

Using the Broadband Provisioning Registrar Administrator User Interface

This chapter describes the administration activities performed using the Broadband Provisioning Registrar (BPR) administrator user interface. These activities mainly involve monitoring the actions of various BPR components including:

- Managing Users, page 3-1
- Searching For and Viewing Device Information, page 3-6
- Viewing BPR Servers, page 3-16



The procedures described in this chapter are presented in a tutorial manner. Wherever possible, examples are included to illustrate the possible results of each procedure.

Managing Users

Managing users involves adding, modifying, and deleting users who administer BPR. The following procedures include illustrated examples to demonstrate these functions. For example purposes, let us assume that:

- A new user named User_2 is added. (See the "Adding a New User" section on page 3-1.)
- The password is modified. (See the "Modifying Users" section on page 3-3.)
- The user named User_2 is deleted. (See the "Deleting Users" section on page 3-5.)



The adding, modifying, and deleting user functions can only be performed by a user who is logged in as the Administrator.

Adding a New User

Adding a new user is a simple process of entering the user's name and creating a password. To add a new user:

Step 1 Click Users, from either the Main Menu or the Primary Navigation bar, and the Manage Users page appears. (See Figure 3-1.)

Broadband Provisioning Registrar Administrator's Guide

Broadband Provisioning Registrar							Logo	ut
	1	Users	Devices	1	Configuration	Servers	Technology Defa	aults
Cisco Systems Manage Us Use this page	ers to manage (add, modify or delete) users.							
Add		Desci	iption			De	lete	
admin user_1		Admir Head	iistrator Administrator	,		[Î	

Figure 3-1 Example Manage Users Page

Step 2 Click Add and the Add User page appears. (See Figure 3-2.)

Figure 3-2 Add User Page

Broadbar	Logout						
	Users Devices Configuration Servers	Technology Defaults					
Cisco Systems Use this page to add a user. Fields marked with an asterisk '*' are required.							
Add User User Name [*] :							
Password*:							
Confirm Password*:							
Description:							
	Submit Reset						

- Step 3 Enter the new user's username and a password. In this example, the username is User_2.
- Step 4 Confirm the new user's password and enter a description of the new user.

 \underline{P} Tip

Use the description field to identify the user's job or position; something that identifies the unique aspects of the new user.

Step 5 Click Submit when complete. Once the new user is added to the administrative database, the User Successfully Added page appears. (See Figure 3-3.)

Figure 3-3 User Successfully Added Page



Step 6 Click the link indicated in Figure 3-3, and the Manage Users page appears with the new user added. (See Figure 3-4.)

Figure 3-4 Manage Users Page With A New User Added

Broadband Provisioning Registrar						
Users Devices Configuration Servers	Technology Defaults					
Cisco Systems Use this page to manage (add, modify or delete) users. Add						
User Description	Delete					
admin Administrator						
user_1 Head Administrator	<u> </u>					
user_2 1st Assistant Administrator	Â					

After completing this procedure you will see that a new user has been added. It should be noted however, that the new user's password must be recorded and stored in a safe place. This helps to prevent the loss or theft of the password and possible unauthorized entry.

Modifying Users

You can modify both the password and description of any user entered into the administrative database. Changes to the password and description are the only modifications allowed.

Note

Any nonadministrative user that is created in this application cannot be used to modify or delete the admin user. (See Figure 3-4.)

To modify user properties:

Step 1 Click Users, from either the Main Menu or the Primary Navigation bar, and a Manage User page, similar to that shown in Figure 3-5, appears.

Figure 3-5	Example Manage Users Page
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Broadband Provisioning Registrar						
	Users Devices Configuration Servers	Technology Defaults				
CISCO SYSTERS Manage Users Use this page to mana Add	ige (add, modify or delete) users.					
User	Description	Delete				
admin	Administrator					
user_1	Head Administrator	Î				
<u>user_2</u>	1st Assistant Administrator	Î				

Step 2 Click the link corresponding to the desired user and the Modify User page appears. (See Figure 3-6.)

Figure 3-6 Modify User Page

Broadband Provisioning Registrar						gout	
	Users	Devices	Configuration	Servers	Technology D	efaults	
Cisco Systems Modify User Use this page to modify user properties. Fields marked with an asterisk ** * are required. Modify User							
User Name*:	user_2						
New Password*:							
Confirm New Password*:							
Description:	Assistant Administrator	·					
	Submit Reset						

- Step 3 Make the necessary changes to either the password or user's description.
- Step 4 Click Submit when complete. Once the modifications are copied into the administrative database, the User properties have been modified page appears. (See Figure 3-7.)

Figure 3-7	User Properties Modified Page
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Broadband P	Logout				
	Users	Devices	I	Configuration Servers	Technology Defaults
Cisco Systems User properties have been modified	d.				
<u>Click here</u> to return to the Manage User page.					4 - - -

Step 5 Click the link indicated in Figure 3-7, and the Manage Users page appears with the appropriately modified user description. (See Figure 3-8.)

Figure 3-8 Manage Users Page With A Modified User Added

Broadband Provisioning Registrar								Logout
		Users	Devices	1	Configuration	Servers	Technolog	gy Defaults
Add	Users ige to manage (add, modify or delete) user	s.						
Jser		Description					D	elete
<u>dmin</u>		Administrator						
ser_1		Head Administr	rator				1]
ser_2		1st Assistant A	dministrator				1	1

After completing this procedure, you will see that the user description has been changed.

Deleting Users

You can delete any user, except an administrator, that appears in the Manager Users page. To delete a user:

Step 1 Click Users, from either the Main Menu or the Primary Navigation bar, and a Manage User page, similar to that shown in Figure 3-9, appears.

Figure 3-9 Example Manage Users Page

	Users Dev	evices	Configuration 1	<u> </u>	T 1 1 D 7 1
			connyuration 1	Servers I	Technology Defaults
Manage Users Use this page to manage (add, modify or delete) users.					
]					
Des	scription				Delete
Adm	ninistrator				
Hear	ad Administrator				Î
1st /	Assistant Adminis	nistrator			Î

Step 2 Click the **Delete** icon corresponding to the desired user, and the delete user dialog box appears. (See Figure 3-10.)

Figure 3-10	Delete User	Dialog Box
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Microsoft Internet Explorer	
Do you want to delete the 'user_2' user?	
OK Cancel	59651

Step 3 Click either **OK**, to delete the selected user, or **Cancel** to return to the previous page. The User successfully deleted page (Figure 3-11) appears.

Figure 3-11 User Deleted Page

Broadband Provisioning Registrar						
	Users	Devices	I	Configuration	Servers	Technology Defaults
Cisco Systems July July Cisco Systems						
Click here to return to the Manage Users nage						

Step 4 Click the link indicated in Figure 3-11, and the Manage Users page appears without the deleted user. (See Figure 3-12.)

Figure 3-12 Manage Users Page Showing A Deleted User

Broadband Provisioning Registrar						Logout	
	Users)evices	I	Configuration	Servers	Technolo	gy Defaults
CISCO SYSTERS Manage Users Use this page to manage (add, modify or delete) users Add	s.						
User	Description					D	elete
admin	Administrator						
user 1	Head Administrate					<u>A</u>	7

After completing this procedure, you will see that the user has been deleted.

Searching For and Viewing Device Information

You can search for device information a number of different ways using BPR. Each search result that you generate also carries with it a View Details function. The details that are displayed are identical no matter which search method you use.

Searching for Information

BPR lets you, through the use of its search function, find a group of similar devices, select a specific device, and view that device's MAC address and related information. You can search for specific devices using these functions:

- MAC address search (See the "MAC Address Search" section on page 3-7.)
- Owner ID search (See the "Owner ID Search" section on page 3-9.)
- IP address search (See the "IP Address Search" section on page 3-10.)
- Fully qualified domain name (FQDN) search (See the "FQDN Search" section on page 3-12.)



A maximum of 1000 results are returned for any query.

MAC Address Search

The MAC address search function is best used when you know the precise MAC address for a specific modem or when all devices with a specific vendor-prefix unambiguously identify the equipment vendor. Therefore, if you perform a MAC address search, you can identify, by the MAC address, the manufacturer and type of device. Figure 3-13 illustrates the MAC Address Search page.



Note

The vendor-prefix is the first 3 octets of the MAC address. For example, for MAC address 1,6,aa:bb:cc:dd:ee:ff, the vendor-prefix is "aa:bb:cc".

Broa	dband Provisioni	ng Regis	trar		Logout
	Users	Devices	Configuration I	Servers 1	Technology Defaults
	MAC Address Search	Owner ID Search	IP Address	Search	FQDN Search
CISCO SYSTEMS Devices by MAC Add Use this page to list devices	ress s by MAC address, then to view the def	ails of the device list	ed.		
MAC Address or MAC Address wildcard			Page Size		
1.6.00:00:00:*			25 -		Search
MAC Address					
1,6,00:00:00:00:00					
1,6,00:00:00:00:01					
1.6.00:00:00:00:03					
1,6,00:00:00:00:04					
1,6,00:00:00:00:05					
1,6,00:00:00:00:06					
1.6.00:00:00:00:07					
1,6,00:00:00:00:00:0a					
1,6,00:00:00:00:0b					
1,6,00:00:00:00:00:0c					
1,6,00:00:00:00:00					
1.6.00:00:00:00:00:0e					
1,6,00:00:00:00:00					
1,6,00:00:00:00:00:10					
1,6,00:00:00:00:00:11					
1.6.00:00:00:00:00:12					
1.6.00:00:00:00:13					
1.6.00:00:00:00:1 a					

Figure 3-13 MAC Address Search Page

Figure 3-13 also illustrates the **Page Size** field. This is used to control the number of devices that can be displayed at any given time, up to a maximum of 75 devices per page.

When the number of search results is greater than the selected page size, paging controls appear in the lower-left corner of the page. These let you scroll forward or backward one page at a time, or to select a specific page. Refer to the "Scrolling Backward and Forward" section on page 2-5 for additional information.

Table 3-1 identifies the MAC Address Search page fields and buttons shown in Figure 3-13.

Field or Button	Description
MAC Address or MAC	Enter the MAC address in this field using any of these formats:
Address wildcard	• The full MAC address for any given device. For example:
	1,6,00:00:00:00:AE
	• Only the vendor-prefix portion of MAC address. For example:
	1,6,00:00:00:*
	Note The asterisk wildcard character can be used in place of any MAC address octet.
	 An asterisk (*) to search for all devices. If you use this input option, a limited number of search results are returned to you. For example: 1.6.*
	Note Cisco does not recommend using the last wildcard search (1,6,*) in systems that support hundreds of thousands, or more, devices.
Page Size	Specifies the maximum number of search results that will be displayed in the page's content area, after each search.
Search	Click this button to begin searching.
MAC Address list	Identifies all of the devices meeting the MAC address search criteria entered above. Each of the MAC addresses displayed has a link to another page that shows the details for that device.

Table 3-1	MAC Address Search Pa	ge
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Owner ID Search

The owner ID can identify a device, it could identify the service subscriber's account number, or anything else that uniquely identifies that device. Figure 3-14 illustrates the results of an Owner ID Search.

Figure 3-14	Devices by	Owner ID	Search	Results	Page
		• • • • • • • • • • • • • • • • • • • •			

Broadband	l Provision	ing Regist	rar		Logout	
	Users	Devices	Configuration	Servers	Technology Defaults	
MAC	Address Search 🥄	Owner ID Search	IP Address	Search	FQDN Search	
CISCO SYSTEMS Use this page to list devices by owner ID, then to view the details of the device listed.						
Owner ID		Page Size				
User_1		25 💌		Search		
MAC Address						
1,6,00:00:00:00:00:07						
1,6,00:00:00:00:06						
1.6.00:00:00:00:05						
1.6.00:00:00:00:04						
1 <u>.6.00:00:00:00:00:01</u>						

Table 3-2 identifies the fields shown in Figure 3-14.

Table 3-2 Owner ID Search Page

Field or Button	Description
Owner ID	Enter the assigned owner ID in this field before clicking the Search button.
	Note You can not use wild card characters when entering data to perform an Owner ID search.
Page Size	Specifies the maximum number of search results that will be displayed in the page's content area, after each search.
Search	Click this button to begin searching. When the search criteria is broad enough, or the database is large enough, there may be multiple pages showing the results of the search. The number of pages of search results are identified at the lower left corner of the page.
MAC Address list	Lists all MAC addresses matching the search criteria. Each of the MAC addresses displayed has a link to another page that shows the details for that device.

IP Address Search

Figure 3-15 illustrates the IP Address Search page.

Figure 3-15 IP Address Search Page



Table 3-3 identifies the fields and buttons shown in Figure 3-15.

Table 3-3 IP Address Search Page

Field or Button	Description
IP Address or IP Address wildcard	Enter the appropriate IP address in this field. You can use an asterisk (*) as a wildcard character when searching for several IP addresses. Use these formats when using wildcard characters to search:
	• The full IP address for any given device. For example:
	10.10.10.1
	• Using a wildcard for the fourth in the address. For example: 10.10.10.*
	• Using a wildcard for the third number in the address. For example: 10.10.*
	• Using a wildcard for the second number in the address. For example: 10.*
	• Using a wildcard for the first number in the address. For example:
	Note Cisco does not recommend using the last wildcard search (*) in systems that support hundreds of thousands, or more, devices.
Page Size	Specifies the number of search results appearing in the content area of each page.

Field or Button	Description
Search	Click this button to begin searching. When the search criteria is broad enough, or the database is large enough, there may be multiple pages showing the results of the search. The number of pages of search results are identified at the lower left corner of the page.
IP Address list	Identifies the IP addresses for devices found by the search. Each of the addresses displayed has a link to another page that shows the details for that device.

Table 3-3	IP Address Search Page	(continued)
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FQDN Search

The fully qualified domain name (FQDN) search is useful when searching for devices that are identified through the FQDN assigned by the DNS Server, especially when the device MAC address is unknown.

Example:

The web site **www.cisco.com** is a fully qualified domain name. In this domain name, **www** is the host, **cisco** is the second level domain, and **.com** is the third level domain. Figure 3-16 illustrates the FQDN Search page.

Broadband Provisioning Registrar	Logout
Users Devices Configuration Servers T	Technology Defaults
MAC Address Search Owner ID Search IP Address Search	FQDN Search
CISCO SYSTERS Devices by FQDN Use this page to list devices by fully qualified domain name (FQDN), then to view the details of the device listed.	
FQDN or FQDN wildcard Page Size	
*.com 25 - Search	
Party.	
FQDN	
modem1U.cisco.com	
modemU.cisco.com	
modem11.cisco.com	
modem1.cisco.com	
modem12.cisco.com	
modem2.cisco.com	
modem13.cisco.com	
modem3.cisco.com	
modem14.cisco.com	
modem4.cisco.com	
modem15.cisco.com	
modem5.cisco.com	
modern16.cisco.com	
modem6.cisco.com	

Figure 3-16 FQDN Search Page

Table 3-4 identifies the fields and buttons shown in Figure 3-16.

Field or Button	Description			
FQDN or FQDN Wildcard	Enter all or part of a FQDN in this field. You can use an asterisk (*) as a wildcard character when searching for several IP addresses. Use these formats when using wildcard characters to search:			
	• modem10.cisco.com			
	• *.cisco.com			
	• *.com			
	• *			
	Note Cisco does not recommend using the last wildcard search (*) in systems that support hundreds of thousands, or more, devices.			
Page Size	Specifies the maximum number of search results that will be displayed in the page's content area, after each search.			
Search	Click this button to begin searching for the FQDN criteria entered. The results of this search appear in the content area of this page.			
FQDN list	Displays the FQDN that corresponds to the search criteria you entered in the FQDN field. When the search criteria is broad enough, or the database is large enough, there may be multiple pages showing the results of the search. The number of pages of search results are identified at the lower left corner of the page. Each of the FQDNs displayed has a link to another page that shows the details for that device.			

Table 3-4 Advanced Search Page

Viewing Device Details

As mentioned earlier in this chapter, you can view the details of any device identified in the search results. To view any device details:

- Step 1 Perform whichever search activity you require.
- Step 2 Select the desired device from the search results.
- Step 3 Click the appropriate link and a View Device Details page, similar to the one shown in Figure 3-17, appears.

Users Devices CSRC Configuration CSRC Servers MAC Address Search Owner ID Search I IP Address Search Co Stritter This page shows the details for the device you selected. Vice Details ice Type: DOCSISModem CC Address: 1,6,00.02:16:85:b0.21 DN: 900.DOCSIS.cisco.com ind Device: esigning Group: DSTRIESt	
MAC Address Search Owner ID Search I IP Address Search Vice Details This page shows the details for the device you selected. Vice Details vice Details 000000000000000000000000000000000000	Technology Defaults
View Device Details This page shows the details for the device you selected. vice Details rice Type: DOCSISModem C Address: 1,6,00:02;16:85:b0:21 DN: 900.DOCSIS.cisco.com nind Device: USTREET	I FQDN Search
DOCSISModem vice Type: DOCSISModem C Address: 1,6,00:02:16:65:b0:21 DN: 900.DOCSIS.cisco.com nind Device: wisioning Group:	
Vice Type: DOCSISModem C Address: 1,6,00:02:16:65:b0:21 DN: 900.DOCSIS.cisco.com hind Device: wisioning Group: DSTREEst DSTREEst	
AC Address: 1,6,00:02:16:85:b0:21 DN: 900.DOCSIS.cisco.com hind Device: wisioning Group: DSTREEt	
DN: 900.DOCSIS.cisco.com hind Device: visioning Group: DSTRTest	
hind Device:	
visioning Group: DSTBTest	
And only of the second se	
CP Criteria: scopeProvDOCSISModem	
E DHCP Criteria: scopeProvComputer	
vice Properties:	
vice Provisioned State: Provisioned	
vice Registered State: Registered	
ay Agent Circuit Identifier:	
lay Agent Remote Identifier.	
ent Identifier:	
ent Request Host Name:	
iss Of Service: gold	
mer Identifier: 1234	
ICP Information	
CP Inform Dictionary:	
CP Request Dictionary: CP Request Dictionary: client-id=01:000:21:6:65:b0:21, dhcp-class-identifier=docsis1.0, CP Request Dictionary: client-id=01:00:02:16:65:b0:21, giadd=172.27.201:99, dhcp-message+ype=3	Test,
CP Response Dictionary:	
CP Environment Dictionary:	
ase Information	
Address: 10.10.10.5	
CP Lease Properties:	
chnology Specific Information	
CP Ports:	
CSIS Version: 1.0	

Figure 3-17	Search	Results	Device	Details	Page



The information contained in the page shown in Figure 3-17 is largely dependent on the type of device you select.

Table 3-5 identifies the fields shown Figure 3-17.

Field or Button	Description				
Device Details					
Device Type	Specifies the type of device found by the search. Available types include:				
	• DOCSISModem				
	• DSTB				
	• Computer				
	• DVBModem				
MAC Address	Identifies the devices MAC address.				
FQDN	Identifies the fully qualified domain name for the selected device.				
Behind Device Identifies the device that this device is behind.					
Provisioning Group	Identifies the provisioning group to which the device is assigned.				

Field or Button		Description				
	DHCP Criteria	Identifies the DHCP criteria used.				
CPE DHCP Criteria		Identifies the DHCP criteria used for customer premises equipment.				
		Identifies any properties, other than those displayed on this page, that can be set for this device. These are custom properties.				
Device Provisioned State		Identifies whether the device is provisioned or not.				
	Device Registered State	Identifies whether the device is registered or not.				
	Relay Agent Circuit Identifier	Identifies the relay agent local identifier used when communicating with a client. This is equivalent to DHCP option 82, sub option 1.				
	Relay Agent Remote Identifier	Identifies the globally unique device identifier. This could be the devices MAC address and is equivalent to the DHCP option 82, sub option 2.				
	Client Identifier	Identifies the client identification that the Network Registrar server uses to keep track of the device.				
	Client Request Host Name	Identifies the host name used by Network Registrar in DNS. This is read when queuing in the request for a DNS update just prior to the update of stable storage.				
	Class of Service	Identifies the class of service assigned to this device.				
Owner Identifier		Identifies the host. This may be a user ID, and account number, or may be left blank.				
DHCP Information						
	DHCP Inform Dictionary	Identifies information that is sent between Network Registrar and it's extensions.				
	DHCP Request Dictionary	Identifies the data items that can be set in the request dictionary. The data items can be set at any time. The DHCP server reads them at various times.				
	DHCP Response Dictionary	Identifies the data items that can be set in the response dictionary. The DHCP server reads them at various times.				
DHCP Environment Dictionary		Identifies control information that is passed between the DHCP server and Network Registrar extensions.				
Lease Ir	nformation					
	DHCP Lease Properties	Identifies the lease properties, along with an IP update, that Network Registrar sends to the RDU.				
IP Address		Identifies a device's IP address.				
Technol	ogy Specific Information					
	CPE DHCP Criteria	Identifies the DHCP criteria used for devices behind this devices, in the promiscuous mode. This only applies to DOCSIS modems.				
	Class of Service	Describes the class of service assigned to the device.				
	XGCP Ports	Identifies the ports on which the gateway control protocol is active.				
	DOCSIS Version	Identifies the DOCSIS version currently in use.				

 Table 3-5
 MAC Address Search Device Details Page (continued)

Viewing BPR Servers

This section describes the BPR administrator server pages for:

- Viewing Regional Distribution Unit, page 3-16
- Listing Device Provisioning Engines, page 3-18
- Listing Network Registrar Extension Points, page 3-20
- Listing Provisioning Groups, page 3-21

Viewing Regional Distribution Unit

The Regional Distribution Unit page, shown in Figure 3-18, lets you view the details of your RDU.



BPR only supports a single regional distribution unit (RDU) per deployment.

Figure 3-18 List Regional Distribution Unit Page

Broadband Provisioning Registrar				Logout		
	Users	Devices		Configuration	Servers	Technology Defaults
		RDU		DPEs	NRs	Provisioning Groups
List Regional Distribution Unit Use this page to list the regional distribution unit.						
Regional Distribution Unit						
BPR-1						

Table 3-6 identifies the fields and buttons shown in Figure 3-18.

Table 3-6 List Regional Distribution Unit Page

Field or Button	Description
Regional Distribution Unit	Identifies the regional distribution unit. The Regional Distribution Unit name is a link to another page that shows the details for the RDU.

Viewing Regional Distribution Unit Details

Complete this procedure to view all BPR RDU details:

- Step 1 Select Servers on the Primary Navigation bar.
- Step 2 Select **RDU** from the Secondary Navigation bar. The RDU appears in the List Regional Distribution Unit page similar to that shown in Figure 3-18.
- Step 3 Click the link to the desired RDU and the details page, similar to that shown in Figure 3-19, appears.

Figure 3-19 illustrates a sample View Regional Distribution Unit Details page.

Broadban	Provisioning Registrar	Logout
Divadballo	i i i ovisioning Registrat	
	Users Devices Configuration 🦰	ervers Technology Defaults
	RDU DPES I NR	s Provisioning Groups
Cisco Systems View Regional Distribution Uni Use this page to view the current values	t Details for the regional distribution unit that you selected.	
Host Name:	BPR-1	
Version:	Solaris 200111191239	
UpTime:	21 hour(s) 6 min(s) 26 sec(s)	
State:	Ready	
PACE Statistics		
PACE Batches Processed:	12325	
PACE Batches Succeeded:	9944	
PACE Batches Dropped:	0	
PACE Batches Failed:	2381	
PACE Average Processing Time:	81 ms	
PACE Average Batch Processing Time:	87 ms	
Device Statistics		
DOCSIS Modems:	7	
DVB Modems:	9	

Figure 3-19 View Regional Distribution Unit Details Page

Table 3-7 identifies the fields and buttons shown in Figure 3-19.

Table 3-7 View RDU Details Page

Field	or Button	Description				
Regio	nal Distribution Unit [Details				
	Host Name	Identifies the hostname of the system that is running the regional distribution unit.				
	Version	Specifies the version of RDU software currently in use. Specifies the total amount of time that the RDU has been operational since its last period of down time.				
	Up Time					
	State	Identifies whether or not the RDU is ready to respond to requests.				
PACE	Statistics	·				
	PACE Batches Processed	Identifies how many individual batches have been processed while the PACE engine has been operating.				
	PACE Batches Succeeded	Identifies how many individual batches have been successfully processed while the PACE engine has been operating.				
	PACE Batches Dropped	Identifies how many batches have been dropped while the PACE engine has been operating.				
	PACE Batches Failed	Identifies how many batches have failed processing while the PACE engine has been operating.				
	PACE Average Processing Time	Identifies the average time, in milliseconds, that it takes to process a transaction.				
	PACE Average Batch Processing Time	Identifies the average time, in milliseconds, that it takes to process one PACE batch.				

Listing Device Provisioning Engines

The List Device Provisioning Engines page (Figure 3-20) lets you monitor the list of all, currently registered DPEs. Each DPE is assigned to one or more provisioning groups.

Figure 3-20 List Device Provisioning Engines Page

Broadband Provis	sionin	g Reg	istrar		Logout
	Users	Devices	Configuration	Servers	Technology Defaults
		RDU	DPEs	NRs	Provisioning Groups
CISCO SYSTEMS List Device Provisioning Engines Use this page to list the device provisioning engines. Device Provisioning Engine					
hnsint-dne1 sisce com					
bpr-int-dpe2.cisco.com					
bpr-int-dpe3.cisco.com					
bpr-int-dpe4.cisco.com					

Table 3-8 identifies the fields and buttons shown in Figure 3-20.

Table 3-8 View Device Provisioning Engines Page

Field or Button	Description
Device Provisioning	Identifies all DPEs registered with the BPR database. Each of the DPEs
Engine list	displayed has a link to another page that shows the details for that DPE.

Viewing Device Provisioning Engine Details

Figure 3-21 illustrates a sample View Device Provisioning Engine Details page. This page displays the current status for the selected DPE server, and includes information, such as the average number of requests being handled and any error state flags.

Complete this procedure to view all BPR details:

- Step 1 Select Servers on the Primary Navigation bar.
- Step 2 Select DPEs from the Secondary Navigation bar. All connected DPEs appear in the List DPEs page similar to that shown in Figure 3-20.
- **Step 3** Locate the desired DPE, if more than one is displayed. You might have to use the scroll buttons, in the lower-left of the page, to find the required DPE.
- Step 4 Click the link for the appropriate DPE and the details page, similar to that shown in Figure 3-21, appears.

Broadband Pr	ovision	ing R	leg	istra	r			Logout
	Users	Devices	1	Configura	tion	Serv	ers	Technology Defaults
		RDU		DPEs		NRs		Provisioning Groups
Cisco System additional literation of the device Provisioning Engines Details Use this page to view the current values for the device Device Provisioning Engine Details	s provisioning engi	ne that you	select	ted.				
Hoet Nama:	10.10.10.1							
Primary Provisioning Group(s):	Default							
Secondary Provisioning Group(s):	Donadi							
Properties:								
Version:	BPR 2.0 (cbpr	200111191	1239)					
UpTime:	28 min(s) 36 s	ec(s)						
State:	Ready							
Cache Hits:	590							
Cache Misses:	55							
Cache Files:	1							
Cache Configurations:	5							

Figure 3-21 View Device Provisioning Engine Details Page

Table 3-9 identifies the fields and buttons shown in Figure 3-21.

 Table 3-9
 View Device Provisioning Engine Details Page

Field or Button	Description
	Description
Host Name	Identifies the name of the host on which the DPE is running.
Primary Provisioning Group(s)	Identifies the primary provisioning groups that the selected DPE belongs to.
Secondary Provisioning Group(s)	Identifies the secondary provisioning group (provided that this DPE belongs to a secondary provisioning group) that the selected DPE belongs to.
Properties	Identifies which properties have been assigned to this DPE.
Version	Specifies the version of DPE software currently in use.
Up Time (in seconds)	Specifies the total amount of time that the DPE has been operational since its last period of down time.
State	Identifies whether or not the DPE is ready for operations. If this field reads Offline, these fields will not be displayed:
	• Version
	• Uptime
	Cache Hits
	Cache Version
	Cache Files
	Cache Configurations
Cache Hits	Identifies the number of cache hits that have occurred since the last time the DPE was started.
Cache Misses	Identifies the number of cache misses that have occurred since the last time the DPE was started.
Cache Files	Identifies the number of cache files that are currently stored in the DPE.
Cache Configurations	Identifies how many device configuration files are saved in cache.

Listing Network Registrar Extension Points

The List Network Registrars page, shown in Figure 3-22, lists the extension points for all Network Registrar servers that have been registered with the RDU, and are configured for use with BPR. Network Registrar servers automatically register with the RDU when they are started.

Figure 3-22 List Cisco Network Registrar Extension Points Page

Cisco Systems List Network Registrar Extension Points Use this page to list the Network Registrar extension points.		
Network Registrar Extension Point		
ppr-e250-2.cisco.com		
pp-int-u60-1.cisco.com		

Table 3-10 identifies the fields and buttons shown in Figure 3-22.

Table 3-10 List Cisco Network Registrar Extension Points Page

Field or Button	Description
Network Registrar Extension Point	Identifies the Network Registrar extension points. Each of the extension points displayed has a link to another page that shows the details for that point.

Viewing Network Registrar Extension Point Details

Complete this procedure to view the extension point details of any selected Network Registrar server:

Step 1	Select Servers on the Primary Navigation bar.
Step 2	Select NRs from the Secondary Navigation bar. All connected Network Registrar servers appear in the List Cisco Network Registrar page similar to that shown in Figure 3-20.
Step 3	Locate the desired Network Registrar servers if more than one is displayed. You might have to use the scroll buttons, in the lower-left of the page, to find the required server.
Step 4	Click the link to the desired extension point and the details page, similar to that shown in Figure 3-23, appears.

Broadba	and Provisionin	ng Regis	strar		Logout
	Users	Devices	Configuration	Servers	Technology Defaults
		RDU	DPEs	NRs	Provisioning Groups
Cisco Systems Use this page to view the current view the	xtension Point Details values for the Network Registrar ex	tension point that	you selected.		
Host Name:	h	sth cisco com			
Provisioning Group:		efault			
Properties:					
Version:	E	PR 2.0 (S 20011	1191239)		
UpTime:	1	day(s) 5 hour(s) 5	50 min(s) 23 sec(s	5)	
State:	F	leady	``````````````````````````````````	<i>.</i>	
Device Provisioning Engine(s) Details					
DPE:	11	0.10.10.1			
Port:	4	9186			
Туре:	F	rimary Device Pro	ovisioning Engine		
Status	5	eady			

Figure 3-23 View Cisco Network Registrar Details Page

Table 3-11 identifies the fields and buttons shown in Figure 3-23.

Field	or Button	Description
Regio	nal Distribution Unit	Details
	Host Name	Displays the host name of the system running Network Registrar.
	Provisioning Group	Identifies the primary provisioning group for this Network Registrar.
	Properties	Identifies the properties that are applied to the selected Network Registrar.
	Version	Identifies the extension point version currently in use.
	Up Time	Identifies how long the Network Registrar extension point has been operational. This is indicated in hours, minutes, and seconds.
	State	Identifies the current operational status of the Network Registrar extension point. If this field reads Offline, these fields will not be displayed:
		• Version
		• Uptime
Device	e Provisioning Engir	ne(s) Details
	DPE	Identifies the IP address of the device provisioning engine.
	Port	Identifies the DPE port number.
	Туре	Identifies whether this DPE is a primary or secondary DPE
	Status	Identifies whether or not the DPE is operational

Table 3-11 View Network Registrar Extension Point Details Page

Listing Provisioning Groups

The List Provisioning Groups page, shown in Figure 3-24, identifies all provisioning group within the system.

Figure 3-24	List Provisioning	Groups Page
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Broadband Provi	sionii	ng Reg	gis	trar		Logout
	Users	Devices		Configuration	Servers	Technology Defaults
		RDU		DPEs	NRs	Provisioning Groups
Cisco Systems International List Provisioning Groups Use this page to list the provisioning groups. Provisioning Groups						
Default			_			
mass						

Table 3-12 identifies the fields and buttons shown in Figure 3-24.

Table 3-12 List Provisioning Groups Page

Field or Button	Description
Provisioning Group	Identifies all provisioning groups. Each of the provisioning group displayed has a link to another page that shows the details for that group.

Viewing Provisioning Group Details

Complete this procedure to view all BPR provisioning group details:

- Step 1 Select Servers on the Primary Navigation bar.
- **Step 2** Select **Provisioning Groups** from the Secondary Navigation bar. All configured provisioning groups appear in the **Provisioning Groups** page similar to that shown in Figure 3-24.
- **Step 3** Locate the desired provisioning group if more than one is displayed. You might have to use the scroll buttons, in the lower-left of the page, to find the required group.
- Step 4 Click the link to the desired provisioning group and the details page, similar to that shown in Figure 3-25, appears.

Figure 3-25 View Provisioning Group Details Page

Broadband Pr	covisioning Reg	ist	trar		Logout
	Users Devices		Configuration	Servers	Technology Defaults
	RDU		DPEs	NRs	Provisioning Groups 🌙
Cisco Systems View Provisioning Group Details Use this page to view the current values for the p Provisioning Group Details	provisioning group that you selected	∶d.			
Host Name:	Default				
Primary Device Provisioning Engine(s):	bpr-int-dpe3.cisco.com	i, bpr-i	int-dpe4.cisco.co	om	
Secondary Device Provisioning Engine(s):					
		_			

Table 3-13 identifies the fields and buttons shown in Figure 3-25.

Field or Button	Description
Host Name	Identifies the provisioning group name selected from the List Provisioning Groups page.
Device Provisioning Engine(s)	Identifies the hostnames of the DPEs that are primary for this provisioning group.
Network Registrar Extension Points	Identifies the hostname of the Network Registrar server assigned to this provisioning group.

Table 3-13 View Provisioning Groups Details Page

Viewing BPR Servers