



## CHAPTER 4

# Adding a DPE

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This chapter describes how to add a Cisco Broadband Access Center (Cisco BAC) Device Provisioning Engine (DPE) from the CLI.

This situation arises largely in a lab deployment, where, for the purposes of testing, both the Cisco BAC components are installed on a single machine.



### Note

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Before you proceed to add the DPE, ensure that the RDU and the DPE belong to the BAC 3.6 version.

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When the installation program detects the presence of an RDU on your system, it does not provide you the option to add the RDU. It prompts you to add or install only the DPE.



### Note

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To ensure a smooth installation, we recommend that you install the RDU before you install the DPE. (See the [Installing Cisco BAC, page 3-2](#)).

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Unlike the procedure in a fresh installation, while adding a DPE, you cannot install the home (*BPR\_HOME*) and data (*BPR\_DATA*) directories in a location of your choice. The directories are installed only in the location where you chose to install the RDU directories.

## Adding a DPE from the CLI

To add the DPE from the CLI:

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**Step 1** Log in to the computer on which you intend to install Cisco BAC components, with *root* access. Use an X-Window client to log in.

**Step 2** At the Solaris system prompt, change directory to your CD-ROM drive or other installation media. The installation program, *pkgadd*, is at the root of this drive.

**Step 3** Enter the following command to start the installation program:

```
# pkgadd -d file-path/BAC_3.6_SolarisK9/CSCObac.pkg CSCObac
```

The installation program verifies that you have installed the correct patches to the Solaris operating system. When the verification is complete, the program displays welcome screen.

**Step 4** Press **Enter** to continue.

The installation program prompts you to select one or more components,

- Step 5** Enter **y** and press **Enter** at the DPE prompt. The installation program prompts you to add only the DPE. For example:

```
Installation Components

Select one or more components to install BAC.

    Device Provisioning Engine (DPE) (y/n/?) [no] y
```

- Step 6** Confirm the components that you want to install; enter **y** and press **Enter** to continue. The program displays a message that it is starting individual component validation.

- Step 7** Press **Enter** to continue.

When validation is complete, the program prompts you to enter the IP address and the listening port of the RDU.

- Step 8** Press **Enter** to accept the hostname of the RDU.




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**Note** The installation program obtains the IP address of the RDU automatically. You do not need to enter this value.

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- Step 9** To accept the default port number, 49187, press **Enter**; or enter another port number.




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**Caution** If you change the default listening port value, ensure that the new value does not conflict with any existing port assignments. Also, ensure that you configure all DPEs with the correct RDU port number. Refer to the *Cisco Broadband Access Center Administrator's Guide, Release 3.6*, for information on configuring the DPE.

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For example:

```
Enter RDU IP Address or Hostname [bacdev3-t5240-1-d8]
Enter RDU Listening Port [49187]
```

- Step 10** Confirm the IP address and the listening port number; enter **y** and press **Enter**. The program prompts you to enter the shared secret password.

- Step 11** Enter the password that you want to use for authentication between the Cisco BAC servers, and press **Enter**.




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**Note** You must use the same shared secret password for all RDUs and DPEs in your network. The default password is **secret**.

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For example:

```
Enter the password to be used for authentication between BAC servers.

    Enter the shared secret password [secret]
    ----- Confirmation -----
RDU IP Address: bacdev3-t5240-1-d8
RDU IP Port: 49187

    Is this correct (y/n/q)? [y]
```

- Step 12** Press **Enter** to continue. The installation parameters that you selected appear. Enter **y** and press **Enter** to confirm the parameters, and add the DPE.

For example:

```
Installation Parameters

This screen shows the installation parameters that you have chosen:

===== Confirmation =====
The Component Installation will use the following parameters
to install the DPE component:
Home directory: /opt/CSCObac
Data directory: /var/CSCObac
```

The Installation Summary appears when the installation is complete.

- Step 13** Press **Enter** to exit the installation program.

The Installation Summary appears when the installation is complete.

- Step 14** Press **Enter** to exit the installation program.

## DPE Properties

Following is the list of DPE properties introduced in Cisco BAC 3.6.

**Table 4-1** DPE Properties

Parameter	Description	Default	Property Name
Lease Query Client Port	The port for local end of the socket	68	<code>/cnrQuery/clientPort</code>
DHCP Server Port	This is the port to send the DHCP messages.	67	<code>/cnrQuery/serverPort</code>
Lease Query Threads	The maximum number of threads for lease query reads.	16	<code>/cnrQuery/threads/maximum</code>
GIADDR	The GIADDR to use when sending lease queries.	localhost	<code>/cnrQuery/giaddr</code>
Cisco Network Registrar Echo	A flag indicating that the DHCP lease query must use Cisco Network Registrar echo.	false	<code>/cnrQuery/useEcho</code>
Lease Query Timeout	The period of time that the LeaseQuery object will wait for a response from the DHCP server before giving up.	500ms	<code>/dhcpLeaseQuery/timeout</code>
Lease Query Retry	The number of times to attempt a retry with a DHCP server before giving up.	1	<code>/dhcpLeaseQuery/retries</code>
Lease Query client socket address	Local socket address for listening for DHCPv4 packets.	0.0.0.0:68	<code>/cnrQuery/clientSocketAddress</code>

Table 4-1 DPE Properties

Parameter	Description	Default	Property Name
Lease Query wait for all Responses	A flag to indicate if the first response should be returned or else wait for all DHCP servers to respond. Returning the latest lease info.	false	/dhcpLeaseQuery/requireAllAnswers
Cisco Access Registrar Shared Secret	The shared secret used between Cisco Access Registrar BAC extension and the DPE.	secret	/CAR/sharedSecret
DPE Auth Service IP Address	The address used by the auth service to bind on.	127.0.0.1	/server/http/services/5
DPE Auth Service Port	The port used by the auth service.	7551	/server/http/services/5/port
Auth Service SSL	Enables or disables the use of SSL by the auth service	Disabled	/server/http/services/5/ssl/enable
Auth Service Authentication mode	Sets the HTTP authentication mode for the auth service	digest	/server/http/services/5/auth/mode
Enabling Auth Service	Enables or disables the auth service	enabled	/server/http/services/5/enable
Auth service SSL authentication mode	Sets Auth service SSL authentication mode.	none	/server/http/services/5/ssl/auth/mode
Auth service SSL store password	Sets Auth service SSL store password	110a110419150e0510	/server/http/services/5/ssl/storepassword
Auth service SSL key password	Sets Auth service SSL key password	500450560a14030d4f	/server/http/services/5/ssl/keypassword
Auth service SSL key store	Sets Auth service SSL key store	server-certs	/server/http/services/5/ssl/keystore
Auth service SSL cipher	Enables or disables Auth service SSL cipher suits	enabled	/server/http/services/5/ssl/cipher/all-cipher-suites
Auth service trace prefix	Sets Auth service trace prefix	/server/log/trace/auth/1/	/server/http/services/5/trace/prefix
Auth service all authentication trace log	Enables or disables Auth service all authentication trace log	disabled	/server/log/trace/auth/1/auth/all/enable
Auth service authentication failures trace log	Enables or disables Auth service authentication failures trace log	disabled	/server/log/trace/auth/1/auth/failures/enable
Auth service HTTP details trace log	Enables or disables Auth service HTTP details trace log	disabled	/server/log/trace/auth/1/http/details/enable
Auth service HTTP faults trace log	Enables or disables Auth service HTTP faults trace log	disabled	/server/log/trace/auth/1/http/faults/enable

**Table 4-1** DPE Properties

Parameter	Description	Default	Property Name
Auth service HTTP headers trace log	Enables or disables Auth service HTTP headers trace log	disabled	/server/log/trace/auth/1/http/headers/enable
Auth service errors trace log	Enables or disables Auth service errors trace log	disabled	/server/log/trace/auth/1/errors/enable

**Note**

Unless the property values are changed either in DPE properties or via DPE CLI, the default values will be used.

