Dialogic

Tech Note

Dialogic® PowerMedia™ XMS and the Rackspace Managed Cloud

Running the PowerMedia XMS Verification Demo in Rackspace

NETWORK FUEL®

Introduction

This tech note provides instructions on getting a Dialogic PowerMedia XMS media server installed and running on the Rackspace Managed Cloud. This is done using a pre-built Rackspace image containing a working PowerMedia XMS media server, with a four (4) port trial license built into the image. Here is the simple set of steps:

- Register on the Dialogic website to get access to the XMS Rackspace image
- Select the XMS image in a Rackspace region close to your geographic location.
- Start up a Cloud Server of the recommended size
- Using the XMS Admin GUI, verify that the XMS system is running properly
- Make WebRTC or SIP calls into a demo on the XMS server using a web browser or SIP phone

Note that a working familiarity with Rackspace on the part of the reader is presumed. Additionally, the Dialogic PowerMedia XMS product will be referred to herein as either "PowerMedia XMS" or simply "XMS" and represents the XMS product as of its release 2.4 or later.

Starting a PowerMedia XMS Cloud Server

The XMS Cloud Server for this tech note is available as an image. Bootable Block Storage Volumes are another option, and represent a good choice when an XMS system needs a trial or production license. The following instructions describe in detail the start-up procedure for an image.

Rackspace Account and PowerMedia XMS Images

You will need your own Rackspace account. Note that there is not a publicly available Dialogic account, but rather an XMS image that will be made available to your account. As of the date of publication of this document, signing up for a Rackspace account can be done here.

Once you have a Rackspace account, you can register with Dialogic for access to the latest, ready-to-use XMS image. To do this:

- Go to the Dialogic® PowerMedia™ XMS Download page on the Dialogic website
- Fill out the fields in the Obtaining Dialogic PowerMedia XMS Software section
- In the How would you like to access the XMS software? pulldown menu, choose Rackspace and add your Rackspace account ID so that the image can be shared with your account
- Submit the request

When you receive the notification email from Dialogic, log in to your Rackspace account via – as of the publication date of this document - mycloud.rackspace.com. There you will see a notification that a new image

has been shared with you. Accept the image and it will be available to your account. You can now create an XMS Cloud Server.

Create a Cloud Server

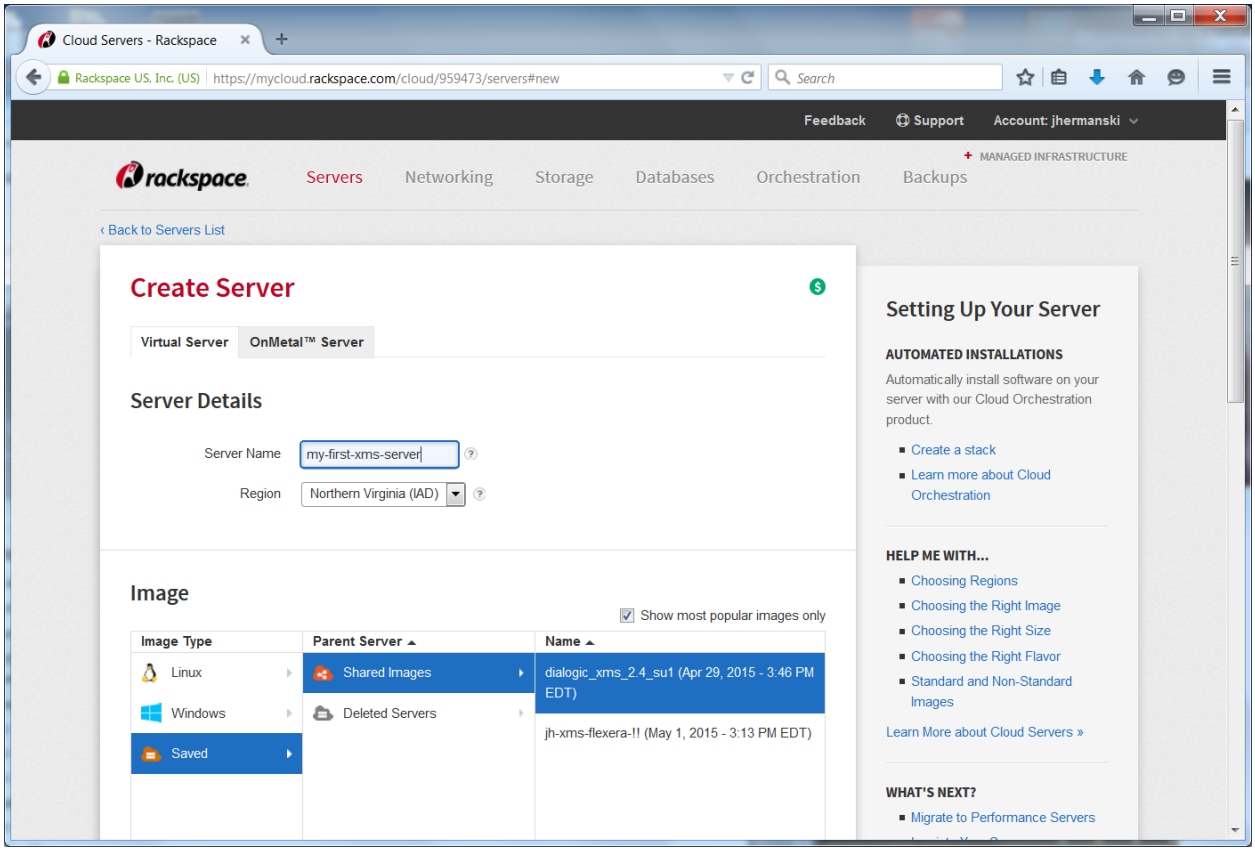
Once logged into your Rackspace account, go to Servers → Cloud Servers. Choose "Create Server". Once on this page:

- Select the Virtual Server tab
- Add a name of your choice for the server

Select a Region in which the server should be run; the selected region should be closest to your physical location.. The image for XMS is available in the following Rackspace regions:

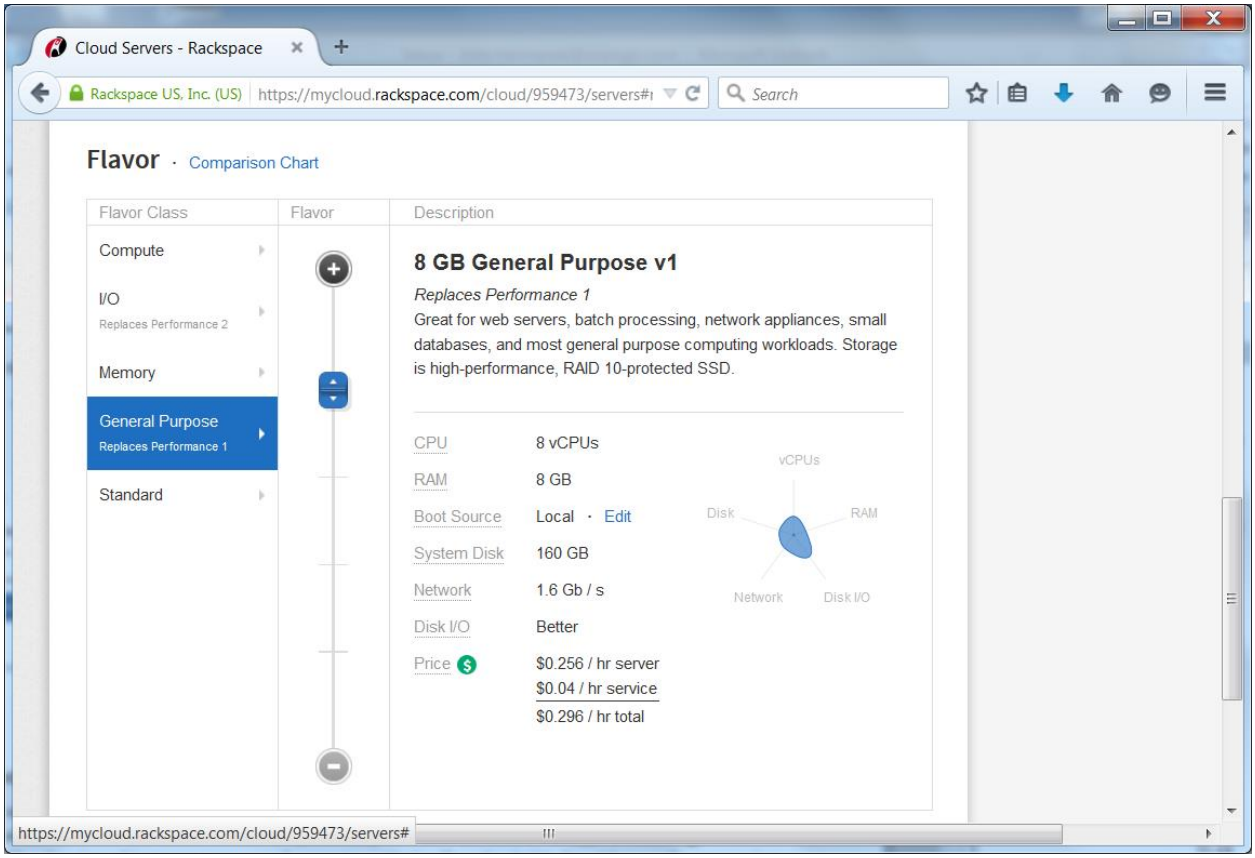
- Unites States
  - Northern Virginia (IAD)
  - Dallas (DFW)
- Asia-Pacific
  - Hong Kong (HKG)
  - Sydney (SYD)

- For the image, select Image Type/Saved → Parent Server/Shared Images → Name/dialogic_xms_X.Y_suZ, where "Name" will be the name of the image that was shared into your Rackspace account. The next figure below illustrates these steps:



Choose a Flavor for the Server

The XMS image will use a four (4) port verification license. This can accommodate four (4) simultaneous calls. To handle four (4) video calls in a conference at a VGA (640x480) resolution, a General Purpose flavor with eight (8) virtual CPUs, eight (8) GB of memory, and 1.6GB of network I/O is quite sufficient:



Important Note:

When using Rackspace Cloud Servers, there are multiple virtual machine tenants on a single host. There is no way of knowing what the other tenants are doing, how much bandwidth they are using, their clock interrupt needs, etc. A PowerMedia XMS media server, being a real-time application, has stringent clock interrupt needs to successfully handle RTP media packets. For that reason, there may be situations where a fully occupied host does not service XMS's needs well, which in turn may lead to poor video quality and/or video freezing. For a controlled environment, an OnMetal Server can be used, and may be necessary in a production situation where known level of video quality is needed.

Advanced Options

If desired, a public/private key pair set up for the account may be used. This would eliminate the need to enter a password if ssh were used to access the server.

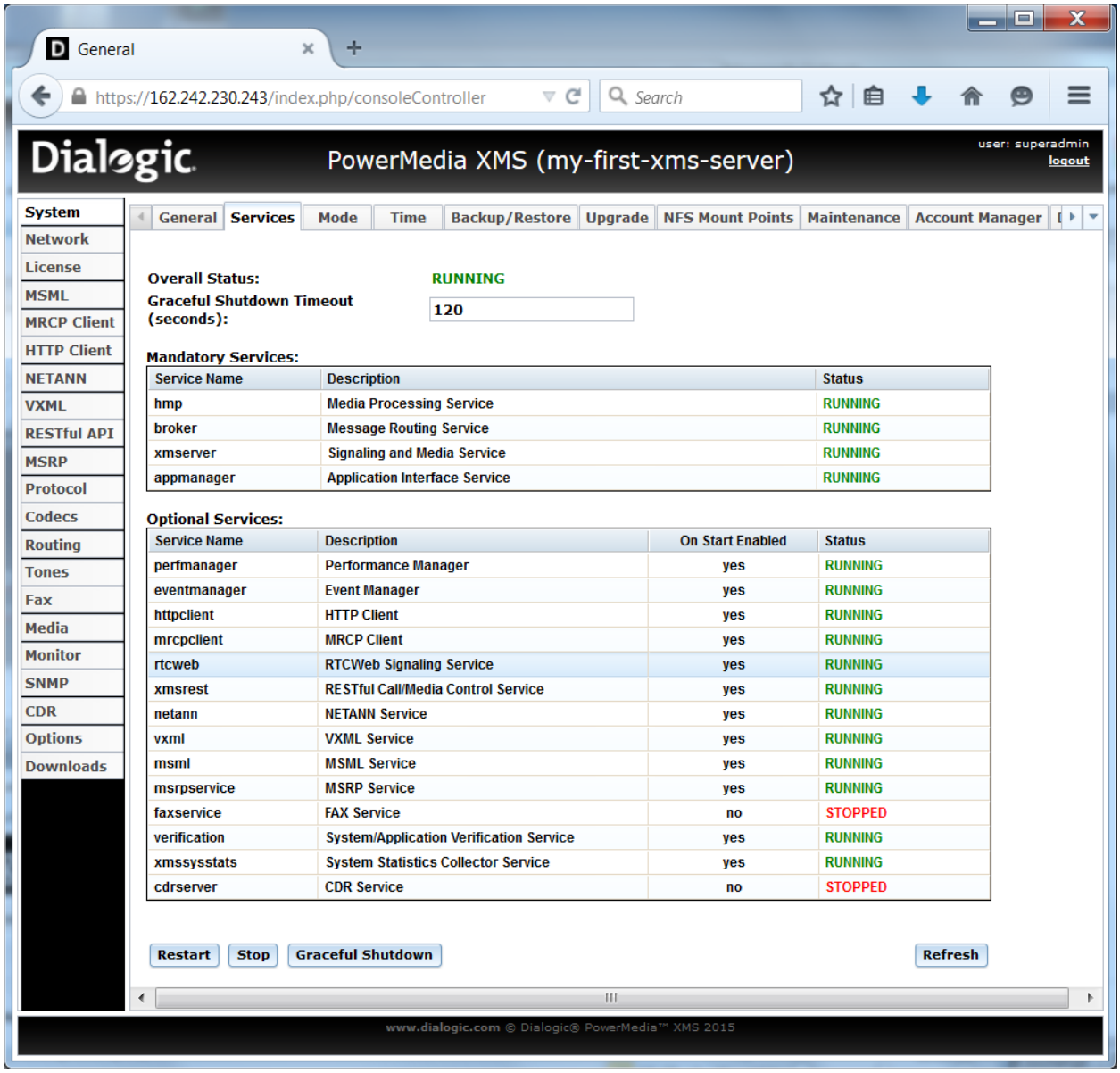
Starting the Server

Hitting "Create Server" will start the server. If a key pair has not been specified, the password for the server will pop up. You could copy it, but it would only be used to directly log into the system using ssh or the system console, which is something that should not be necessary. At the top of the page, hit "Back to Servers List" to monitor the progress of the XMS server startup.

Verifying PowerMedia XMS Operation

The public IP address of the system is readily available on the Rackspace web GUI, either in the Cloud Server listing screen or in the server details.

Using Firefox, Chrome or Internet Explorer, browse to the public IPv4 address for the XMS server. You will likely see a warning about this being an untrusted connection. Click through and confirm that this is a security exception. Then, login using superadmin/admin for username/password. From the GUI, confirm XMS is started in System→ Services and all Status indicators (except faxservice and cdrservice) are green/Running:



Please note that PowerMedia XMS officially supports RHEL/CentOS 6.4, whereas this image uses RHEL/CentOS 6.5. This discrepancy may cause an issue if the Cloud Server is used for upgrading to release of PowerMedia XMS beyond XMS Release 2.4.

Running the PowerMedia XMS Verification Demos

Play Demo

Run this simple demo from Chrome or Firefox (do not use Internet Explorer - as of the publication date of this tech note it did not support WebRTC) by doing the following:

- http://<xms_ip_addr>/rtcweb/webrtc.html
- Enter your login Name: "any name" then hit the Login button.
- Be sure to "Allow" the browser access to camera and microphone.
- Enter the name of person to call: "play_demo" then hit the Call button.
- You should see and hear a short auto racing video clip.

Conference Demo

This demo allows up to four (4) full duplex video conferees in a single conference at VGA resolution. Note that both a web camera (to see a conferee's video) and a microphone (to hear the conferee) must be present.

- http://<xms-ip-addr>/rtcweb/webrtc.html
- Enter your login Name: "any name" then hit the Login button.
- Be sure to "Allow" the browser access to camera and microphone.
- Enter the name of person to call: "conf_demo" then hit the Call button.
- You should see yourself and any other conferees on the screen. Audio from other conferees should also be heard.
- Only four (4) participants are allowed.

More detailed instructions on running these - and two other - demos are available in Chapter 6 in:
http://www.dialogic.com/webhelp/XMS/2.4/XMS_WebRTCInstallConfig.pdf

Next Steps

This tech note covered the simple case of configuring and running PowerMedia XMS with its verification demo. It is intended to be used for test purposes only, not for production. In considering XMS as part of a Rackspace media server solution, you will likely want to try it with your own application server, cloud-based or otherwise, and at densities suitable for a production situation. Future planned tech notes will outline how to license, configure and run additional XMS Rackspace Cloud Servers and services for your testing.

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