

MiCollab Advanced Messaging 9.3

AscoTel-BCS

Integration Technical Notes

For version 9.3 and above

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Preface

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

This document describes how to integrate MiCollab AM with an AscoTel BCS telephone system. The AscoTel integration is an outband data link integration.

The RS-232 serial data connection between the AscoTel and MiCollab AM sends calling and called-party information to MiCollab AM. Analog station ports programmed into a voice-mail user group and connected to the Call Server voice ports carry voice and DTMF signaling. Incoming calls to MiCollab AM are directed to the pilot number of the voice-mail user group, the calling and called-party information is sent to MiCollab AM over the RS-232 data link, while ringing is sent to the associated analog port. MiCollab AM matches the data packet with the ringing analog port and answers the call with the appropriate dialog. Message Waiting Indicator (MWI) operation is also performed through the RS-232 serial link.

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 MiCollab AM Documentation Library includes the following documents and resources:

- **Administration Documentation.** Available as a PDF only. Contains the following:
 - **Administration Guides.** Available as a PDF only. Contains administrative guides for administrators about how to manage and configure the messaging system.
 - **Quick Reference Cards (QRC).** Contains shortcuts and quick instructions telling subscribers how to access and use the messaging system.
 - **User Guides.** Available as a PDF only. Contains user guides for subscribers about accessing the messaging system and checking and sending messages.
- **Server Documentation.** Available as a PDF only. Contains the following:
 - **Developer Resources.** Contains programming guides and API references for developers for integrating the server clients and web applications with MiCollab AM.
 - **Installation and Configuration.** Available as a PDF only. Contains installation and configuration guides for server administrators about how to install and configure the messaging system.

- **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.
- **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 documents and program files from our partner web site: www.mitel.com

Help

The primary source of information about MiCollab AM is the online help available within any of its administrative utilities. You can access **Help** by clicking the **Help** button in the dialog box or window in which you are working.

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** Titles of other documents are shown in italics.
 | Example: See the *System Installation and Configuration Guide*.
- **User Interface (UI) Element Names.** Names of UI elements such as dialog boxes, windows, screens, menu items, tabs, buttons, and icons 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 MiCollab AM 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.

For more detailed documents, refer to the following list of references:

Table 1. References

Document Type	Document Title
Administration Documentation	<i>System Administration Guide</i>
Server Documentation	<i>System Installation and Configuration Guide</i>
Online help	MiCollab AM online help system

Features Supported by this Integration

The following tables list the features supported with the AscoTel BCS integration.

Table 2. Call diversion to personal greeting for these call types

Divert to MiCollab AM on	Supported
No Answer	Yes
Busy	Yes
Forward All	Yes
Follow Me	Yes
Do Not Disturb	No

Table 3. Integration features supported for AscoTel BCS

Feature	Supported	Notes
Automatic subscriber logon	Yes	
ANI/CLI	Yes	
Announce Busy greeting on forwarded calls	Yes	Note 1
Call screening	Yes	
Caller queuing	Yes	
DNIS	No	
End-to-end DTMF, attendant console	Yes	
End-to-end DTMF, proprietary telephones	Yes	
Fax ports	Yes	Note 2
Internal calling party ID for reply	Yes	
Live record, integrated	No	
Live reply to sender	Yes	
Message notification callouts	Yes	
MWI, set/clear	Yes	
MWI, inband/outband	Outband	
Networking, analog	Yes	
Overflow from MiCollab AM to attendant	No	
Overflow to MiCollab AM from attendant	Yes	
PBX-provided disconnect signaling	Yes	
Revert to operator	Yes	
Transfers, blind	Yes	
Transfers, confirmed	Yes	
Transfers, fully supervised	Yes	

Transfers, monitored	Yes
Trunk ID for call routing	Yes

NOTES

1. Not available on bus diversion from a DDI call
2. Requires separate analog ports or fax server

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.

- MiCollab AM places a higher demand on the AscoTel than a standard analog station user. Make sure that the AscoTel system has enough Dual Tone Multi-Frequency (DTMF) senders, registers, coders, and decoders to handle the increased traffic. Contact the AscoTel sales engineer to upgrade the system if needed.
- The AscoTel attendant console must have DTMF capabilities to access MiCollab AM functions.
- The **Lines** tab in the MiCollab AM Configuration utility must have the correct extension numbers specified in each line or the integration cannot function.
- If conflicts occur between MiCollab AM transfer actions and the diversion timing of subscriber telephones, improper call processing results.

For example:

If a Transfer action is used to transfer to a subscriber extension device and the device is placed in an All Call Forward mode, the outside caller may not hear the subscriber's name or the first part of the personal greeting when the call is diverted to MiCollab AM.

Serial Integrations in a Multi-Box Call Server Environment

In a multi-box environment, it is possible that a single serial link connection needs to service two or more Call Servers. The serial link can be terminated on any Call Server or System Server with Call Services within the system. The data is distributed to the correct Call Server or Call Servers through the network interface of the MiCollab AM system.

- Use the **Link Integration Mode** parameter on the **Integration Options** dialog box of the server to configure each server in the system as:
 - Normal – the serial link is connected to this server's COM port, and is not passing serial data through the network to other Call Servers
 - Link Client – The serial link is connected to another server in the system and is receiving integration data through the network
 - Link Server – The serial link is connected to this server and is passing serial data through the network to other Call Servers
 - MWI Only – The server is only sending/receiving MWI data to the switch
 - If you are terminating the serial link at the System Server, the System Server must have Call Services enabled. It is not required to have lines enabled on the System Server.

- If you use the System Server to perform only MWI operation for the integration, the System Server must have Call Services enabled. It is not required to have lines enabled on the System Server.
- To send serial data independently to multiple Call Servers in the system, use the Perle IOLAN DS1™ and TruePort™ software to configure each participating server in the system. See the *Installing the Perle IOLAN DS1 Serial to Ethernet Converter* spare parts document for information on the DS1 device and installation instructions.

Installation Requirements

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

Telephony System Requirements

- AscoTel hardware platform
- AscoTel software version I3.0
- One analog single-line station port for each voice port
- One fully operational RS-232 interface data link

MiCollab AM Requirements

- Properly configured telephony server platform running Windows Server 2012 R2, Windows Server 2016 (Server with Desktop Experience), or Windows Server 2019 (Server with Desktop Experience)
- MiCollab AM version 9.3—consult the Mitel Connect web site for the current software patches and service pack information (see References earlier in this document).
- Software key diskette or feature file with AscoTel BCS serial integration enabled
- One Dialogic port for each MiCollab AM voice port to be integrated
- One available serial COM port

NOTE If you are using the Perle IOLAN DS1 device, you must install and configure the Perle Trueport virtual COM port on each server participating in the integration

- Uninterruptible power supply (UPS) and surge protection device (recommended)

Programming the Telephone System

Follow the recommendations and programming examples in this section to program the AscoTel 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 telephone system. For detailed programming information on the AscoTel BCS telephone system, refer to the appropriate AscoTel command and feature manuals for the telephone system you are installing.

Configure the AscoTel with adequate coders, decoders, and DTMF registers to handle the additional analog traffic that may be created by adding voice mail and automated attendant applications to the system. Contact the AscoTel sales engineer to upgrade the system if necessary.

Programming the V.24 Serial Data Interface

Program the serial data interface as follows:

- Configure the V.24 interface for a data format of 9600 baud, 8-bit word length, no parity, and one stop bit.
- Access the V.24 interface via **MENUS > SYSTEM > BASIC SETUP > V.24-ZEI > PRINTER**.
- Make sure that each printer interface is configured for a terminal adapter or pocket adapter.
- From **MENUS > SYSTEM > SYSTEM CONFIG > EXTRA HW > VOICE > FAXMAIL**, enable the MiCollab AM V.24 interface.
- From **MENUS > VOICE > FAXMAIL**, make sure that the state of the V.24 link is **ACTIVE**, which is displayed under.

Programming the Trunks and Stations for MiCollab AM

Program the trunks and stations for the MiCollab AM ports. The following example is based on a sample application that integrates four MiCollab AM ports, numbered 501 through 504, and uses a group pilot number of 500.

- Enter the subscriber numbers corresponding to the connections on the voice mail card in the voice mail user group (user group 25 or user group 17 if programming on the 20/20 or 20/30).
- Define a DDI numbering plan for the chosen numbers. Route to subscribers or the voice mail user group (user group 25 or user group 17 if programming on the 20/20 or 20/30).
- All calls to MiCollab AM route through the voice mail user group (user group 25 or user group 17 if programming on the 20/20 or 20/30). Direct calls to the individual MiCollab AM station number should be limited to test purposes only.

- When possible, assign a digital trunk group to each number corresponding to a connection on the voice mail card; doing so ensures that MiCollab AM can be switched to external numbers.
- From **MENUS>SYSTEM>NUMBERING PLAN>MODIFY>USER-GROUP**, change the default number corresponding to the voice mail user group user group 25 (or user group 17 if programming on the 20/20 or 20/30) from 884 to 500.
- Enter the numbers 501 through 504 in the voice-mail user group (user group 25).

Programming the Subscriber Extensions for Voice Mail

The AscoTel requires no special subscriber programming for voice mail.

To keep the MiCollab AM configuration as simple as possible, match subscriber extension device numbers with MiCollab AM mailbox numbers. The subscriber numbers corresponding to the connections on the voice mail card are reserved for MiCollab AM. Make sure that all subscribers understand this and that they are never to use these numbers when programming diversions, such as Follow Me or Call Forwarding, when the corresponding subscriber has no mailbox.

Converting MiCollab AM

Once the telephone system is programmed, you must configure MiCollab AM for the integration. There are two ways you can configure MiCollab AM: (1) Configuring MiCollab AM for the telephone system integration when you are installing MiCollab AM for the first time, or (2) Configuring the existing MiCollab AM with the new telephone system integration.

Click the appropriate steps that your system requires from below and follow the steps:

- [Configuring MiCollab AM for the Integration During Initial Installation](#): Integrate the telephone system while you install MiCollab AM for the first time.
- [Configuring Existing MiCollab AM for the Integration](#): Integrate a new telephone system on your existing MiCollab AM system.

NOTE For general information on integrations, refer to the **Integrating MiCollab AM with the Telephone System** chapter in the *System Installation and Configuration Guide*, and the topic, **Integrating the Telephony Server with the Telephone System**, in the online help.

Configuring MiCollab AM for the Integration During Initial Installation

To configure MiCollab AM for the integration during the initial installation:

- 1 In the **Database Initialization Parameters** dialog box, configure the following options:
 - a In the **Mailbox Length** box, enter the mailbox length in digits.
 - b In the **First Extension** box, enter first extension number for the first line. You can also leave the **First Extension** box empty.
 - c From the **Manufacturer** dropdown list, select **Ascom**.
 - d From the **Model** dropdown list, select **AscoTel**.
 - e From the **Integration Type** dropdown list, select **Serial Port**.
- 2 Click **Next**. The **Board Options** dialog box appears.
- 3 Depending on the type of Aculab card you have installed, configure the board options. Refer to the appropriate Spare Parts document for more information on the Aculab card you are installing.
- 4 Click **OK**. The **Switch Options** dialog box appears.
- 5 If necessary, make any changes to the default settings your site requires in the **Switch Options** dialog box.

NOTE The settings related to the telephone system in the **Switch Options** dialog box are filled in automatically when you select the correct telephone system during setup.

If you need to customize settings on the **Switch Options** dialog box to meet requirements specific to your site, refer to the documentation accompanying the telephone system, the online help, and the *System Installation and Configuration Guide*.

- 6 Click **OK**. The **Integration Options** dialog box appears.
- 7 In the **Integration Options** dialog box, verify that the communication settings are correct.
- 8 Click **OK**. The **Switch Section Options** dialog box appears.
- 9 In the **Switch Section Options** dialog box, configure the following options:
 - a In the **Local Integration Settings** section, select the **Required Parameters** view.
 - b In the **Hunt Group Access Code** field, enter the group pilot number you configured previously in the section, [Programming the Telephone System](#). This is the pilot number that users dial to reach MiCollab AM.
 - c Click **OK**.
- 10 Continue through and complete the configuration. At the end of the configuration, a confirmation dialog box appears. Click **OK**.
- 11 If **MiCollab AM Configuration** does not open automatically after the configuration completes, open **MiCollab AM Configuration**, and select the **Lines** tab.
- 12 In the table from the **Lines** tab, configure callouts for the application. For information on configuring callout settings, see the topic *Configuring Callout Settings*, in the online help system.
- 13 Click **OK** to save all changes.

Configuring Existing MiCollab AM for the Integration

To configure exiting MiCollab AM for the telephone integration:

- 1 Open **MiCollab AM Configuration**, and go to the **Main** tab.
- 2 In the **Main** tab, click **Shutdown** to stop the system. Wait until the **Current Status** shows **Stopped**.

NOTE If you have not configured the virtual board with your MiCollab AM system yet, complete **Step 3**. If your MiCollab AM already has the virtual board configured, skip to **Step 4**.

- 3 **[Optional]** Select the **Boards** tab, and then click the **Add** button. The **Board Options** dialog box appears.
 - a Depending on the type of Aculab card you have installed, configure the board options. Refer to the appropriate Spare Parts document for more information on the Aculab card you are installing.
 - b Click **OK**.

- 4 Select the **Switches** tab and click the **Add** button. The **Switch Integration Data Setup** dialog box appears.
 - a From the **Manufacturer** dropdown list, select **Ascom**.
 - b From the **Model** dropdown list, select **AscoTel**.
 - c From the **Integration Type** dropdown list, select **Serial Port**.
- 5 Click **OK**. The **Switch Options** dialog box appears.
- 6 If necessary, make any changes to the default settings your site requires in the **Switch Options** dialog box.

NOTE The settings related to the telephone system in the **Switch Options** dialog box are filled in automatically when you select the correct telephone system during setup.

If you need to customize settings on the **Switch Options** dialog box to meet requirements specific to your site, refer to the documentation accompanying the telephone system, the online help, and the *System Installation and Configuration Guide*.

- 7 Click **OK**. The **Integration Options** dialog box appears.
- 8 In the **Integration Options** dialog box, verify that the communication settings are correct.
- 9 Click **OK**. The **Switch Section Options** dialog box appears.
- 10 In the **Switch Section Options** dialog box, configure the following options:
 - a In the **Local Integration Settings** section, select the **Required Parameters** view.
 - b In the **Hunt Group Access Code** field, enter the group pilot number you configured previously in the section, [Programming the Telephone System](#). This is the pilot number that users dial to reach MiCollab AM.
 - c Click **OK**.
- 11 In **MiCollab AM Configuration**, verify that that the telephone system is properly added and configured in the **Switches**, **Switch Sections**, and **Integrations** tabs.
- 12 Select the **Lines** tab.
- 13 In the table from the **Lines** tab, configure callouts for the application. For information on configuring callout settings, see the topic *Configuring Callout Settings*, in the online help system.
- 14 Click **OK** to save all changes.