

# **ATTENDANT VECTORING**

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## **INSTALLATION AND USER GUIDE**

**NEC America, Inc.**

NDA-30099-002

Revision 2.0

April, 2000

Stock # 241691

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## Chapter 1 Introduction

Attendant Vectoring is an Open Application Interface (OAI) application that operates in conjunction with an operator application such as the Medical Center System and allows you to route calls to a specific group of stations. Without Attendant Vectoring, calls to an attendant enter a loop, ring all consoles, and can be answered by any one of the attendants. A call can also be placed to a specific attendant, if the console's extension is known. However, you cannot place a call to a subset of the attendants. With Attendant Vectoring, you can configure groups of attendants and route calls to these groups.

### Vectors

Each attendant group configuration within Attendant Vectoring is referred to as a **vector**. The most important configuration parameter for a vector is its monitored number. Incoming calls to a monitored number are routed according to the configuration of the vector. Each vector must have a unique monitored number.

Attendant Vectoring allows two types of vectors: a first party and third party vector. The first party vector is fairly easy to configure because all calls to its monitored number are routed to the same group of attendants. The figure below illustrates the call flow involved in a first party vector.

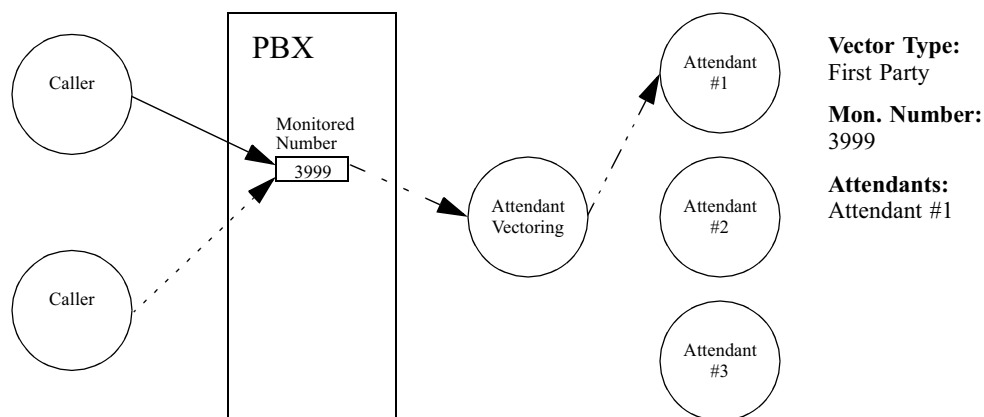
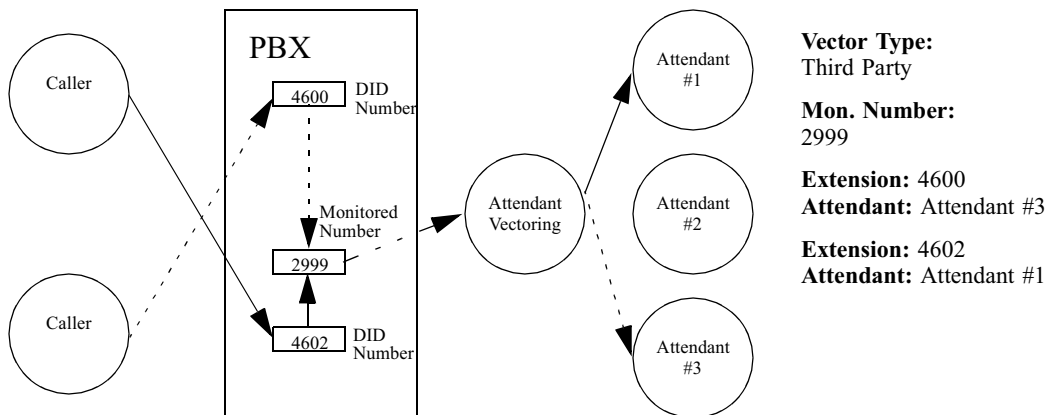


Figure 1-1 First Party Vector Call Flow

## Vectors (Cont)

The third party vector can be more difficult to configure because it can route calls to several different groups of attendants. The calls that come into the monitored number are routed according to the extension from which they were forwarded. Each forwarding extension can have a different group of attendants configured to answer the incoming calls.



**Figure 1-2 Third Party Vector Call Flow**

In the third party vector call flow example above, calls are only routed to one attendant. However, a vector can be configured to route to any number of configured attendants.

## Connection Types

After deciding where calls will be routed, the connection type must be selected. Attendant Vectoring allows the transfer of calls to the end of the normal console queue (transfer connection) or to join the calls directly to the console (join connection).

When a call is received for a vector with a transfer connection type, Attendant Vectoring decides which of the configured attendants will receive the call. The call is then transferred to the attendant's normal console queue.

For a vector with a join connection type, the call remains ringing on the monitored number while Attendant Vectoring displays a call-waiting notification on the screens of the configured attendants. Any one of the attendants can press an assigned function key to immediately join the call.

The join connection type can be used in cases where the attendant must answer the call differently than other incoming calls. The screen notification allows the attendant to view the source of the call before answering. The transfer connection type does not notify the attendant and should be used for vectors where the attendant can answer the incoming calls in the same manner as other incoming calls.



## Requirements

Two groups of hardware are required for any OAI application: the User Application Processor (UAP) and the Private Branch Exchange system (PBX). The recommended configuration for each of these groups is specified below.

### UAP Configuration

You must have one of the following UAP models described below:

- **The UAP1000**
  - 100mhz Intel Pentium Midtower
  - 8MB memory
  - SCSI controller
  - Quantum 1.2GB EIDE hard disk
  - 1.4MB 3.5" floppy disk drive
  - Tandberg 525MB SCSI tape drive
  - 3COM Ethernet card
  - SCO UNIX version 4.2 (16 users)
  - TCP/IP (unlimited users)
  - OAI: Application Platform Manager
  
- **The UAP2000 (stock #540094)**
  - 100mhz Intel AltServer
  - 16MB memory
  - SCSI controller
  - Quantum 1.2GB EIDE hard disk
  - 1.4MB 3.5" floppy disk drive
  - Tandberg 525MB SCSI tape drive
  - 3COM Ethernet card
  - Sunriver 8-port serial controller card
  - SCO UNIX version 4.2 (16 users)
  - TCP/IP (unlimited users)
  - OAI: Application Platform Manager
  - Informix On-Line (9-16 users)

**UAP Configuration  
(Cont)**

- **The UAP3000 (stock #540095)**
  - 166mhz Intel AltServer
  - 16MB memory
  - SCSI controller
  - Seagate 2.1GB SCSI hard disk
  - 1.4MB 3.5" floppy disk drive
  - Tandberg 525MB SCSI tape drive
  - 3COM Ethernet card
  - Sunriver 8-port serial controller card
  - SCO UNIX version 4.2 (32 users)
  - TCP/IP (unlimited users)
  - OAI: Application Platform Manager
  - Informix On-Line (17+ users)

**PBX Configuration**

Make sure that you have the following components:

- NEAX 2400 IMS/ICS with OAI compatible software, 5200 Release II or later.
- Interface Processor (IP) Unit (or OAI module).

The specific hardware associated with the IP varies with the NEAX configuration (IMG, MMG, UMG). Detailed lists of the hardware are provided in the *OAI System Manual* for the NEAX 2400 IMS.

**Software**

To use the Attendant Vectoring capability, you must use Medical Center System (MCS) 2.3.1.

## Chapter 2 Installation Procedures

Attendant Vectoring is configured into the APM system using the **Add** function of the Application Configuration option on the APM System Administration menu, as described below:

1. Enter the APM option from the APM Platform Management Menu.
2. Enter the System Administrator password in the APM password screen.
3. Enter the Application Configuration option from the System Administration menu.

Attendant Vectoring uses the autocfg (autoconfiguration) APM utility program to automatically configure Attendant Vectoring under the APM platform. This program runs upon installation. The list of prompts that display during autoconfiguration appear below. Type the appropriate value, and press **Enter**.

1. What tenant number will Attendant Vectoring operate in? (0 - 255)
2. Select the source and destination links from following list:
  - [1] source: OAI1TCP dest: PBX1TCP (TCP/IP protocol)
  - [2] source: OAI1X25 dest: PBX1X25 (X.25 protocol)
  - [o] other (specify)
  - [q] quit installationEnter bracketed value -->

**Note:** *If you enter [1] or [2], go to step 5.*

3. Specify source link -->
4. Specify destination link -->
5. Attendant Vectoring requires at least one off-hook suppressed phone for proper operation. Off-hook suppressed phones need to be configured as such using the PBX MAT terminal. Attendant Vectoring will allow up to five of these extensions. For high traffic sites, more extensions are recommended. An extra extension also provides a backup in case one of them fails.

Current list: none

[c] clear list

[d] done with list

Enter extension or bracketed value -->

6. Attendant Vectoring has the option of ringing a phone while calls are in queue. The ringer phone can be an analog phone. This functionality also requires an exclusive Dterm extension for this purpose. If a ringer phone is not desired, press enter at the prompt.
  - Ringer extension --->
  - Dterm extension --->

## Installation Procedures (Cont)

7. Attendant Vectoring will occasionally need to transfer a call directly to an operator without going through Attendant Vectoring. If you have a backup extension for Attendant Vectoring calls, configure that here. Otherwise the extension will default to 0.

Backup extension [0] --->

8.           Tenant Number: 1  
              Source Link: OAIITCP  
              Destination Link: PBX1TCP  
Off Hook Suppressed: 1006  
              Ringer Extension: 1000  
              Dterm Extension: 1001  
              Backup Extension: 0

Is this configuration of Attendant Vectoring acceptable? (y or n)

**Note:** *The APM configuration parameters are automatically set during the Attendant Vectoring installation. They are provided in [Chapter 4, "Application Configuration Requirements"](#) for reference in case the APM configuration is accidentally deleted.*

## Chapter 3 Operating Procedures

Once configured, Attendant Vectoring does its job in the background with little user interaction. As Attendant Vectoring calls come in, the operator will be notified and will be able to take the call by pressing a specified key on the keyboard.

### Initialization

Attendant Vectoring is initialized from the *APM Non-CRT Application Control* menu and uses the Vector Daemon and Vector Server APM programs. When initializing the Attendant Vectoring system, only Vector Daemon needs to be initialized. Vector Server is started by Vector Daemon if it is not already running.

Attendant Vectoring tries to activate any configured vectors on start-up. If the monitored number assigned to the vector cannot be monitored, the vector is considered inactive.

### Answering Attendant Vectoring Calls from MCS

When you are using MCS, incoming calls are displayed in the Attendant Status window in the lower left side of your screen. You can answer calls by pressing a specified function key; the default function key is F12. The MCS format for the incoming call notification is displayed in the figure below:



The figure shows a rectangular box with a black border containing the text "Vector One [3]" in a large, black, serif font. The text is centered within the box.

**Figure 3-1 MCS display of Incoming Attendant Vectoring Call**

The displayed vector name (e.g. Vector One) indicates the source of the call at the top of the queue. The number in brackets to the right of the vector name indicates the number of calls currently waiting to be answered. All of the calls in the queue are not necessarily from the displayed vector. Once the operator answers a call by pressing the appropriate function key (default key =F12), the call waiting counter will decrement and the vector name may or may not change depending on the source of the next call.

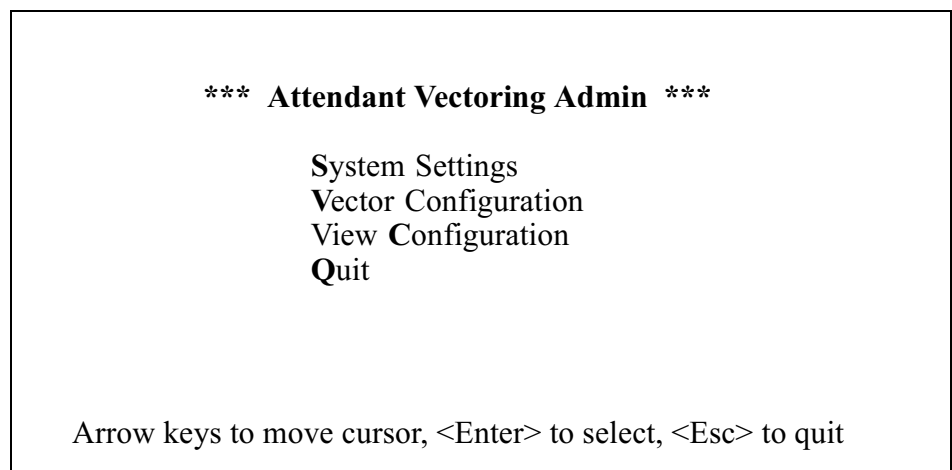
## System Settings and Vectors

The Attendant Vectoring configuration menus are accessible to the MCS supervisory user. From the Attendant Vectoring Admin menu, you can make system settings and configure vectors. You can also view the current configuration of specific vectors.

Use the following steps to display the Attendant Vectoring Admin screen:

1. After logging into the MCS, select **System Administration**.
2. From the MCS System Administration screen, select **MCS Application Admin**.
3. From the MSC Application Admin screen, select **Attendant Vectoring**.

The Attendant Vectoring Admin screen displays, as illustrated below:



**Figure 3-2 Attendant Vectoring Administration Main Menu**

## Configuring System Settings

The System Settings screen allows you to manipulate system-wide data elements. To configure the system settings, use the following steps:

1. Select **System Settings** from the Attendant Vectoring Admin screen.  
The System Settings screen appears.

**\*\*\* System Settings \*\*\***

Tenant Number:  
Ringer Extension (actual):  
Ringer Extension (Dterm):  
Off Hook Suppressed Phone #1:  
#2:  
#3:  
#4:  
#5:  
Backup Extension:

**Modify      Quit**

**Figure 3-3 System Setting Screen**

2. Select **Modify**.  
The first field highlights for data entry.

## Configuring System Settings (Cont)

3. Type the appropriate information in each field, and press **Enter**. Each of the System Settings fields is described below:

- Tenant Number** All the system-wide extension numbers must reside on the same tenant number
- Ringer Extensions** The *actual* ringer extension is the extension that rings when a call enters the Attendant Vectoring call queue. This extension can be an analog or digital phone and is typically placed by the attendant consoles. The *Dterm* ringer phone is needed in order to make the *actual* extension ring and must always be idle. The ringer extensions are not required and will default to *NONE* if you do not make an entry.
- Off-hook Suppressed Phones** The off-hook suppressed phones are vital to the operation of Attendant Vectoring if any vectors are to be joined to the attendant. An off-hook suppressed phone *must* be a D<sup>term</sup>, *must* be configured for off-hook suppression using the MAT terminal, and *must* remain off hook at all times. For proper Attendant Vectoring operation, at least one off-hook suppressed phone is required, but up to five can be configured. Multiple off-hook suppressed phones should be used for implementations with heavy call traffic. We also recommend that you configure at least two off-hook suppressed phones for all implementations for backup purposes.
- Backup Extension** Attendant Vectoring uses the backup extension to send incoming calls that could not be routed in a normal manner. This number defaults to 0 but can be set to any extension or hunt group.

4. After you press Enter in the last field, the message **Do you want to insert this? (Y/N)** displays. Type **Y** and press **Enter** to save your entries.



## Configuring Vectors

The Vector Configuration screen gives you access to screens that enable you to enter all vector-specific configuration parameters for first party and third party vectors. The screens that you use to configure vectors are described below:

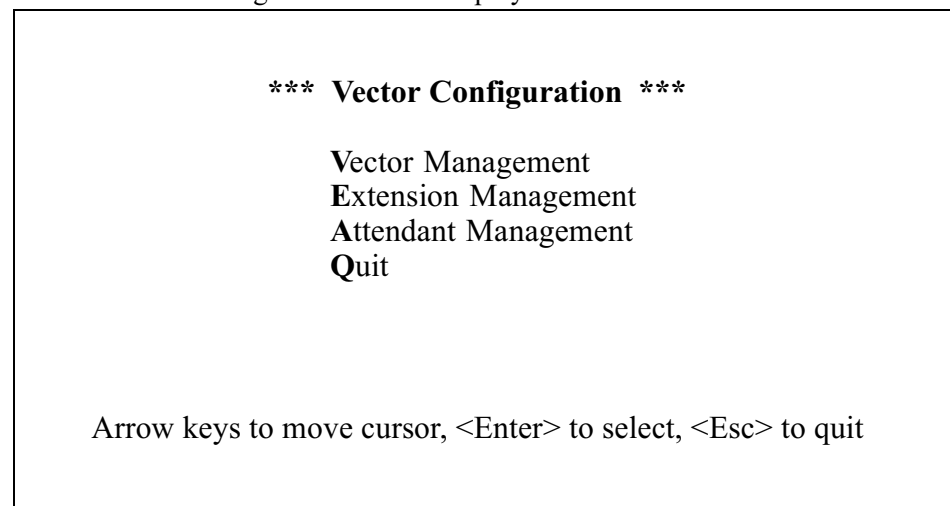
<b>Vector Management</b>	Allows you to enter all vector-wide parameters, including the vector name.
<b>Extension Management</b>	Allows you to enter all of the extensions forwarded to the monitored number for third party vectors. If you are configuring a first party vector, you do not need to access this screen.
<b>Attendant Management</b>	For first party vectors, allows you to enter all of the attendants that will answer for the specified vector. For third party vectors, allows you to enter the attendants that will answer for a particular extension.

Use the following steps to configure vectors:

- If you are adding a new vector, begin with step [1](#).
- If you want to add or delete an extension from a third party vector, select **Vector Configuration** from the Attendant Vectoring screen, and go to step [6](#).
- If you want to enter or delete the attendants that will answer for a first party vector or the attendants that will answer for a particular extension for a third party vector, select **Vector Configuration** from the Attendant Vectoring screen, and go to step [10](#).

**Note:** *You can only configure 15 vectors within Attendant Vectoring.*

1. From the Attendant Vectoring Admin screen, select **Vector Configuration**. The Vector Configuration screen displays.



**Figure 3-4 Vector Configuration Screen**

## Configuring Vectors (Cont)

### 2. Select **Vector Management**.

The Vector Management screen displays.

**\*\*\* Vector Management \*\*\***

Vector Name:  
 Monitored Number:  
 Tenant Number:  
 Pipe Name:  
 Max Calls on Att:  
 Connect Type:  
 Vector Type:

**Add    Modify    Delete    Quit**

**Figure 3-5 Vector Management Screen**

### 3. Do one of the following:

- To add a vector, select **Add**. The first field is highlighted for data entry.
- To modify a vector, select **Modify**, then select a vector name from the display box, and press **Enter**.
- To delete a vector, select **Delete**. Next, select the vector name that you want to delete from the display box, and press **Enter**. The message *Do you want to delete this? (Y/N)* displays. Type **Y** and press **Enter** to delete the selected vector.

### 4. Type the appropriate information in each field, and press **Enter**. Each of the Vector Management fields are described below:

- Vector Name** The desired name for the vector, up to 15 characters. This name may appear on the operator screens, depending on the vector type.
- Monitored Number** Each vector must have a monitored number. All calls that come into this monitored number are routed according to the configuration of the vector. The monitored number must be configured in the PBX using the AMNO MAT command.
- Tenant Number** The tenant number that corresponds to the specified monitored number. This tenant number does not have to be the same as the number that is configured in the system settings.
- Pipe Name** Attendant Vectoring is designed not only to route calls to operators but also to monitor the status of the calls. Applications can be designed to receive call status messages through a UNIX named pipe. These applications also can send messages to activate and deactivate vectors. When you enter the full path name of the named pipe, Attendant Vectoring attempts to send these call status messages.

<b>Maximum Calls on Attendant</b>	The maximum number of Attendant Vectoring calls that can be connected to and on hold to an operator at one time. If you select the <i>Unlimited</i> option, then no checks on the number of calls answered by an operator will be performed.
<b>Connection Type</b>	Attendant Vectoring can use either of the two methods described below to route a call to an operator: <b>Transfer</b> — After receiving notification that a call has come into the monitored number, the system chooses an operator to which to send the call, and transfers the call directly to the console where that operator is logged on. These calls will be placed at the end of the console call queue and are answered as any other call. <b>Join</b> — Incoming calls are presented on the screens of the operators who are configured to answer the call. When the operator presses a configured keyboard function key (default key = F12), the call is <i>immediately</i> connected to the operator's console. The basic difference between the transfer and join methods is that the joined calls are announced while transferred calls appear as any other call.
<b>Vector Type</b>	The types of vectors can be configured in Attendant Vectoring include: <b>First Party</b> — Each first party vector is assigned a group of attendants to answer any incoming calls to its monitored number. Every call that comes in is transferred or joined to the same group of attendants. <b>Third Party</b> — Each third party vector can be assigned a group of extensions. Each extension is then assigned a group of attendants. When a call comes in, Attendant Vectoring determines from where the call was forwarded. The forwarding party is referred to as the third party. The third party of the call is matched up with one of the group of extensions assigned to this third party vector. When a match is found, the call is either transferred or joined to the group of attendants assigned to the third party extension. <b>Third Party [Corr]</b> — This vector is essentially the same as the third party vector except that when an incoming call is detected, Attendant Vectoring waits for a third party correction message from another application. This message contains the correct forwarding party. The call is then routed as a normal third party vector call.

5. After you press Enter in the last field, the message *Do you want to insert this?* (Y/N) displays. Type **Y** and press **Enter** to save your entries.

6. If you are configuring a third party vector, select **Extension Management** from the Vector Configuration screen. The Extension Management screen displays. From this screen, you can enter all of the extensions forwarded to the monitored number. If you are configuring a first party vector, continue to step 10.

**\*\*\* Extension Management \*\*\***

Vector Name:  
 Extension Name:  
 Extension:

**Add    Delete    Quit**

**Figure 3-6 Extension Management Screen**

7. Do one of the following:
- To add an extension to a vector, select **Add**, and select the vector name from the display box to which you want to add an extension.
  - To delete an extension from a vector, select **Delete**, select the vector name that you want to delete from the display box, and press **Enter**. The message *Do you want to delete this? (Y/N)* displays. Type **Y** and press **Enter** to delete the extension.

**Note:** *You can only enter 700 extensions in a third party vector.*

8. Type the appropriate information in each field, and press **Enter**. Each of the Extension Management fields is described below:

**Vector Name** A list of the third party vectors currently configured. To select a vector name press **Enter** while the name is highlighted.

**Extension Name** The name used to describe incoming third party vector calls to the operators. This field can contain a maximum of 15 characters.

**Attendant Name** The extension that is expected to forward calls to the vector's monitored number. This extension can be a real or a virtual extension.

9. After you press Enter in the last field, the message *Do you want to insert this? (Y/N)* displays. Type **Y** and press **Enter** to save your entries.

10. To enter all the attendants that will answer for a first party vector or enter the attendants that will answer for a particular extension for a third party vector, select **Attendant Management** from the Vector Configuration screen. The Attendant Management screen displays.

**\*\*\* Attendant Management \*\*\***

Vector Name:  
 Extension Name:  
 Attendant Name:

Add      Delete      Quit

**Figure 3-7 Attendant Management Screen**

11. Do one of the following:
- To add an attendant to a vector or extension, select **Add**, select the vector name from the display box to which you want to add an extension, and press **Enter**. Choose an *Attendant Name* and/or an *Extension Name* as described in step 12. Press **Enter**.
  - To delete an attendant to a vector or extension, select **Delete**, and select the vector name that contains the attendant that you want to delete. Choose an *Attendant Name* and/or an *Extension Name* as described in step 12. Press **Enter**. The message **Do you want to delete this? (Y/N)** displays. Type **Y** and press **Enter** to delete your entries.
12. Select the appropriate information for each field, and press **Enter**. Each of the Attendant Management fields is described below:

<b>Vector Name</b>	A list of the currently configured vectors. To select a vector name press <b>Enter</b> while the name is highlighted.
<b>Extension Name</b>	If the vector selected in the <i>Vector Name</i> field is a first party vector, this field is skipped. If the selected vector is a third party vector, select the extension name that is to be assigned an attendant. To select all extensions, press <b>Enter</b> while <b>All</b> is highlighted. To select a specific extension, press <b>Enter</b> while <b>Select</b> is highlighted and select an extension
<b>Attendant Name</b>	When adding an attendant, the list presented will contain all the attendants on the system that are not currently assigned for this extension or vector. When deleting an attendant, all the attendants currently assigned to the vector or extension are displayed. To select all attendants, press <b>Enter</b> while <b>All</b> is highlighted. To select a specific attendant, press <b>Enter</b> while <b>Select</b> is highlighted and select an attendant.

13. After you press Enter in the last field, the message **Do you want to insert this? (Y/N)** displays. Type **Y** and press **Enter** to save your entries.

## View Configuration

The View Configuration screen allows you to view and/or print configured vectors. You can only view one vector at a time. To view an attendant vector configuration, use the following steps:

1. Select **View Configuration** from the Attendant Vectoring Admin screen.
2. Select the vector you want to view from the display box, and press **Enter**. The selected vector displays.

```

Top of File
  Vector Name: PhyAns
Monitored Number: 2525
  Tenant Number: 1
    Pipe Name: /oai/app/phyans/npipe/phyans
  Max Calls on Att: Three
  Connect Type: Join
  Vector Type: Third Party [Corr]
Extension Name      Extension      Attendants
-----
Dr. Jones          1234
                   SUSAN
                   MARY
-----
End of File

      DownPage      UpPage      Search      Top      Bottom      Print      Quit
  
```

**Figure 3-8 View Configuration Screen**

3. To view another vector configuration, you must exit the display, and select another vector from the View Vector Configuration screen.

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## Chapter 4 Application Configuration Requirements

Attendant Vectoring requires certain configuration parameters for proper operation. The following sections describe the correct configurations.

### APM Configuration Parameters

The APM configuration parameters are automatically set during the Attendant Vectoring installation. They are provided here for reference in case the APM configuration is accidentally deleted.

#### Vector Daemon

OAI Application:	N
CRT Application:	N
Communication Queue:	Y
Application Name:	Vector_Daemon
Executable Filename:	/oai/app/attvect/bin/vectdmn
Group:	ATTVECT
Response Mode:	Notify
Initialization Batch:	Y
Termination Mode:	M
Standard Output:	/dev/null
Number of Restarts:	*
Queue Key:	910

The first and second user-defined variables are the APM application names for Vector Daemon and Vector Server. If the application name changes, you must also change these variables.

User Defined # 1:	Vector_Daemon
User Defined # 2:	Vector_Server

The third and fourth user-defined variables are the configuration files needed by Vector Daemon.

User Defined # 3:	/oai/app/attvect/cfg/sysfile
User Defined # 4:	/oai/app/attvect/cfg/vectfile

The twelfth through the fourteenth user-defined variables are reserved for monitoring and logging purposes. The twelfth variable is a file name that will be updated constantly with the current status of any calls in Attendant Vectoring. The thirteenth variable is the actual file that will contain the logging information. Note that at the higher log levels the log file can become very large if there is a large amount of traffic. As a result, this file is archived once a day. The fourteenth variable is the logging level. One is the lowest level of detail and nine is the highest level of detail.

User Defined # 12:	/oai/log/dbg/vectdmn.diag
User Defined # 13:	/oai/log/dbg/vectdmn.dbg
User Defined # 14:	9

**Vector Server**

OAI Application:	Y	
CRT Application:	N	
Communication Queue:	N	
Application Name:	Vector_Server	
Executable Filename:	/oai/app/attvect/bin/vectorsrv	
Group:	ATTVECT	
Response Mode:	Ignore	
Initialization Batch:	N	
Termination Mode:	M	
Standard Output:	/dev/null	
Number of Restarts:	0	
Database Name #1:		
Database Name #2:		
Timeout Value #1:	0	
Timeout value #2:	0	
Tenant Number (0-255):	1	<site dependent>
Source Link Name:	OAI1TCP	<site dependent>
Destination Link Name:	PBX1TCP	<site dependent>
Association Recovery:	0	
User Defined # 8:	37122 or 37123 (error #)	
User Defined # 9:	3	
User Defined # 13:	/oai/log/dbg/vectorsrv.log	
User Defined # 14:	1	

The eighth user-defined variable is the error code that is returned from the PBX indicating locked attendant memory.

The ninth user-defined variable is the number of times Attendant-Vector is to retry after receiving the error code indicated in User Defined # 8 above.

The thirteenth and fourteenth user-defined variables are reserved for logging purposes. The thirteenth variable is the actual file that will contain the logging information. Note that at the higher log levels the log file can become very large if there is a large amount of traffic. As a result, this file is archived once a day. The fourteenth variable is the logging level. One is the lowest level of detail and nine is the highest level of detail.

Facilities:

SCF	Switch Control
SMFR	Status Request (R)
SMFN	Status Notification (N)

**Application Configuration Parameters**

See [“System Settings and Vectors” on page 8](#) for information on application configuration parameters.

## Chapter 5 Support Utilities and Tools

Attendant Vectoring includes several utilities that can be helpful during installation.

### extract

The extract utility is stored in the Attendant Vectoring utility directory */oai/app/attvect/utls*. This utility is a UNIX script that will read in a user provided file that consists of an extension name and an extension in the following format (one per line):

Dr. Jones|1234

Note that the extension name and extension are separated by a pipe character '|'.  
Usage for the extract utility is as follows:

Usage for the extract utility is as follows:

```
extract <vector_name> <att_flag> <file_name>
```

vector_name	-	Name of the vector to which extensions will be added. If the vector name has a space in it, it must be surrounded by quotations.
att_flag	-	Must be ALL or NONE - ALL assigns every attendant in the system to answer for every extension in the file.
file_name	-	The name of the file that contains the pipe delimited extension names and extensions.

Example:

```
extract "Vector Name" ALL extfile
```

## avdb

The avdb utility is stored in the Attendant Vectoring utility directory */oai/app/attvect/utills*. You can use this utility to configure vectors from the UNIX command line. The avdb utility usage is as follows:

avdb usage:

```
avdb -v <vector_name> <monnumb> <tno> <pipename> <maxcalls>  
      <vecttype(1 or 3)> <conntype(T or J)> [correct(Y or N)]>
```

```
avdb -e <vector_name> <extn_name> <extn> <att_flag(ALL or  
      NONE)>
```

```
avdb -a <vector_name> <extn_name> <att_name>
```

-v Adds a vector configuration

-e Adds an extension configuration  
The att\_flag parameter will automatically assign all the attendants in the system to the extension being added.

-a Adds an attendant configuration

## Appendix A Glossary

<b>APM</b>	<b>Application Platform Manager</b> (a.k.a. Applications Manager). The support platform (software) which resides on the User Application Processor and provides the user with management capabilities within the Open Applications Interface system.
<b>CCIS</b>	<b>Common Channel Interoffice Signalling</b> . A protocol scheme used to form a network of NEAX2400 systems.
<b>Dterm</b>	<b>Digital Terminal</b> . An intelligent microprocessor-controlled device which supports feature capabilities offered by the NEAX2400 IMS.
<b>First Party Vector</b>	A vector that routes calls according to the monitored number called.
<b>IMG</b>	<b>Interface Module Group</b> . The modular configuration of the NEAX2400 IMS that provides access to 736 ports for stations, trunks, and other terminal devices.
<b>IP</b>	<b>Interface Processor</b> . A module within the NEAX2400 IMS which services the OAI system.
<b>LCD</b>	<b>Liquid Crystal Display</b> . The display screen on the D <sup>term</sup> telephone.
<b>LED</b>	<b>Light-Emitting Diode</b> . The lamp associated with a function key on a D <sup>term</sup> telephone, or the message waiting lamp on a single-line phone.
<b>MAT</b>	<b>Maintenance Administration Terminal</b> . Personal computer and menu-driven software used to access and manage the NEAX2400 IMS software and database.
<b>MMG</b>	<b>Multiple Module Group</b> . The modular configuration of the NEAX2400 IMS that provides access to at least 737 ports but not more than 5521 ports.
<b>OAI</b>	<b>Open Applications Interface</b> . A proprietary protocol and set of routines that links the NEAX2400 IMS with a UAP. Programs executing on the UAP are able to monitor and control switch features and telephones.
<b>PBX</b>	<b>Private Branch Exchange</b> . A digital voice and data communication system for large and small businesses, including hotels, hospitals, schools, and offices. NEC's PBX is the NEAX2400 IMS/ICS.
<b>Third Party Vector</b>	A vector that routes calls according to the party from which the call was forwarded.

<b>UAP</b>	<b>User Application Processor.</b> General purpose multi-tasking computer supporting System V UNIX and the Applications Manager running OAI.
<b>UMG</b>	<b>Ultra Module Group.</b> The modular configuration of the NEAX2400 IMS that handles from 5,521 to 23,184 ports.
<b>Vector</b>	A set of configuration parameters within Attendant Vectoring that specify the method of call routing and a group of attendants able to answer the call.

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