MiCollab Advanced Messaging
Avaya Aura Communication Manager
D/42 or D/82 Digital Station Emulation
Integration Technical Note

For version 9.1 and above

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Contents

Preface 4

References 4

Documentation 4

Documentation Updates 5

Help 5

Document Conventions 5

Features Supported by this Integration 7

Critical Application Considerations 9

Installation Requirements 11

Telephone System Requirements 11

MiCollab AM Requirements 11

Programming the Telephone System 12

Programming the Digital Stations for the MiCollab AM Ports 12

Programming the Class of Service for the MiCollab AM Ports 16

Configuring Call Coverage 17

Choosing the Type of Call Coverage 17

Configuring Call Coverage to a Circular Hunt Group 17

Call Coverage to a Vector Directory Number 22

Programming a Vector Group for the MiCollab AM Ports 23

Programming the Call Coverage Path 24

Programming the Subscriber Telephones 25

Installing the Dialogic D/42 or D/82 Physical Interface 26

Programming Dialogic Configuration Manager 28

Configuring MiCollab AM 29

Configuring MiCollab AM for the Integration During Initial Installation 29

Configuring Existing MiCollab AM for the Integration 30

Preface

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

This document describes how to integrate MiCollab AM with an Avaya Communication Manager telephone system, using a Dialogic D/42JCT-U or D/82JCT-U linecard.

This integration is a digital station-set emulation integration. The Dialogic D/42 and D/82 linecards emulate two-wire digital telephone stations; the D/42 emulates four stations; the D/82 emulates eight stations.

These emulated digital extensions provide DTMF signaling and voice communication between MiCollab AM and the telephone system. The linecard reads calling- and called-party data from the LCD display information sent to the emulated telephone set and passes that data to MiCollab AM at the same time that the telephone system sends the call. MiCollab AM matches the data with the ringing extension and answers with the appropriate dialog.

Message Waiting Indicator (MWI) operation is also performed over the digital station port.

NOTE References in this document to the Dialogic D/82JCT-U card apply to the D/42 or D/82JCT-U-PCIU card, which can be installed in either 3.5-volt or 5-volt PCI slots and the Dialogic D/42 or D/82 JCT-U PCIe x1 linecards.

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	*System Administration Guide*
Server Documentation	*System Installation and Configuration Guide*
Server Documentation	*Dialogic and Aculab System Administrator Guide*
Spare Parts Documentation	Dialogic PCI Express and Euro PCI Express Linecards Installation and Replacement
Spare Parts Documentation	Dialogic PCI and Euro PCI Linecards Installation and Replacement
Online help	MiCollab AM online help system

Features Supported by this Integration

The following tables list the features supported with the Avaya Aura Communication Manager Digital Station Emulation integration.

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	Yes

Table 3. Integration features supported for Avaya Station Set

Feature	Supported	Notes
Automatic subscriber logon	Yes	
ANI/CLI	Yes	
Announce Busy greeting on forward busy calls	Yes	
Call screening	Yes	
Caller queuing	Yes	Note
DNIS	No	
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	
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	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	No

NOTE 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 Notes.

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.

- All Dialogic D/42 and D/82 configurations have a twelve-card limitation per Call Server. The total quantity of ports that can be installed per server as a result of this limitation varies between 48 and 96, depending on how many of the Dialogic cards installed in the server platform are D/42 cards.
- The MiCollab AM **Lines** tab must have the correct extension (DN) numbers specified in each line.
- The same PBX port that sets an MWI (Leave Word Calling) must clear the MWI. MiCollab AM can use multiple ports to set and clear MWI by keeping track of which port set the MWI and using the same port to clear the MWI.

  IMPORTANT Telephones that currently have MWI set by a station other than the MiCollab AM MWI port must be cleared by that station before MiCollab AM can provide MWI capability.

- Station numbers cannot use 0 as the leading digit. Non-numeric DTMF tones cannot be used as any character in a station number. The maximum length of a station number is ten digits.
- The Dialogic Configuration Manager defaults the PBX switch type as Norstar. You must select the correct PBX switch type, Lucent_2_wire, prior to starting the Dialogic service.
- Hybrid telephones do not support end-to-end DTMF to a digital station. Users calling MiCollab AM from one of these instruments cannot log on to their mailboxes.
- If you are not using the speech interface and plan to use supervised transfers (T-type), we recommend installing the Music on Hold (MOH) feature on the telephone system to assure callers of proper call handling and system operation. Otherwise, callers being transferred to a station by MiCollab AM experience a period of silence and might misunderstand what is happening to their call.
- 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.
- PBX ports connected to the D/42 or D/82 card cannot be configured as Automatic Call Distribution (ACD) stations. MiCollab AM ports must be assigned to a hunt group.
- The port connections on the D/42 and D/82 cards are polarity-sensitive. The Dialogic service may fail to initialize the ports on these cards if the polarities of the PBX connections are reversed. Terminate all station wiring as shown in the section, Installing the Dialogic D/42 or D/82 Physical Interface.

- An Avaya feature called Temporary Bridged Appearance allows multi-appearance telephones to bridge onto a call that is answered by the call coverage destination point. The called party could conference inadvertently with the calling party and MiCollab AM by going offhook on the line appearance that forwarded to the call coverage point. According to Avaya documentation, this feature can be disabled through PBX programming. However, field testing has shown these parameters do not have any effect on versions prior to G3V4. To disable Temporary Bridged Appearance on G3 PBXs using G3V2 and G3V3 software releases, vectoring software is required.
- When the Temporary Bridged Appearance is set to No and Data Privacy is enabled, the subscriber cannot pick the line appearance or conference into a call that has gone to the call coverage point. The line appearance is lit for the entire call and cannot be used to receive or initiate calls during that time. Digital stations with only one call appearance (such as the 7401 sets) cannot make any calls until the party leaving the voice message hangs up.
- You must install and configure vectoring software to eliminate the Temporary Bridged Appearance feature of the Communication Manager telephone system. The most basic and least expensive vectoring software package is Automated Attendant Vectoring. The Avaya PEC code is 1227-AAI or 1227-AAR, depending on the switch type. For more information, contact the Avaya representative servicing the telephone system.
- The Avaya Survivable Core Server (formerly called Enterprise Survivable Server [ESS]) for Secondary or tertiary failover server scenarios is not supported for this integration.

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

- Avaya Communication Manager version 8.1 or prior
- One digital station port for each MiCollab AM port as follows:
  - One TN2181 or TN2224 digital circuit pack with a digital station port for each 2-wire MiCollab AM port in a G650 Media Gateway or
  - One MM712 or MM717 digital circuit pack with a digital station port for each 2-wire MiCollab AM port in a G430/G450 Media Gateway

MiCollab AM Requirements

- MiCollab AM version 9.1
- Mitel software key diskette or feature file with the AT&T, Lucent, or Avaya D/82 2-wire integration enabled.
- One Dialogic D/42JCT-U or D/82JCT-U port for each MiCollab AM voice port to be integrated
- One Dialogic D/82-U specific PBX interface cable assembly for each Dialogic D/42 or D/82 card

Programming the Telephone System

Follow the recommendations and programming examples in this section to program the PBX for integration with MiCollab AM. Programming examples show commands and parameters that are necessary for integration, but 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 this PBX, refer to the appropriate Avaya documentation.

IMPORTANT In the programming examples shown in this section, the boldfaced settings are the ones that are most crucial to the success of this integration. Be sure to configure all boldfaced settings exactly as they are shown in this document.

Programming the Digital Stations for the MiCollab AM Ports

Program each digital station for use as a MiCollab AM port. You must select the same telephone type when programming each station that the Dialogic D/42 or D/82 linecard emulates.

NOTE The 7434ND set type described below may not be supported in all switch variants and software levels on the Avaya PBX. If the set type is not supported on your particular PBX, use the set type 8434D instead.

However, if MiCollab AM is using the set type 8434D, the MiCollab AM extension number must appear within the first 15 characters of the Name field. A space must separate the name and extension number, and there cannot be any numeric characters in the name field aside from the extension number. For example, 5601 MiCollab AM.

To program each MiCollab AM port:

1. Select the **7434ND** telephone for all MiCollab AM D/42 or D/82 stations.
2. Set the **Display** module to **Yes**.

   IMPORTANT When you set the Display module to Yes, you must also configure Display Button 1 as Normal for each MiCollab AM station.

3. Set **LWC activation** to **Yes** for the MWI ports. All other ports should be **No**.
4. **LWC Reception** is always set to **None** for all MiCollab AM ports.
5. Set **Data Restriction** to **Yes**.
6. Set **Restrict Last Appearance** to **Yes**.

7 Program a **call-appr** in **Button Assignments** on buttons 1 and 2 only.

8 In the system-wide parameters screen, type **Y** next to **7434ND**, as seen in the following image.

```
                                                         Page   6 of  19
                       FEATURE-RELATED SYSTEM PARAMETERS
         Public Network Trunks on Conference Call:   5          Auto Start?  n
       Conference Parties with Public Network Trunks:   6          Auto Hold?  n
    Conference Parties without Public Network Trunks:   6      Attendant Tone?  y
              Night Service Disconnect Timer (seconds):   180     Bridging Tone?  n
                   Short Interdigit Timer (seconds):   3       Conference Tone?  n
             Unanswered DID Call Timer (seconds):              Intrusion Tone?  n
                 Line Intercept Tone Timer (seconds):   30   Mode Code Interface?  n
                    Long Hold Recall Timer (seconds):   0
                       Reset Shift Timer (seconds):   0
        Station Call Transfer Recall Timer (seconds):   0      Recall from VDN?  n
            Trunk Alerting Tone Interval (seconds):   15
                              DID Busy Treatment:   tone
                Allow AAR/ARS Access from DID/DIOD?   n
                  Allow ANI Restriction on AAR/ARS?   n
    Use Trunk COR for Outgoing Trunk Disconnect/Alert?   n
                  7405ND Numeric Terminal Display?   y              7434ND? y
```

Program each MiCollab AM port as shown in the following programming examples.

The command is **add station 4101**.

(Page 1)

```
                                                         Page   1 of   6
                                   STATION

Extension:  4101                     Lock Messages?  n              BCC: 0
     Type:  7434ND                   Security Code:                  TN: 1
     Port:  01A0203                Coverage Path 1:                 COR: 1
     Name:  CX D82 port 1          Coverage Path 2:                 COS: 1
                                   Hunt-to Station:
STATION OPTIONS
                                       Time of Day Lock Table:
              Loss Group:   2      Personalized Ringing Pattern:    1
             Data Module?   n                 Message Lamp Ext:   4101
          Display Module?   y
        Display Language:   english             Coverage Module?   n

           Survivable COR:   internal          Media Complex Ext:
    Survivable Trunk Dest?   y                      IP SoftPhone?   n
                                              Remote Office Phone?   n
                                                         IP Video?   n
```

(Page 2)

Page 2 of 6

STATION

FEATURE OPTIONS

LWC Reception:	none	Auto Select Any Idle Appearance?	n
LWC Activation?	n	Coverage Msg Retrieval?	y
LWC Log External Calls?	n	Auto Answer:	none
CDR Privacy?	n	Data Restriction?	y
Redirect Notification?	y	Idle Appearance Preference?	n
Per Button Ring Control?	n	Bridged Idle Line Preference?	n
Bridged Call Alerting?	n	Restrict Last Appearance?	y
Active Station Ringing:	single		
H.320 Conversion?	n	Per Station CPN - Send Calling Number?	
Service Link Mode:	as-needed	EC500 State:	disabled
Multimedia Mode:	basic	Audible Message Waiting?	n
MWI Served User Type:		Display Client Redirection?	n
AUDIX Name:		Select Last Used Appearance?	n
		Coverage After Forwarding?	s
		Multimedia Early Answer?	n
		Direct IP-IP Audio Connections?	y
Emergency Location Ext:	4101	IP Audio Hairpinning?	y

(Page 4)

Page 4 of 6

STATION

SITE DATA

Room:		Headset?	n
Jack:		Speaker?	n
Cable:		Mounting:	d
Floor:		Cord Length:	0
Building:		Set Color:	

ABBREVIATED DIALING

List1: List2: List3:

BUTTON ASSIGNMENTS

1:	call-appr	6:	
2:	call-appr	7:	
3:		8:	
4:		9:	
5:		10:	

(Page 6)

Page 6 of 6

STATION

DISPLAY BUTTON ASSIGNMENTS

1: normal
2:
3:
4:
5:
6:
7:

Programming the Class of Service for the MiCollab AM Ports

Set Data Privacy to **yes** in the Class of Service for all MiCollab AM ports. This prevents subscribers from conferencing with a caller and a MiCollab AM port that has answered as a call coverage point. Program the parameter as shown in the following example.

The command is **change cos-group 1**.

Page 1 of 2

CLASS OF SERVICE COS Group: 1 COS Name:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Auto Callback	n	y	y	n	y	n	y	n	y	n	y	n	y	n	y	n
Call Fwd-All Calls	n	y	n	y	y	n	n	y	y	n	n	y	y	n	n	y
Data Privacy	n	y	n	n	n	y	y	y	y	n	n	n	n	y	y	y
Priority Calling	n	y	n	n	n	n	n	n	n	y	y	y	y	y	y	y
Console Permissions	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Off-hook Alert	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Client Room	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Restrict Call Fwd-Off Net	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y
Call Forwarding Busy/DA	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Personal Station Access (PSA)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Extended Forwarding All	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Extended Forwarding B/DA	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Trk-to-Trk Transfer Override	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
QSIG Call Offer Originations	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Contact Closure Activation	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

Configuring Call Coverage

Choosing the Type of Call Coverage

Program the MiCollab AM ports as members of either a hunt group or a vector group. In either case, however, you must take the appropriate precautions to disable the Temporary Bridged Appearance feature (for more information, see Critical Application Considerations earlier in this document).

The call coverage configuration you should choose depends on the software version that the telephone system is currently running, as follows:

- In general, the integration functions most efficiently if the MiCollab AM ports belong to a circular hunt group.

  However, because this call coverage method allows the Temporary Bridged Appearance feature to remain active, you must be sure to deactivate the feature when you configure the telephone system for call coverage to a hunt group.

  In our own field testing, however, deactivating Temporary Bridged Appearance has not been effective in Avaya software versions prior to G3V4, so vectoring must be used on systems with earlier software versions.

  In addition, if the telephone system has vectoring software installed for other reasons, the MiCollab AM ports must be assigned to a vector group.

- Programming the MiCollab AM ports as members of a vector group circumvents the Temporary Bridged Appearance feature automatically, but it is not the most efficient configuration for systems that run Avaya software version G3V4 or later.

  In addition, vectoring requires the installation of additional Avaya software onto the telephone system.

The next two sections discuss how to set up either type of call coverage—call coverage through a Hunt Group, or call coverage through a Vector Group Directory Number.

Configuring Call Coverage to a Circular Hunt Group

Configuring call coverage to a circular hunt group involves the following three tasks:

- Disabling Temporary Bridged Appearance
- Programming the hunt group
- Modifying the telephone system parameters to prevent conferencing on Temporary Bridged Appearances

Disabling Temporary Bridged Appearances for MiCollab AM Ports

IMPORTANT The Temporary Bridged Appearance feature on Avaya software prior to G3V4 cannot be disabled using this procedure. Vectoring must be used to avoid Temporary Bridged Appearance entirely.

For information on how to program the MiCollab AM ports as members of a vector group, see the Call Coverage to a Vector Directory Number section.

To disable Temporary Bridged Appearances for MiCollab AM ports:

NOTE You must disable the **Temporary Bridged Appearance** feature for each MiCollab AM port that is assigned in the hunt group.

1 In **Station 4101** (command: **display station 4101**):

```
                                                          Page   2 of   6
                                     STATION
FEATURE OPTIONS
            LWC Reception:  none          Auto Select Any Idle Appearance?  n
           LWC Activation?  n                     Coverage Msg Retrieval?   y
   LWC Log External Calls?  n                                Auto Answer:   none
             CDR Privacy?   n                           Data Restriction?   y
    Redirect Notification?  y                Idle Appearance Preference?    n
  Per Button Ring Control?  n              Bridged Idle Line Preference?    n
    Bridged Call Alerting?  n                  Restrict Last Appearance?    y
   Active Station Ringing:  single

         H.320 Conversion?  n         Per Station CPN - Send Calling Number?
        Service Link Mode:  as-needed                  EC500 State:  disabled
          Multimedia Mode:  basic                Audible Message Waiting?   n
      MWI Served User Type:                     Display Client Redirection?  n
               AUDIX Name:                     Select Last Used Appearance?  n
                                                  Coverage After Forwarding?  s
                                                   Multimedia Early Answer?  n
                                              Direct IP-IP Audio Connections?  y
   Emergency Location Ext:  4101                      IP Audio Hairpinning?  y
```

- On page 2, set **Data Restriction?** to **Yes**.
- On page 2, set **Restrict Last Appearance?** to **Yes**.

2 In **Class of Service COS Group 1** (command: **change cos-group 1**):

Page 1 of 2

CLASS OF SERVICE   COS Group: 1   COS Name:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Auto Callback	n	y	y	n	y	n	y	n	y	n	y	n	y	n	y	n
Call Fwd-All Calls	n	y	n	y	y	n	n	y	y	n	n	y	y	n	n	y
Data Privacy	n	y	n	n	n	y	y	y	y	n	n	n	n	y	y	y
Priority Calling	n	y	n	n	n	n	n	n	n	y	y	y	y	y	y	y
Console Permissions	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Off-hook Alert	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Client Room	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Restrict Call Fwd-Off Net	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y
Call Forwarding Busy/DA	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Personal Station Access (PSA)	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Extended Forwarding All	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Extended Forwarding B/DA	n	y	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Trk-to-Trk Transfer Override	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
QSIG Call Offer Originations	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n
Contact Closure Activation	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n	n

- On page 1, set the **Data Privacy** parameter to **Yes**.

3 In **Feature Related System Parameters** (command: **display system-parameters features**):

```
display system-parameters features                          Page  19 of  19
                        FEATURE-RELATED SYSTEM PARAMETERS
IP PARAMETERS
          Direct IP-IP Audio Connections?  y        IP Audio Hairpinning?   y
               Synchronization over IP?  n Allow SIP-H323 Video in SDES?  n

           SIP Endpoint Managed Transfer?  n

 Expand ISDN Numbers to International for 1XCES?  n

CALL PICKUP
 Maximum Number of Digits for Directed Group Call Pickup:    4
             Call Pickup on Intercom Calls?  y    Call Pickup Alerting?   y
   Temporary Bridged Appearance on Call Pickup?  n    Directed Call Pickup?   y
               Extended Group Call Pickup:  none
             Enhanced Call Pickup Alerting?  n

  Call Pickup for Call to Coverage Answer Group?  n
                  Display Information With Bridged Call?  n
 Keep Bridged Information on Multiline Displays During Calls?  n
             PIN Checking for Private Calls?  n
```

- On page 19, set **Temporary Bridged Appearance on Call Pickup?** to **No**.

4 In **System Parameters Call Coverage / Call Forwarding** (command: **display system-parameters coverage-forwarding**):

```
display system-parameters coverage-forwarding                    Page   1 of   2
                 SYSTEM PARAMETERS CALL COVERAGE / CALL FORWARDING
CALL COVERAGE/FORWARDING PARAMETERS
           Local Cvg Subsequent Redirection/CFWD No Ans Interval (rings):      2
         Off-Net Cvg Subsequent Redirection/CFWD No Ans Interval (rings):      2
                            Coverage - Caller Response Interval (seconds):     4
      Threshold for Blocking Off-Net Redirection of Incoming Trunk Calls:      1
Location for Covered/Forwarded Calls:    called    VDN/Hunt Group Location:    all
                              PGN/TN/COR for Covered and Forwarded Calls: caller
                            COR/FRL check for Covered and Forwarded Calls?  n
       QSIG/SIP Diverted Calls Follow Diverted to Party's Coverage Path?      n

COVERAGE
                                   Criteria for Logged Off/PSA/TTI Stations?  n
                                           Keep Held SBA at Coverage Point?   n
       External Coverage Treatment for Transferred Incoming Trunk Calls?      n
        Immediate Redirection on Receipt of PROGRESS Inband Information?      y
                                                 Maintain SBA At Principal?   n
              QSIG VALU Coverage Overrides QSIG Diversion with Rerouting?     n
                                              Station Hunt Before Coverage?   n
FORWARDING
Call Forward Override?   y                        Coverage After Forwarding?  y
```

- On page 1, set **Keep Held SBA at Coverage Point?** to **No**.

Programming a Hunt Group for the MiCollab AM Ports

Program a circular hunt group for the digital stations that serve the MiCollab AM ports. Choose an easily remembered pilot number for subscribers to use when calling MiCollab AM.

The following is an example of hunt group programming; the command is **add hunt group 10**.

(Page 1)

```
                                                         Page   1 of  60
                                    HUNT GROUP

              Group Number: 10
                Group Name: CX D82 Digital
           Group Extension: 4100
                Group Type: circ                 Coverage Path:
                        TN: 1          Night Service Destination:
                       COR: 1                  MM Early Answer?  n
             Security Code:                Local Agent Preference?  n
     ISDN/SIP Caller Display:
```

(Page 3)

Page 3 of 60

HUNT GROUP

Group Number: 10 Group Extension: 4100 Group Type: circ

Member Range Allowed: 1 - 1500 Administered Members (min/max): 1 / 6

Total Administered Members: 6

GROUP MEMBER ASSIGNMENTS

	Ext	Name(19 characters)		Ext	Name(19 characters)
1:	4101	CX D82 port 1	14:		
2:	4102	CX D82 port 2	15:		
3:	4103	CX D82 port 3	16:		
4:	4104	CX D82 port 4	17:		
5:	4105	CX D82 port 5	18:		
6:	4106	CX D82 port 6	19:		
7:			20:		
8:			21:		
9:			22:		
10:			23:		
11:			24:		
12:			25:		
13:			26:		

At End of Member List

Modifying System Parameters

To disable conferencing on Temporary Bridged Appearances, set the **Change System-Parameters Coverage-Forwarding** parameter **Keep Held SBA at Coverage Point** to **No**. In **Change System Parameters-Features**, set **Temporary Bridged Appearance** on Call Pickup to **No**. The following are examples of system parameter programming.

The command is **change system-parameters coverage-forwarding.** (Page 1)

```
                                                                  Page   1 of   2
                    SYSTEM PARAMETERS CALL COVERAGE / CALL FORWARDING
CALL COVERAGE/FORWARDING PARAMETERS
          Local Cvg Subsequent Redirection/CFWD No Ans Interval (rings):        2
        Off-Net Cvg Subsequent Redirection/CFWD No Ans Interval (rings):        2
                               Coverage - Caller Response Interval (seconds):   4
      Threshold for Blocking Off-Net Redirection of Incoming Trunk Calls:       1
Location for Covered/Forwarded Calls:      called      VDN/Hunt Group Location: all
                         PGN/TN/COR for Covered and Forwarded Calls:     caller
                       COR/FRL check for Covered and Forwarded Calls?     n
        QSIG/SIP Diverted Calls Follow Diverted to Party's Coverage Path?       n

COVERAGE
                                  Criteria for Logged Off/PSA/TTI Stations?     n
                                         Keep Held SBA at Coverage Point?       n
        External Coverage Treatment for Transferred Incoming Trunk Calls?       n
          Immediate Redirection on Receipt of PROGRESS Inband Information?      y
                                                 Maintain SBA At Principal?     n
              QSIG VALU Coverage Overrides QSIG Diversion with Rerouting?       n
                                              Station Hunt Before Coverage?     n
FORWARDING
Call Forward Override?     y                     Coverage After Forwarding?     y
```

The command is **change system-parameters features**. (Page 19)

```
                                                                Page  19 of  19
                           FEATURE-RELATED SYSTEM PARAMETERS
IP PARAMETERS
                Direct IP-IP Audio Connections?     y        IP Audio Hairpinning?    y
                     Synchronization over IP?     n Allow SIP-H323 Video in SDES?     n

                 SIP Endpoint Managed Transfer?     n

  Expand ISDN Numbers to International for 1XCES?       n

CALL PICKUP
  Maximum Number of Digits for Directed Group Call Pickup:         4
                       Call Pickup on Intercom Calls?       y    Call Pickup Alerting?    y
     Temporary Bridged Appearance on Call Pickup?       n    Directed Call Pickup?    y
                          Extended Group Call Pickup:     none
                         Enhanced Call Pickup Alerting?     n

   Call Pickup for Call to Coverage Answer Group?       n
                           Display Information With Bridged Call?        n
  Keep Bridged Information on Multiline Displays During Calls?        n
                        PIN Checking for Private Calls?     n
```

Call Coverage to a Vector Directory Number

Programming the MiCollab AM ports into a Call Vector Group and setting the subscriber call coverage point in the Call Coverage Path to the Vector Directory Number (also known as the Vector DN) causes the line appearance of a subscriber's telephone to extinguish once the call goes to Call Coverage.

The following procedure explains how to perform these tasks.

Programming a Vector Group for the MiCollab AM Ports

Create a Vector DN as the call coverage point for all MiCollab AM subscribers. Choose an easily remembered number for subscribers to use when calling MiCollab AM. Set **Allow VDN Override** to **No**.

The following is an example of Vector DN programming; the command is **add vdn 4006**. (Pages 1 & 2)

```
                                                      Page   1 of   2
                          VECTOR DIRECTORY NUMBER

                              Extension:  4006
                                  Name*:  4006
                            Destination:  Vector Number         5
                   Attendant Vectoring?   n
                  Meet-me Conferencing?   n
                     Allow VDN Override?  n
                                    COR:  1
                                    TN*:  1
                              Measured:   none    Report Adjunct Calls as ACD*?   n


     VDN of Origin Annc. Extension*:






 * Follows VDN Override Rules
```

```
                                                      Page   2 of   2
                          VECTOR DIRECTORY NUMBER

                         AUDIX Name:
                 Return Destination*:
             VDN Timed ACW Interval*:        After Xfer or Held Call Drops*?   n




             Observe on Agent Answer?   n

   Send VDN as Called Ringing Name Over QSIG?   n

              Display VDN for Route-To DAC*?   n
            VDN Override for ASAI Messages*:   no



              Reporting for PC or POM Calls?   n
            Pass Prefixed CPN to VDN/Vector*?  system
 * Follows VDN Override Rules
```

Create a Call Vector group and assign the MiCollab AM digital stations to the group in sequential order using the route to step definition. Define the step after the last port as **goto step 2**, so that if all ports are busy they are be tried again. The following is an example of Call Vector programming; the command is **change vector 5**.

```
change vector 5                                          Page   1 of   6
                              CALL VECTOR

    Number: 5              Name: System 4006
Multimedia? n     Attendant Vectoring? n     Meet-me Conf? n          Lock? n
     Basic? y    EAS? n   G3V4 Enhanced? y    ANI/II-Digits?  y   ASAI Routing? y
 Prompting? y    LAI? n   G3V4 Adv Route? y   CINFO? y   BSR? n   Holidays? y
 Variables? n    3.0 Enhanced? n
01 wait-time    2  secs   hearing silence
02 route-to     number 4101          with cov y  if unconditionally
03 route-to     number 4102          with cov y  if unconditionally
04 route-to     number 4103          with cov y  if unconditionally
05 route-to     number 4104          with cov y  if unconditionally
06 route-to     number 4105          with cov y  if unconditionally
07 route-to     number 4106          with cov y  if unconditionally
08 goto     step     2      if unconditionally
09 stop
10
11
12
```

Programming the Call Coverage Path

Program a Call Coverage Path for all MiCollab AM subscribers. Allow call coverage for both busy and no answer calls from internal and external callers.

Do not program coverage for all calls. Subscribers can set All Call forwarding from their stations when they require this feature. Use the MiCollab AM hunt group or vector group as **Coverage Point 1**.

Programming for call coverage under busy conditions assumes that MiCollab AM uses the blind transfer type when transferring calls to subscribers. The following is an example of Call Coverage Path programming; the command is **add coverage path 1**.

```
                                                         Page   1 of   1
                              COVERAGE PATH

                  Coverage Path Number: 1
     Cvg Enabled for VDN Route-To Party? n       Hunt after Coverage? n
                      Next Path Number:          Linkage

COVERAGE CRITERIA
    Station/Group Status    Inside Call    Outside Call
                 Active?        n              n
                   Busy?        y              y
           Don't Answer?        y              y        Number of Rings: 4
                    All?        n              n
     DND/SAC/Goto Cover?        y              y
       Holiday Coverage?        n              n

COVERAGE POINTS
    Terminate to Coverage Pts. with Bridged Appearances? n
  Point1: h1          Rng: 4  Point2:
  Point3:                     Point4:
  Point5:                     Point6:
```

Programming the Subscriber Telephones

Program the subscriber stations for use with MiCollab AM. Enter the call coverage path created for subscribers and set the LWC Reception parameter to spe to enable the message-waiting indicator. The following is an example of an 8434D-type subscriber station programming.

NOTE If you are using an 8434D type station, the subscriber's extension number must appear within the first 15 characters of the **Name** field. A space must separate the name and extension number and there cannot be any numeric characters in the name field but the extension number.

The command is **change station 4101**.

(Page 1)

```
                                                          Page   1 of   6
                                      STATION

Extension:  4101                       Lock Messages?  n              BCC: 0
     Type:  7434ND                     Security Code:                  TN: 1
     Port:  01A0203                  Coverage Path 1:                 COR: 1
     Name:  CX D82 port 1            Coverage Path 2:                 COS: 1
                                     Hunt-to Station:
STATION OPTIONS
                                       Time of Day Lock Table:
             Loss Group:   2      Personalized Ringing Pattern:    1
            Data Module?   n                 Message Lamp Ext:    4101
         Display Module?   y
       Display Language:   english             Coverage Module?   n

          Survivable COR:  internal           Media Complex Ext:
     Survivable Trunk Dest?  y                    IP SoftPhone?   n
                                             Remote Office Phone?   n
                                                       IP Video?   n
```

(Page 2)

```
change station 4101                                         Page   2 of   6
                                      STATION
FEATURE OPTIONS
            LWC Reception:  spe         Auto Select Any Idle Appearance?  n
           LWC Activation?  n                  Coverage Msg Retrieval?  y
     LWC Log External Calls?  n                          Auto Answer:  none
              CDR Privacy?  n                       Data Restriction?  y
     Redirect Notification?  y              Idle Appearance Preference?  n
   Per Button Ring Control?  n            Bridged Idle Line Preference?  n
     Bridged Call Alerting?  n               Restrict Last Appearance?  y
     Active Station Ringing:  single

          H.320 Conversion?  n      Per Station CPN - Send Calling Number?
         Service Link Mode:  as-needed             EC500 State:  disabled
           Multimedia Mode:  basic          Audible Message Waiting?  n
      MWI Served User Type:                 Display Client Redirection?  n
               AUDIX Name:                 Select Last Used Appearance?  n
                                             Coverage After Forwarding?  s
                                               Multimedia Early Answer?  n
                                          Direct IP-IP Audio Connections?  y
     Emergency Location Ext:  4101                 IP Audio Hairpinning?  y
```

Installing the Dialogic D/42 or D/82 Physical Interface

Each Dialogic D/42JCT-U or D/82JCT-U card connects to the PBX with a Dialogic D/82-U PBX interface cable assembly. One end of the cable is a 25-pair male RJ-21 connector; the other end is a Dialogic mini-D 36-pin connector that plugs into the connector on the end plate of the linecard.

The following table shows the wiring connections for the digital stations. For additional information about installing the linecard, refer to the spare parts document shipped with the linecard.

Table 4. Dialogic D/42 and D/82 wire cut down

Pair	Color	Connections	Usage
1	White/Blue		
	Blue/White		
2	White/Orange	T(Port 1)	D/42 and D/82
	Orange/White	R(Port 1)	D/42 and D/82
3	White/Green		
	Green/White		
4	White/Brown	T(Port 2)	D/42 and D/82
	Brown/White	R(Port 2)	D/42 and D/82
5	White/Slate		
	Slate/White		
6	Red/Blue	T(Port 3)	D/42 and D/82
	Blue/Red	R(Port 3)	D/42 and D/82
7	Red/Orange		
	Orange/Red		
8	Red/Green	T(Port 4)	D/42 and D/82
	Green/Red	R(Port 4)	D/42 and D/82
9	Red/Brown		
	Brown/Red		

10	Red/Slate	T(Port 5)	D/82 only
	Slate/Red	R(Port 5)	D/82 only
11	Black/Blue		
	Blue/Black		
12	Black/Orange	T(Port 6)	D/82 only
	Orange/Black	R(Port 6)	D/82 only
13	Black/Green		
	Green/Black		
14	Black/Brown	T(Port 7)	D/82 only
	Brown/Black	R(Port 7)	D/82 only
15	Black/Slate		
	Slate/Black		
16	Yellow/Blue	T(Port 8)	D/82 only
	Blue/Yellow	R(Port 8)	D/82 only

Programming Dialogic Configuration Manager

By default, the Dialogic System Release Configuration Manager program sets the parameter PBXSwitch to Nortel_Norstar. You must change this parameter to the appropriate PBX type you are integrating with MiCollab AM.

IMPORTANT If this is an existing MiCollab AM system with a previous version of Dialogic software installed, you must remove it and any Dialogic point release software before you install MiCollab AM version 9.1 and the Dialogic Software Support Components on the Call Server platform.

If the MiCollab AM version 9.1 InstallShield Wizard detects an existing version of Dialogic software during the setup process, the installation is aborted and a message displays to un-install all Dialogic software first.

For more information on removing previous versions of Dialogic software, refer to the MiCollab AM online help or the *Dialogic and Aculab System Administrator Guide*.

To change the PBXSwitch parameter for each D/42 or D/82 linecard installed:

1. Select **Start** > **Programs** > **Dialogic System Software**, and then select **Configuration Manager-DCM.**
2. Stop the **Dialogic** service if it is running.
3. Double-click the installed **D/42** or **D/82** linecard to open the **Properties** sheet.
4. Click the **Miscellaneous** tab, and then select the **PBXSwitch** parameter.
5. In the **Values** list, select **Lucent_2_wire** as the type of integration.
6. On the **Telephony Bus** tab, verify that the correct PCM encoding scheme is selected.

   NOTE The default value is automatic or U-Law; you must change this value to A-Law outside of the U.S. and Japan.

7. Click **OK**.
8. Repeat **Steps 3-7** for each D/42 or D/82 linecard that is installed.
9. Restart the **Dialogic** service and close Dialogic Configuration Manager.

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 exiting 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** drop-down list, select **Avaya**.
   - **d** From the **Model** drop-down list, select **Definity**.
   - **e** From the **Integration Type** drop-down list, select **Dialogic D/82 2-wire set emulation**.
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, configure the values if necessary.

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 For the **Incoming Hunt Mode** value, select **Circular**, if you have set up the lines between the MiCollab AM server and the telephone system to act as a hunt group.

   c In the **Hunt Group Access Code** field, enter code or Vector DN you configured previously in the section, Programming 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

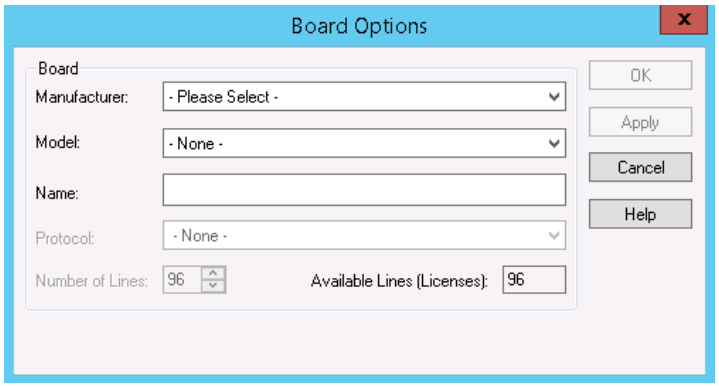
To configure exiting MiCollab AM for the telephone integration:

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** drop-down list, select **Avaya**.

b From the **Model** drop-down list, select **Definity**.

c From the **Integration Type** drop-down list, select **Dialogic D/82 2-wire set emulation**.

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, configure the values if necessary.

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 For the **Incoming Hunt Mode** value, select **Circular**, if you have set up the lines between the MiCollab AM server and the telephone system to act as a hunt group.

c In the **Hunt Group Access Code** field, enter code or Vector DN you configured previously in the section, Programming 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 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.