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Chapter 1  INTRODUCTION

This manual provides the information needed to configure and operate the Attendant Monitor software application.

How To Use This Manual

This manual describes the various screens, windows and functions for the installation, configuration and operation of Attendant Monitor. Examples of displayed screens and step-by-step procedures are shown in the following chapters. The procedural steps to perform a given task are given in sequence and marked as shown below:

Step 1:  From the Main Menu, select...

Manual Organization

Chapter 1 - Introduction
This chapter details how to use this manual, the actual manual organization, and an overview of the Attendant Monitor application.

Chapter 2 - Installation and Configuration
Chapter 2 describes how to install and configure the application, along with the key usage conventions, main menu screen, and an overview of the main menu functions.

Chapter 3 - Administrator Tasks
This chapter describes the various functions and tasks available to maintain the Attendant Monitor databases.

Chapter 4 - Attendant Tasks
Chapter 4 describes the basic attendant functions and tasks.
What is *Attendant Monitor*?

**Overview**

*Attendant Monitor* is an application that will accumulate attendant statistics when attendant consoles are used in a stand alone environment. *Attendant Monitor* serves as the event collector for the Attendant Console Statistics application, detecting events generated by the attendants and the PBX, and sending messages to the Attendant Console Statistics Logger component. The Logger parses the messages and saves the statistic data in an Informix Database. The data is then used to generate attendant statistic reports.

**Note:** *Attendant Monitor* is not required if Attendant Console Statistics is used with the Hospitality Center System (HCS) or the Medical Center System (MCS), since these applications serve as event collectors.

The following diagram illustrates how *Attendant Monitor* interfaces with the Attendant Console Statistics application.
Chapter 2  INSTALLATION & CONFIGURATION

This chapter provides a step-by-step description of the installation, initial configuration, and Main Menu functions for Attendant Monitor. Before proceeding with the configuration, ensure that the SCO UNIX operating system and the Applications Manager (APM) platform software are installed on the system.

The Applications Manager Operations Manual provides detailed instructions for using the APM menus and for completing the data entry screens illustrated in this manual. NEAX2400 IMS system manuals provide the procedures for making the data assignments at the NEAX MAT.

Installation Procedure

This section describes the procedures to install the Attendant Monitor application software. Follow the procedure below to install the software.

Note: Some keyboards use a marked Return key for the carriage return function. Other keyboards mark this function key as Enter. The installation procedure will identify this function as Return (Enter). When the procedure indicates, use the appropriate marked key on your particular keyboard.

To begin the Attendant Monitor software installation, type apmadm at the UNIX login prompt and press Enter.

(If your “apmadm” account requires a password, enter the “apmadm” password at the subsequent password prompt.)

Continue with the installation on the following pages...
APM Administration Main Menu.

Type ‘i’ in the “Enter Option: [ ]” field to select “Installation of Applications/ Packages” and press Enter.

**Note**: The APM Platform release and date may vary from this example.

**Attendant Monitor** is an application. When prompted for the package to be installed, type ‘applications’ and press Enter.

You are asked to select the installation media. Type ‘F’ for “Floppy Disk Device” and press Enter.

**Note**: The standard Floppy Disk Device will be a 3.5 inch type.
Next, you are requested to insert the 
*Attendant Monitor* installation diskette 
in the Floppy Disk Device.

Insert the diskette and press **Enter** to 
continue.

**Note:** *The Attendant Monitor* 
installation diskette will be a 3.5 inch type.

The screen displays the files as they are 
loaded from the media. Some files may 
scroll off the screen, until all the files 
from the diskette have been processed.

You are asked if all of the application 
release media (diskettes) have been 
processed. Type ‘**n**’ for any additional 
diskettes for *Attendant Monitor*. When 
all diskettes have been loaded, type ‘**y**’ 
(yes) and press **Enter**.

**Note:** The number of bytes, tape blocks, 
and/or files may vary from this example.

APM installation begins, processing all 
of the *Attendant Monitor* installation 
files and checking them for correctness. 
The screen indicates the status of this 
installation.

**Note:** Some revisions and dates may vary 
from this example.
Select the installation option for *Attendant Monitor*. For a new installation, type 'I' and press Enter. The installation of files will now begin.

If performing an upgrade, type U and press Enter. If you wish to Cancel the installation at this time, type 'C' and press Enter.

Screen messages show the installation and backup directories being installed.

Status messages show the installation of various files.
Status messages show the installation and configuration of the first Attendant Monitor main component.

At the prompt, press **Enter** to continue the installation.

Status messages show the progress of the Attendant Monitor installation. When all files have been set-up by the installer, the Attendant Monitor installation is complete.

Press **Enter** to exit this screen and return to the APM Main Menu.

Proceed to the next page to configure the APM and various components...
Application Configuration

Since Attendant Monitor is internally supported by the APM, its component must be configured in the APM environment. This section provides the information that must be entered into the APM configuration file.

Attendant Monitor is set-up in the APM system using the Add function of the Application Configuration option on the APM System Administration menu.

A Note on Selecting Commands
In the following procedures, a step may call for pressing the Tab key to select a command. It may be necessary to press the Tab key multiple times in order to select the specific command. When reading a step, understand to press the Tab key (as needed) to select the specified command.

APM System Configuration

Follow the steps to configure the APM system for Attendant Monitor.
- Enter the APM option from the APM Platform Management menu.
- Enter the System Administrator password at the APM password screen.
- Select the Application Configuration option from the System Administration menu.

AttendantMonitor Component

Attendant Monitor has one component that must be configured through the APM.

AttendantMonitor – Detects events generated by attendants and the PBX, then sends messages to the Attendant Console Statistics Logger component.

Define the AttendantMonitor component Characteristics in the APM environment exactly as shown in the table:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAI Application</td>
<td>Y</td>
<td>Whether (Yes or No) the component communicates with the NEAX2400 using OAI processes.</td>
</tr>
<tr>
<td>CRT Application</td>
<td>N</td>
<td>Whether (Yes or No) the component runs on the same screen as the APM, rendering the APM temporarily inaccessible.</td>
</tr>
<tr>
<td>Communication Queue</td>
<td>N</td>
<td>Communication Queue whether (Yes or No) the component needs an IPC queue to communicate with other processes.</td>
</tr>
</tbody>
</table>
From the APM Configuration Entry screen, configure the **AttendantMonitor** component as follows. All parameters marked with asterisks (*) should be entered **exactly** as shown. The rest of the entries in the table below are just examples.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Entry Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Name</td>
<td>AttendantMonitor</td>
<td>The name to be displayed in the APM menus. This name is displayed as it is entered here — i.e., capital letters, lowercase, etc.</td>
</tr>
<tr>
<td>Executable Filename*</td>
<td>/oai/app/attMonitor/bin/attMonitor</td>
<td>The path name of the executable file.</td>
</tr>
<tr>
<td>Group*</td>
<td></td>
<td>The group that the component belongs to. Make no entry.</td>
</tr>
<tr>
<td>Response Mode*</td>
<td>I(gnore)</td>
<td>The action that the APM is to take with the component should a member of the group terminate.</td>
</tr>
<tr>
<td>Initialization Batch</td>
<td>N(o)</td>
<td>Whether (Yes or No) the component is to be initialized automatically when the OAI system is initialized.</td>
</tr>
<tr>
<td>Termination Mode*</td>
<td>M(essage)</td>
<td>How the APM is to notify the component to terminate.</td>
</tr>
<tr>
<td>Standard Output</td>
<td>/dev/null</td>
<td>Where any output is sent.</td>
</tr>
<tr>
<td>Number of Restarts</td>
<td>0</td>
<td>How many times the APM may restart the component after it terminates in error.</td>
</tr>
</tbody>
</table>

**OAI Facilities**

Following the instructions in the *APM Operations Manual*, name the following NEAX2400 facilities for the AttendantMonitor component using the **Facilities** command on the APM Configuration Entry screen:

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

*Continue to the next page for OAI-Conf settings...*
OAI-Conf Settings

Use the OAI-Conf command on the APM Configuration Entry screen to make the necessary parameter entries. For parameters shown with an asterisk (*) in the table below, make entries exactly as shown. The other parameters are shown with sample entries that may be changed to meet site requirements. Use the instructions provided for this option in the APM Operations Manual:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Entry Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Database Name #1*</td>
<td>/oai/db/cur/tenants</td>
<td>The path name of the tenant number database.</td>
</tr>
<tr>
<td>Database Name #2*</td>
<td>/oai/db/cur/Attmon</td>
<td>The path name of the Attendant Monitor database.</td>
</tr>
<tr>
<td>Timeout Value #1</td>
<td>0</td>
<td>Unused</td>
</tr>
<tr>
<td>Timeout Value #2</td>
<td>0</td>
<td>Unused</td>
</tr>
<tr>
<td>Tenant Number</td>
<td>1</td>
<td>Default Tenant Number</td>
</tr>
<tr>
<td>Source Link Name</td>
<td>OAI1TCP</td>
<td>Port on the source side of the communication link. Entry should match a link name in the APM system configuration file.</td>
</tr>
<tr>
<td>Destination Link Name</td>
<td>PBX1TCP</td>
<td>Port on the destination side of the communication link. Entry should match a link name in the APM system configuration file.</td>
</tr>
<tr>
<td>Association Recovery</td>
<td>30</td>
<td>Number of seconds Attendant Monitor waits before trying to reestablish an association with the NEAX that has been released.</td>
</tr>
</tbody>
</table>

User-Defined Parameters

No user defined parameters are used in Attendant Monitor. Therefore, all user defined parameters are blank.

Continue to the next page for Database Support...
Database Support

*Attendant Monitor* requires two APM databases: the *Attendant Monitor* database and the Tenant Number Database. These databases are created with default values during initial software installation, but specific records must be added before *Attendant Monitor* is enabled.

**Attendant Monitor Database**

The *Attendant Monitor* database (attmon) consists of a Master Database file component and an Application Database file component.

**Master Database File - filename ‘attmon’**.

The attmon master database structure and example entries are shown in the table below.

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Type</th>
<th>Size</th>
<th>Min. Value</th>
<th>Max. Value</th>
<th>Example Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitored Number</td>
<td>A</td>
<td>6</td>
<td></td>
<td>5000</td>
<td></td>
</tr>
<tr>
<td>Attendant Name</td>
<td>A</td>
<td>8</td>
<td></td>
<td></td>
<td>Smith</td>
</tr>
<tr>
<td>TTY</td>
<td>A</td>
<td>25</td>
<td></td>
<td>5000</td>
<td></td>
</tr>
<tr>
<td>Supervisor Flag</td>
<td>A</td>
<td>1</td>
<td>n</td>
<td>n</td>
<td></td>
</tr>
</tbody>
</table>

**Field Definitions**

- The **Monitor Number** field specifies the monitor number the attendant will dial to log on and log off the system.
- The **Attendant Name** field specifies the attendant name that will be used in attendant reports.
- The **TTY** field specifies the unique TTY device used by the attendant. Since stand alone attendants do not use an actual TTY device, the monitored number value may be entered again in this field to ensure that the TTY value is unique.
- The **Supervisor Flag** fields specifies if the attendant is a supervisor. It may be set to ‘Y’ or ‘y’ to indicate the attendant is a supervisor, or to ‘N’ or ‘n’ to indicate the attendant is not a supervisor.

**Application Database File - filename ‘Attmon’**.

The Attmon application database structure is shown in the table below:

<table>
<thead>
<tr>
<th>Field Description</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitored Number</td>
<td>ASCII</td>
</tr>
<tr>
<td>Attendant Name</td>
<td>ASCII</td>
</tr>
<tr>
<td>TTY</td>
<td>ASCII</td>
</tr>
<tr>
<td>Supervisor Flag</td>
<td>ASCII</td>
</tr>
</tbody>
</table>
Configuring the *Attendant Monitor* Database

The database is initially blank. It must be configured before the *Attendant Monitor* application can operate. The database values are set using the APM Applications Manager Main Menu-- Selecting the **Application Configuration** option. The general sequence is the following:

1. **Build a Master Database File**
   Enter data into the master database fields to add the necessary Monitored Number, Attendant Name, TTY, and Supervisor Flag values for *Attendant Monitor*.

2. **Process the Application Database**
   Use the **Process Application Databases** option on the APM Database Administration menu to create the application database file. (When the **Process** option is activated, data is drawn from the master database and converted to the formats specified in the application definition file.)

3. **Install the Application Database**
   Use the **Install Application Databases** option on the APM Database Administration menu to enable *Attendant Monitor* to copy its database.

**Note:** Refer to the APM Operations Manual for more detailed instructions on adding a database.

**AMNO: PBX assignment of Monitored Number**

Each monitored number that is specified in the *Attendant Monitor* database must be created on the PBX using the AMNO command.

**Note:** Refer to the NEAX2400 IMS system manuals for detailed procedures for making the data assignments at the NEAX MAT.

*Continue to the Tenant Number database on the next page...*
**Tenant Number Database**

The Tenant Database is an APM database used by the *Attendant Monitor* application and other OAI applications. It provides a mechanism for retrieving the tenant number of an extension.

The Tenant Number database consists of a Master Database file component and an Application Database file component:

**Master Database File - filename 'tenant_m'**.

The *tenant_m* master database structure and example entries are shown in the table below:

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Type</th>
<th>Size</th>
<th>Min. Value</th>
<th>Max. Value</th>
<th>Example Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Extension</td>
<td>ASCII</td>
<td>10</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Last Extension</td>
<td>ASCII</td>
<td>10</td>
<td></td>
<td>99999</td>
<td></td>
</tr>
<tr>
<td>Tenant Number</td>
<td>Numeric</td>
<td>3</td>
<td>1</td>
<td>255</td>
<td>1</td>
</tr>
</tbody>
</table>

**Field Definitions**

- The **Tenant Number** field contains the Tenant Number that is used by one or more extensions. Tenant Numbers are associated with extensions using the following methods:
  - A Tenant Number may be associated with a set of extensions defined by the *First* and *Last Extension* fields. The First Extension field contains the smallest extension number in the set, and the Last Extension field contains the largest extension number in the set.
  - A Tenant Number may be associated with a single extension by setting the First and Last Extension fields to the same extension value.
  - A Tenant Number may be associated with a single extension that contains a non-numeric character such as '*' or '#'. The First Extension field contains the extension value, and the Last Extension field is left blank.

**Application Database File - filename 'tenants'**.

The *tenants* application database structure is shown in the table below:

<table>
<thead>
<tr>
<th>Field Description</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Extension</td>
<td>ASCII</td>
</tr>
<tr>
<td>Last Extension</td>
<td>ASCII</td>
</tr>
<tr>
<td>Tenant Number</td>
<td>Short Integer</td>
</tr>
</tbody>
</table>
Tenant Number Database (cont)

Configuring the Tenant Number Database
This database must be configured before the Attendant Monitor application can operate. The database values are set using the APM Applications Manager Main Menu-- Selecting the Application Configuration option. The general sequence is the following:

1. **Build a Master Database File**
Enter data into the master database fields to add the necessary phone line numbers.

2. **Process the Application Database**
   Use the Process Application Databases option on the APM Database Administration menu to create the application database file.
   (When the Process option is activated, data is drawn from the master database and converted to the formats specified in the application definition file.)

3. **Install the Application Database**
   Use the Install Application Databases option on the APM Database Administration menu to enable Attendant Monitor to copy its database.

**Note:** Refer to the APM Operations Manual for more detailed instructions on adding a database.

Initialize Component

The Attendant Monitor component must be initialized from the APM. Follow the steps below to initialize the Attendant Monitor component:

- On the APM System Operations Menu, select the Non-CRT Application Control option.

- Use the Initialize command to start up the “AttendantMonitor” component.

*This completes the Attendant Monitor application installation and configuration...*
Chapter 3  ADMINISTRATOR TASKS

A change of attendant personnel or changes to monitored numbers will require the databases used by Attendant Monitor to be modified. Specific database records must be modified to reflect these changes. The following must be changed:

- **Attendant Monitor Database** to reflect changes to attendant names, numbers, or other values.
- **AMNO** command to make changes on the PBX.
- **Tenant Number Database** for any changes to numbers.

Perform the following procedures to make changes to the Attendant Monitor databases:

**Note:** Refer to the procedural instructions in the APM Operations Manual. If you encounter messages during this process, refer to the “Process” and “Error Messages” chapters of the APM Operations Manual.

### Attendant Monitor Database Records

Perform the following steps to add, modify, or delete records:

1. **Build a Master Database File**
   Enter data into the master database fields to change the Monitored Number, Attendant Name, TTY, or Supervisor Flag values.

2. **Process the Application Database**
   Use the Process Application Databases option on the APM Database Administration menu to create the application database file.
   (When the Process option is activated, data is drawn from the master database and converted to the formats specified in the application definition file.)

3. **Install the Application Database**
   Use the Install Application Databases option on the APM Database Administration menu to enable Attendant Monitor to copy its database.

### AMNO: PBX assignment of Monitored Number

Any monitored number that is added, changed, or deleted in the Attendant Monitor database must be so modified on the PBX using the AMNO command.

**Note:** Refer to the NEAX2400 IMS system manuals for detailed procedures for making the data assignments at the NEAX MAT.
Tenant Number Database Records

Any changes to monitored numbers will also require a change to the Tenants database. Perform the following steps to add, modify, or delete records:

1. **Build a Master Database File**
   Enter data into the master database fields to change the necessary extension numbers.

2. **Process and Tenant the Application Database**
   Use the **Process Application Databases** option on the APM Database Administration menu to create the *application database* file.
   (When the **Process** option is activated, data is drawn from the master database and converted to the formats specified in the application definition file.)

3. **Install the Application Database**
   Use the **Install Application Databases** option on the APM Database Administration menu to enable *Attendant Monitor* to copy its database.
The only attendant tasks associated with Attendant Monitor is the login and logout of an attendant. Follow the steps below:

**Login and Logout**

**Step 1:** At an attendant console, press one of the loop keys to seize a loop.

**Step 2:** Dial your monitored number assigned by the Administrator.
   - If not logged in, you will now be logged in at the console.
   - If logged in at another console, you will be logged out at the other console and logged in at this console

After the login or logout, the loop is automatically released.