AVAYA communication

Configuration Note 7007

Avaya Merlin Magix ™*

Revised 06/14/01

Merlin Magix

Central Office

Trunks

Analog Lines

Telephone

Desktop Computer
With
Dialogic Analog Board(s)

1.0   METHOD OF INTEGRATION
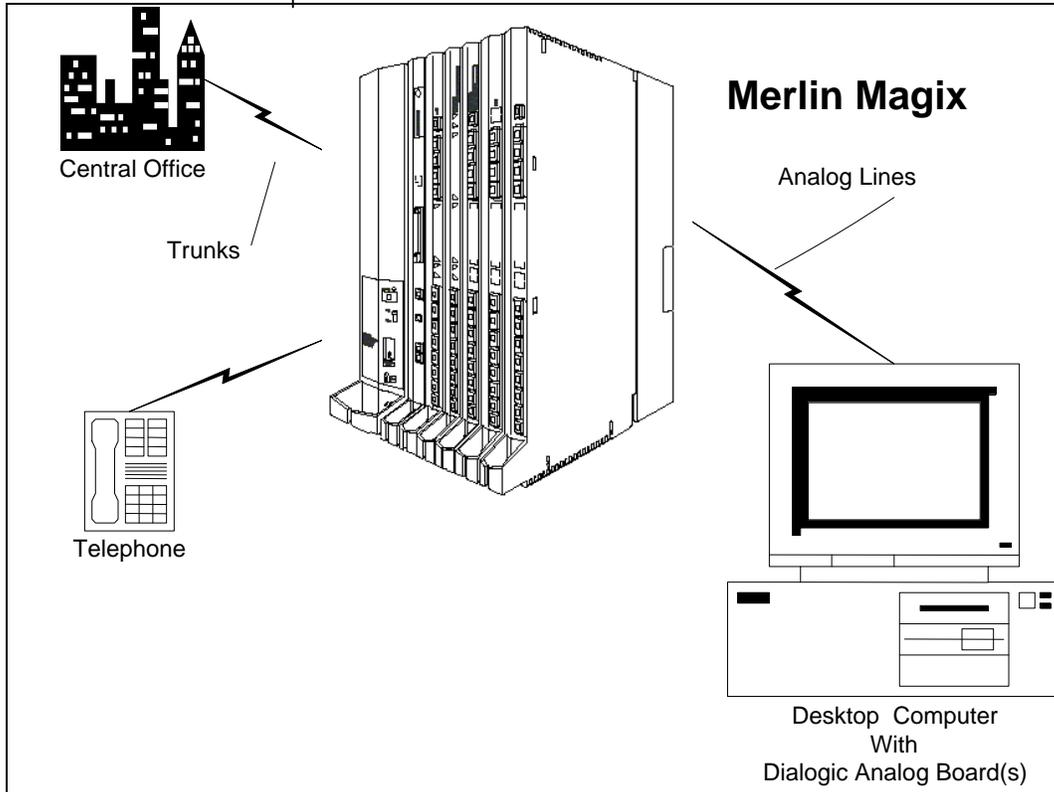
Inband signaling is used for integration

Integration is achieved by Inband signaling. Call forward to personal greeting is achieved via DTMF signals passed from the Avaya Merlin Magix to Octel 100. Message waiting indicators are set and canceled by dialing a feature access code followed by the extension number. A hookflash followed by the extension transfers the caller to the operator.

1.1 SUPPORTED VOICE PROCESSING MODULE

Supported Voice Processing Module

The Octel 100 is a Year 2000 (Y2K) compliant, PC based, enhanced voice messaging product release intended to replace the OPC, Signature Performer, CEO, CP, and CP+ product lines. For installed systems that have port capacities above 16 ports contact your Avaya representative for the proper solution

2.0   ORDERING INFORMATION

There are many options available for this product, depending on the application. Voice Boards supported:
   Dialogic DIALOG/4 ™

Fax Boards supported:
Brooktrout TruFax® 200

Optional Remote Service
Internal Modem

Please consult with your sales representative.

3.0   AVAYA MERLIN MAGIX HARDWARE REQUIREMENTS

- One single line port for each Octel 100 port. This may be provided by
  - **016TRR** 16-tip/ring extension jacks with 4 touch-tone Receivers (TTRs).

   or

- 016ETR 16 ETR extension jacks including 6 with tip/ring functionality with 4 touch-tone receivers
- 491D1 Power Supply Module:
  - Equipped with optional 129B Frequency Generator 30 Hz.
    or
  - Equipped with optional 129C Frequency Generator 25 Hz.

Note: A TTR is needed by an analog port whenever DTMFs are being processed. The number of TTRs is dependent on the number of analog ports and the loading of those ports. A good estimation is 0.75 TTRs per port for a moderately loaded system.

3.1   AVAYA MERLIN MAGIX SOFTWARE REQUIREMENTS

- Release 1,or 2.

3.2   ADDITIONAL MATERIAL REQUIREMENTS

The voice board used to interface Octel 100 VoiceMail is a four-port board. System configurations may reflect partial use of a board. The board used to interface Octel 100 FaxMail is a two-port board. You will need:

- One RJ-14 jack with 4-conductor line cord for every two Octel 100 ports.

- For optional remote service access:
  - One analog line
  - One RJ-11 Jack for above and 2-conductor modular telephone cord.

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.   If optional FaxMail is installed:

   − One analog line per fax port

   − One RJ-11 jack for every Brooktrout TruFax® 200 fax port

4.0   SUPPORTED FEATURES

Supported Integration Features

[✓] Items are supported

System Forward to Personal Greeting		**Multiple Return to Operator**	[✓]
All Calls	[ ]	**Direct Call**	[✓]
Ring/no answer	[✓]	**Auto Attendant**	[✓]
Busy	[✓]	**Outcalling**	[✓]
Busy/No Answer	[ ]	**Personal Greeting of Original-Called Party**	
Do Not Disturb	[ ]	Multiple Call Forward	[ ]
Station Forward to Personal Greeting		Double Call Forward	[ ]
All Calls	[✓]	Call Coverage	[✓]
Ring/no answer	[ ]	**Intercom Paging**	[ ]
Busy	[ ]	**Supervised Transfers**	
Busy/No Answer	[ ]	Call Screening	[✓]
Do Not Disturb	[ ]	Call Queuing	[✓]
Flexible Forwarding		Intercom Paging[1]	[✓]
Forward to No Answer Greeting	[ ]	**Identify Calling Party (Ver. 1.5 and up)**	
Forward to Busy Greeting	[ ]	System Forward to Personal Greeting	[✓]
Intercom/CO Forwarding	[ ]	Station Forward to Personal Greeting	[ ]
Message Waiting		Flexible Forwarding (NA with CO)	[ ]
LCD Display	[ ]	**Record Telephone Conversation[2]**	[✓]
LED	[✓]	[1]*See Section 7.4*	
Lamp	[ ]	[2]*See Section 6.5*	
Audible / Stutter Dial Tone	[ ]		

4.1   DISCONNECT TYPE

Disconnect supervision is indicated by the Merlin Magix returning internal dialtone. For proper external disconnect supervision, Ground start, or Supervised Loop start CO lines are recommended. *(See Note section 7.2)*

5.0   CONFIGURING THE AVAYA MERLIN MAGIX

Programming Avaya Merlin Magix system parameters

Before you begin programming, it is recommended that a hard copy of the customer database be obtained to verify existing programming. All changes to the Avaya Merlin Magix should be performed by a certified System Manager—those personnel who plan, program, maintain, and manage the system or, qualified support personnel who are responsible for installation and initial system programming.

Note: Assignment of extensions has two elements send, and receive. As "sender", an extension can only be assigned to either an extension or a group. As "receiver", an extension can be assigned in multiple groups. An extension number, once assigned to a Calling Group or Line/Pool, is committed as a Sender. This extension, however, can be used as a Receiver in other groups.
Only the extensions for the tip/ring ports associated with a voice messaging system may be in VMI Calling Groups. There is a

system maximum of 20 VMI Calling Groups, and any one Calling Group may have a maximum of 20 members. An extension may be a member of only one Calling Group.

5.1   DEFAULT NUMBERING SCHEME

The following figure is a 2-digit map of the factory settings in gray spaces.

1 LDN (QCC Queue)
2 Remote Access

Extensions can be renumbered to any number shown in the white spaces.

5.2   AVAYA MERLIN MAGIX SYSTEM PROGRAMMING

Avaya Merlin Magix System Programming

Refer to the Programming section in the Avaya Merlin Magix manual for information on entering, saving, and exiting database programming.

The factory setting is Hybrid/PBX, we recommend the Magix system be configured as a hybrid/PBX. This programming must be done when the system is idle. In addition, this programming will cause the system to restart when you are finished. Therefore, choose an appropriate time for this procedure.

| **Magix's Mode** | **All** |
| **Factory Setting** | **Hybrid/PBX** |

System → Mode → Select mode (Hybrid/PBX) → Enter

From the System Programming Menu

Select   **System**

Select   **Mode**

Select   **Hybrid/PBX**

Press <Enter> to save.

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At this point, the system will restart as noted above. To continue programming, re-enter system programs.

Program the Voice Mail System/Automated Attendant Options as follows:

**AuxEquip → VMS/AA
→ TransferRtn → Drop → Dial
no. of rings (0-9) → 4
→Enter→ TT Duration → Drop
→ Dial no. of ms (50–200 ms, in
increments of 25 ms) → 75
→ Enter → TT Interval → Drop →
Dial no. of ms (50–200 ms, in
increments of 25 ms)
→ 50 → Enter → Back → Back**

Magix's Mode	**All**
Factory Setting	touch-tone duration: **100 ms**
	Interval between digits: **50 ms**
	Number of rings before transfer sent to backup: **4**

From the System Programming Menu

Select   **AuxEquip**

Select   **VMS/AA**

From the VMS/AA screen, select **TransferRtn**. This parameter, Transfer Return, represents the number of rings before calls transferred by the Octel 100 are sent to a designated backup position. Set it to "0" to disable this feature. If supervised transfers are used, this parameter should either be disabled or set higher than the Max Rings in the Mailbox Class of Service.

The default value for Transfer Return is 4. To modify this parameter, erase the current setting, using the **Drop** key. Enter the desired value and press **Enter**.

From the VMS/AA screen, select **TT Duration**. This parameter should be set to 75 (milliseconds). If it is not, erase the current setting, using the **Drop** key and enter **75**. Press **Enter** to save your entry.

From the VMS/AA screen, select **TT Interval**. This parameter should be set to 50 (milliseconds). If it is not, erase the current setting, using the **Drop** key and enter **50**. Press **Enter** to save your entry.

Press **Exit** twice to return to the System Programming menu.

5.3   DISPLAY THE OCTEL 100 PORTS

Display the Octel 100 Ports

Display numbers of equipment to be used for Octel 100. View the extension profile by using this procedure:

**Maintenance → Ports → Stations
→ Status**

From the System Programming Menu

Select   **Maintenance**

Select   **Ports**

Select   **Stations**

Select   **Status**

The profile shows:

- "T/R" if the port is programmed as T/R.
- "UNEQUIPPED" if the port is programmed as ETR and an MLS or ETR telephone is not connected to the ports.

5.4   CREATE CALLING GROUP FOR OCTEL 100

Magix's Mode   All
Factory Setting   Circular hunting pattern

**Extensions →   or More →
Group Calling →Hunt Type →Dial
calling group extension number
→ Enter →Circular → Enter
→Back → Back →Members
→Dial Octel 100 extension
number →Next →Exit**

From the System Programming Menu

Select   **Extensions**

Press **More** to display second page

Select   **Group Calling**

Select   **Hunt Type**

Enter the extension number to be assigned to the Calling Group

Select   **Circular**

Select   Exit

Return to **Group Calling Menu**

Select   **Members**

Enter extension number just assigned above

Select   **Enter**

*Note: An Octel 100 port can only belong to one calling group. A QCC
cannot be a member of a calling group.*

At **Enter Group Members** Prompt:

Specify first Octel 100 port extension number. If extension numbers are
sequential, press the next key to add next Octel 100 port. If ports are not
sequential, press enter to add next extension number. Repeat until all
Octel 100 ports have been added.

Select   **Exit**

5.5   SETUP GROUP TYPE FOR OCTEL 100 CALLING GROUP

Magix's Mode   All
Factory Setting   Automatic Log Out

**Extensions →   or More →
Group Calling →   or More →
Group Type →Dial calling group
extension number → Enter →
Integrated VMI → Enter → Back
→ Back**

Return to **Group Calling Menu**

Set up Group Type for Octel 100 calling group (this instructs Magix to
send mailbox ID information)

Press **More** to display second page

Select   **Group Type**

Enter extension number of the Octel 100 calling group

Press Enter

Select   **Integrated VMI**

Press **Enter** to Save

Press **Back** twice to return to **Extensions Menu**

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5.6   GROUP COVERAGE MEMBER ASSIGNMENTS

Extensions ➔   or More
➔Group Coverage ➔Dial Group
Number(1-30) for Octel 100
➔Enter ➔Dial extension number
➔Enter → Back → Back

From **Extensions Menu** Press **More** to display second page

Select   **Group Coverage**

Enter a **number (1 - 30)** as coverage group number for Octel 100

When prompted for extension numbers, enter extension number that Octel 100 calling group will supply VoiceMail Box.

Press **Enter** to Save

Magix's Mode	All
Factory Setting	Not applicable

Press **Back** twice to return to System Programming Menu

5.7   PROGRAM GROUP COVERAGE DELAY INTERVAL

If supervised transfers are used, this parameter should either be disabled or set higher than the Max Rings in the Mailbox Class of Service. The default value for Group coverage delay interval is 3 rings.

Magix's Mode	All
Factory Setting	3 Rings

Extensions ➔   or More ➔
or More ➔ Cover Delay ➔
Group ➔Dial Sender's Extension
➔Enter → Number of Rings (1 -
9) 4➔Enter → Back → Back

Select   **Extensions**
Press **More** to display second page
Select   **Cover Delay**
Select   **Group**
Select   **Dial Sender's Extension**
Press **Enter** to continue

Select   **Number of Rings (1 - 9) 4**
Press **Enter** to Save

To assign trunks to ring directly to Octel 100
Select   **Extensions**
Press More to display second page
Select   **Group Calling**
Select   **Line/Pool**   *(See Note: Section 7.3)*
Enter Octel 100 calling group extension number
Press Enter
At "Enter Line/Pool numbers" prompt identify line or pool of lines you want Octel 100 to answer

Note: Incoming calls on each line/trunk or pool can be directed to only one calling group.

5.8   CONFIGURING PORTS TO OUTCALL

The default settings on the Avaya Merlin Magix, unrestricted outdialing from Group Types programmed as Integ VMI. If the customer desires

outdialing access for the Voice Mail system, (for Beeper notification, etc..) program the ports to outdial as follows.

> **Magix's Mode   All**
> **Factory Setting   Restricted for Integrated VoiceMail ports**

Set the Octel 100 ports restriction level to allow outdialing.

Extensions ➜ Restriction ➜ Extension of first Octel 100 ➜ Enter ➜Unrestricted ➜Enter ➜ Next

Select   **System Programming**

Select   **Extensions**

Select   **Restriction**

Enter the first Octel 100 port to be used for outdialing

Select   **Enter**

Select   **Unrestricted**

Select   **Enter**

Repeat until all the Octel 100 ports that you require for outdialing have been changed.

NEXT:

Set the ARS Restriction to allow outdialing.

> **Magix's Mode   Hybrid/PBX only**
> **Factory Setting   Restricted for Integrated VoiceMail ports**

Extensions ➜ ARS Restrict ➜ Extension ofOctel 100 ➜ Enter ➜change to 3 or greater ➜Enter

ASSIGNING ARS RESTRICTION LEVEL FOR OCTEL 100 EXTENSION

Select   **System Programming**

Select   **Extensions**

Select   **ARS Restrict**

Enter the first Octel 100 port to be used for outdialing

Select   **Enter**

The current ARS Restriction level will be displayed.

The restriction level should be a 3 or higher to allow for unrestricted outdialing.

To change restriction level:

Select   **Backspace**

Enter   **3** (from the dial pad)

Select   **Enter**

Repeat until all the Octel 100 ports that you require for outdialing have been changed.

5.4   CONFIGURING THE SUBSCRIBER STATIONS

Set up a coverage group for extending call to Octel 100

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Extensions ➔   or More ➔
or More ➔ Cover Delay ➔
Group ➔ Dial Sender's Extension
➔ Enter ➔ Number of Rings (1 -
9) 4➔ Enter → Back → Back

Magix's Mode	**All**	
Factory Setting	**3 Rings**	

Select   **Extensions**
Press **More** to display second page
Select   **Cover Delay**
Select   **Group Number** (extension assigned to the Octel 100 Calling Group)0
Select   **Dial Sender's Extension**
Press **Enter** to continue
Select   **Number of Rings (1 - 9) 4**
Press **Enter** to Save
Press **exit twice**

Repeat until all subscriber extensions have been added

6.0   CONFIGURATION OF THE OCTEL 100

Octel 100 Configuration

The Avaya Magix integration codes should already be entered. Section 6.1 is for Octel 100 provides for the detection of caller id when available from the switch. Octel 100 setup sections may be checked to verify that this is done. If the integration codes are not correct, run the Integrator program and select the Avaya Merlin Magix switch.

6.1   OCTEL 100

Integration for Octel 100

Outside Line Access Code	**9,**
Off Hook Delay (OFFHDLY)	**15**
Hook Flash Interval (FLINTVL)	**50**
DTMF Tone Length (TONELEN)	**8**

Transfer, Paging and Screening Parameters

Custom Transfer Code	**&,XDR**
Intercom Paging Code	**&,C3799N** *See Section 7.4*
Transfer Release Code when Busy	**&,&**
Transfer Release Code when No Answer	**&,&**
Call Screening Release Code when Busy	**&&,**
Call Screening Release Code when No Answer	**&,&**
Call Screening Release Code when Reject	**&,&**
Call Screening Release Code When Transfer	**&,&**
Release Code for Intercom Paging	**&,&**

Message Waiting Parameters

Permit Message Waiting Lights	✓
Message Waiting Light Prefix ON	**#53**
Message Waiting Light Prefix OFF	**#*53**

Inband Parameters

Total Number of DID Digits	**15**
DID Terminating Character	*
Seconds to Wait for First Digit	**4**
Millisecs to Wait for Next Digit	**500**

Inband Templates

#00#R##	**Auto Login**
#02#S#R#	**Go to Voice Mail**
#03##R#	**Go to Voice Mail**
#02#?#R#	**Go to Voice Mail**
#05?	**Go to VM Get Mailbox**
#XX###	**Go to VM Get Mailbox**
#08?	**Go to VM Get Mailbox**

These Codes apply to the Inband Template:

R = Receiving Mailbox

S = Sending Mailbox   X = Ignore Character

Valid Characters are: ~ $ * # 0-9 A-D F N T

Note: Some versions of the Integrator Utility added an Inband Code that resembled Go VM, Get M~ox instead of Go to VM Get Mailbox as above. This integration will fail if the Inband Information is not corrected. To correct this Open the System Setup and verify the Inband information is as described in Inband Templates above.

Note: Verify all these dialing sequences for your switch

7.0   CONSIDERATIONS / ALTERNATIVES

The following items should be considered, below:

- ❑ Transfers
- ❑ Disconnect Types
- ❑ Line/Pool Considerations
- ❑ Intercom Paging
- ❑ Calling Group Log Out
- ❑ Trunk to Trunk Transfers

Important notes concerning this integration

7.1   TRANSFERS

Internal calls transferred by Octel 100 do not follow a coverage path, they will forward to the console after the number of rings designated in the Transfer Release parameter. If this parameter is not set, internal transfers will ring no answer.

If the Octel 100 is programmed to execute a supervised transfer, Handsfree Announce must be disabled. If call forwarding is on at the station, ensure that it is for Ring/No Answer only, and that the ring timer is greater than the Maximum Rings for the mailbox.

7.2   DISCONNECT TYPES

The Avaya Merlin Magix does not provide consistent disconnect signaling. Therefore, it may be necessary for the Voice Mail system to disconnect on silence. Caller prompting and subscriber training are recommended to

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encourage both callers and subscribers to exit the system completely when finished.

7.3   LINE/POOL CONSIDERATIONS

DID trunks/lines cannot be grouped in pools. Loop-start lines are automatically placed in pools; you must manually remove them if the line is to be used for paging loudspeakers, Music on Hold, or maintenance alarms.

A QCC cannot be a member of a Line/Pool.

7.4   INTERCOM PAGING

The Avaya Merlin Magix will support either Intercom paging, (over the telephone speakers), or External Paging, (over a loud speaker).

This integration is set up with the codes for Intercom Paging.

If you wish to use External Paging, you must edit the Intercom Paging code as follows:

&,C5#98xxNR   xx = the trunk number of the paging trunk port.

7.5   CALLING GROUP LOG OUT

If the Avaya Merlin Magix loses power, or the Voice Mail System is shut down for a period of time, the Voice Mail Calling group will log itself out and not direct calls to the Voice Mail. To expedite the re-login of the Calling Group you must dial each Octel 100 port individually and enter #44.

For example, if Octel 100 ports are numbered 320 through 323, then dial 320 from a station set followed by #44; repeat for 321, 322, and 323.

7.6   TRUNK TO TRUNK TRANSFERS

If your application calls for the Octel 100 to transfer an external caller to an outside telephone number, you must allow Trunk to Trunk transfers on the Octel 100 ports.

Magix's Mode	**All**
Factory Setting	**disabled**

Extensions ➔   or More ➔
or More ➔ TrkTransfer ➔
Dial Octel 100 Extension ➔Enter
➔Back ➔Back

Select   **Extensions**

Press **More** to display the second page

Press **More** again to display the third page

Select   **Trk Transfer**

Enter the **Octel 100 port extension** numbers.

Select   **Enter**

Select   **Back twice**

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