

**DID ALLOCATOR**

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**USER AND INSTALLATION GUIDE**

**NEC America, Inc.**

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## Chapter 1 Introduction

DID Allocator is a supplement to the Medical Center System (MCS) that makes it possible for hospital admitting personnel to retrieve DID telephone numbers from the MCS database. With DID Allocator, obtaining a DID number for a new patient is a simple matter of pressing a function key on the D<sup>term</sup>. In response, DID Allocator accesses the MCS database of DID numbers, retrieves the next available one on the list, and displays it on the D<sup>term</sup> LCD panel. Admitting personnel have only to accept the number and enter it into the patient's record or to reject the number.

Once a DID number has been accepted, it is placed into "Offered and Accepted" status in the MCS database. Only after the DID number has been implemented by the PBX is it considered to be in "Active" status.

### Here's How it Works

Your Action	D <sup>term</sup> Response
Press the D <sup>term</sup> function key that is assigned to DID Allocator.	An available DID number is displayed on the D <sup>term</sup> LCD panel, followed by the notation "ACCEPT?"
<ul style="list-style-type: none"> <li>To accept the displayed DID number: Press 1#. (Then enter the accepted DID number to the patient record.)</li> <li>To cancel the DID request: Press 0#, the function key assigned to DID Allocator, or nothing. If you do not press a key, DID Allocator will time-out and reject the number.</li> </ul>	<p>If the number is accepted, DID Allocator marks it as offered and accepted. If the number is not accepted, the number remains available. After the transaction, DID Allocator clears the D<sup>term</sup> display.</p> <p><b>Note:</b> <i>If any entry other than 1# or 0# is made, DID Allocator displays the message "1=YES 0=NO" and awaits a correct entry.</i></p>

### Installation

This guide provides specific field entries that need to be made during the installation and configuration of DID Allocator. In addition to this guide, use instructions in the following manuals for this installation:

- **Applications Manager (APM) Installation Manual** — Contains step-by-step instructions for installing the software from the release media.
- **Applications Manager (APM) Operations Manual** — Explains how applications like DID Allocator are configured in the APM environment using the entries and values provided in this chapter.
- **NEAX2400 System Manuals** — Give very detailed explanations about the assignments that need to be made through the Maintenance Administration Terminal (MAT) commands on the NEAX2400.

The installation and set up of DID Allocator involves the following sequence of steps:

- **Software Installation** — DID Allocator software must first be loaded from the release media. Log into the APM Platform Management Menu, select the Installation of Applications/Packages option, and follow the instructions provided in the **APM Installation Manual** to complete this part of the installation.
- **Application Configuration** — DID Allocator is internally supported by the APM and must be configured in the APM environment. [Application Configuration](#) provides the information that must be entered into this APM configuration file. Use the instructions provided in the **APM Operations Manual** to make the entries contained in this section.

**Note:** *DID Allocator version 1.2 uses the autocfg (autoconfiguration) APM utility program to automatically configure DID Allocator under the APM platform. This program runs upon installation. If you have previously installed DID Allocator, the autoconfiguration utility enables you to overwrite the previous configuration information.*

- **MAT Assignments** — Several data settings must be assigned at the NEAX2400 Maintenance Administration Terminal (MAT) before DID Allocator will function. [Mat Assignments](#) specifies the necessary commands and the values at which they are to be set. Use the instructions provided in the **NEAX2400 IMS System Manuals** to make the entries contained in this section.



### DID ALLOCATOR INSTALLATION REQUIREMENTS

Discussed in chapter:

Instructions in:

**Introduction**

**APM Installation  
Manual**

Software

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**Application Configuration**

**APM Installation  
Manual**

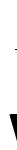


Application Characteristics  
Primary Parameter Configuration  
OAI Facilities (Optional)  
OAI Configuration Parameters (Optional)  
User-Defined Parameters

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**Mat Assignments**

**NEAX2400 IMS  
System Manuals**



**NEAX2400 IMS**

**Maintenance Administration  
Terminal (MAT) Assignments**

ASYD (Assignment of System Data)  
AOKC (Assignment of OAI Key Codes)  
AKYD (Assignment of D<sup>term</sup> Function Key)

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## Chapter 2 Application Configuration

DID Allocator is configured into the APM system using the **Add** function of the Application Configuration on the APM System Administration Menu.

- Enter the APM option from the APM Platform Management Menu.
- Enter the System Administrator password at the APM password screen.
- Enter the Application Configuration option from the System Administration menu.

This section contains the information that should be entered to the configuration file for DID Allocator. For specific instructions on what these parameters mean and how to make these entries, use the **APM Operations Manual**.

**Note 1:** *DID Allocator version 1.2 uses the autocfg (autoconfiguration) APM utility program to automatically configure DID Allocator under the APM platform. This program runs upon installation. If you have previously installed DID Allocator, the autoconfiguration utility enables you to overwrite the previous configuration information.*

**Note 2:** *Entries for parameters that are marked with an asterisk (\*) should be made exactly as they are shown; all other entries in this section serve as examples only.*

### Step 1: Application Characteristics

In adding DID Allocator to the APM Application Configuration file, define it as follows:

Parameter	Entry	Description
OAI Application*	Y(es)	Indicates whether or not (Yes or No) DID Allocator communicates with the NEAX2400 using OAI processes.
CRT Application*	N(o)	Indicates whether or not (Yes or No) DID Allocator requires a terminal screen that is of the same type as the one used by the APM.
Communication Queue*	N(o)	Indicates whether or not (Yes or No) this non-OAI application needs an IPC queue to communicate with other process.

## Step 2: Primary Configuration Parameters

On the APM Configuration Entry screen, make the entries indicated below for each DID Allocator parameter.

Parameter	Entry	Description
Application Name	DID_Allocator	Specifies the name to be displayed in the APM menus. This name is displayed however it is entered here; i.e., capital letters, lower case, etc.
Executable Filename*	/oai/app/mcs/bin/didalloc	Indicates the path name of the executable file.
Group*	(make no entry)	Indicates that DID Allocator does not belong to a group.
Response Mode*	I(gnore)	Indicates the action that the APM is to take with DID Allocator should a member of the group terminate.
Initialization Batch	Y(es)	Indicates whether or not (Yes or NO) DID Allocator is to be initialized automatically when the OAI system is initialized.
Termination Mode*	M(essage)	Indicates how the APM is to notify DIID Allocator to terminate.
Standard Output	/dev/null	Indicates where any output is sent.
Number of Restarts	10	Indicates how many times the APM may restart DID Allocator after it terminates erroneously.

## Step 3: OAI Facilities

According to instructions in the **APM Operations Manual**, designate the following NEAX2400 facilities for DID Allocator using the **Facilities** command on the Configuration Entry screen.

MRFI	Mode Release (I)	MRFR	Mode Release (R)
MSF	OAI Mode Set	NTF	Number Transfer
TCFD	Terminal Control (D)	TCFI	Terminal Control (I)

**Note:** *The same MSF Op-Code that is specified here in the APM must be assigned to DID Allocator the NEAX MAT. For more information, see [Mat Assignments](#).*

*This code defaults to 130 with the autoconfiguration utility.*

## Step 4: Secondary OAI Configuration Parameters

Using the OAI-Conf command on the APM Configuration Entry screen, make the entry shown for each of the following parameters. Use the instructions provided for this option in the **APM Operations Manual**:

Parameter	Entry	Description
Database Name #1	(make no entry)	
Database Name #2	(make no entry)	
Timeout Value #1	30	Indicates the length of time, in seconds, that DID Allocator waits for a response to a displayed message.
Timeout Value #2	1	
Tenant Number	1	Specifies the number of the tenant that DID Allocator serves.
Source Link Name	OAI1TCP	Identifies the port on the source side of the communication link.
Destination Link Name	PBX1TCP	Identifies the port on the destination side of the communication link.
Association Recovery	30	Designates the number of seconds DID Allocator will wait before trying to re-establish an association with the NEAX that has been released.

This completes the configuration of DID Allocator in the APM. Now go to [Mat Assignments](#) to make the necessary MAT assignments.

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## Chapter 3 Mat Assignments

This guide assumes that data settings that affect the operation of all OAI software on a system-wide basis have already been assigned on the NEAX Maintenance Administration Terminal (MAT). Such settings include, for instance, system index values and assignment of Interface I/O Port Data in the Interface Processor (IP). For more information about these system data settings and the MAT commands described below for DID Allocator, refer to the **OAI Module Installation Manual for the NEAX2400 IMS**, the **NEAX2400 IMS Command Manual**, the **NEAX2400 IMS Job Specification Manual**, and the **NEAX2400 IMS Programming Manual**.

### Function Key Assignment

A function key on every D<sup>term</sup> that is to be used to access DID Allocator must be assigned to the Mode Set Facility number (Op-Code) that was configured for DID Allocator in the APM ([Application Configuration](#)).

1. ASYD SYS1 Index 4 bit 4=1
2. The MSF facility and its Op-Code are assigned to one of the 14 OAI Key Codes in the MAT using the AOKC command. Second, each of these OAI Key Codes corresponds to an AKYD Function Key Index (FKI) value which is then assigned to the specific D<sup>term</sup> function key. This process is illustrated below.

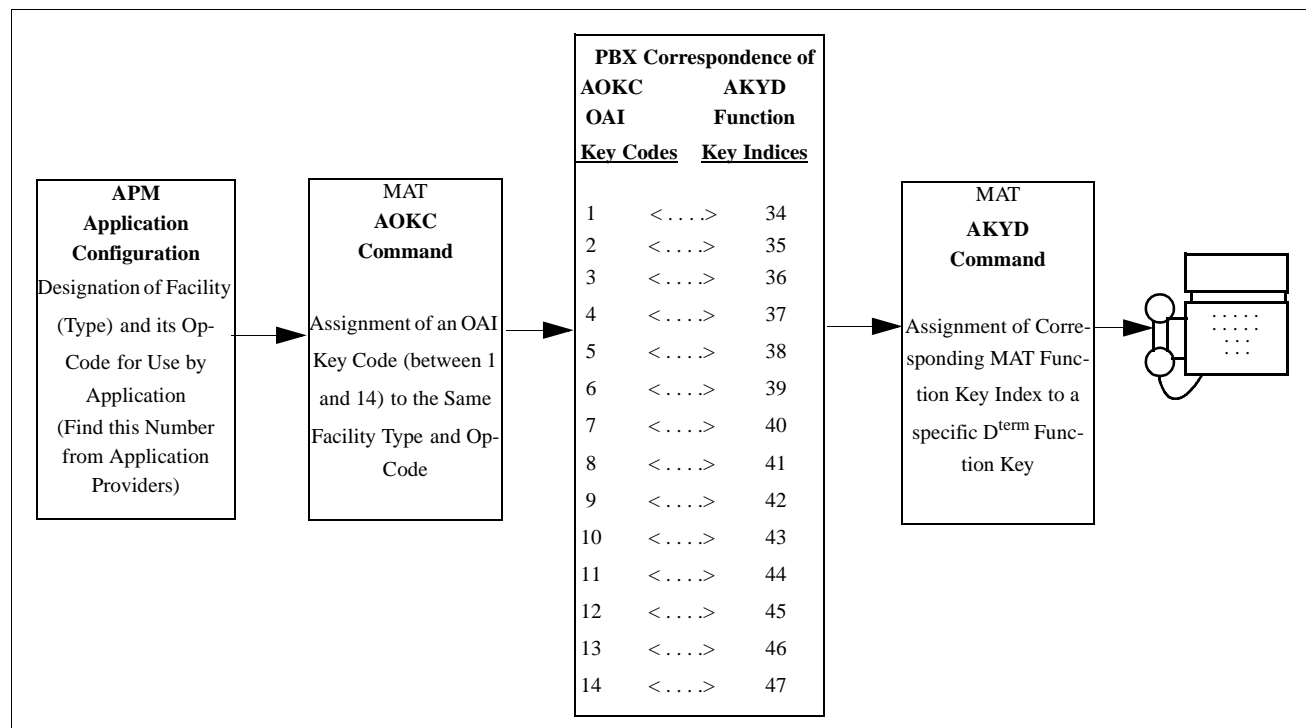


Figure 3-1 OAI Function Key Assignment

A knowledge of the D<sup>term</sup> stations in the NEAX system and which ones will be set up to access DID Allocator is necessary for using these two commands:

AOKC COMMAND: (Assignment of OAI Key Codes)

This command is first used to associate the MSF facility and its Op Code that was configured in the APM for DID Allocator to one of the OAI Key Codes in the MAT.

- (a) Select an unused OAI Key Code, from 1 to 14. To determine what Key Codes are available for assignment, use the LOKC command to list the AOKC Key Codes that are already assigned.
- (b) Enter the type of facility using the value that designates the MSF.
- (c) Enter the same MSF Op-Code that was configured for DID Allocator in the APM. Retrieve it using the Providers command on the APM Configuration Entry screen.

AKYD COMMAND: (Assignment of D<sup>term</sup> Function Key)

- (a) Enter the same tenant number that is configured for the application in the APM Application Configuration option (Tenant #1, [page 7](#)).
- (b) Enter the station number of the D<sup>term</sup> on which the function key is being assigned.
- (c) Enter a D<sup>term</sup> function key to the MAT Function Key Index that in turn corresponds to the previously assigned OAI Key Code.

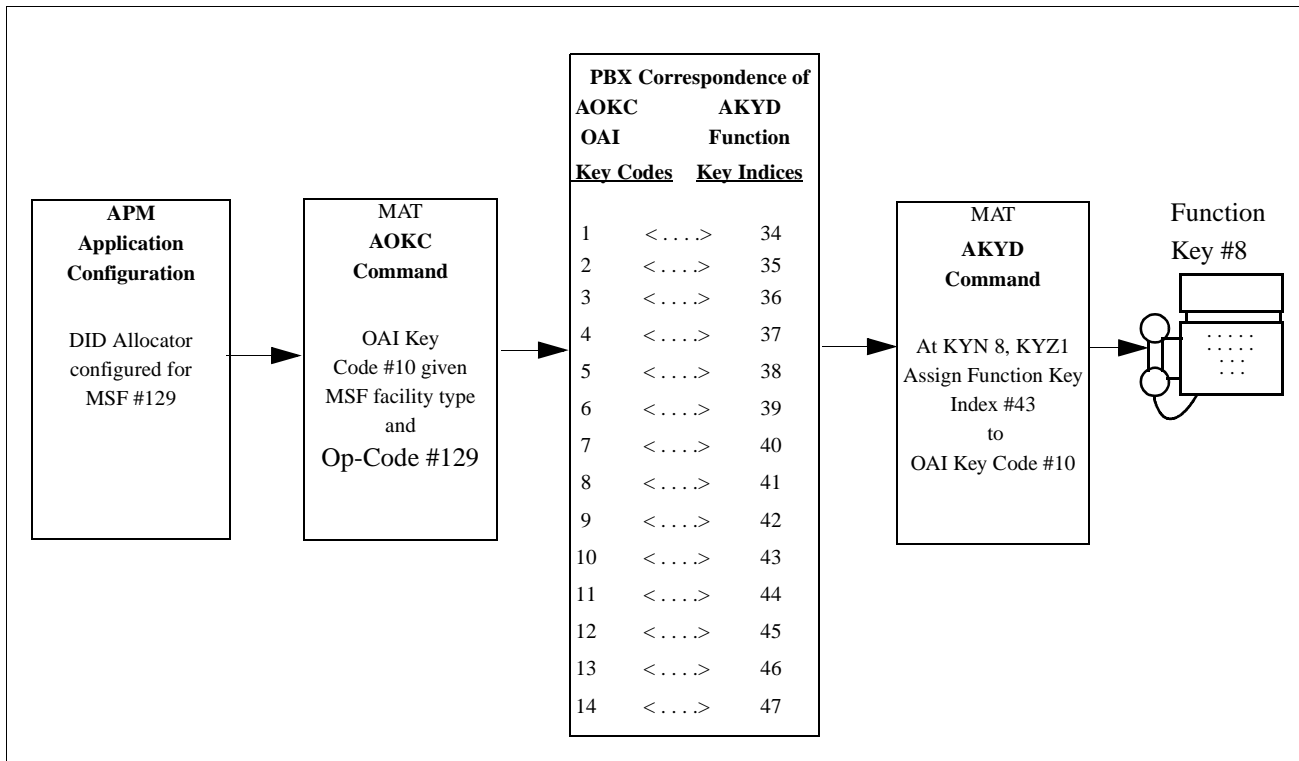


Figure 3-2 OAI Function Key Assignment Example



In the OAI Function Key Assignment example ([Figure 3-2 on page 10](#)), the MSF was selected in the APM Application Configuration and its Op-Code was determined to be #130. MSF #130 is assigned through the AOKC command to an OAI Key Code. The Key Code to which it is assigned in this example is #10. The D<sup>term</sup> function key that is to be used to access DID Allocator is configured as function key #8. Since OAI Key Code #10 corresponds in the PBX to MAT Function Key Index #43, D<sup>term</sup> function key #8 is assigned to Function Key Index #43 using the AKYD command. Thus, whenever a phone user presses function key #8 on any assigned D<sup>term</sup>, MSF 130 initiates communication with DID Allocator for display of the next available number.

DID Allocator is now installed and ready to be initialized. Enter the APM Operations Menu and initialize DID Allocator through the Non-CRT Application option, according to instructions provided in the **APM Operations Manual**.

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