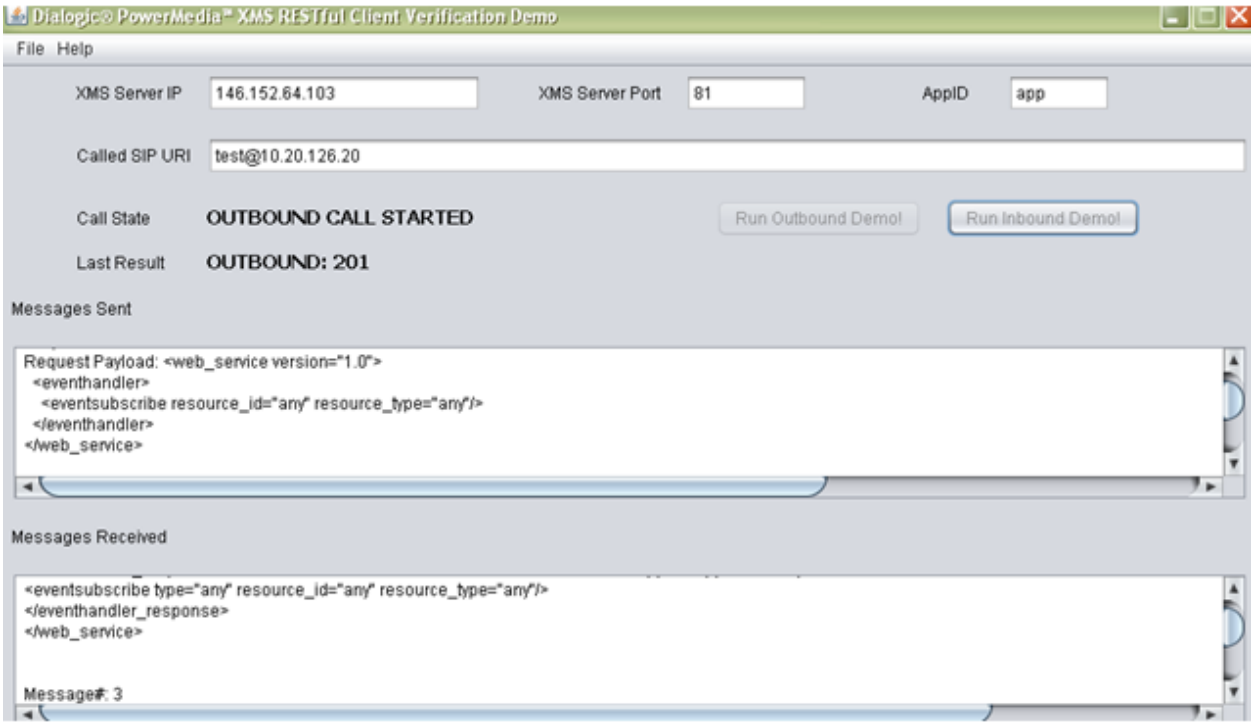
1. Indicate the name of the PowerMedia XMS IP address in the space provided.
2. Click **Run Inbound Demo**. The Call State should change to WAITING FOR CALL.
3. Place a call from your SIP softphone to the PowerMedia XMS IP address.



Run the Outbound demo as follows:

1. Indicate the name of your PowerMedia XMS IP address in the space provided.
2. Set the Called SIP URI to your SIP softphone's URI.
3. Click **Run Outbound Demo**. The Call State should change to OUTBOUND CALL STARTED.

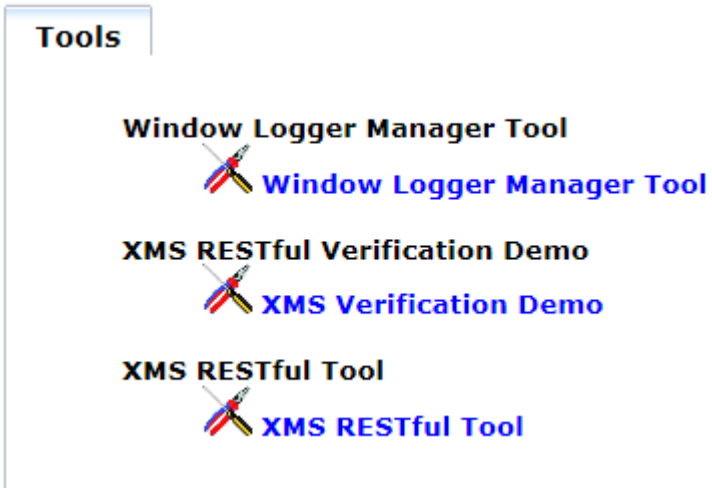
In either the inbound or outbound case, a greeting should be seen and heard. The demo's progress can be determined by viewing the Call State and Last Result status. Sent and received messages also provide the call status as shown in the following sample screen:



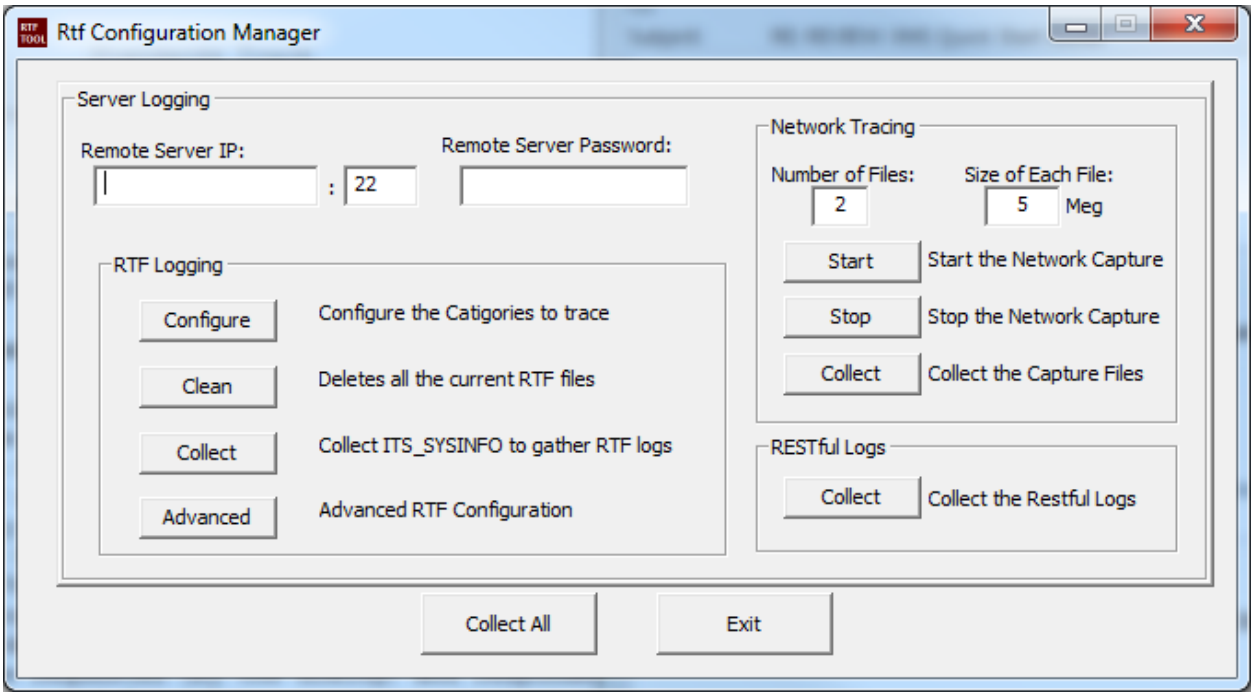
The demo leads the caller through several menus, and allows several multimedia clips to be played, or a multimedia recording to be made and replayed. If the verification demo is not successful, an error will appear on the screen and messages will be captured in the *verification.log* file. This log file is located in the */dist* directory from where the .jar file was executed.

PowerMedia XMS Logging

PowerMedia XMS logs are accessed through the RemoteRtfTool utility. To use the RemoteRtfTool utility, access the **Downloads > Tools** page from the Console and double-click *RemoteRtfToolInstaller.msi*. Most PowerMedia XMS subsystems produce their own log files, which are updated on a regular basis or whenever a subsystem is restarted. Always look for the log with the current time/date stamp.



The Rtf Configuration Manager window allows access to the logs.



To access the logs:

1. Enter the **Remote Server IP** and **Remote Server Password**.
2. Click **Collect** from either the RTF Logging or RESTful Logs sections.
3. To view a specific file, click the box to the left of the file to select it.
4. Click **View**.

For additional information about log files and the information they contain, refer to the *Dialogic® PowerMedia™ XMS Installation and Configuration Guide*.

Verification Using a SIP Softphone

This section provides instructions for verifying PowerMedia XMS using a SIP softphone.

Linphone SIP Softphone

Linphone is a free, open source SIP softphone that works with PowerMedia XMS. Instructions for download, install and use are included in this section.

Linphone can be downloaded at http://www.linphone.org/eng/download. For best results, you should also download and install the open source H.264 video codec at http://www.videolan.org/developers/x264.html rather than use the default H.263 that comes with Linphone. The Windows binary version of the codec can be found at http://nongnu.askapache.com/linphone/plugins/win32 or http://download.savannah.gnu.org/releases/linphone/plugins/win32.

Once you have installed Linphone and the H.264 codec, very little configuration is necessary, as a SIP registrar will not be used for verification and initial testing. Default settings should suffice for a simple LAN-based test setup. Only audio and video codecs need to be set.

Codec configuration is accomplished as follows:

1. Click **Linphone > Preferences > Codecs > Audio codecs**.
2. Disable all audio codecs except PCMU.
3. Click **Linphone > Preferences > Codecs > Video codecs**.
4. Disable all video codecs except H264.
5. Click **Done**. The Linphone is now ready to use.

The PowerMedia XMS may be directly dialed by IP address as shown above, with a SIP URL such as 100@192.168.0.126.