

MiCollab Advanced Messaging Plessey iSX Integration Technical Note

For version 9.1 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 who are familiar with MiCollab AM procedures and terminology. It also assumes that you are familiar with the features and programming of the Plessey iSX telephone system.

This document describes how to integrate MiCollab AM with the Plessey iSX telephone system, and documents critical application considerations, installation requirements, and telephone system programming. The Plessey integration is an outband RS-232 data link integration.

The RS-232 interface sends calling and called-party information to MiCollab AM. Analog extensions carry voice and DTMF signaling between the caller and MiCollab AM. When a call is sent to MiCollab AM, the Plessey sends a data packet with call-type information over the RS-232 serial connection.

The data packet is matched with the associated ringing voice mail port, and MiCollab AM answers the call with the appropriate dialog. Message-waiting indicator (MWI) operation is performed through the analog station ports.

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 a Plessey iSX telephone system, software Version 7.4 release 10 or later.

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

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

Table 3. Integration features supported for Plessey iSX

Feature	Supported	Notes
Automatic subscriber logon	Yes	
ANI/CLI	No	
“Announce Busy” greeting on forward busy calls	No	
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
Internal calling party ID for reply	No	
Live record, integrated	No	
Live reply to sender	Yes	
Message notification callouts	Yes	
MWI, set/clear	Yes	
MWI, inband/outband	Inband	
Networking, analog	Yes	
Overflow from MiCollab AM to attendant	Yes	
Overflow to MiCollab AM from attendant	No	
PBX-provided disconnect signaling	No	
Revert to operator	Yes	
Transfers, blind	Yes	
Transfers, confirmed	Yes	
Transfers, fully supervised	Yes	

Transfers, monitored	Yes
Trunk ID for call routing	No

NOTE Requires separate industry-standard analog lines

Critical Application Considerations

Known limitations and 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.

- Assign MiCollab AM analog voice ports in ascending numerical order, starting with port 1. The extension numbers on the **Lines** tab of the MiCollab AM Configuration utility must match the extension number of the switch.
- The iSX must use a Mark 3 processor to be compatible with the integration.
- Mitel recommends that the integration use a separate serial port on the switch. If it shares the same serial port as the telephone management system (TMS), then be sure the TMS ignores the data going 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 may need 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 then 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 install this integration successfully, you must meet the installation requirements for both the telephone system and for MiCollab AM.

Telephone System Requirements

- Plessey iSX with a Mark 3 processor using software version 7.4 release 10 or later
- A dongle is required on the parallel port of the PC with the proprietary software TermEm to perform software programming changes to version 7.4 release 10 or later,
- An available serial port on the iSX. The iSX provides a serial board with three serial ports. Port 1 is a 9-pin male. Port 3 is a 9-pin female. Port 2 does not function as a serial port for this integration.
- One Plessey analog port for each integrated MiCollab AM voice port
- One analog extension port or CO line for the MiCollab AM remote maintenance modem, if equipped

MiCollab AM Requirements

- Properly configured system 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 9.1 or later – consult the Mitel Connect web site for the current software patches and service pack information.
- Mitel software key diskette or feature file with Plessey ISX200 serial integration enabled
- One Dialogic port for each MiCollab AM voice port to be integrated
- One available serial COM port
- 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 Plessey telephone system, refer to the appropriate Plessey command and feature manuals for the telephone system you are installing.

Configuring the iSX Serial Card and RS 232 Cable

The iSX provides a serial card with three connectors. Port 1 is a male connector and requires a 9-pin female-to-female serial cable. Port 2 is a 15-pin connector and does not function as a serial port. Port 3 is a female connector and requires a 9-pin male-to-9-pin female cable. The following table shows the serial cable pin assignments.

IMPORTANT Do not use serial port 2 for the connection to MiCollab AM.

Table 4. iSX serial cable requirements

iSX	MiCollab AM
2	3
3	2
5	5
7+8 strapped	

Programming the MiCollab AM Ports

Register each analog extension connected to MiCollab AM as a voice mail port.

Log on using TermEm with the appropriate passwords, and then select **Option 1** from the main menu.

```
1. SYSTEM CONFIG select option:
8. CONFIGURE FEATURES 1 select option:
2. FEATURE SELECT select option:
4. VOICEMAIL select option:
1. ADD EXT To add the extensions as voice-mail extensions.
```

Message-waiting indicators are enabled automatically. The MWI indicator is a 2-second, high-pitched tone that the user hears when he picks up the receiver.

The serial port communications defaults at **9600, 8, N, 1**. To verify data stream integrity from the switch, use Plessey TermEm. Connect a single-line telephone to the lead extension number of the voice mail hunt group. Call the telephone and verify that the data sent to MiCollab AM is correct.

Programming the Subscriber Telephones

To set call forwarding from a station:

```
66 + voice mail extension = CFWD RNA
65 + voice mail extension = CFWD Busy
64 + voice mail extension = CFWD ALL
64 to cancel CFWD
```

A user will hear two seconds of broken dial tone when he picks up the receiver if call forwarding is set.

Configuring 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 **Plessey**.
 - d From the **Model** dropdown list, select **ISX200 (South Africa)** or **ISX200 (U.K.)**.
 - 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, make any changes to the default settings your site requires.
- 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 **Incoming Hunt Mode** field, enter the mode for this integration.
 - c In the **Hunt Group Access Code** field, enter the hunt group access code you configured on the telephone system. This is the pilot number that users dial to reach MiCollab AM.
 - d 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 **Plessey**.
 - b From the **Model** dropdown list, select **ISX200 (South Africa)** or **ISX200 (U.K.)**.
 - 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, make any changes to the default settings your site requires.
- 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 **Incoming Hunt Mode** field, enter the mode for this integration.
 - c In the **Hunt Group Access Code** field, enter the hunt group access code you configured on the telephone system. This is the pilot number that users dial to reach MiCollab AM.
 - d Click **OK**.
- 11 In **MiCollab AM Configuration**, verify 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.