

# MiCollab Advanced Messaging Mitel 3300 ICP MiTAI Integration Technical Note

For version 6.1 and above

## Notice

The information contained in this document is believed to be accurate in all respects but is not warranted by Mitel Networks™ Corporation (MITEL®). Mitel makes no warranty of any kind with regards to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. The information is subject to change without notice and should not be construed in any way as a commitment by Mitel or any of its affiliates or subsidiaries. Mitel and its affiliates and subsidiaries assume no responsibility for any errors or omissions in this document. Revisions of this document or new editions of it may be issued to incorporate such changes.

No part of this document can be reproduced or transmitted in any form or by any means - electronic or mechanical - for any purpose without written permission from Mitel Networks Corporation.

## Trademarks

The trademarks, service marks, logos and graphics (collectively "Trademarks") appearing on Mitel's Internet sites or in its publications are registered and unregistered trademarks of Mitel Networks Corporation (MNC) or its subsidiaries (collectively "Mitel") or others. Use of the Trademarks is prohibited without the express consent from Mitel. Please contact our legal department at [legal@mitel.com](mailto:legal@mitel.com) for additional information. For a list of the worldwide Mitel Networks Corporation registered trademarks, please refer to the website: <http://www.mitel.com/trademarks>.

© Copyright 2016, Mitel Networks Corporation

All rights reserved

# Contents

|  |           |
|--|-----------|
| <b>Preface</b>   | <b>5</b>  |
| References   | 5         |
| Documentation  | 5         |
| Documentation Updates  | 6         |
| Help   | 6         |
| Document Conventions   | 6         |
| Features Supported in this Integration   | 7         |
| <b>Critical Application Considerations</b>   | <b>10</b> |
| Considerations for Programming MWI Operation   | 11        |
| <b>Installation Requirements</b>   | <b>13</b> |
| Telephone System Requirements  | 13        |
| MiCollab AM Requirements   | 13        |
| <b>Programming the Telephone System</b>  | <b>14</b> |
| Programming the MiCollab AM Class of Service   | 14        |
| Programming the MiCollab AM Ports  | 15        |
| Programming the MiCollab AM Ports into the Station Class of Service                                  | 16        |
| Programming the Voice Hunt Group for MiCollab AM Ports   | 17        |
| Programming the MWI Reroute Hunt Group for MiCollab AM Ports   | 18        |
| Programming the Rerouting Always Alternative Number  | 19        |
| Programming the Message-Waiting System Feature Codes   | 20        |
| Programming the MiCollab AM Ports and Hunt Group for the Mitel Resiliency Feature                    | 20        |
| Disabling the Remote Access Connection Manager Service   | 21        |
| <b>Upgrading an Existing Mitel 3300 ICP MiTAI Integration from a previous version of MiCollab AM</b> | <b>22</b> |
| <b>Configuring MiCollab AM</b>   | <b>23</b> |
| Completing the Integration   | 26        |
| <b>Changing the Network Binding Order on the MiCollab AM Platform</b>                                | <b>27</b> |
| Windows Server 2008 R2 with Service Pack 1   | 27        |
| Windows Server 2012 R2   | 28        |

|   |           |
|---|-----------|
| <b>Configuring Quality of Service (QoS)</b> | <b>29</b> |
| <b>Troubleshooting</b>                      | <b>30</b> |

# Preface

This Integration Technical Note (ITN) is written for dealers who are experienced with MiCollab Advanced Messaging (MiCollab AM) and who are familiar with its procedures and terminology. It also assumes that you are familiar with the features and functionality of the Mitel 3300 ICP telephone system.

The MiTAI integration is an IP integration that consists of the Mitel 3300 ICP telephone system and MiCollab AM. MiCollab AM uses the Mitel MiTAI MiAudio software module to communicate with the telephone system. The MiTAI MiAudio software installs as part of the MiCollab AM software installation.

This integration operates exclusively over an IP-based network; it uses no analog or digital voice telephony ports, but passes voice communication and signaling information over a static network connection between the Mitel 3300 and MiCollab AM. MWI operation may be configured to use either the MWI to switch method or MWI operation by dialing MWI feature codes. The MWI operation by dialing feature code method supports Mitel resiliency.

The MWI to switch method requires two separate hunt groups:

- A Voice Hunt Group and an MWI Reroute Hunt Group; subscribers dial the Voice Hunt Group extension to reach MiCollab AM
- An MWI Reroute Hunt Group to provide MWI and MWI callbacks

MWI operation by dialing MWI feature codes does not require a separate hunt group. MiCollab AM performs MWI operation by going offhook and dialing a PBX feature code to either set or clear MWI for the subscriber. Instructions for configuring both methods are described in this document.

This ITN documents the procedure for setting up the MiTAI integration. The process consists of programming the Mitel 3300 ICP telephone system, Installation Guide software, and configuring MiCollab AM. Critical application considerations are also documented.

Use this document in conjunction with *System Installation Guide* and *System Administration Guide* and the MiCollab AM online help system. For specific information about the Mitel 3300 ICP telephone system or the MiTAI MiAudio software, please refer to the Mitel documentation.

## References

A catalog of technical documentation is included on the MiCollab AM Installation Media. If you are installing any advanced applications, such as Networking and Fax Server applications, you should refer to the appropriate technical documentation for application and installation information.

## Documentation

The technical documentation is produced in the PDF format and requires the PDF reader to view it. The documentation set for this MiCollab AM includes the following documents and resources:

- **Developer Resources.** Contains programming guides and API references for developers for integrating the server clients and web applications with MiCollab AM.

- **Integration Technical Notes (ITN).** Contains a set of guides that describe the integration methods and instructions for a variety of phone systems to work with MiCollab AM. The ITNs are generally used by resellers or administrators who are experienced with MiCollab AM and familiar with the integration procedures and terminology.
- **Quick Reference Card (QRC).** Contains shortcuts and quick instructions telling subscribers how to access and use the messaging system.
- **Server Documentation.** Available as a PDF only. Contains administrative guides for administrators about installing, configuring, and administering the messaging system, and user guides for subscribers about accessing the messaging system and checking and sending messages.
- **Spare Parts Documentation.** Contains a set of guides that describe the instructions for installing and configuring hardware parts to work with MiCollab AM. These documents are written for Mitel certified MiCollab AM technicians who are experienced with MiCollab AM and familiar with the procedures and terminology.
- **Software Release Notice (SRN).** This notice introduces the new features, capabilities, and hardware/software requirements for the corresponding MiCollab AM version.

## Documentation Updates

Documentation updates may be available from the following sources:

- Mitel certified technicians can view or download the latest/updated documents and program files from our partner web site: [connect.mitel.com/connect](http://connect.mitel.com/connect)

## Help

The primary source of information about MiCollab AM is the online help available within any of its administrative utilities. You can access **Help** as follows:

- Click the **Help** button in the dialog box or window in which you are working
- Press the **F1** key at any time.

## Document Conventions

The following conventions are used in this document:

- **Key Names.** Names of keys on the keyboard are shown in a box.

Example: **Enter**

When two keys must be pressed simultaneously, they are joined by a + sign.

Example: **Alt** + **Tab**

- **Reference to Document.** *Italics* fonts can also signify the titles of other documents.

Example: Refer to *System Installation Guide*.

- **UI Element Names.** Names of UI elements such as dialog windows, screens, menu items, tabs, buttons, icons, etc. are shown in bold.  
| **Example:** On the **Startup** screen, click the **Start** icon.
- **User Input.** Information required to be typed is shown in italics.  
| **Example:** Type the password *voicemail*.
- **Warning, Caution, Important, and Notes.** Text for the contents that require attention are shown as follows:

**WARNING** A warning paragraph advises you of circumstances that can result in the loss of data, harm to the system server platform, or personal harm.

**CAUTION** Failure to follow these recommendations can result in unauthorized access to the system and consequent loss of data.

**IMPORTANT** An important paragraph gives decision-making information or informs you of the order in which tasks need to be completed.

**NOTE** A note gives additional information, provides an explanation, or indicates an exception to the information in the preceding text.

## Features Supported in this Integration

The following tables list the features supported using the MiTAI integration.

Table 1. Call forward to personal greeting support for these common call types

| Divert to MiCollab AM on | Supported     |
|--------------------------|---------------|
| No Answer                | Yes           |
| Busy                     | Yes           |
| Forward All              | Yes           |
| Do Not Disturb           | No (See Note) |

**NOTE** The Do Not Disturb feature of the Mitel 3300 PBX does not forward to voicemail alone. However, if either the Forward All or Forward Busy diversion is active, the diversion takes priority over the Do Not Disturb condition, and the call is forwarded to the subscriber's personal greeting.

Table 2. Integration supported features for Mitel 3300 ICP MiTAI

| Feature   | Supported | Notes  |
|---|-----------|--------|
| Automatic subscriber logon                          | Yes       |        |
| ANI/CLI   | Yes       |        |
| <i>Announce Busy</i> greeting on forward busy calls | Yes       |        |
| Call screening                                      | Yes       | Note 1 |
| Caller queuing                                      | Yes       | Note 2 |
| DNIS  | Yes       |        |
| End-to-end DTMF, attendant console                  | Yes       |        |
| End-to-end DTMF, proprietary telephones             | Yes       |        |
| Fax Tone Detection                                  | Yes       |        |
| Internal calling party ID for reply                 | Yes       |        |
| Live record, integrated                             | No        | Note 3 |
| Live reply to sender                                | Yes       |        |
| Message notification callouts                       | Yes       |        |
| MWI, set/clear                                      | Yes       |        |
| MWI, inband/outband                                 | Either    | Note 4 |
| Networking, analog                                  | No        | Note 5 |
| Overflow from MiCollab AM to attendant              | Yes       | Note 6 |
| Overflow to MiCollab AM from attendant              | Yes       | Note 6 |
| PBX-provided disconnect signaling                   | Yes       |        |
| Transfers, blind                                    | Yes       |        |
| Transfers, confirmed                                | Yes       |        |
| Transfers, supervised                               | Yes       |        |
| Transfers, monitored                                | Yes       |        |



---

Trunk ID for call routing

Yes

---

## NOTES

1. Only available when using supervised transfers.
2. Caller Queuing is specific to each local Call Server. Call Servers within the system are unaware of queued calls to the same subscriber on other Call Servers. For more information, refer to the [Critical Application Considerations](#).
3. The Live Record feature may be implemented through a Live Record Call Processor action and a three-party PBX conference. Conferencing is a PBX feature.
4. In a resilient environment, you must use the MWI feature codes (inband dialing) method for MWI operation.
5. The Mitel ports do not support fourth column DTMF tones.
6. This feature requires a uniquely configured hunt group.

# Critical Application Considerations

Known limitations or conditions within the telephone system and MiCollab AM that affect the integration performance are listed here. General recommendations are provided when ways to avoid these limitations exist.

- If your MiCollab AM server platform is a component of two or more local or wide area networks (LANs or WANs), you must make sure that this integration does not interfere with the normal network operation of the server. By default, MiCollab AM uses the primary (public) network interface card (NIC) in the platform, the first NIC in the network binding order. If you want MiCollab AM to use a NIC other than the first one, you must make several required configuration changes. It is much easier to configure the Integration to use another NIC by simply setting the integration parameter *Local IP Address to bind on* to the address of the NIC card connected to the PBX. For more information refer to the section, [Changing the Network Binding Order on the MiCollab AM Platform](#) later in this document.
- The Call Queuing feature does not transcend the Call Server. Calls may be queued on multiple Call Servers for the same subscriber but Call Servers do not have knowledge of calls in the queue on other Call Servers within the system. Callers may be prompted with specific information about their place in the queue; however, the information pertains to the specific Call Server on which their call is queued.
- You must enter the Mitel *voice hunt group access code* in the Hunt Group Access Code field of the MiCollab AM Switch Section dialog box. This number must match the number in the PBX Hunt Group assignment created in the section, [Programming the Voice Hunt Group for MiCollab AM Ports](#).
- One IP-based integration is supported per Call Server.
- The Mitel MiTAI integration cannot run in conjunction with any Dialogic® DMG integrations.
- If the Call Server handling calls loses connectivity with the Mitel 3300 ICP telephone system, the Call Server platform may require a restart once connectivity is restored. Refer to [Table 12. MiCollab AM Stops Answering](#) for details.
- The Mitel MiTAI MiAudio based IP integration uses the Mitel version 4.0 SP2 Software Development Kit (SDK) which adds support for multiple-core CPUs and CPUs that use hyper-threading.
- The Mitel version 4.0 SP2 SDK supports the Mitel Resiliency (redundant failover) feature. To use this feature, you must configure the Mitel PBXs accordingly. There are no programmatic changes in MiCollab AM for resiliency to work when you use feature codes for MWI operation. Refer to the Mitel documentation for instructions on how to configure Mitel Resiliency.
- The following limitations exist in both functionality and behavior when using the Mitel Resiliency feature:
  - You must use the In-band MWI feature codes (dialing method) to set and clear message-waiting indicators

- A manual MWI system wide refresh may be required each time the voicemail ports are transferred to another switch
- Call operations, including MWI, which are performed just prior to, or immediately following a resiliency event may fail and may not be repeated
- Calls in progress during a failover may be disconnected
- If the MWI operation is performed by dialing MWI feature codes, the callback button on Mitel IP (non-SIP) phones does not work.
- If your site has the Mitel ICP 3300 telephone system configured to make programmed reboots, make sure that the programmed reboot feature is set to COURTESY ON. This setting ensures that there are no active calls before the PBX restarts.
- If you are upgrading from a version of MiCollab AM prior to version 5.0 and the system is currently running a Mitel 3300 ICP integration you must first un-install the previous version of the Mitel MiTAI Phone emulator software before upgrading to MiCollab AM version 5.0 SP3. For more information, refer to the section, [Upgrading an Existing Mitel 3300 ICP MiTAI Integration from a previous version of MiCollab AM](#).
- Do not enable the Mitel PBX parameter *Superset Callback Message Cancel Timer*. If this parameter is left at the default value of 24, the PBX automatically clears all message-waiting indicators twenty-four hours after they are set. Consult the Mitel documentation for information on how to disable this feature.
- Analog Networking is not a supported feature of this integration. The Mitel MiTAI ports do not support fourth column DTMF tones (A, B, C, and D). If you require analog networking for this installation, you must install separate analog ports in the supporting Call Server.

## Considerations for Programming MWI Operation

You can configure MiCollab AM to perform MWI operations by sending MWI messages to the switch using the MWI Reroute Hunt Group or by dialing MWI feature codes. The MiCollab AM default is sending MWI messages to the switch (MWI Message to Switch). If you change the MWI operation type, you must restart MiCollab AM to effect the change.

### If you use the MWI Message to Switch option:

**NOTE** The MWI Message to Switch option is not supported in a Mitel resilient environment.

- Create a unique MWI Reroute hunt group for each Call Server you are integrating to the Mitel.
- Create a unique MiTAI integration with its own Reroute hunt group number for each Call Server you are integrating to the Mitel.
- Enter the *MWI Reroute Hunt Group number* in the MWI Reroute Hunt Group Code field of the MiCollab AM Integrations Options, Required Parameters dialog box. This number must match the number of the PBX MWI Reroute Hunt Group assignment created in the section, [Programming the Voice Hunt Group for MiCollab AM Ports](#)

- Select the parameter, *MWI Message to Switch* in the MWI Interface Method field of the MiCollab AM Integrations Options, Message Waiting Settings dialog box.

### **If you use the By Dialing MWI Feature Codes option:**

- A separate hunt group is not required. However, lines must be available to perform MWI callouts. Make sure lines are configured correctly for callouts.
- Configure the Message Waiting Activate/Deactivate system feature settings on the PBX
- Select the parameter, *By Dialing MWI Codes* in the MWI Interface Method field of the MiCollab AM Integrations Options, Message Waiting Settings dialog box. Enter the PBX MWI set and clear feature codes into the Set and Clear MWI dialing templates of the MiCollab AM Integrations Options, Message Waiting Settings dialog box, followed by a single x. (The x represents the directory number to which the MWI operation is intended.)
- If the MWI interface method is *By Dialing MWI codes*, the callback button on Mitel IP (non-SIP) phones does not work.

# Installation Requirements

Review the following information before performing any of the procedures in this document. To install this integration successfully, you must meet the installation requirements for both the telephone system and MiCollab AM.

## Telephone System Requirements

- Mitel ICP R9.0 UR3 or prior running on a 3300 ICP telephone system (does not support the Mitel Resiliency feature)
- Mitel ICP Release MCD 4.2 SP2 (10.2)/ MCD 5.0 (11.0) (supports both Mitel Single and Resilient environments)
- One IP user and IP device license for each MiTAI integrated MiCollab AM port

You can find more information about these products in the Mitel documentation.

## MiCollab AM Requirements

Refer to the current *Software Release Notice* for additional information on hardware and software requirements.

- MiCollab AM software version 6.1
- One 100 MB or 1000 MB network interface card and cable
- MiCollab AM feature file with the MiTAI Integration enabled, and one Mitel IP license enabled for each port that is used in the MiTAI integration

# Programming the Telephone System

Follow the recommendations and programming examples in this section to program the Mitel 3300 ICP telephone system for integration with MiCollab AM. Programming examples show commands and parameters that are necessary for integration. They do not represent PBX programming in its entirety.

The installing technician should be familiar with programming the Mitel 3300 ICP telephone system with the online System Administration application. Refer to the *Mitel 3300 ICP Application Note* or the Mitel online help for specific information on programming the telephone system.

**NOTE** In this section, references to ICP R9 imply a Mitel 3300 ICP version R9.0 UR3 or prior; references to MCD 5 imply a Mitel 3300 ICP version MCD 4.2 SP2/MCD 5.0.

## Programming the MiCollab AM Class of Service

Program the Class of Service for the MiCollab AM ports to enable the required features and functionality of the integration.

### To program the MiCollab AM Class of Service:

- 1 In the Mitel 3300 ICP System Administration web application
  - For ICP R9, select **System Configuration**, and then go to **Devices > Class of Service Options Assignment**.
  - For MCD 5, go to **System Properties > System Feature Settings > Class of Service Options**
- 2 In the Class of Service Options list, find an unused Class of Service Number. If no unused Class of Service Number entries appear, click **Next** (>) until an unused entry appears.

**IMPORTANT** Write down the Class of Service Number you selected as the MiCollab AM Class of Service. You will need it later in the configuration process. A Class of Service Number that does not have a comment may nonetheless be in use. Refer to the actual configuration of your PBX to verify that a Class of Service Number is not in use.

This document assumes that all of the options for the Class of Service Number are set to their respective defaults. Refer to the *Mitel 3300 ICP* online documentation to verify the default values for Class of Service options.

- 3 Click **Change**.
- 4 Set the Class of Service Number options as described in the following table.

Table 3. Class of Service options

| Option                                  | Value           | Feature Type |
|---|-----------------|--------------|
| Comment                                 | MiCollab AM     | (general)    |
| ANI/DNIS/ISDN Number Delivery Trunk     | Yes             | (general)    |
| Calling Name Display – Internal – ONS   | No              | (general)    |
| Calling Number Display – Internal – ONS | No              | (general)    |
| COV/ONS/E&M Voice Mail Port             | Yes (See Note ) | (general)    |
| HCI/CTI/TAPI Call Control Allowed       | Yes             | (general)    |
| HCI/CTI/TAPI Monitor Allowed            | Yes             | (general)    |
| SMDR External                           | Yes             | (general)    |
| SMDR Internal                           | Yes             | (general)    |
| Message Waiting Deactivate on Off-Hook  | No              | (advanced)   |
| ONS CLASS/CLIP: Set                     | Yes             | (advanced)   |
| Voice Mail Soft Key                     | Yes             | (advanced)   |

**NOTE** The voicemail setting allows the callback feature to work when the MWI method is configured to use dial feature codes. However, this setting is not compatible in a networked PBX environment and should not be used in a networked environment.

- 5 Click **Save**.

## Programming the MiCollab AM Ports

MiCollab AM ports for this integration emulate the Mitel 5020 IP phone. Program the MiCollab AM ports as 5020-type IP phones on the telephone system.

## To program the MiCollab AM ports:

- 1 In the Mitel 3300 ICP System Administration web application:
  - For ICP R9, select **System Configuration**, go to **Devices > IP Telephones > Multi-line IP Sets**, and then select **Multi-line IP Set Configuration**
  - For MCD 5, go to **Users and Devices > Advanced Configuration > IP Telephones**, and then select **Multiline IP Sets**
- 2 To configure one or more MiCollab AM ports, click **Add**.

**NOTE** In the next step, you may be able to program many or all of your MiCollab AM ports at once. Refer to the Mitel online documentation for more information on how to do this.

- 3 In the pop-up window, select:

Table 4. MiCollab AM Port programming options

| Device Type         | 5020 IP   |
|---------------------|---|
| Number              | Enter the extension number assigned to the MiCollab AM port |
| Interconnect Number | 1 (See Note)  |

**NOTE** The Interconnect Number in this step may be site-specific. The suggested value of 1 works for default configurations that do not use Interconnect Restriction. Refer to the Mitel online documentation for more information about Interconnect Numbers and Interconnect Restrictions.

**IMPORTANT** Do not type anything into the MAC Address text box. The system automatically determines this value.

- 4 Leave all other fields and values at their default settings, and then click **Save**.
- 5 Repeat steps two through four as needed to configure the remaining MiCollab AM ports.

## Programming the MiCollab AM Ports into the Station Class of Service

To associate the MiCollab AM ports with the correct Class of Service, program the MiCollab AM ports into the Station Class of Service you previously created in, Programming the MiCollab AM Class of Service

### To program the Station Class of Service:

- 1 In the Mitel 3300 ICP System Administration web application:



- For ICP R9, select **System Configuration**, and then go to **Devices > Station Service Assignment**
  - For MCD 5, go to **Users and Devices > Advanced Configuration**, and then select **Station Attributes**
- 2 Select the first MiCollab AM extension. If MiCollab AM extensions are not present in the list, search for the first MiCollab AM extension, or click **Next** (>) until a MiCollab AM extension displays.
  - 3 Click **Change**. A pop-up window displays.
- NOTE** In the next step, you may be able to program many or all of the Station Service Assignments (Attributes) at once. Refer to the Mitel online documentation for more information on how to do this.
- 4 In each of the Class of Service – Day, Class of Service – Night1, and Class of Service – Night2 text boxes, type in the MiCollab AM Class of Service number, and then click **Save**.
  - 5 Repeat steps two through four as needed to configure all of the remaining MiCollab AM ports.

## Programming the Voice Hunt Group for MiCollab AM Ports

Program a Voice Hunt Group number for users to dial to reach MiCollab AM. It is recommended that you choose a number that is easy to remember.

**NOTE** This hunt group is not the hunt group that MiCollab AM uses for MWI.

### To configure the Voice Hunt Group number:

- 1 In the Mitel 3300 ICP System Administration web application:
  - For ICP R9, select **System Administration**, go to **Call Handling > Hunt Groups**, and then select **Hunt Group Assignment**
  - For MCD 5, go to **Users and Devices > Group Programming**, and then select **Hunt Groups**
- 2 Click **Add** to configure a new hunt group.
- 3 In the Hunt Group text box, type the extension number for the hunt group, and then in the Hunt Group Priority text box, type **64**.
- 4 In the Hunt Group Type list, select **VoiceMail**, and then click **Save**.

**IMPORTANT** Write down the Voice Hunt Group number you selected for this hunt group. You will need it later in the configuration process.

### NOTES

1. The VoiceMail setting allows the callback feature to work when the MWI method is configured to use dial feature codes. However, this setting is not compatible in a resilient PBX environment; use Voice as the hunt group type in a resilient environment.
2. In the next step, you may be able to add many or all of your MiCollab AM ports to the Voice Hunt Group at once. Refer to the Mitel online documentation for more information on how to do this.

- 5 In the Hunt Group Assignment list, select the hunt group you just created, and then click **Add Member**.
- 6 In the Number text box, type in the extension of a MiCollab AM port (see [Programming the MiCollab AM Ports](#)) to add it to the hunt group, and then click **Save**. The extensions were programmed in the previous section.
- 7 Repeat steps five through six as needed to configure all of the remaining MiCollab AM ports.

## Programming the MWI Reroute Hunt Group for MiCollab AM Ports

Use this method for MWI operation only if you are not using the Mitel Resiliency feature or you do not require MWI operation on the non-primary system.

**IMPORTANT** If you are using the MWI Message to Switch method of MWI operation, you must program the MWI Reroute Hunt Group for MiCollab AM ports. You do not have to program the MWI Feature Codes in System Properties. For more information, refer to [Critical Application Considerations](#), in the section, *If you use the MWI Message to Switch option...*

Program a MWI Reroute Hunt Group for the MiCollab AM ports. MiCollab AM calls this hunt group to process MWI and MWI callbacks. Assign a single member to this hunt group for the sole purpose of setting it to the COS of the hunt group.

**IMPORTANT** You must create a unique MWI Reroute Hunt Group for each Call Server you are integrating to the Mitel.

### To configure the MWI Reroute Hunt Group:

- 1 In the Mitel 3300 ICP System Administration web application:
  - For ICP R9, select **System Administration**, go to **Call Handling** > **Hunt Groups**, and then select **Hunt Group Assignment**
  - For MCD 5, go to **Users and Devices** > **Group Programming**, and then select **Hunt Groups**
- 2 Click **Add** to configure a new hunt group.
- 3 In the Hunt Group text box, type the extension number for the hunt group, and then in the Hunt Group Priority text box, type 64.
- 4 In the Hunt Group Type list, select **HCIReroute**, and then click **Save**.

**IMPORTANT** Write down the Hunt Group number you selected for this hunt group. You will need it later in the configuration process.

- 5 In the Hunt Group Assignment List, select the hunt group you just created, and then click **Add Member**.
- 6 In the Number field, type the extension of the **first** MiCollab AM port (see [Programming the MiCollab AM Ports](#)) and then click **Save**.

## Programming the Rerouting Always Alternative Number

**IMPORTANT** If you are using the MWI Message to Switch method of MWI operation, you must program the Rerouting Always Alternative Number. You do not have to program the MWI Feature Codes in System Properties.

Program the Always Alternative Number to link the MWI Reroute Hunt Group to the MiCollab AM lines in the Voice Hunt Group.

### To configure the Always Alternative number:

- 1 In the Mitel 3300 ICP System Administration web application:
  - For ICP R9, select **System Administration**, go to **Call Handling** > **Call Routing**, and then select the **Call Rerouting Always Alternative Assignment**
  - For MCD 5, go to **Call Routing** > **Call Handling**, and then select **Call Rerouting Always Alternative**
- 2 Do not select entry number 1. Select any other unused Always Alternative Number in the list.

**IMPORTANT** Write down the Always Alternative number you selected for this hunt group. You will need it later in the configuration process.

- 3 Click **Change**, and in the pop-up window modify the selected entry so that all of the options are set to **Reroute**.
- 4 In the Directory Number text box, type the extension of the Voice Hunt Group (see [Programming the Voice Hunt Group for MiCollab AM Ports](#)).
- 5 Click **Save** when you are finished.
- 6 In the Mitel 3300 ICP System Administration web application:
  - For R9, select **System Administration**, go to **Call Handling** > **Call Routing**, and then select **Call Rerouting Assignment**.
  - For MCD 5, go to **Call Routing** > **Call Handling**, and then select **Call Rerouting**
- 7 In the Go To list, select **Number**.

- 8 In the Value field, type the MWI Reroute Hunt Group extension number (see [Programming the MWI Reroute Hunt Group for MiCollab AM Ports](#), and then click **Go**.
- 9 Click **Change**, and then in each of the numeric text boxes, type the Always Alternative Number you created in step two.
- 10 Click **Save**.

## Programming the Message-Waiting System Feature Codes

Use this method for MWI operation if you are using the Mitel Resiliency feature.

The Message-Waiting Activate and Deactivate feature codes have a default code. Open the feature settings in system properties to view or change the current feature codes. Write these codes down for use later when configuring the MiCollab AM Message Waiting Settings.

**IMPORTANT** If you choose to use the MWI System Feature Codes in System Properties for MiCollab AM MWI operation, you must configure the MWI Feature codes. You do not have to program the MWI Reroute Hunt Group or the Rerouting Always Alternative Number. For more information, refer to [Critical Application Considerations](#), in the section, *If you use the Dialing Message Waiting Feature Codes option*.

### To view or change the Message Waiting System Feature Settings:

- 1 In the Mitel 3300 ICP System Administration web application:
  - For ICP R9, select **System Administration**, expand **System Options**, and then select **Feature Access Code Assignment**
  - For MCD 5, browse to **System Properties > System Feature Setting**, and then select **Feature Access Codes**
- 2 In the Feature Access Codes page, click **Next (>)** until you reach the page that contains the Message Waiting-Activate and the Message Waiting-Deactivate features.
- 3 Click **Change**, enter a Primary code for Message Waiting-Activate and then click **Save**.
- 4 Click **Change**, enter a Primary code for Message Waiting-Deactivate and then click **Save**.

## Programming the MiCollab AM Ports and Hunt Group for the Mitel Resiliency Feature

This section describes settings that pertain to the MiCollab AM ports and hunt group only. For information on programming Mitel Resiliency, refer to the related Mitel documentation or contact Mitel Technical Support

**IMPORTANT** This feature is supported only with Mitel ICP versions MCD 4.2 SP2 (R10.2)/ MCD 5.0 (R11.0).

### To program the MiCollab AM ports for resiliency:

- 1 In the Mitel 3300 ICP System Administration web application, browse to **Users and Devices**, and then select **User and Device Configuration**.
- 2 In the list of User and Device Configuration, select a voicemail port, and then click **Change**.
- 3 In the **Profile Tab**, configure the **Secondary Element** with the appropriate failover node name from the drop-down list.
- 4 Click **Save**.
- 5 Repeat steps one through three for each voicemail port.

### To program the MiCollab AM Hunt Group for resiliency:

- 1 In the Mitel 3300 ICP System Administration web application, browse to **Users and Devices** > **Group Programming**, and then select **Hunt Groups**.
- 2 In the upper list of Hunt Groups, select the Voicemail Hunt Group you configured previously in the section, [Programming the Voice Hunt Group for MiCollab AM Ports](#), and then click **Change**.
- 3 In the popup window that displays, go to **Secondary Element**, and then select the same element that you selected for the voicemail ports from the drop-down list.
- 4 Click **Save**.

## Disabling the Remote Access Connection Manager Service

Disable the Remote Access Connection Manager Service.

**IMPORTANT** If the service is not disabled, a race condition may exist that prevents MiCollab AM from starting properly.

### To disable the Remote Access Connection Manager Service:

- 1 On the Taskbar, go to **Start** > **Run**, and then type *services.msc*. Hit **Enter**.
- 2 In the list of Services, locate, and then double-click **Remote Access Connection Manager**.
- 3 In the Startup Type list, select **Disabled**.
- 4 Click **Apply**, and then click **OK**.

# Upgrading an Existing Mitel 3300 ICP MiTAI Integration from a previous version of MiCollab AM

If you are upgrading an existing Mitel 3300 MiTAI integration from a version of MiCollab AM prior to version 4.2, you must first un-install any previous version of the MiTAI Phone Emulator software from the telephony server before you install MiCollab AM software version 5.0 SP3. If you do not remove the software first, the Setup program will require you to do so before proceeding with the installation.

**NOTE** If you are upgrading the system to version 5.0 SP3, you may need to remove any previous versions of MiTAI software before starting the MiCollab AM software version 5.0 SP3 installation. If you do not remove these items, the Setup program will require you to do so before proceeding with the installation.

## To un-install MiAUDIO and MiCollab AM software:

- 1 If MiCollab AM is running, go to **Start > Control Panel**, and then **MiCollab AM Configuration**. The MiCollab AM Configuration utility displays.
- 2 On the Main tab, click **Shutdown**, and then wait for MiCollab AM to shut down completely before you continue to the next step.
- 3 Select **Start > Control Panel**, double-click **Add Remove Programs**, and then select **Mitel MiAUDIO Phone Emulator**. Follow the InstallShield Wizard prompts to remove the software completely.
- 4 Complete the MiCollab AM version 5.0 SP3 software installation before continuing to the next section [Configuring MiCollab AM](#). The Mitel MiAudio software installs automatically when you install MiCollab AM software version 5.0 SP3.

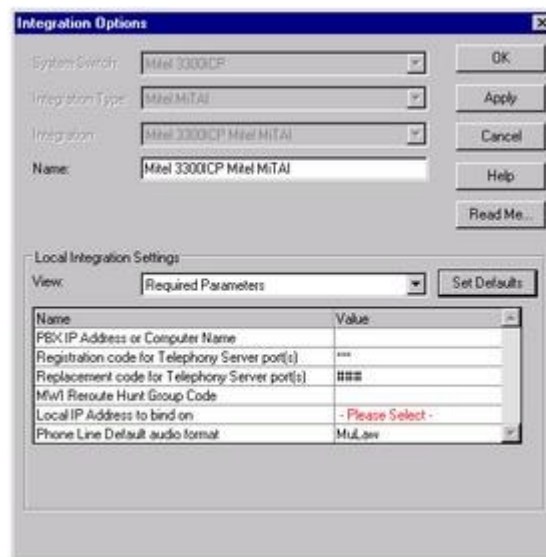
For more information on Installation Guide software, consult the guide, *Installation Guide*.

# Configuring MiCollab AM

Once the telephone system programming is complete, you must configure MiCollab AM for the integration. If you are not configuring MiCollab AM during setup, as described in the following procedure, you can change the settings on the Switch, Switch Section, and Integration tabs in the MiCollab AM Configuration utility. You must also add a board for the number of MiTAI lines you are enabling on the Call Server.

## To configure MiCollab AM for the integration:

- 1 If you are configuring the Call Server for the first time, enter the name of your site in the Site Name box of the Installation Configuration dialog box, the mailbox length in digits in the Mailbox Length box, and the first extension number for the first line in the First Extension box.
- 2 Select **Mitel** in the Manufacturer list, **3300 ICP** in the Model list, and **Mitel MiTAI** in the Integration Type list.
- 3 Click **OK**. The Switch Options dialog box displays.
- 4 Make any changes to the default settings your site requires, and then click **OK**.
- 5 The Integration Options dialog box, Required Parameters View displays.



The image shows the 'Integration Options' dialog box with the 'Required Parameters' view selected. The 'System Switch' is set to 'Mitel 3300 ICP', 'Integration Type' is 'Mitel MiTAI', and 'Integration' is 'Mitel 3300 ICP Mitel MiTAI'. The 'Name' field contains 'Mitel 3300 ICP Mitel MiTAI'. The 'Local Integration Settings' section shows a 'View' dropdown set to 'Required Parameters' and a 'Set Defaults' button. Below this is a table with the following parameters and values:

| Name   | Value             |
|--|-------------------|
| PBX IP Address or Computer Name                |                   |
| Registration code for Telephony Server port(s) | ###               |
| Replacement code for Telephony Server port(s)  | ###               |
| Mw1 Reroute Hunt Group Code                    |                   |
| Local IP Address to bind on                    | - Please Select - |
| Phone Line Default audio format                | MuLaw             |

- a Type the IP address of the Mitel 3300 ICP telephone system in the PBX IP Address or Computer Name field.

**NOTE** If you are using the Mitel Resilient feature, this is the IP Address of the main PBX node.

- b Enter the Registration code for MiCollab AM ports in the Registration code for Telephony Server ports field. This code must match the *Set Registration Access Code* on the Mitel ICP 3300.

- c** Enter the Replacement code for MiCollab AM ports in the Replacement code for Telephony Server ports field. This code must match the *Set Replacement Access Code* on the Mitel ICP 3300.

**NOTE** To verify the PBX programming of the Registration Code and the Replacement Code:

For Mitel 3300 ICP version R9.0 UR3 or prior, go to **System Administration**, expand **System Options**, select **System Options Assignment**, and then scroll down to view the current programmed codes for both parameters.

For Mitel 3300 ICP version MCD 4.2 SP2/ MCD 5.0, go to **System Properties > System Feature Settings**, select **System Options**, and then scroll down to view the current programmed codes for both parameters.

- d** In the MWI Reroute Hunt Group Code field:

Table 5. Possible MWI Reroute Hunt Group Code options

| If  | Then   |
|---|--|
| MWI operation is performed by sending MWI Messages to the PBX | Enter the MWI Reroute Hunt Group number. This number must match the number of the PBX MWI Reroute Hunt Group assignment you created for MiCollab AM in the section, <a href="#">Programming the MWI Reroute Hunt Group for MiCollab AM Ports</a> |
| MWI operation is performed by dialing MWI Feature Codes       | Leave this field blank.  |

**IMPORTANT** If the MWI operation is performed by sending MWI messages to the switch, the MWI Reroute Hunt Group number must be assigned in the MWI Reroute Hunt Group Code field or MWI and MWI callbacks will fail.

- e** Enter the local IP Address to bind on. This IP Address is the IP Address of the NIC Card that supports this integration.
- f** In the Phone Line Default Audio Mode field, select the audio format for the MiCollab AM ports. MuLaw is the default.
- g** Click **OK**.
- 6** On the Local Integration Settings View, select **Message Waiting Settings** from the drop-down list. The Message Waiting Settings display.
- 7** In the MWI Interface Method field select:
- **MWI Message to Switch** - if Message Waiting operation is performed by sending MWI messages to the PBX
  - **By Dialing MWI codes** – if Message Waiting operation is performed by dialing MWI codes



- Enter the feature code to set MWI in the Set MWI Dialing Template field followed by an x. For example: 88x
- Enter the feature code to clear MWI in the Clear MWI Dialing Template field followed by an x. For example: 89x

**NOTE** The x represents the directory number for which the MWI operation is intended and is replaced with the actual directory number when the Call Server performs the MWI callout.

- 8 From the Local Integration Settings View, select **Software DTMF Detection Settings**. The Software DTMF Settings view displays.
- 9 Confirm the DTMF Detection Type parameter is set to **Hardware**, the default value.
- 10 Click **OK**. The Required Parameters View of the Switch Section Options dialog box displays.

| Name                   | Value    |
|------------------------|----------|
| Incoming Hunt Mode     | Circular |
| Hunt Group Access Code |          |

- a In the Incoming Hunt Mode field, select **Circular** from the drop-down list.
  - b Enter the *voice hunt group access code* in the Hunt Group Access Code field. This number must match the number in the PBX Hunt Group assignment you created for MiCollab AM in the section, [Programming the Voice Hunt Group for MiCollab AM Ports](#).
  - c Click **OK**.
- 11 In the AT\_SysCfg information dialog box, click **Yes** to open the Board Options dialog box.
  - 12 In the Board Options dialog box, select **Mitel**, and then click **OK**.
  - 13 Click the **Lines** tab. Enter the extension number of each integrated line on the Call Server.
  - 14 Click **OK** to save the changes.

The settings related to the telephone system on the Switches tab, and the other integration-specific settings not mentioned in this section, are filled automatically for a typical site when you select the correct telephone system during setup. If you need to customize settings on the Switch Sections or Integrations

tab to meet requirements specific to your site, refer to the documentation accompanying the telephone system, the online help, and *Installation Guide* for guidelines.

## Completing the Integration

Now you are ready to finish installing MiCollab AM. See *System Installation Guide* and *System Administration Guide*, or refer to the MiCollab AM online help system for instructions. For general information on integrations, you may also wish to consult *Integrating MiCollab AM with the Telephone System* in *System Installation Guide*, and the topic *Integrate the System Server with the telephone system* in the online help system.

# Changing the Network Binding Order on the MiCollab AM Platform

If your MiCollab AM server platform is a component of two or more local or wide area networks (LANs or WANs), you must make sure that this integration does not interfere with the normal network operation of the server. By default, MiCollab AM uses the primary (public) network interface card (NIC) in the platform, the first NIC in the network binding order. If you want MiCollab AM to use a NIC other than the first one, you must make several required configuration changes. It is much easier to configure the Integration to use another NIC by simply setting the integration parameter *Local IP Address to bind on* to the address of the NIC card connected to the PBX.

**NOTE** The operating system gives precedence to the first connection in the list followed by the remaining connections based on their position in the list.

The instructions in this document ensure that the binding order is correct when you set up the integration. However, if you replace a NIC on the MiCollab AM server platform later, the platform's operating system registers the new adapter at the bottom of its binding order. Restoring the original binding order should correct any problems caused by the change.

**IMPORTANT** The following procedure shifts the binding order of the network interface cards. To determine which NIC is associated with a specific network connection, right-click the connection in the Network Connections window, and then select **Properties**.

## Windows Server 2008 R2 with Service Pack 1

To change the binding order of multiple NICs:

- 1 From the taskbar, click **Start > Control Panel**.
- 2 In the **Control Panel**, click **Network and Sharing Center**.
- 3 On the left pane, select **Change Adapter Settings**.
- 4 Press **Alt** to display the menu bar.
- 5 On the menu bar, select **Advanced**, and then click **Advanced Settings**.
- 6 On the **Adapters and Bindings** tab of **Advanced Settings**, click the network connection that serves MiCollab AM.
- 7 Click the up arrow button to the right of the **Connections** list as many times as needed to move the connection to the top of the list.
- 8 Click **OK**, and then close the **Network Connections** window and the **Control Panel**.

## Windows Server 2012 R2

To change the binding order of multiple NICs:

- 1 From the taskbar, click **Start > Control Panel**.
- 2 In the **Control Panel**, click **Network and Sharing Center**.
- 3 On the left pane, select **Change Adapter Settings**.
- 4 Press **Alt** to display the menu bar.
- 5 On the menu bar, select **Advanced**, and then click **Advanced Settings**.
- 6 On the **Adapters and Bindings** tab of **Advanced Settings**, click the network connection that serves MiCollab AM.
- 7 Click the up arrow button to the right of the **Connections** list as many times as needed to move the connection to the top of the list.
- 8 Click **OK**, and then close the **Network Connections** window and the **Control Panel**.

# Configuring Quality of Service (QoS)

As of version 6.0, MiCollab AM has no internal support for QoS. QoS must now be implemented externally via group policies as Policy-Based QoS. Refer to your operating system's documentation for details.

Table 6. QoS Configuration

| Field            | Setting   |
|------------------|---|
| Application Name | At_TelephonyServer.exe  |
| Protocol         | Match the setting used for the integration UDP or TCP   |
| Source Port      | <p>MiCollab AM requires a range of ports for audio support. The MiCollab AM audio ports start at the Local Media Base UDP Port configured in the Server tab. Each MiCollab AM line reserves 10 ports. Hence, the port range starts from the number configured there, and goes to the last port of the last line. The formula for calculating the highest port number in the range is as follows:</p> $\text{BasePortNumber} + (\text{NumberOfCXPorts} * 10) - 1.$ <p>Hence, if the base port is 10000, and MiCollab AM has 8 lines, then the port range to use would be:</p> <p>10000:10079</p> |
| DSCP Value       | 46  |

# Troubleshooting

This section documents solutions to problems that you may encounter during or after MiCollab AM installation. If you encounter a problem that is not present in this section, please call Mitel Technical Support for further assistance.

Table 7. Ports Remain Out of Service (New or Upgraded Installation)

| Symptoms   | Solution  |
|--|---|
| The installation was successful but the ports remain <i>Out of Service</i> on system startup | <p>Confirm that the <i>Registration Access Code</i> on the <i>Required Parameters</i> view of the MiCollab AM Integrations Options dialog box matches the configuration on the Mitel ICP 3300</p> <p>Confirm that the <i>Replacement Access Code</i> on the <i>Required Parameters</i> view of the MiCollab AM Integrations Options dialog box matches the configuration on the Mitel ICP 3300</p> <p>Confirm that the line extensions on the MiCollab AM Lines tab are correctly populated</p> <p>Confirm that the soft phones are configured to use a Class of Service that has the HCI/CTI/TAPI Call Control Allowed and Monitor Allowed set to Yes on the Mitel ICP 3300</p> <p>Confirm the MiCollab AM ports are emulating the 5020-type IP telephone</p> <p>Check the event viewer for any errors/ warnings during startup.</p> |

Table 8. Ports Go Onhook but Do Not Answer

| Symptoms   | Solution   |
|--|--|
| MiCollab AM successfully starts and the ports go <i>On Hook</i> but they do not answer calls | <p>Confirm that the <i>Local IP Address to bind on</i> on the <i>Required Parameters</i> view of the MiCollab AM Integration dialog box is correctly set. On a platform with multiple NIC cards, select the IP address from the drop-down box used to reach the Mitel ICP 3300. The ports will not work properly if a local address is selected that cannot reach the ICP.</p> <p>As a troubleshooting step, disable all NIC cards except the one that intended for use with the Mitel ICP 3300.</p> <p>If a platform has multiple NIC cards enabled, but the drop-down box under the <i>Required Parameter</i> view of the MiCollab AM Integrations Options dialog box continues to show only a single IP address, even when the NIC card bound to that IP address is</p> |

---

disabled, check the hosts file under Windows\system32\drivers\etc. It is possible that an entry is created against the local machine name to that IP address. Remove or comment out the entry from the hosts file, reopen the MiCollab AM Configuration utility and re-check to see if the correct IP address shows up in the *Local IP Address to bind on* parameter. If so, click **OK**, and then restart MiCollab AM

---

Table 9. Transfer Cut Off

| Symptom  | Solution  |
|--|---|
| When a transfer is aborted (fails), the next prompt has its beginning cut off, or does not play at all | <p>From the Switch Section tab of MiCollab AM Admin, select the Mitel ICP 3300 switch section, and then click <b>Edit</b>. In the View list, select <b>All Properties</b>, and then look for the following Transfer Delay parameters:</p> <p>Transfer Abort Delay</p> <p>Transfer Reject Delay</p> <p>Transfer RNA Abort Delay</p> <p>For each pull back reason that exhibits symptoms, increase the matching delay for that pull back reason. Values for these delays are in milliseconds.</p> |

---

Table 10. Trailing DTMF

| Symptom  | Solution  |
|--|---|
| DTMF tones can be heard at the end of messages | <p>From the Switch Section tab of MiCollab AM Admin, select the <b>Mitel ICP 3300</b> switch section, and then click <b>Edit</b>. In the Properties dialog box, click the Trim after DTMF parameter. Increase the value of this parameter in order to eliminate the spurious DTMF tones off the end of recordings. The value for the time trimmed is in milliseconds.</p> <p>The trim amount is applied the same to all messages, whether or not there are DTMF tones at the ends of them. If you set this property to a value that is too high, you may cut off speech at the end of messages.</p> |

---

Table 11. No Playback

| Symptom  | Solution  |
|--|---|
| Unable to play back voice mail<br>Names/greetings are not played | <p>This occurs when MiCollab AM is recording with the improper audio codec. To set the correct codec, select the <b>Main</b> tab of MiCollab AM Admin, and then click <b>Shutdown</b>. Click the <b>Database</b> button to display the Database dialog box. Click the drop-down</p> |

---

box of the **Default Recording Format: Messages**, and then **select PCM MU-LAW (G.711)**. Start MiCollab AM again. The new audio recordings should play back properly. All recordings that made using the previous codec must be re-recorded. (See the section [Critical Application Considerations](#) for more information on changing the recording format.

Table 12. MiCollab AM Stops Answering

| Symptoms and Conditions   | Solution  |
|---|---|
| CX} stops answering calls<br>The Mitel 3300 ICP was restarted, or lost its network connection to the MiCollab AM server | If the Mitel 3300 ICP switch loses connectivity with the Call Server while MiCollab AM is handling calls, restart the Call Server platform. |

Table 13. MiCollab AM Never Starts Answering

| Symptom                          | Solution  |
|----------------------------------|---|
| Ports do not open/ nothing works | It is likely that this is a programming issue on the Mitel telephone system. See <a href="#">Programming the MiCollab AM Ports</a> and <a href="#">Programming the MiCollab AM Ports into the Station Class of Service</a> sections for programming instructions. |

Table 14. Unified Messaging Connection Manager Doesn't Work

| Symptom and Conditions  | Solution  |
|---|---|
| Message playback doesn't produce audio or IP activity<br>Attempts to connect to MiCollab AM by clicking the Connect icon fail<br>Desktop callouts fail<br>There is more than one switch section in your MiCollab AM configuration | <p>These symptoms occur when the Subscriber mailbox (the one that phone manager tries to log in under) is configured with an incorrect switch section.</p> <p><b>To correct this problem:</b></p> <p>Start the MiCollab AM Admin utility and log into your site's MiCollab AM server.</p> <p>In the mailbox pane of the main administration window, find and double-click a subscriber mailbox that exhibits symptoms.</p> <p>On the Main tab, from the Section list, select the switch section that corresponds to your site's Mitel 3300 ICP telephone system.</p> <p>Repeat steps 2 and 3 for each mailbox that exhibits symptoms.</p> |



Table 15. Your Assistant (YA) Produces Poor Quality Audio

| Symptom   | Solution   |
|---|--|
| <p>Calls and recordings made with YA exhibit deteriorated audio quality</p> <p>Audio compression (G729a) is enabled</p> | <p>The deteriorated audio quality that is present is due to the G.729a audio compression handled improperly between YA, the switch, and MiCollab AM. To correct the problem, you need to configure Unified Messaging Connection Manager so that it bypasses the YA software.</p> <p><b>To correct this problem:</b></p> <p>On the Start menu, go to <b>Settings &gt; Control Panel</b>, and then double-click <b>Unified Messaging Connection Manager</b>.</p> <p>Log in using your mailbox and password.</p> <p>Click the <b>Record and Playback</b> tab, and then under both <b>Playback Settings and Record Settings</b>, select <b>Soundcard</b>.</p> <p>Click <b>Apply</b>, and then click <b>OK</b>.</p> |