

## **MaxCS Cloud Service**

### **SIP Trunk Configuration Guide**

*May 17, 2015*

**Intended audience:**  
**AltiGen Authorized Partners**

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## 1. About This Guide

This guide is written for AltiGen Partners who are provisioning and supporting MaxCS Cloud services for their customers. **These instructions apply only to Cloud services;** the process for provisioning SIP Trunks for a SIP-Trunk only service are different, and can be found in a separate document in the AltiGen Knowledgebase.

This guide provides instructions for migrating users and configuring AltiGen SIP trunks for use with MaxCS Release 7.5 on AltiGen's Cloud Service version 2.0.

## 2. Overview

Once the virtual machine has been set up, you can find the login information and system configuration details in the Order system.

The following image depicts the configuration of MaxCS Private Cloud.

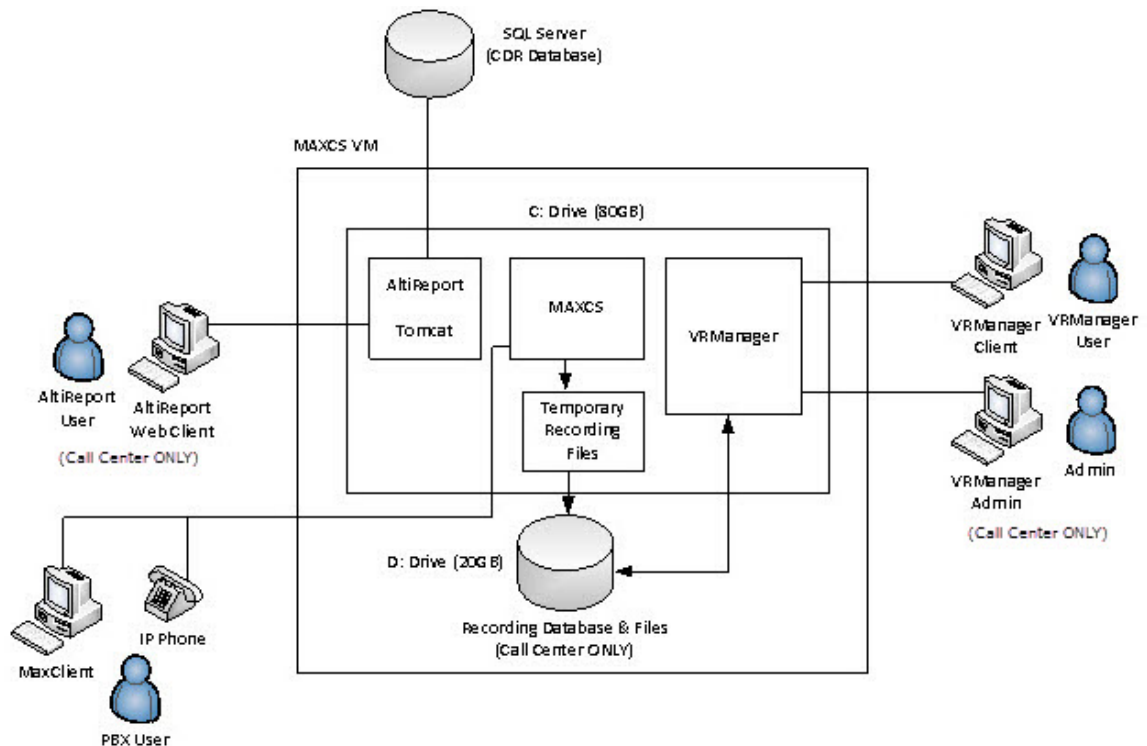


Figure 1: Diagram of MAXCS Cloud configuration

**Note:** To avoid time and time zone conflicts between the virtual machine and AltiReport (as well as other clients), set the virtual machine time and time zone to the customer's local time zone.

### 3. New Account Setup

For new customers, perform these steps:

1. After the order has been submitted and processed, open the customer's account in the Cloud order portal and switch to the *General* tab. This tab contains login details for the virtual machine, login details for MAXCS Administrator, and other configuration details.
2. Use Remote Desktop to access the virtual machine.
3. Change the Windows password on the new virtual machine. See the note below about RDP, password changes, and Windows 2012 R2.
4. Log into MAXCS Administrator and change the MAXCS Administrator password.
5. Change the Extension Default password.
6. Configure the SIP trunks. (See section 5 for instructions.)
7. Configure MAXCS as usual.
8. (Applicable only to Call Center deployments) We recommend that you log into VRManager and change the VRManager Admin password (the default VRManager Admin password is the same as the Windows Initial password, which you will find on the *General* tab).

**Note:** When connecting to Windows 2012 R2, review article 1120 in the AltiGen Knowledgebase about RDP connection failure messages:  
<https://know.altigen.com/questions/1120/RDP+Connections+fail+with+a+message+that+users+must+change+password>

### 4. Existing Account Migration

For existing customers, you need to perform various migration steps. Migration includes the following components:

- Database
- Voicemail messages
- Phrases
- Other MaxCS configuration components

#### 4.1. Migrating from Releases Earlier than MaxCS 6.5

When upgrading customers from releases earlier than 6.5, you should re-enter the data and the configuration details.

- Reuse existing phrases
- Leverage existing import/export tool to create extensions
- No voicemail migration
- No call history migration

## 4.2. Migrating from MaxCS 6.5 or Later

When upgrading customers from MaxCS release 6.5 or later, perform a backup and restore.

1. Run the AltiGen Backup and Restore tool to back up the existing configuration, voicemail messages, and greetings.
  2. Use Remote Desktop to access the virtual machine. You'll find the IP address and password on the *General* tab of the account in the Cloud order portal. Refer to the note on the previous page about RDP, passwords, and Windows 2012 R2.
  3. Change the Windows password on the virtual machine.
  4. Stop all AltiGen Services on the virtual machine.
  5. On the virtual machine, copy these two folders to a temporary location on the virtual machine (you will copy them back over in step 8):
    - C:\AltiServ\db\Localsite
    - C:\AltiServ\db\Localrealm
  6. Use the Backup and Restore tool to restore the original configuration onto the virtual machine.
  7. Copy the Localsite and Localrealm folders (from step 6) from the temporary location to C:\AltiServe\db, overwriting the folders that were stored there during the Restore process. Remove the C:\AltiServ\db\global realm folder if it exists.
  8. Restart the system and log into MaxCS Administrator. Note that the system restore that you performed in step 7 overwrote the MAXCS password with the password that was active on the system from which you restored.
  9. Go to the *License Configuration* page and click the **Update AltiGen Configuration** button. After the licenses are updated successfully, restart the system again.
  10. Log back into MAXCS Administrator and perform the following steps:
    - Configure the SIP trunk. (See section 5 for instructions.)
    - Update trunk configuration and Out Call routing to use the SIP Trunk.
    - Reconfigure the *Music on hold* source.
  11. On the original system, redirect all IP phones to the public IP address of the virtual machine.
- All agents become logged out during the upgrade process; agents will need to log in again.

## 5. SIP Trunk Configuration

Follow the procedures in this section to configure the SIP Trunks for this account.

### 5.1. Change Digit 9 to Route Access

In this section, you will change digit 9 from Trunk Access to Route Access.

1. In MAXCS Administrator, select **System > System Configuration**.
1. In the *Trunk Configuration* page, select a SIP Trunk. The *Trunk Access code* field is currently set to 9. Change *Trunk Access code* to **None**. Click **Apply To**.

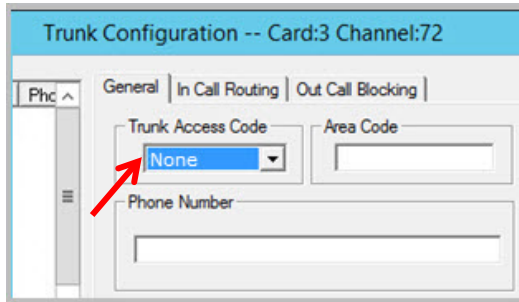


Figure 2: The Trunk Access Code for the SIP Trunk channel

2. All of the other SIP trunks are automatically selected; click **OK**. Click **OK** again to close the window.
3. Select **System > System Configuration**. Click the *Number Plan* tab and change 9 from **Trunk Access** to **Route Access**. Click **OK** to close the window.

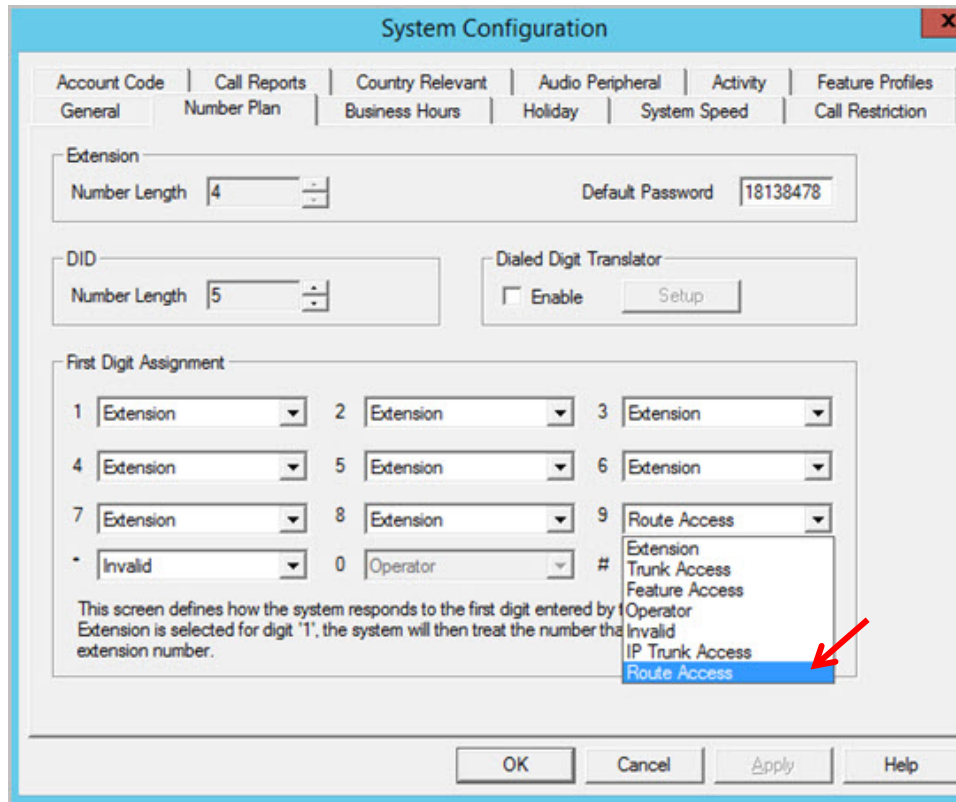
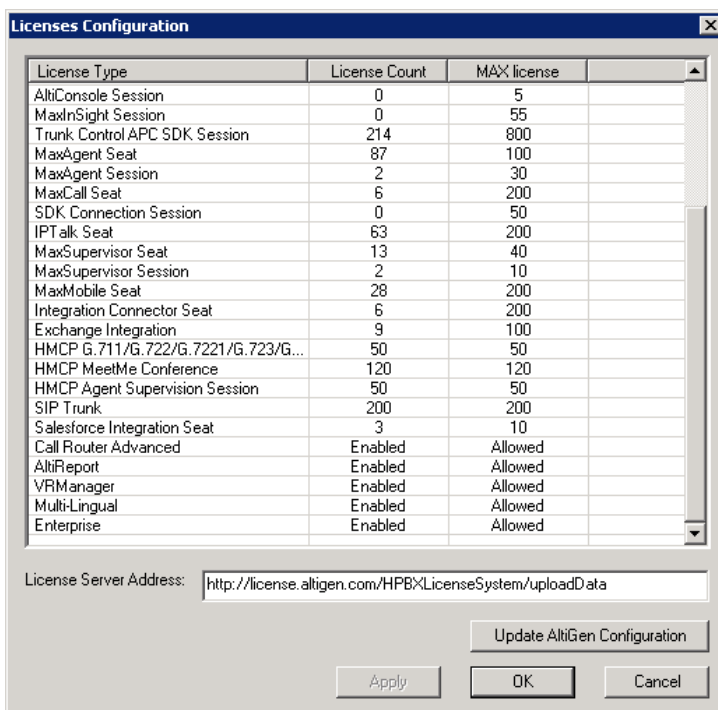


Figure 3: Change Digit 9 to Route Access

## 5.2. Check Licenses and SIP Trunks

1. Confirm that you have SIP Trunk licenses installed and set for maximum number of channels needed.



License Type	License Count	MAX license
AltConsole Session	0	5
MaxInSight Session	0	55
Trunk Control APC SDK Session	214	800
MaxAgent Seat	87	100
MaxAgent Session	2	30
MaxCall Seat	6	200
SDK Connection Session	0	50
IPTalk Seat	63	200
MaxSupervisor Seat	13	40
MaxSupervisor Session	2	10
MaxMobile Seat	28	200
Integration Connector Seat	6	200
Exchange Integration	9	100
HMCP G.711/G.722/G.7221/G.723/G...	50	50
HMCP MeetMe Conference	120	120
HMCP Agent Supervision Session	50	50
SIP Trunk	200	200
Salesforce Integration Seat	3	10
Call Router Advanced	Enabled	Allowed
AltReport	Enabled	Allowed
VRManager	Enabled	Allowed
Multi-Lingual	Enabled	Allowed
Enterprise	Enabled	Allowed

License Server Address:

Update Altigen Configuration

Apply OK Cancel

Figure 4: The License Information panel

2. Make sure that the SIP trunks appear in the *SIP Trunk* view. If they do not appear in that list, you must stop and restart switching before you proceed with SIP trunk configuration.

## 5.3. Configure a Codec Profile

Next, configure a Codec Profile for the SIP trunks in Enterprise Manager:

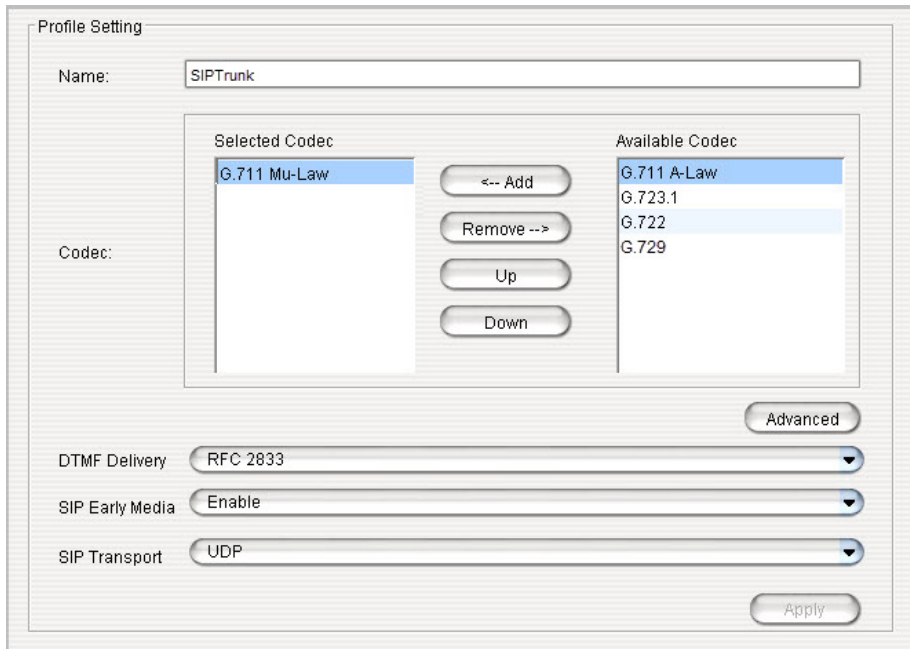
1. In MAXCS Administrator, select **VoIP > Enterprise Network Manager**.
2. Click the **Codec** button on the *Quick Launch* bar (this is different from the *IP Codec* tab).
3. Check whether a profile named *SIPTrunk* has been preconfigured for you.

If it has already been configured for you, confirm that the settings are correct.

If this profile was not preconfigured for you, click **Add** and create a profile with the following parameters:

- For the name, enter **SIPTrunk**.
- Set the *Selected Codec* to **G.711 Mu-Law** (use the **Add** and **Remove** buttons as needed)
- Set *DTMF Delivery* to **RFC 2833**
- Set *SIP Early Media* to **Enable**

- Set SIP Transport to **UDP**
- Click **Advanced** and set both packet lengths to **20 ms**



Profile Setting

Name:

Codec:

Selected Codec	Available Codec
G.711 Mu-Law	G.711 A-Law
	G.723.1
	G.722
	G.729

Buttons: <-- Add, Remove -->, Up, Down

Advanced

DTMF Delivery:

SIP Early Media:

SIP Transport:

Apply

Figure 5: The Codec page in Enterprise Manager

4. Click **Ok**.

## 5.4. Assign the Codec Profile to the Two SIP Servers

Next, assign the *SIPTrunk* Codec Profile to the two SIP trunk servers.

1. In Enterprise Manager, click the **Servers** button on the Quick Launch bar.
2. Open the **IP Codec** tab.
3. Check whether the following servers were preconfigured for you:
  - 65.254.44.194
  - 74.81.71.18
4. If they were preconfigured for you, confirm that each server is assigned to the Codec Profile *SIPTrunk*.

If they were not preconfigured for you, click **Add**, add the first server, and set the Codec Profile to *SIPTrunk*. Repeat for the second server.



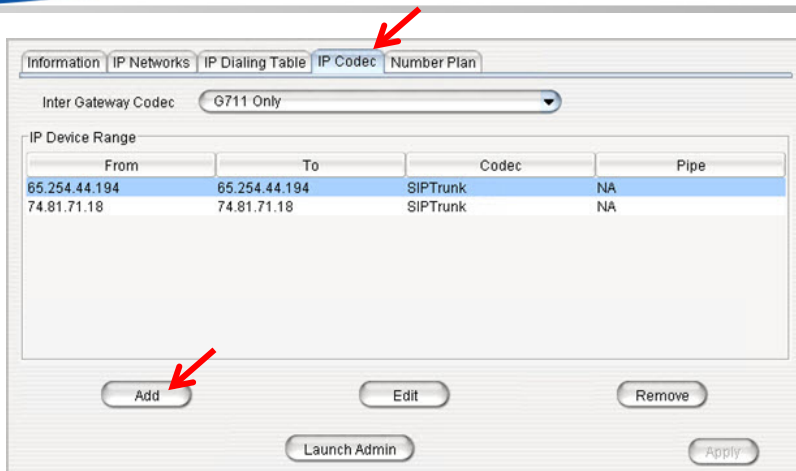


Figure 6: The Servers page (IP Codec tab) in Enterprise Manager

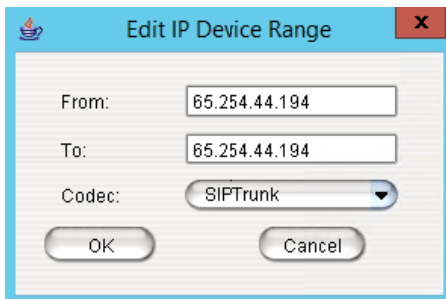


Figure 7: Server assigned to the Codec Profile SIPTrunk

## 5.5. Confirm NAT Configuration

1. To confirm that NAT support has been configured, click the **IP Networks** tab and confirm that both of the NAT support checkboxes are selected, and that the *Public IP Address* matches the public IP address of this system.

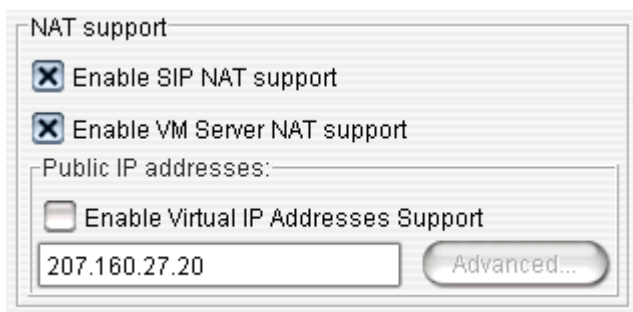


Figure 8: Enable NAT support

2. Close Enterprise Manager.

## 5.6. Enable SIP Options for the Servers

The next step is to configure Enable SIP options for both of these servers. By sending a “keepalive” message and checking for a valid response, SIP devices will know whether remote peers are ready to receive a new request.

1. You should still be on the *SIP Trunk Configuration* page. Click **Trunk Group Configuration**.
2. Select the first SIP Trunk server (65.254.44.194) and assign it the name *SIPTrunk\_Primary*. Check the **Enable SIP OPTIONS** checkbox and click **Apply**.
3. Select the second SIP Trunk server (74.81.71.18) and assign it the name *SIPTrunk\_Secondary*. Check the **Enable SIP OPTIONS** checkbox and click **Apply**.

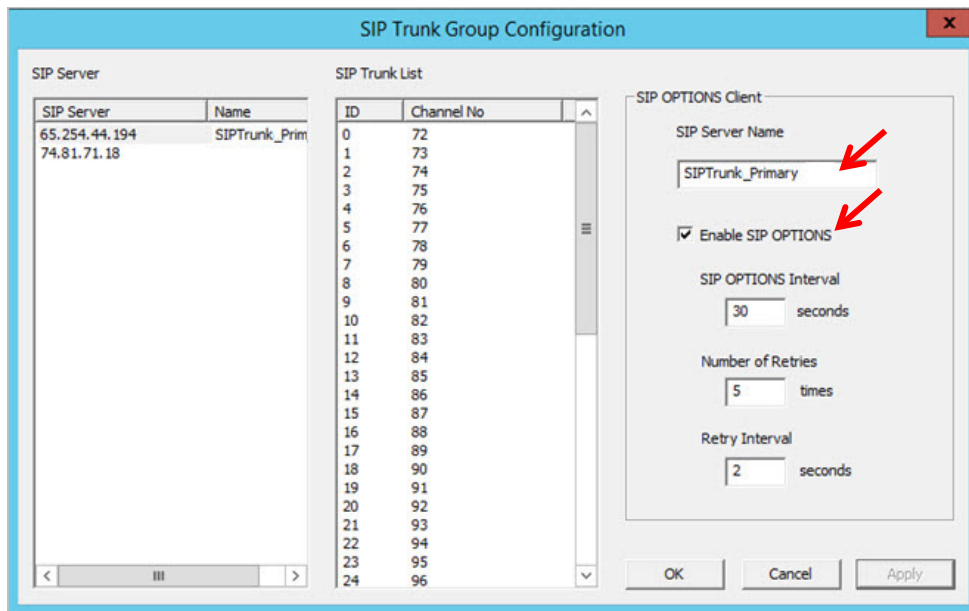


Figure 9: Enable SIP OPTIONS for both servers

4. Close the various panels until you return to Trunk View. The first channel and ChannelB should both be green with a status of *Idle*. If one of these channels does not show as *Idle*, check your configuration.

## 5.7. Configure Out Call Routing

1. Select **PBX > Out Call Routing Configuration**.
2. Select the *Primary Local* route. In the *Insert Digits* field, add an area code after to the digit “1”. In the next figure, we’ve added the area code 408 in this field.
3. Repeat this for the *Secondary Local* route, adding the area code after the digit 1.

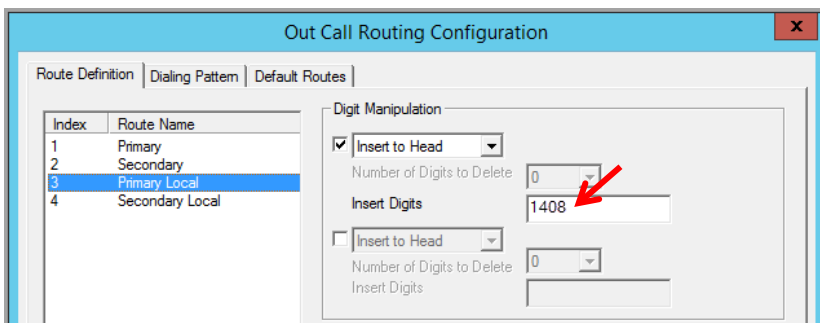


Figure 10: Configure out call routing

## 5.8. Configure Inbound Routing

AltiGen SIP trunks receive 11 digits as DNIS on inbound calls; configure your inbound routing rules accordingly.

## 5.9. Configure FoIP (Optional)

For Fax-over-IP (FoIP) configuration, refer to the MAXCS 7.5 Administration Manual.

## 6. Call Center Configuration

If the customer has requested a Call Center, the Partner performs these steps on the virtual machine.

1. Follow the steps in Sections 3 and 4 to migrate and configure MaxCS.
2. Configure AltiReport as usual, including the MAXCS registration and user management options.
3. Configure VRManager:
  - a. Log into VRManager Administrator. The login password should be the same as the default Windows Admin account password, provided in the Cloud portal.
  - b. Verify that the *Primary storage directory* is set to the D:\VRMRecording folder.



Figure 11: Configure VRManager

- c. Add a MAXCS server entry:
  - Enter the private IP address and specify the recording folder D:\CentralizedRecording.
  - Leave the *User Name* and *Password* fields empty.



Figure 12: Configure recording location

- d. Configure VRM as usual.
- e. When the configuration has been finalized, continue with the Preliminary Testing (detailed on the next few pages).

## 7. SIP Trunk Testing

These tests should be performed against the SIP trunk once all migration and configuration steps have been completed. You can print the last few pages to make notes as you test.

## 7.1. Confirm the SIP Trunk IP Address

Confirm that the correct IP address has been entered in Enterprise Manager; open the **Servers** tab and switch to the **IP Codec** sub tab. Check that the correct IP address is listed in the *IP Device Range* table.

## 7.2. Test Inbound Calls to Test Extensions

While performing these tests, note that the carrier sends 11 digits as DNIS.

1. Create a test extension; include the test DID (if applicable) in the extension's DID field.
2. Register the IP Phone using the new test extension.
3. Test the following:
  - a. Place an inbound call to the test extension.
  - b. Place the call on hold.
  - c. Transfer the call to an external number.

---

DIDs to be tested inbound (test 5 numbers):

1. Number: \_\_\_\_\_ Dest. (AA, Ext, WG): \_\_\_\_\_ Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_
  2. Number: \_\_\_\_\_ Dest. (AA, Ext, WG): \_\_\_\_\_ Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_
  3. Number: \_\_\_\_\_ Dest. (AA, Ext, WG): \_\_\_\_\_ Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_
  4. Number: \_\_\_\_\_ Dest. (AA, Ext, WG): \_\_\_\_\_ Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_
  5. Number: \_\_\_\_\_ Dest. (AA, Ext, WG): \_\_\_\_\_ Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_
-

### 7.3. Test Outbound Calls to External Numbers (PSTN)

1. Place an outbound call to a PSTN number.
2. Verify that the outbound Caller-ID is transmitted.
3. Set call restrictions and test.

- 
1. Ext Type (IP Phone/Analog phone/Fax): \_\_\_\_\_ External Type (Toll free, LD, Local): \_\_\_\_\_  
Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_
  2. Ext Type (IP Phone/Analog phone/Fax): \_\_\_\_\_ External Type (Toll free, LD, Local): \_\_\_\_\_  
Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_
  3. Ext Type (IP Phone/Analog phone/Fax): \_\_\_\_\_ External Type (Toll free, LD, Local): \_\_\_\_\_  
Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_
  4. Ext Type (IP Phone/Analog phone/Fax): \_\_\_\_\_ External Type (Toll free, LD, Local): \_\_\_\_\_  
Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_
  5. Ext Type (IP Phone/Analog phone/Fax): \_\_\_\_\_ External Type (Toll free, LD, Local): \_\_\_\_\_  
Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_
- 

### 7.4. Test Extension to Extension

1. Configure a 2<sup>nd</sup> test extension.
2. Test the following:
  - a. Place a call to a 2<sup>nd</sup> test extension.
  - b. Place the call on hold.
  - c. Place a call from an external number to the test DID.
  - d. Have one of the test extensions answer.
  - e. Once answered, transfer the call to the other test extension.

Pass/Fail: \_\_\_\_\_ Notes: \_\_\_\_\_

If you have any technical issues during the testing, please contact AltiGen Technical Support at 1-888-ALTIGEN (258-4436) Option 5.