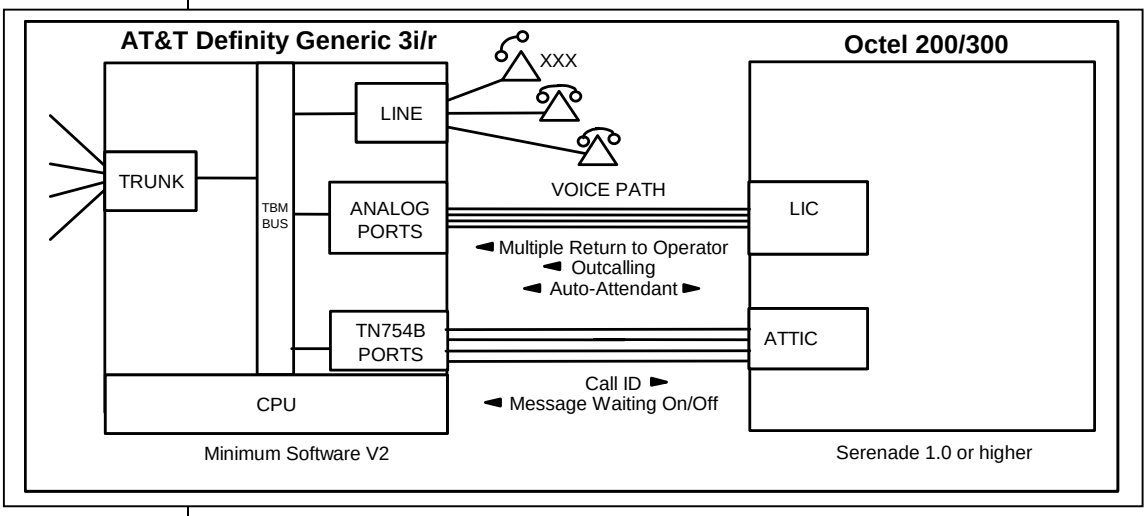
Octel 200/300

Message Server

Configuration Note 6004 - Rev B (3/04)

Avaya Definity G3i/r



1.0 METHOD OF INTEGRATION

The AT&T Integration Card (ATTIC) collects call information and performs message-waiting notification

Each AT&T PBX Integration Card (ATTIC) simulates four digital stations on the AT&T PBX. When the ATTIC receives a call, the digital display provides call information. The ATTIC collects this data, transmits the call information to the Octel CPU and conferences the call with an available analog voice port. The Octel system then immediately answers the call with the appropriate greeting. The ATTIC circuit is then free to process further calls. Message-waiting indicators are set and canceled via the ATTIC using the AT&T Leave Word Calling feature.

2.0 OCTEL ORDERING INFORMATION

Octel hardware & software requirements

- LIC4 or LIC8, or DLC 16 (4, 8 or 16 ports per LIC)
- Disk drives
- AT&T Integration Card (ATTIC) (P/N 300-6018-001 or -002; refer to section 8.7). If more than 4 digital links are required, an additional ATTIC is required.
- Adaptive Integration software is included with the ATTIC hardware.
- Two ATTIC ports are required for every 16 voice ports on the system to process incoming calls/called party ID (CPI). Two additional ATTIC ports are needed for Message Waiting. As the system size increases, the CPI ratio must be preserved, but the number of links required for message waiting will depend to some extent on the performance desired.

Disclaimer: Configuration Notes are designed to be a general guide that reflects AVAYA Inc.'s experience configuring its systems. These notes cannot anticipate every configuration possibility given the inherent variations in all hardware and software products. Please understand that you could experience a problem not detailed in a Configuration Note. If so, please notify the TAC/TSO at (408) 922-1822, and if appropriate, we will include the problem in our next revision. AVAYA Inc. accepts no responsibility for errors or omissions contained herein.

3.0 PBX HARDWARE REQUIREMENTS

PBX requirements

- 4-wire digital ports (circuit pack TN754B or newer is recommended), 4 ports per ATTIC card. *Refer to section 8.9.*
- - Minimum 4 ports (supports up to 32 analog ports)
- - Additional digital ports in the ratio of 4 digital ports for each 16 additional analog ports.

NOTE: For incoming call processing, the ratio is always two digital ports for each 16 analog ports. As the system size increases, the ratio of 2 digital ports for message waiting for each 16 analog ports may increase. For example, 4 digital ports may support 48 analog ports for message waiting, depending on traffic.

- • Analog ports (TN742 or TN746), one per Octel port
  - 25-pair Amphenol cables, one per ATTIC and LIC card

3.1 PBX SOFTWARE REQUIREMENTS

Supported Software:
Version 2
Version 3 (See section 8.8)
Version 4
Version 5
Version 6

4.0 SUPPORTED FEATURES

Supported integration features

- Call coverage to personal greeting

- busy *(refer to section 8.1)*
- ring-no-answer

- Station forward to personal greeting

- all calls

- Message-waiting notification

- lights -
audible (requires optional feature on PBX)

- Automated attendant
- Outcalling
- Multiple return-to-operator
- Direct call (Auto Log-on)
- Personal greeting of original-called party using Call Coverage
- Reply to message left by subscriber in internal telephone-answering mode

4.1 ATTENDANT CONSOLE OVERFLOW

Attendant consoles do not support overflow to a hunt group

Attendant consoles do not support overflow to a hunt group. Therefore, they cannot overflow to the Octel system. There are two possible alternatives:

1. Split the trunks into two groups, directing half to the console and half to the voice module.
2. Configure the voice-module pilot number as the Night Answer for the console. Then, when the console becomes busy, the attendant can switch to night service sending subsequent calls to the Octal system. *When the console is in night mode, it is disabled and features such as Recall are not available*.

5.0 CONFIGURING THE G3 TO INTEGRATE

Refer to the Integration volume of the PRM for the appropriate system. The section for the Definity G3 was introduced with the Release 8.1 PRM, except for some additional fields in the G3 the information is identical to that used in the System 75 section. Follow the steps in 7.1.3, AT&T Definity G3i Configuration.

Subscribers stations naming requirements

- **Use of the ATTIC requires that either the subscribers' stations name entry be left blank or the extension number appear as part of the first 15 characters of this field**. This programming is done using the administrator terminal. The extension can be placed anywhere within the first 15 characters in the name field. The field can contain up to 27 characters (Version 5 or newer software); therefore, abbreviations may be necessary. Refer to the PRM, AT&T Definity G3 Naming Conventions. *If AT&T integrated directory feature is implemented, the name must appear before the extension number*.

NOTE: G3 Version 4 software introduced a new terminal type used for special applications, the 7405ND. If this terminal type is supported on your PBX (it is part of Special Applications package SA7608), by configuring the digital channels supporting the ATTIC links as 7405ND sets, including extension numbers as part of the name field is not required.

NOTE: Save all translation changes to the backup tape.

- All users stations with message-waiting indicators must be programmed with:
  - LWC Reception - MSA-SPE

Define the analog ports that will connect to the Octel system using the ADD STATION command

- Define the analog ports that will connect to the Octel system using the ADD STATION command. Refer to the PRM for more specific details. The FEATURE OPTIONS must be configured as follows:
  - LWC Reception? **none**

- LWC Activation? **y**
- CDR privacy? **n**
- Redirect notification ? **n**
- Off premise station? **n**
- Switch hook flash? **y**
- Coverage msg retrieval? **y**
- Auto answer? **none**
- Data restriction? **n**
- Call waiting indication ? **n**
- Att. call waiting indication? **n**
- Distinctive audible alert? **y**
- Message waiting indicator: **leave blank**
- Adjunct supervision? **y**

NOTE: Do not place the analog ports in any form of hunt group. Some software loads may not have all these fields. If a field is displayed, it must be set as listed.

Define the digital ports as 7405D (7405ND, if applicable) terminals using the ADD STATION command

o Define the digital ports as 7405D (7405ND, if applicable) terminals using the ADD STATION command.

o Configure the FEATURE OPTIONS entries as follows:

- Coverage Path: Assign a Path for coverage after 9 rings.
- Lock Messages? **n**
- LWC Reception? **n**
- LWC Activation? **y**
- Redirect Notification? **n**
- Bridged Call Alerting? **n**
- Data Module? **n**
- Display Module? **y**
- Coverage Msg Retrieval Permission? **y**
- Data Restriction? **n**
- Restrict Last Appearance? **y**
- Idle Appearance Preference? **y**
- Personalized Ringing Pattern? **6**
- Auto Answer? **n**
- Disp Client Redir? **y**

NOTE: Some software loads may not have all these fields. If a field is displayed, it must be set as listed.

- Configure **all** 10 BUTTON ASSIGNMENTS for "call-appr."
- Configure the FEATURE BUTTON ASSIGNMENTS as follows:
  - 1: lwc-Store
  - 2: lwc-Cancel
  - 3: trk-id
  - 4-24: leave blank
- Configure the DISPLAY BUTTON ASSIGNMENTS as follows:
  - 1: Inspect
  - 2: Normal
  - 3-7: leave blank
  - Leave all other entries at the default settings.
- Using the ADD HUNT-GROUP command, create a hunt group whose members are the 7405D/7405ND voice terminal extensions which are to be used for incoming call processing (CPI). The important parameters must be configured as follows:

  Group type: UCD

  Message Center? n

  Queue? y

  Queue Length: Set to half the number of **Analog** ports on the Octel. (This number could vary in proportion to the number of ports as the system is expanded)

Using the ADD HUNT-GROUP command, create a hunt group whose members are the 7405D/7405ND voice terminal extensions

- Assign to this hunt group the name OCTEL A-XXXX, where XXXX is the Hunt Group Pilot number. The name must contain A-XXXX with no spaces. The name for each 7405D terminal must also be in the format A-XXXX.
- In addition, each Octel analog port must be assigned a name containing 'D-XXXX' as outlined above, where XXXX is the extension number of the port.
- It is critical that all incoming trunks be named in the T-XXX format. Examples of all naming conventions appear in the PRM.

If a Link is to be dedicated for the Message waiting function, do not add this extension to the hunt group.

- When Call Vectoring is used on the G3, all ACD pilot numbers are replaced with Vector Directory Numbers (VDNs). If this applies to

your installation, follow these additional steps after the ACD programming outlined above:

Programming steps for Call Vectoring software

1. Create a vector, using the ADD command.
   Vector Number: (Assign a number to the vector)
   Step Number: 1
   Type: Route to xxxx (Define the destination number where calls are to be routed. xxxx is the ACD split of the Octel links.)

2. Create a Vector Directory Number (VDN):
   *Extension:*xxxx
   Name : 'OCTEL A-xxxx' (xxxx is the mailbox associated with the VDN)
   Display Override? n
   COR: (Set at default)
   Vector Number: x (Enter the vector number associated with this VDN, i.e., the vector you previously created in step 1.)

To retain a VDN as the original-called party throughout the call vectoring steps, do not program VDN Display Override

3. To provide callers with a busy signal instead of queuing when all Octel ports are busy, configure two additional steps:

   Step Number: 2
   Type: Delay
   Step Number: 3
   Step Type: Forced-busy

For more information on commands and how VDNs should be administered, refer to Definity Communications System Generic 3 Implementation Manual 555-204-655.

- Place the Octel VDN (if applicable) or hunt-group number in the coverage path of each subscriber. For hunt groups, the specific number of the group is entered (e.g., h3) not the pilot number of the hunt group.

- The pilot number of the above hunt group (or the VDN, if applicable) is the Octel System Access Number. It is used by subscribers to retrieve their messages and is used to transfer callers into the voice module.

5.1 INTEGRATION FOR VDNs

Integration is provided for Vector Director Numbers (VDNs)

A Vector Directory Number (VDN) is a 'soft' extension number, i.e., an extension number without assigned hardware. VDNs are associated with vectors which are series of programmable call routing steps. Calls to the VDN are routed according to the programmed vector steps. Typical PBX applications for vectoring are ACD and DNIS. Calls to VDNs that route to an Octel system will hear the personal greeting of the mailbox corresponding to the VDN.

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Call Vectoring is administered on a per system basis, by the Avaya Definity system manager. The following items require administration:

- One form per Vector
- One form per VDN
- Hunt group form
- System Parameter Customer Options Form

Assign to the **Octel** VDN the name ‘OCTEL A-XXXX’, where XXXX is the VDN. The string A-XXXX must be entered with no spaces.

In addition, each Octel port must be assigned a name containing 'D-XXXX' as outlined above, where XXXX is the extension number of the port.

NOTES:

- A non-Octel extension or VDN may not have the partial or full name A- or D- associated with it.
- To retain a VDN as the original-called party throughout the call vectoring steps, do not program VDN Display Override. When Display Override is assigned to a VDN, this might cause the VDN call ID to change during the call-vectoring call process.
- It is recommended to not to change a vector while it is processing calls, otherwise calls already in the vector might experience problems. Instead, create a new vector and reroute the VDN to the new vector.

Configuring Octel system parameters

6.0 CONFIGURING THE OCTEL SYSTEM

Refer to the Integration volume of the PRM for the appropriate system. The section for the Definity G3 was introduced with the Release 8.1 PRM, except for some additional fields in the G3 the information is identical to that used in the System 75 section.

o **System Parameter Table**

- - Set System Parameter 3 to AT&T, System-75 (3)
- - Set System Parameter 116 to Yes (Enable card based AI)
- - Set System Parameter 117 to be 5 (Ringbacks before answering AX ports
- - Set System Parameter 130 to Yes (Send DTMF A for forwarded calls)
- - Refer to the PRM, AT&T Definity G3 integration, section 7.1.4 for additional System Parameter settings

o **Slots Table**

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- The Slots Table is used to configure both line interface cards (LIC) and integration cards. Refer to the PRM Integration Volume, and the Configuration Volume, Slots Table.
- Overture 200 can support a ATTIC card in slot 1A-A6
- Overture 300 can support a ATTIC card in slot 1A-A12

- **It is important that the Extension field contains the extension number of the physical analog port that is connected to each particular port.** Ports for integrated systems are set in AX mode. Set Outcall and Test to 'Y'
- Configure the slot(s) for the ATTIC card as follows:

  Card Type: 4
- For each active Unit, configure Message Waiting as required. Octel recommends that a link be configured to perform EITHER Call Processing OR Message Waiting. Define only 1 link per System as the Default for Message Waiting. Links dedicated to message waiting, are not added to the Hunt Group.
- Set Line Appearances to be from 1 to the number of analog ports on the system, to a maximum of 64 appearances per Unit. Enter as 1-X (where X=number of analog ports on the Octel) for each unit which is performing Call Processing. If more than 32 appearances are required, configure a different Unit for the other ports. Ports are may be programmed as Line Appearances on multiple Units. The maximum number of ports supported for this integration is 64.

o **COS Table**

- Add attribute 15 to all COS for extensions that are call-covered to the Octel.
- Add attribute 9 to all COS for extensions with message waiting lamps.
- Refer to the PRM, AT&T Definity G3 integration, section 7.1.4 for other Class of Service settings

o **Application Delay Table**

- If necessary, set the appropriate values in the Application Delay Table. It is important, for sites using "ring-down" CO lines, that the Octel system can detect CO Disconnect tone.

6.1 CONFIGURING THE DEFINITY G3 TO INTEGRATE WITH MULTIPLE ATTICS

A second and possibly a third ATTIC is required when utilizing more than 16 ports for integration

o A second and possibly a third ATTIC may be required when utilizing more than 16 ports for integration or in high call rate situations. Additional ports are generally assigned in groups of two. Follow the programming instructions described in Section 5 when the additional ATTICs are installed. Add the digital port extensions used for incoming call processing to the Octel Hunt Group.

7.0 INSTALLING THE ATTIC

Refer to PRM for further information.

Installation of the ATTIC

o Insert the ATTIC in the appropriate slot. When the red LED is extinguished, configure the slot. The ATTIC is functioning normally when the red LED is off, the green LED is on, and the yellow LEDs are on for configured links. Refer to PRM, AT&T Definity G3 Integration, section 7.1.6 for commands associated with the ATTIC.

7.1 TESTING THE INSTALLATION

Steps to verify the PBX and Octel programming

Refer to PRM, Integration Volume, AT&T Definity G3 section 7.1.5 to ensure that integration features are tested. A digital handset (type 7405D, 7407D or 7434D is required for these tests. If this telephone set is not provided by the customer, it should be provisioned as part of the installers test equipment.

o Complete the test procedure listed in the PRM.

o After completing the test procedure, delete all test mailboxes, and return any altered PBX name display programming to the desired entries.

8.0 CONSIDERATIONS

8.1 The Definity G3 does not support unsupervised transfers to busy stations without busy-call coverage programming. Calls will be lost. Ensure that all applicable extensions have busy-call coverage programmed, including all extensions configured as return-to-operator targets. When attribute 15 is used, the system will not transfer to busy tone, but will instead pull the call back. Customers often configure the system not to forward internal calls on a busy. This allows the Octel system to pull the call back and internal users to use the call-back feature.

8.2 Station-call forwarding to a station that is also station-call forwarded will result in a ring-no-answer condition. It is recommended that all stations use either Call Coverage or station-call forwarding to the Octel system only.

8.3 Calls to the analog ports directly should be prevented. User telephones should be restricted from calling the analog ports. The

only access to those ports should be the links. Please refer to the PRM for set-up details.

8.4 DCS is AT&T's PBX networking package. In general, all integration features are supported with PBX software Version 2. Version 1 PBX software does not support Remote Call; users on the remote nodes must use station-call forwarding (all-calls) to achieve personal greeting.

8.5 Extensions on the Definity G3 can be a maximum of five digits. Therefore, to support integration, the maximum number of digits in a mailbox can be five. If the desired numbering plan requires mailboxes greater than 5 digits in length, the translation table can be used.

8.6 When a user's message-waiting light comes on and the Leave Word Calling (LWC) feature is being used exclusively by the Octel system, the user will only need to call the voice module for their messages.

If the LWC feature is being used by the Octel system *and* other sources (that is message center and station users), then users without display terminals must contact their designated message retriever to determine the source of their message waiting light.

CAUTION: Users with display terminals and message retrievers must not delete any Octel messages on their display. This allows the Octel system to turn off the message waiting light when voice messages are reviewed.

8.7 The Definity G3 will use one of two different Companding methods. If the PBX is using Mu-law companding, the required ATTIC is P/N 300-6018-001. If A-law companding is used, the ATTIC must be P/N 300-6018-002. The Definity command "DISPLAY SYSTEM_PARAMETER COUNTRY" will display the method in use. If the system used Mu-Law, system parameter 3 should be set to System 75. If A-Law companding is used, that parameter should be set to Definity-ITAL.

8.8 Definity G3 software V3, load 046 or 046.1 will not support this integration. Request the PBX representative to upgrade the software to Load 053 or greater.

8.9 Digital ports must be provided in multiples of 2. It is invalid to only provide 1 link in a unit on the ATTIC. If TN754 circuit packs must be used, Vintage 10 or higher of the TN754 circuit pack is recommended.

8.10 The maximum number of ports supported for this integration is 64.

8.11 IP PHONES installed on Avaya PBXs integrated with voice messaging systems using Analog or Proprietary integrations may generate additional DTMF tones and cause errors when accessing voice mail. We have not seen this problem occur with IP Phones installed on Avaya PBXs using a digital QSIG integration to our voice messaging systems.

Revision	Issue Date	Reason for Change
Revision A	2/02	Initial release
Revision B	3/4/04	Added new consideration 8.11 & updated diagram Page 1

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