CHAPTER

Service/Subscriber Provisioning

The Cisco 6400 Service Connection Manager (SCM) allows you to make and manage network connections through a set of menu options available by right clicking on an appropriate Cisco 6400 Chassis, NSP, NRP, NLC, or port object in MapViewer window. These menu options allow you to create and configure services and subscribers, and to manage the subsequent connection of the subscribers to the services. Figure 9-1 describes the basic workflow for service and subscriber provisioning.

This chapter details the tasks you need to use during day to day service connection management and the name we use to describe combined service and subscriber provisioning.



Figure 9-1 Service/Subscriber Provisioning Workflow

Note

Each of the windows that appear in this chapter are described in greater detail in Chapter 10, "Service/Subscriber Provisioning Windows: Detailed Description".

See the "SCM Tasks" section on page 9-2 for details of the SCM tasks that you can execute and the objects that you select to begin the task.

SCM Tasks

Table 9-1 This section describes the tasks that you execute from each object type using the Cisco 6400 SCM Manager (c6400Manager) view. For example, you would select a Site, Shelf or Chassis object when you wish to deploy a service instance object or select a Shelf or Chassis object when you wish to deploy a connection template.

Table 9-1 Launch Points for Service Connection Management Tasks

	Objects (that can be selected) to Open the Window										
Cisco 6400 Task	Site	Shelf	Chassis	NSP	NRP	NRP ATM Port	Node Line Card	Node Line Card ATM Port	Service Instance	Subscriber	Menu Options to Select to Open Window
Create Service Profiles	Yes	Yes	Yes	No	No	No	No	No	Yes	No	Cisco 6400 UAC, Profile, Configure, <i>service type</i>
Deploy Connection Template	No	Yes	Yes	No	No	No	No	No	No	No	Cisco 6400 UAC, Connection Template, Deploy
Connection Template Configuration	No	Yes	Yes	No	No	No	No	No	No	No	Cisco 6400 UAC, Connection Template, Configure Connection Template
Deploy Service Instance	Yes	Yes	Yes	No	No	No	No	No	Yes	No	Cisco 6400 UAC, Service, Deploy, <i>service type</i>
Configure and Commission a Service Instance	Yes	Yes	Yes	No	No	No	No	No	Yes	No	Cisco 6400 UAC, Service, Configure <i>service type</i>
Deploy Subscriber	Yes	Yes	Yes	No	No	Yes	No	Yes	No	No	Cisco 6400 UAC, Subscriber, Deploy
Configure Subscriber	Yes	Yes	Yes	No	No	Yes	No	Yes	No	Yes	Cisco 6400 UAC, Subscriber, Configure
Connect Subscriber	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Cisco 6400 UAC, Subscriber, Connect
Disconnect Subscriber	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	Cisco 6400 UAC, Subscriber, Disconnect

Defining Policies For Service Provisioning

Many service providers and telecommunications carriers now offer tiered service levels to their customers and/or subscribers. These service levels are generally defined by the marketing policy of the carrier or service provider. Configuration of the Cisco 6400 SCM service and subscriber provisioning involves the definition of a large number of parameters that are common across these policies.

The Cisco 6400 SCM uses the concept of a configuration profile to simplify the definition of service parameters.

A configuration profile is a set of configuration parameters (or attributes) that you can set up in advance before the actual configuration operation. These profiles are saved in the Cisco EMF database. The Cisco 6400 SCM profiles speed up both subscriber provisioning and service provisioning.

Without profiles, you would have to enter a repetitive definition of the same (or similar) information for service or subscriber provisioning operations. For example, you may wish to define "bronze" (low data rate, inexpensive), "silver" and "gold" (high data rate, expensive) profiles for subscriber QoS using a connection template. Connection templates therefore provide a simple method of applying information for use during subscriber provisioning and saves retyping all of the QoS parameters individually for each new subscriber. A typical work flow is provided (see Figure 9-2) to help you.

Figure 9-2 Defining Profiles For Service Provisioning



This section describes how to access and configure the Cisco 6400 SCM Service Profile Configuration windows. The values that you select for each service depends on your network topology and market service offerings.

See the Chapter 10, "Service/Subscriber Provisioning Windows: Detailed Description" for further information on the meaning of each service topology and service parameter.

Creating Service Profiles for a PPPoA-SD Service

Service profiles define configuration parameters for the uplink from the Cisco 6400 UAC to the service provider.

You can set up profiles and apply them or, alternatively, you can set up and apply a profile with some of the parameters set and then configure the remaining parameters manually. The services available on the Cisco 6400 UAC have a number of parameters to configure. It is worth setting up a number of different service profiles with at least some of the values complete (that can be applied later) to save time.

To create a PPPoA-SD service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure PPPoA-SD Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window. Profiles are "globally" available within the Cisco 6400 SCM.

The PPPoA-SD Service Profile Configuration window appears with the Configuration tab displayed.

Figure 9-3 PPPoA-SD Service Profile Configuration Window (Configuration Tab)

-	PPPoA-SD Service Profile Conf	iguration	•
File Edit Options Window			Help
File Edit Options Window	Configuration Service Details PPP Session Termination Parameters IP Unnumbered Interface Fast Ethernet IP Addrese A, A	IP Address Pool Lower IP Address Higher IP Address 141 0 0 VC Parameters Subscriber Encapsulation aal5mux ppp	Help
PPPoA-SD Service Profile Create Profile Status: Cisco6400PPPIPService (decom	missioned), Cisco6400PPPIPServiceProfile (decommissioned)	Dynawic updates are ena	abled

Step 2 Select Create Profile.

A Prompt window appears (see Figure 9-4) for you to enter a name for you new profile.

Prompt	· 🗆
Enter profile name :	
PPPoA-SDSilver	
<u>0</u> k	Cancel

Step 3 Enter a name for the profile in the Enter profile name data entry box. PPPoA-SDSilver was entered in the example shown in Figure 9-4.



Note Each service profile must have a unique name. Do not insert spaces into a service profile name.

The PPPoA-SD Service Profile Configuration window reappears with the new profile name displayed in the PPPoA-SD Service Profiles list at left side of the window (see Figure 9-5).

Figure 9-5 PPPoA-SD Service Profile Configuration Window (Configuration Tab)

-	PPPoA-SD Service Profile Configuration	
File Edit Options Window		<u>H</u> elp
PPPOA-SD-profile-2 PPPOA-SD-profile	Configuration Service Details PPP Session Termination Parameters IP Unnumbered Interface IP Address	Pool tdress]]41] 0 0 51 ddress 141 0 0 75
PPPoA-SD Service Profiles	Subnet Mess Authentication Type Peer DHCP disable	Encapsulation aal5mux ppp I
Create Profile	ssioned), Cisco6400PPPIPServiceProfile (decommissioned)	Dynamic updates are enabled

Note

Select the **Copy** and **Copy Page Configuration** options in the **Edit** menu to cut and paste between different profiles. This is useful when you wish to copy profile information from one to the next.

Step 4 Configure the parameters in the PPP Session Termination Parameters panel, as required. The PPP Session Termination Parameters describe the PPP characteristics used to terminate the incoming PPP traffic. You should set the parameters appropriate to your network topology and services offered.



You can apply an existing profile to a new profile to save time when configuring new profiles. Select the **Apply Profile** option from the **Edit** menu and then select the existing profile you wish to apply from the profiles listed. The configuration settings are copied from the existing profile to the new profile. The settings copied appear in blue.

Step 5 Enter values for the Lower and Higher IP Addresses into the IP Address Pool panel, as required. The IP Address Pool set the range of IP addresses available to a subscriber.



If you select to **enable** the Peer DHCP option, it appears that you are using an external DHCP Server for IP address allocation, and values entered into the IP Address Pool panel are grayed out and ignored.

- **Step 6** Select a **Subscriber Encapsulation** type in the VC Parameters panel. The VC Parameters define the characteristics of the incoming ATM traffic.
- Step 7 Select the Service Details tab (see Figure 9-6).

Figure 9-6 PPPoA-SD Service Profile Configuration Window (Service Details Tab)

PPPOA-SD Service Profile Configuration	•
File Edit Options Mindow	<u>H</u> elp
$1 \land 2 \land = \bigcirc \checkmark \bigcirc \bigcirc$	
PPPOA-SDSilver Configuration Service Details	
Service Description Enter an optional Service Description here. PPPoA-SD Service Profile	
Status: Cisco6400PPPIPService (unknown), Cisco6400PPPIPServiceProfile (unknown)	I

Step 8 Enter a description into the Service Description data entry box in the Service Details panel, if required.



Entering a Service Description is optional.

Step 9 Select Save from the File menu to save the parameters you have selected for your service profile.

Step 10 Select Close from the File menu to close the window.

Editing an Existing PPPoA-SD Service Profile

To edit an existing PPPoA-SD service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure PPPoA-SD Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window.

The PPPoA-SD Service Profile Configuration window appears with the PPPoA-SD Configuration tab displayed. Existing service profiles are displayed in the PPPoA-SD Service Profiles list at the left side of the window.

Figure 9-7 PPPoA-SD Service Profile Configuration Window (PPPoA-SD Configuration Tab)

	PPPoA-SD Service Profile Config	uration	• □
File Edit Options Window			<u>H</u> elp
oppoA-SDGold	nfiguration Service Details PPP Session Termination Parameters IP Unnumbered Interface None IP Address 192 , 230 , 24 , 12 Subnet Mask 192 , 230 , 24 , 14 Authentication Type none Deve DL/DD	IP Address Pool Lower IP Address 192 230 12 10 Higher IP Address 192 230 12 20 VC Parameters Subscriber Encapsulation aal5ciscoppp	
PPPoA-SD Service Profile Create Profile Status: Cisco6400PPPIPService (unknown),	Cisco6400PPPIPServiceProfile (unknown)		

- Step 2 Select the profile you wish to edit from the list of profiles displayed in the PPPoA-SD Service Profiles list.
- Step 3 Edit the parameters displayed in the Configuration and Service Details tabs, as required.
- Step 4 Select Save from the File menu to save the changes made to the service profile.
- Step 5 Select Close from the File menu to close the window.

Deleting an Existing PPPoA-SD Service Profile

To delete an existing PPPoA service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure PPPoA-SD Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window.

The PPPoA-SD Service Profile Configuration window appears. Existing service profiles are displayed in the **PPPoA-SD Service Profiles** list on the left side of the window.

Figure 9-8 PPPoA-SD Service Profile Configuration Window (PPPoA-SD Configuration Tab)

-	PPPoA-SD Service Profile Configuration	•
File Edit Options Window		Help
File Edit Options Window Image: Depression of the state of the s	Configuration Service Details PPP Session Termination Parameters IP Unnumbered Interface Fast Ethernet T IP Address Pool Lower IP Address 141, 0, 0, 51 Higher IP Address 141, 0, 0, 51 Higher IP Address 141, 0, 0, 51 Higher IP Address 141, 0, 0, 75 VC Parameters Subsert Mess 0, 0, 0, 0 Authentication Type chap T Peer DHCP disable T	Help
PPPoA-SD Service Profile Create Profile Status: Cisco6400PPPIPService (deci	ommissioned), Cisco6400PPPIPServiceProfile (decommissioned) Dgnamic updates are er	nabled

- Step 2 Select the existing service profile (displayed in the PPPoA-SD Service Profiles list) that you wish to delete.
- Step 3 Select the **Delete Profile** option from the **Edit** menu. Select the profile you wish to delete from the list displayed.

A Deletion Prompt window appears (see Figure 9-9) for you to confirm that you wish to delete the selected profile.

Figure 9-9 Deletion Prompt Window

-		•	
?	Are you sure you want to delete profile 'PPPo	A-SDSilver'?	
	Yes	No	11666

Step 4 Click Yes to delete the selected profile or click No to close the window without deleting the profile.

When a profile is deleted it disappears from the list of PPPoA Service Profiles in the PPPoA-SD Service Profile Configuration window.

Creating Service Profiles for an L2TP Service

L2TP service profiles define the configuration parameters for the uplink from the Cisco 6400 UAC to the service provider. You can set up profiles and apply them to the relevant NRP or, alternatively, you can set up and apply a profile with some of the parameters set and then configure the remaining parameters manually. The services available on the Cisco 6400 UAC have a number of parameters to configure. It is worth setting up a number of different service profiles with at least some of the values complete (that can be applied later) to save time.

To create an L2TP service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure L2TP Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window. Profiles are "globally" available within the Cisco 6400 SCM.

The L2TP Service Profile Configuration window appears with the Configuration tab displayed.

Figure 9-10 L2TP Service Profile Configuration Window (Configuration Tab)

File Edit Options Window	Help
EXTREME Configuration Service Details QoS Parameters L2TPS/IVer Tunnel Parameters Subscriber Encapsulation aalSciscoppp Domain Name	x x 12 10 14

Step 2 Select Create Profile.

A Prompt window appears (see Figure 9-11) for you to enter a name for your new profile.

Figure 9-11 Prompt Window

Prompt	•
Enter profile name :	
L2TPBronze	
<u>Ok</u>	Cancel

Step 3 Enter a name for the profile in the Enter profile name data entry box. L2TP Bronze was entered in the example shown in Figure 9-11.

Note

Each service profile must have a unique name. Do not insert spaces into a service profile name.

The L2TP Service Profile Configuration window reappears with the name of the new profile displayed in the L2TP Service Profiles list at left side of the window. See the "L2TP Service Profile Configuration Window" section on page 10-4 for details of the parameters displayed.

Figure 9-12 L2TP Service Profile Configuration Window (Configuration Tab)

			•
File Edit Options Window			Help
Elle Edit Options Window	Configuration Service Details OoS Parameters Tunnel Parameters Tunnel Number Domain Name Destination IP Address 192, 168, 238, Authentication Name Authentication Password Authentication Type none	VC Parameters 1 Subscriber Encapsulation Encapsulation Type aal5ciscoppp r 2 PVC IP Address 192 168 230 12 Sub-Interface IP Address 192 168 236 10 r Subnet Mask 192 168 236 14	Help
L2TP Service Profile Create Profile			
Status: Cisco6400ServiceUplink (unk	nown), Cisco6400L2TPService (unknown), Cisco6400L2TPServiceF	rofile (unknown)	



Select the Copy and Copy Page Configuration options in the Edit menu to cut and paste between different profiles. This is useful when you wish to copy profile information from one to the next.

Step 4

Configure the parameters displayed in the L2TP Configuration tab as required.



You can apply an existing profile to a new profile to save time when configuring new profiles. Select the Apply Profile option from the Edit menu and then select the existing profile you wish to apply from the profiles listed. The configuration settings are copied from the existing profile to the new profile. The settings copied appear in blue.

Step 5 Select the Service Details tab.

-	L2 ⁻	FP Service Profile Configuration	•
File Edit Options Window			Help
IAA ≡ © √ 0	Q		
L2TPBronze	Configuration Service Detail	© QoS Parameters	
L2TPGold L2TPSilver			
Control (Service Description	Enter an optional Service Description here.	
<u> </u>			
L2TP Service Profiles			
Create Profile			
atus: Cisco6400ServiceUplink (un	<nown), (un<="" cisco6400l2tpservice="" td=""><td>(nown), Cisco6400L2TPServiceProfile (unknown)</td><td></td></nown),>	(nown), Cisco6400L2TPServiceProfile (unknown)	

Figure 9-13 L2TP Service Profile Configuration Window (Service Details Tab)

- **Step 6** Enter a description into the Service Description data entry box in the Service Details panel, when required. Entering a Service Description is optional.
- Step 7 Select the QoS Parameters tab.

	10			
	$\mathbf{\mathbf{v}}$			
	Conferentian Constant Dataily	OoS Parametere		
2TPGold	Conliguration Service Details	GIOST ATAINETETS		
2TPSilver	Quality of Service (Recei	ve)	Quality of Service (Transmit)	
	QoS Category	ubr	QoS Category	<u>v</u>
	Peak Cell Rate		Peak Cell Rate	
	Sustainebie Celi Pete		Sustainebie Celi Rete	
	Minimum Cell Rate		Minimum Cell Rate	
	Max Burst Cell Size		Max Burst Cell Size	
	Cell Delay Variation Tolera	ance	Cell Delay Variation Tolerance	
TP Service Profiles				
Create Profile				

Figure 9-14 L2TP Service Profile Configuration Window (QoS Parameters Tab)

Step 8 Configure the parameters displayed on the QoS Parameters tab, as required.

Step 9 Select Save from the File menu to save the parameters you have selected for your service profile.

Step 10 Select Close from the File menu to close the window.

Editing an Existing L2TP Service Profile

To edit an existing L2TP service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure L2TP Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window.

The L2TP Service Profile Configuration window appears with the L2TP Configuration tab displayed. Existing service profiles are displayed in the L2TP Service Profiles list at the left side of the window.

		•
File Edit Options Window		Help
XI≜⇔≡⊡√ Q		
L2TPBronze	Configuration Service Details QoS Parameters	
L2TPSilver	Tunnel Parameters VC Parameters	1
	Tunnel Number 1 Subscriber Encapsulation aal5clscoppp 📝	
	Domain Name Encapsulation Type aal5mux ip 🗾	
	Destination IP Address 192 . 168 . 238 . 12 PVC IP Address 192 . 168 . 230 . 12	
	Authentication Name Sub-Interface	
	Authentication Password IP Address 192 , 168 , 236 , 10	
	Authentication Type none 🔽 Subnet Mask 132 . 168 . 238 . 14	
L2TP Service Profiles		
Create Profile		
Status: Cisco6400ServiceUplink (unk	nnam), Cisco6400L2TPService (unknown), Cisco6400L2TPServiceProFile (unknown)	

Figure 9-15 L2TP Service Profile Configuration Window (Configuration Tab)

- Step 2 Select the profile you wish to edit from the list of profiles displayed in the PPPoA-SD Service Profiles list.
- **Step 3** Edit the parameters displayed in the Configuration, Service Details and QoS Parameters tabs as required.
- Step 4 Select Save from the File menu to save the changes made to the service profile.
- Step 5 Select Close from the File menu to close the window.

Deleting an Existing L2TP Service Profile

To delete an existing L2TP service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure L2TP Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window.

The L2TP Service Profile Configuration window appears. Existing service profiles are displayed in the L2TP Service Profiles list on the left side of the window.

	L2TP Service Profile Configura	ation	
e Edit Options Window			Hel
	Configuration Service Details OnS Parameters		
L2TPGold L2TPSilver	Tunnel Parameters	VC Parameters	
	Tunnel Number 1	Subscriber Encapsulation aal5ciscoppp 工	
	Domain Name	Encapsulation Type aal5mux ip 🗾	
	Destination IP Address 192 . 168 . 238 . 12	PVC IP Address 192 . 168 . 230 . 12	
	Authentication Name	Sub-Interface	
	Authentication Password	IP Address 192 . 168 . 236 . 10	
	Authentication Type none Z	Subnet Mask 192 . 168 . 238 . 14	
2TP Service Profiles			
Create Profile			
us: Cisco6400ServiceUplink (unk	nown), Cisco6400L2TPService (unknown), Cisco6400L2TPServiceProf	ile (unknown)	

Figure 9-16 L2TP Service Profile Configuration Window (L2TP Configuration Tab)

Step 2 Select the **Delete Profile** option from the **Edit** menu. Select the profile you wish to delete from the list displayed.

A Deletion Prompt window appears (see Figure 9-9) for you to confirm that you wish to delete the selected profile.

Figure 9-17 Deletion Prompt Window

-		• 🗆	
? -	Are you sure you want to delete prof	ile 'L2TPBronze'?	
	Yes	No	41667

- Step 3 Click Yes to delete the selected profile or click No to close the window without deleting the profile.
- Step 4 When a profile is deleted it disappears from the list of L2TP Service Profiles in the L2TP Service Profile Configuration window.

Creating Service Profiles for an RFC1483 Bridging Service

Service profiles define configuration parameters for the uplink from the Cisco 6400 UAC to the service provider.

You can set up profiles and apply them or, alternatively, you can set up and apply a profile with some of the parameters set and then configure the remaining parameters manually. The services available on the Cisco 6400 UAC have a number of parameters to configure. It is worth setting up a number of different service profiles with at least some of the values complete (that can be applied later) to save time.

To create an RFC1483 Bridging service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure RFC1483 Bridging Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window. Profiles are "globally" available within the Cisco 6400 SCM.

The RFC1483 Bridging Service Profile Configuration window appears:

Figure 9-18 RFC1483 Bridging Service Profile Configuration Window (Configuration Tab)

		ing Service Profile Config	juration		
File Edit Options Window					<u>H</u> elp
	Configuration Service Details Qo:	S Parameters			
RFC1483BridgingSilver	Bridge Parameters		Subscriber Policy		
	Bridge Protocol	IEEE 🗵	Address Resolution Protocol	Permit 🗵	
	Bridge Group	Group 3	Broadcast	Permit 🗵	
		,	Multicast	Permit 🗵	
	VC Parameters		Unknown Destination	Permit 🗵	
	Encapsulation Type	aal5ninid 🔍	Spanning Tree Protocol	Permit 🗵	
		adompia	Cisco Discovery Protocol	Permit 🗵	
RFC1483 Bridging Service Profiles					
Create Profile					
Status: Cisco6400ServiceUplink (unknow	wn), Cisco6400BridgedBridgedService	(unknown), Cisco6400BBService	Profile (unknown)		

Step 2 Select Create Profile. A Prompt window appears (see Figure 9-19).

Figure 9-19 Prompt Window

Prompt	- L
Enter profile name :	
BR1483BridgingBronze	
<u>O</u> k	Cancel
	Cancer





Each service profile must have a unique name. Do not insert spaces into a service profile

Step 4 BR1483 Bridging Bronze was entered in the example shown in Figure 9-19. The new profile name appears in the BB Service Profiles list at left side of the window (see Figure 9-20).

Figure 9-20 RFC1483 Bridging Service Profile Configuration Window (Configuration Tab)

	RFC1483 Bridgin	ng Service Profile Config	uration		•
<u>File E</u> dit <u>Options</u> <u>Window</u>					<u>H</u> elp
	Configuration Service Details QoS	Parameters			
RFC1463BridgingGold RFC1483BridgingGilver	Bridge Parameters		Subscriber Policy		
	Bridge Protocol	IEEE 🗵	Address Resolution Protocol	Permit 🗵	
	Bridge Group	Group 3	Broadcast	Permit 🗵	
			Multicast	Permit 🗵	
	VC Parameters		Unknown Destination	Permit 👱	
	Encapsulation Type	aal5nlpid V	Spanning Tree Protocol	Permit 👱	
			Cisco Discovery Protocol	Permit 👱	
REC1403 Bridging Service Fromes					
Create Profile					
Status: Cisco6400ServiceUplink (unkn	nown), Cisco6400BridgedBridgedService (ι	unknown), Cisco6400BBServiceF	Profile (unknown)		



Select the **Copy** and **Copy Page Configuration** options in the **Edit** menu to cut and paste between different profiles. This is useful when you wish to copy profile information from one to the next.

Step 5 Configure the parameters displayed in the Configuration tab, as required. See the "RFC1483 Bridging Service Profile Configuration Window" section on page 10-7 for details of the parameters displayed on each of the tabs.



You can apply an existing profile to a new profile to save time when configuring new profiles. Select the **Apply Profile** option from the **Edit** menu and then select the existing profile you wish to apply from the profiles listed. The configuration settings are copied from the existing profile to the new profile. The settings copied appear in blue.

name.

Step 6 Select the Service Details tab (see Figure 9-21).

	RFC1483 Bridging Service Profile Configuration	• 🗆
File Edit Options Window		<u>H</u> elp
File Edit Options Window Image: State of the state	Configuration Service Details QoS Parameters Service Description here.	Help
RFC1483 Bridging Service Profile	nown), Cisco6400BridgedBridgedService (unknown), Cisco6400BBServiceProfile (unknown)	

Figure 9-21 RFC1483 Bridging Service Profile Configuration Window (Service Details Tab)

Step 7 Enter a description into the Service Description data entry box in the Service details panel, if required. Entering a Service Description is optional. **Step 8** Select the **QoS Parameters** tab (see Figure 9-22).

Edit Options Window					Hel
a ≥ ≡ © √ 0	Q				
FC1483BridgingBronze	Configuration Service Details GOS P	arameters			
FC1483BridgingSilver	Quality of Service (Receive)		Quality of Service (Transmit)		
	QoS Category	ubr 🗵	QoS Category	abr 🗵	
	Peak Cell Rate	100	Peak Cell Rate	90	
	Sustainable Cell Pate		Sustainable Cell Rate		
	Minimum Cell Rate	50	Minimum Cell Rate	30	
	Max Burst Cell Size		Max Buist Cell Size		
	Cell Delay Variation Tolerance	10	Cell Delay Variation Tolerance	10	
N N					
C1483 Bridging Service Profiles					
1					
Create Profile					
et CieceEd00ConviceIlelink (unk	own) Cisco6400BridoedBridoedSerwice (w	known) Cisco6400RRServi	ceProfile (unknown)		

Figure 9-22 RFC1483 Bridging Service Profile Configuration Window (QoS Parameters Tab)

Step 9 Configure the parameters displayed in the QoS Parameters tab, as required.

Step 10 Select Save from the File menu to save the parameters you have selected for your service profile.

Step 11 Select Close from the File menu to close the window.

Editing an Existing RFC1483 Bridging Service Profile

To edit an existing RFC1483 Bridging service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure RFC1483 Bridging Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window.

The RFC1483 Bridging Service Profile Configuration window appears with the Service Details tab displayed. Existing service profiles are displayed in the BB Service Profiles list at the left side of the window.

	RFC1483 Brid	ging Service Profile Config	juration		•
File Edit Options Window					<u>H</u> elp
	Configuration Service Details Q	oS Parameters			
RFC1483BridgingSilver	Bridge Parameters		Subscriber Policy		
	Bridge Protocol	IEEE 🗵	Address Resolution Protocol	Permit 🗵	
	Bridge Group	Group 3	Broadcast	Permit 🗵	
	Enage areap		Multicast	Permit 🗵	
	VC Parameters		Unknown Destination	Permit 🗵	
	For some definer Trans		Spanning Tree Protocol	Permit 🗵	
	Encapsulation Type	aal5nlpid 🗾	Cisco Discovery Protocol	Permit 🗵	
RFC1483 Bridging Service Profiles					
Create Profile					
Status: Cisco6400ServiceUplink (unkno	own), Cisco6400BridgedBridgedService	e (unknown), Cisco6400BBService	Profile (unknown)		

Figure 9-23 RFC1483 Bridging Service Profile Configuration Window (BB Configuration Tab)

- Step 2 Select the profile you wish to edit from the list of profiles displayed in the RFC1483 Bridging Service Profiles list.
- Step 3 Edit the parameters displayed in the Configuration, Service Details, and QoS Parameters tabs, as required.
- Step 4 Select Save from the File menu to save the changes made to the service profile.
- Step 5 Select Close from the File menu to close the window.

Deleting an Existing RFC1483 Bridging Service Profile

To delete an existing RFC1483 Bridging service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure RFC1483 Bridging Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window.

The RFC1483 Bridging Service Profile Configuration window appears. Existing service profiles are displayed in the BB Service Profiles list on the left side of the window.

Figure 9-24 RFC1483 Bridging Service Profile Configuration Window (Configuration Tab)

	RFC1483 Bridging	Service Profile Config	uration		•
File Edit Options Window					<u>H</u> elp
	Configuration Service Details QoS P	arameters			
RFC1483BridgingSilver	Bridge Parameters		Subscriber Policy		
	Bridge Protocol	IEEE 🗵	Address Resolution Protocol	Permit 🗵	
	Bridge Group	Group 3	Broadcast	Permit 🗵	
	Linago alcop		Multicast	Permit 🗵	
	VC Parameters		Unknown Destination	Permit 🗵	
	Enconculation Tune		Spanning Tree Protocol	Permit 🗵	
	Encapsulation Type	aal5nipid <u>Y</u>	Cisco Discovery Protocol	Permit 🗵	
RFC1483 Bridging Service Profiles					
Create Profile					
Status: Cisco6400ServiceUplink (unknown)), Cisco6400BridgedBridgedService (ur	nknown), Cisco6400BBServiceP	rofile (unknown)		
					1

- Step 2 Select the existing service profile (displayed in the RFC1483 Bridging Service Profiles list) that you wish to delete.
- Step 3 Select the **Delete Profile** option from the **Edit** menu. Select the profile you wish to delete from the list displayed.

A Deletion Prompt window appears (see Figure 9-25) for you to confirm that you wish to delete the selected profile.

Figure 9-25 Deletion Prompt Window

-		•
?	Are you sure you want to delete profile 'RFC1483Brid	lgingBronze'?
	Yes	No

Step 4 Click Yes to delete the selected profile or click No to close the window without deleting the profile.

When a profile is deleted it disappears from the list of RFC1483 Bridging Service Profiles in the RFC1483 Bridging Service Profile Configuration window.

Creating Service Profiles for an RFC1483 IRB Service

Service profiles define configuration parameters for the uplink from the Cisco 6400 UAC to the service provider.

You can set up profiles and apply them or, alternatively, you can set up and apply a profile with some of the parameters set and then configure the remaining parameters manually. The services available on the Cisco 6400 UAC have a number of parameters to configure. It is worth setting up a number of different service profiles with at least some of the values complete (that can be applied later) to save time.

To create an RFC1483 IRB service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure RFC1483 IRB Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window. Profiles are "globally" available within the Cisco 6400 SCM. The RFC1483 IRB Service Profile Configuration window appears with the Configuration tab displayed:

Figure 9-26 RFC1483 IRB Service Profile Configuration Window (Configuration Tab)

	RFC1483 IRB S	Service Profile Configuratio			
File Edit Options Window				<u>H</u> e	elp
RFC1483IRBGold Control	onfiguration Service Details QoS	Parameters			
	Bridge Parameters		Subscriber Policy		
	Bridge Group		Address Resolution Protocol	Permit 🗵	
	Bridge Protocol	IEEE 🗵	Broadcast	Permit 🗵	
			Multicast	Deny 🗵	
	Virtual Interface IP Address	192 . 168 . 238 . 20	Unknown Destination	Permit 👱	
			Spanning Tree Protocol	Deny 🗵	
	Virtual Interface Subnet Mask	192 . 168 . 240 . 10	Cisco Discovery Protocol	Deny 🗵	
REC1483 IRB Service Profiles	Sub-Interface		VC Parameters		
	IP Address	0.0.0.0	Encapsulation Type as	al5snap 🗵	
Create Profile	Subnet Mask	0.0.0.0	PVC IP Address	12 . 168 . 238 . 12	
Status: Cisco6400ServiceUplink (unknown)	, Cisco6400BridgedRoutedService (ur	known), Cisco6400BRServiceProfil	e (unknown)		

Step 2 Select Create Profile. A Prompt window appears (see Figure 9-27).

Figure 9-27 Prompt Window

Prompt	· []
Enter profile name :	
RFC1483IRBBronze	
<u>O</u> k	Cancel

Step 3 Enter a name for the profile in the Enter profile name data entry box. Premium Profile was entered in the example shown in Figure 9-27.

Note Each service profile must have a unique name. Do not insert spaces into a service profile name.

The new profile name displays in the **BR Service Profiles** list at left side of the window (see Figure 9-28).

Figure 9-28 RFC1483 IRB Service Profile Configuration Window (Configuration Tab)

-	RFC1483 IRB S	ervice Profile Configuratio	on	۱ × [
File Edit Options Window				<u>H</u> elp
1 8 🗠 🗏 🗗 🗸 🚷	Q			
RFC1483IRBBronze	Configuration Service Details QoS F	Parameters		
RFC1483IRBSilver	Bridge Parameters		Subscriber Policy	
	Bridge Group		Address Resolution Protocol	Permit 🗵
			Broadcast	Permit I
	Bridge Protocol		Multicaet	Denu V
			ividiticast	Deniy _
	Virtual Interface IP Address	192 . 168 . 238 . 20	Unknown Destination	Permit <u>v</u>
			Spanning Tree Protocol	Deny 🗵
	Virtual Interface Subnet Mask	192 . 168 . 240 . 10	Cisco Discovery Protocol	Deny 🗵
RFC1483 IRB Service Profiles	Sub-Interface		VC Parameters	
	IP Address	0.0.0.0	Encapsulation Type aa	al5snap 🗵
Create Profile	Subnet Mask	0.0.0.0	PVC IP Address 19	2.168.238.12
Status: Cisco6400ServiceUplink (unkn	nown), Cisco6400BridgedRoutedService (un	known), Cisco6400BRServiceProfi	le (unknown)	

Note

Select the **Copy** and **Copy Page Configuration** options in the **Edit** menu to cut and paste between different profiles. This is useful when you wish to copy profile information from one to the next.

Step 4 Configure the parameters displayed in the Configuration tab as required. See the "RFC1483 IRB Service Profile Configuration Window" section on page 10-11 for details of the parameters displayed on each of the tabs.

Note You can apply an existing profile to a new profile to save time when configuring new profiles. Select the **Apply Profile** option from the **Edit** menu and then select the existing profile you wish to apply from the profiles listed. The configuration settings are copied from the existing profile to the new profile. The settings copied appear in blue.

Step 5 Select the Service Details tab (see Figure 9-29).

Edit Options Window Image: Configuration Service Details QoS Parameters RFC1483IRBS/Inver Service Description Enter an optional Service Description here. RFC1483IRBS/Inver RFC1483IRBS/Inver RFC1483IRBS/Inver Service Description Enter an optional Service Description here. RFC1483IRBS/Inver Create Profile Service Profile	RFC148	3 IRB Service Profile Configuration	•
Create Profile Configuration Service Details GoS Parameters RFC1483IRBSINE Service Description Enter an optional Service Description here. Service Profile Create Profile Service Description	File Edit Options Window		<u>H</u> elp
RFC1483IRBEronze Configuration Service Details QoS Parameters RFC1483IRBSIIver Service Description Enter an optional Service Description here. Image: Configuration Service Description here. RFC1483IRBSIIver Service Description Enter an optional Service Description here. Image: Configuration Service Description here. RFC1483IRB Service Profile Image: Configuration Service Description here. Image: Configuration Service Description here. Create Profile Image: Configuration Service Description here. Image: Configuration Service Description here. Statust: Ciscof4008cerviceBootertedCervice (unknown), Ciscof4008cerviceProfile (unknown) Statust:			
Service Description Enter an optional Service Description here. RFC1483 IRB Service Profile Create Profile Statust: Cisco640085erviceRop1ide:(unknown), Cisco64008E5erviceProfile (unknown)	RFC1463IRBBronze Configuration Service Details RFC1463IRBGold RFC1463IRBSilver	QoS Parameters	
RFC1483 IRB Service Profile Create Profile Status: Cisco64008cruice[bilink (unknown), Cisco64008EServiceProfile (unknown))	Service Description	Enter an optional Service Description here.	
RFC1483 IRB Service Profile Create Profile Statust: Cisco64008Service(lolink (unknown), Cisco64008EServiceProfile (unknown))			
RFC1483 IRB Service Profiles Create Profile Statust: Cisco6400Service(le) ink (unknown), Cisco6400BEServiceProfile (unknown)			
Create Profile Status: Cisco64008ervicellelink (unknown), Cisco64008rideerRoutedService (unknown), Cisco64008RServiceProfile (unknown)	RFC1483 IRB Service Profiles		
Statust Disco64008ervice blink (unknown), Disco6400RridgerRoutedService (unknown), Disco6400RRServicePoofile (unknown)	Create Profile		
	Status: Cisco6400ServiceUplink (unknown), Cisco6400BridgedRoutedServ	vice (unknown), CiscoB400BRServiceProfile (unknown)	

Figure 9-29 RFC1483 IRB Service Profile Configuration Window (Service Details Tab)

- Step 6 Enter a description into the Service Description data entry box in the Service Details panel, as required. Entering a Service description is optional.
- Step 7 Select the QoS Parameters tab.

	RFC1483 IRB Service Profile C	Configuration	•
File Edit Options Window			<u>H</u> elp
	0		
RFC1483IRBBronze	Configuration Service Details QoS Parameters		
RFC1483IRBSilver	Quality of Service (Receive)	Quality of Service (Transmit)	
	QoS Category abr	☑ QoS Category abr ☑	
	Peak Cell Rate	100 Peak Cell Rate 100	
	Sustainable Cell Pate	Sustainable Coll Pate	
	Minimum Cell Rate	20 Minimum Cell Rate 10	
	Max Buist (Cell Size	Max Buist (Cell Size	
	Cell Delay Variation Tolerance	10 Cell Delay Variation Tolerance 10xv	
RFC1483 IRB Service Profiles			
Create Profile			
Status: Cisco6400ServiceUplink (unk	nown), Cisco6400BridgedRoutedService (unknown), Cisco6400BR	RServiceProfile (unknown)	

Figure 9-30 RFC1483 IRB Service Profile Configuration Window (QoS Parameters Tab)

- Step 8 Configure the parameters displayed in the **QoS Parameters** tab as required.
- Step 9 Select Save from the File menu to save the parameters you have selected for your service profile.
- Step 10 Select Close from the File menu to close the window.

Editing an Existing RFC1483 IRB Service Profile

To edit an existing RFC1483 IRB service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure RFC1483 IRB Service Profiles option from a Shelf, Chassis, or service instance object in the MapViewer window.

The RFC1483 IRB Service Profile Configuration window appears with the **BR Configuration** tab displayed. Existing service profiles are displayed in the **BR Service Profiles** list at the left side of the window.

Figure 9-31 RFC1483 Bridging Service Profile Configuration Window (Configuration Tab)

-	RFC1483 IRB	Service Profile Configurati	on		
File Edit Options Window				H	lelp
\ ≜ ⊟ ⊑ ⊑ √ 0 <	λ				
RFC1483IRBGold	Configuration Service Details QoS	Parameters			
	Bridge Parameters		Subscriber Policy		
	Bridge Group		Address Resolution Protocol	Permit 🗵	
	Bridge Protocol	IEEE 🗵	Broadcast	Permit 🗵	
			Multicast	Deny 🗵	
	Virtual Interface IP Address	192 . 168 . 238 . 20	Unknown Destination	Permit 🗵	
			Spanning Tree Protocol	Deny 🗵	
	Virtual Interface Subnet Mask	192 . 168 . 240 . 10	Cisco Discovery Protocol	Deny 👱	
	Sub-Interface		VC Parameters		
REC1403 IRB Service Profiles	IP Address	0.0.0.0	Encapsulation Type aa	al5snap 🗵	
Create Profile	Subnet Mask	0.0.0.0	PVC IP Address	12. 168. 238. 12	
atus: Cisco6400ServiceUplink (unknow	wn), Cisco6400BridgedRoutedService (ur	nknown), Cisco6400BRServiceProfi	le (unknown)		

- Step 2 Select the profile you wish to edit from the list of profiles displayed in the RFC1483 IRB Service Profiles list.
- Step 3 Edit the parameters displayed in the Configuration, Service Details, and QoS Parameters tabs, as required.
- **Step 4** Select **Save** from the **File** menu to save the changes made to the service profile.
- Step 5 Select Close from the File menu to close the window.

Deleting an Existing RFC1483 IRB Service Profile

To delete an existing IRB service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure RFC1483 IRB Service Profiles option from a Site, Shelf, Chassis, or service instance object in the MapViewer window.

The RFC1483 IRB Service Profile Configuration window appears. Existing service profiles are displayed in the **BR Service Profiles** list on the left side of the window.

Figure 9-32 RFC1483 IRB Service Profile Configuration Window (BR Configuration Tab)

-	RFC1483 IRB S	ervice Profile Configuration	on		
File Edit Options Window					<u>H</u> elp
	Q				
RFC1483IRBGold	Configuration Service Details QoS I	Parameters			_
NFC1400IND0IV6	Bridge Parameters		Subscriber Policy		
	Bridge Group		Address Resolution Protocol	Permit 🗵	
	Bridge Protocol	IEEE 🖂	Broadcast	Permit 🗵	j
	Ŭ		Multicast	Deny 🗵	
	Virtual Interface IP Address	192 . 168 . 238 . 20	Unknown Destination	Permit 💆	
			Spanning Tree Protocol	Deny 🗵	
	Virtual Interface Subnet Mask	192 . 168 . 240 . 10	Cisco Discovery Protocol	Deny 💆	
RFC1483 IRB Service Profiles	Sub-Interface		V. Parameters		
	IP Address	0.0.0.0	Encapsulation Type aa	al5snap 🗵	
Create Profile	Subnet Mask	0.0.0.0	PVC IP Address 19	12 . 168 . 238 . 12	
atus: Cisco6400ServiceUplink (unkn	nown), Cisco6400BridgedRoutedService (un	known), Cisco6400BRServiceProfi	le (unknown)		

- Step 2 Select the existing service profile (displayed in the RFC1483 IRB Service Profiles list) that you wish to delete.
- Step 3 Select the **Delete Profile** option from the **Edit** menu. Select the profile you wish to delete from the list displayed.

A Deletion Prompt window appears (see Figure 9-33) for you to confirm that you wish to delete the selected profile.

Figure 9-33 Deletion Prompt Window

-			1
?	Are you sure you want to delete profile 'RFC148	31RBSilver'?	
	Yes	No	

- Step 4 Click Yes to delete the selected profile or click No to close the window without deleting the profile.
- Step 5 When a profile is deleted it disappears from the list of RFC1483 IRB Profiles in the RFC1483 IRB Service Profile Configuration window.

Creating Service Profiles for an IP Uplink (for PTA-MD and RBE Subscribers) Service

Service profiles define configuration parameters for the uplink from the Cisco 6400 UAC to the service provider.

You can set up profiles and apply them or, alternatively, you can set up and apply a profile with some of the parameters set and then configure the remaining parameters manually. The services available on the Cisco 6400 UAC have a number of parameters to configure. It is worth setting up a number of different service profiles with at least some of the values complete (that can be applied later) to save time.

To create an IP Uplink service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure IP Uplink Profiles option from a Site, Shelf, Chassis, or service instance object using the MapViewer application.

The IP Uplink Service Profile Configuration window appears (see Figure 9-34) with the Configuration tab displayed.

-	IP Uplin	ik Service Profile Configura		· []
File Edit Options Window				<u>H</u> elp
PUplinkGold A IPUplinkSilver	Configuration Local Service	Profile QoS Parameters		
	Service Description	Enter an optional Service Desc	ription here.	
	Sub-Interface		Next Hop	
	IP Address	192 . 160 . 230 . 10	Next Hop IP Address 192 , 160 , 232 , 1	0
	Subnet Mask	192 . 160 . 230 . 12	Next Hop Gateway Key	
IP Uplink Service Profiles	Encapsulation Type	aal5mux ip 🗵	Local Service Profile	
Create Profile	Assigned Number		Configure Yes	1
				I
Status: Cisco6400ServiceUplink (unkn	own), Cisco6400PTAMDService (ur	known), Cisco6400PTAM⊡ServicePro	ofile (unknown)	

Figure 9-34 IP Uplink Service Profile Configuration Window (Configuration Tab)

Step 2 Select Create Profile. A Prompt window appears (see Figure 9-35).

Figure 9-35 Prompt Window

-	Prompt	· .
Enter profi	ile name :	
IPUplinkB	Ironze	
Ok		Canaal
UK		Cancer

Step 3 Enter a name for the profile in the **Enter profile name** data entry box. IP Uplink Bronze was entered in the example shown in Figure 9-35.

Note Each service profile must have a unique name. Do not insert spaces into a service profile name.

The new profile name appears in the **IP Uplink Service Profiles** list on the left side of the window (see Figure 9-36).

Figure 9-36 IP Uplink Service Profile Configuration Window (Configuration Tab)

	IP Uplin	k Service Profile Configura	ition	· []
File Edit Options Window				<u>H</u> elp
xI ≙ ⇔ ≡ ⊡ √ 0	Q			
PUplinkBronze	Configuration Local Service	Profile QoS Parameters		
IPUplinkSilver				
	Service Description	Enter an optional Service Desc	ription here.	
	Sub-Interface		Next Hop	
	IP Address	192 . 160 . 230 . 10	Next Hop IP Address 192 - 160 - 2	232 . 10
	Subnet Mask	192 . 160 . 230 . 12	Next Hop Gateway Key	
IP Uplink Service Profiles	Encountration Trans		· · · · ·	
	Encapsulation Type	aaronnux ip	Local Service Profile	
Create Profile	Assigned Number		Configure Yes	<u>Y</u>
Status: Cisco6400ServiceUplink (unk	nown), Cisco6400PTAMDService (ur	known), Cisco6400PTAMDServicePro	əfile (unknown)	

Step 4 Configure the parameters displayed in the Configuration tab (shown in Figure 9-34), as required. The Configure option (in the Local Service Profile panel on the Configuration tab) must be set to Yes to allow you to configure the parameters displayed in the Local Service Profile tab.



You can apply an existing profile to a new profile to save time when configuring new profiles. Select the **Apply Profile** option from the **Edit** menu and then select the existing profile you wish to apply from the profiles listed. The configuration settings are copied from the existing profile to the new profile. The settings copied appear in blue.

Note

Select the **Copy** and **Copy Page Configuration** options in the **Edit** menu to cut and paste between different profiles. This is useful when you wish to copy profile information from one to the next.

Step 5 Select the Local Service Profile tab (when applicable).

Note The Configure option (in the Local Service Profile panel on the Configuration tab) must be set to Yes to allow you to configure the parameters displayed in the Local Service Profile tab.

Figure 9-37 IP Uplink Service Profile Configuration Window (Local Service Profile Tab)

	IP Uplink S	ervice Profile Configura	ation		· 🗆
File Edit Options Window					<u>H</u> elp
XIA 🖻 🗏 💽 🖌 😧 😂					
IPUplinkBronze	onfiguration Local Service Prof	IIE QoS Parameters			
IPUplinkSilver	General		DNS Redirection / Fault T	Folerance	- 11
	Name	Local	DNS Fault Tolerance	Enabled 🗵	
	Description	Local Service Profile	Primary DNS Server	192 . 158 . 240 . 16	
	Туре	Proxy 🗵	Secondary DNS Server	192 . 158 . 240 . 18	
	Mode	Sequential 🗵			
	Password	****	Remote RADIUS Configur	ration	- 11
	Domain Name(s)	Domain 1	RADIUS IP Address	192 . 164 . 238 . 12	
IP Uplink Service Profiles	Service Route		RADIUS Auth-Port		
	Idle Timeout (seconds)	20	RADIUS Acct-Port		
	Session Timeout (seconds)	30	RADIUS Secret	********	
Status: Cisco6400ServiceUplink (unknown),	, Cisco6400PTAMDService (unknow	wn), Cisco6400PTAMDServicePr	ofile (unknown)		

See the "Local Service Profile Tab" section on page 10-18 for details of the parameters displayed.

- **Step 6** Configure the General, DNS Redirection / Fault Tolerance, and the Remote RADIUS Configuration parameters.
- Step 7 Select the QoS Parameters tab.

Figure 9-38 IP Uplink Service Profile Configuration Window (QoS Parameters Tab)

	IP Uplink Service Profile Conf	iguration	• 🗆
<u>File</u> <u>E</u> dit <u>Options</u> <u>Window</u>			<u>H</u> elp
	Q		
PUplinkBronze	Configuration Local Service Profile QoS Parameters		
IPUplinkSilver	Quality of Service (Receive)	Quality of Service (Transmit)	
	QoS Category ubr	QoS Category ubr 🔽	
	Peak Cell Rate 10	0 Peak Cell Rate 100	
	Sustainable Cell Rale	Sustemable Cell Rale	
	Minimum Cell Rate	0 Minimum Cell Rate 40	
	Max Burdi Cell Size	Max Bursi Celi Size	
	Cell Delay Variation Tolerance	0 Cell Delay Variation Tolerance 10	
IP Uplink Service Profiles			
Create Profile			
Status: Cisco6400ServiceUplink (unkr	nown), Cisco6400PTAMDService (unknown), Cisco6400PTAMDServ	viceProfile (unknown)	

- Step 8 Configure the Quality of Service (Receive) and Quality of Service (Transmit) parameters, as required.
- Step 9 Select Save from the File menu to save the parameters you have selected for your service profile.
- Step 10 Select Close from the File menu to close the window.

Editing an Existing IP Uplink Service Profile

To edit an existing IP Uplink service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure IP Uplink Profiles option from a Site, Shelf, Chassis, or service instance object in the Map Viewer window.

The IP Uplink Service Profile Configuration window appears with the Configuration tab displayed (see Figure 9-39).

	IP Uplir	nk Service Profile Configura	ation	
le <u>E</u> dit <u>O</u> ptions <u>Wi</u> ndow				<u>H</u> elj
a de e e e e	\bigcirc			
PUplinkGold	Configuration Local Service	Profile QoS Parameters		
горинканчег				
	Service Description	Enter an ontional Service Desc	rintion here	141
			inpriori noro.	П
		<		
	Sub-Interface		Next Hop	
	IP Address	192 . 160 . 230 . 10	Next Hop IP Address	192 . 160 . 232 . 10
	Subnet Mask	192 160 230 12	Next Hen Getewen Ken	
P Unlink Service Profiles	oublict Mask		Non Hop Galeway Ney	
opinik bervice i folilea	Encapsulation Type	aal5mux ip 💆	Local Service Profile	
	Assigned Number		Configure	Yes 🗵
Create Profile				
tus: Cisco6400ServiceUplink (unkr	wwn), Cisco6400PTAMDService (u	nknown), Cisco6400PTAMDServicePr	ofile (unknown)	

Figure 9-39 IP Uplink Service Profile Configuration Window (Configuration Tab)

- Step 2 Select the profile you wish to edit from the list of profiles displayed in the IP Uplink Service Profiles list on the left side of the window.
- Step 3 Configure the parameters displayed in the Configuration, Local Service Profile, and QoS Parameters tabs as required.
- Step 4 Select Save from the File menu to save the configuration.
- Step 5 Select Close from the File menu to close the window and save the changes made.

Deleting an Existing IP Uplink Service Profile

To delete an existing IP Uplink service profile, follow these steps:

Step 1 Select the Cisco 6400 UAC, Profiles, Configure IP Uplink Profiles option from a Site, Shelf, Chassis, or service instance object in the Map Viewer window. The IP Uplink Service Configuration Profile window appears.

Figure 9-40 IP Uplink Service Profile Configuration Window (Configuration Tab)

Elit Options Window Elit Options L D D E D V O V EUplinkBronze IPUplinkGold Configuration Local Service Profile Gos Parameters	leip
Image: Second	
IPUplinkBronze Configuration Local Service Profile Gos Parameters IPUplinkGold IPUplinkGold IPUplinkGold IPUplinkGold IPUplinkGold	
IPUplinkSilver	
Service Description Enter an optional Service Description here.	
Sub-Interface Next Hop	
IP Address 192 , 160 , 230 , 10 Next Hop IP Address 192 , 160 , 232 , 10	
Subnet Mask 192 . 160 . 230 . 12 Next Hop Gateway Key	
IP Uplink Service Profile Encapsulation Type aal5mux ip 💆	
Oreate Profile Assigned Number Configure Yes y	
Status: Cisco6400ServiceUplink (unknown), Cisco6400PTAMDService (unknown), Cisco6400PTAMDServiceProfile (unknown)	100

- Step 2 Select the existing service profile (displayed in the IP Uplink Service Profiles list) that you wish to delete.
- Step 3 Select the **Delete Profile** option from the **Edit** menu. Select the profile you wish to delete from the list displayed.

A Deletion Prompt window appears (see Figure 9-41) for you to confirm that you wish to delete the selected profile.

Figure 9-41 Deletion Prompt Window

-		• 🗆
?	Are you sure you want to delete profile 'IPU	olinkBronze'?
	Yes	No

- Step 4 Click Yes to delete the selected profile or click No to close the window without deleting the profile.
- Step 5 When a profile is deleted it disappears from the list of IP Uplink Service Profiles in the IP Uplink Service Profiles Configuration window.

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Chapter 9 Service/Subscriber Provisioning

Connection Templates

Connection Templates are very similar to VC Classes in Cisco IOS. The main difference is that, where a VC class is local to a specific NRP, Connection Templates are available for each Cisco 6400 UAC managed by the Cisco 6400 SCM application. When a parameter in a connection template is altered and applied, this change applies to all connections that use the template. A connection template is basically a "wrapper" that represents several VC classes, one for each NRP.

Defining Policies For Service Provisioning

Connection templates allow you to set the QoS parameters for the connection between the subscriber PVC and the selected NRP. The connection templates are applied later when connecting the subscriber to a service instance. See the "Connecting a Subscriber to a Service Instance" section on page 9-72 for further details on connecting subscribers to a service instance.

Figure 9-42 shown an example workflow for creating and configuring connection templates.





Deploying Connection Templates

To deploy a Connection Template, follow these steps:

- Step 1 Place the cursor over a relevant object in the a network map, a relevant object in the map view, or by using an object pick list on an open Element Manager window. See Table 9-1 on page 9-2 for information on the objects you can deploy from.
- Step 2 Click and hold down the right mouse button.
- Step 3 Select the Deployment, Cisco 6400 UAC, Connection Template, Deploy Connection Template option. The Deployment Wizard Object Parameters window (see Figure 9-43) appears.

	Enter the number of Connection Template objects to create	
F	– Deployment Wizard - Object Parameters - 🗔	
	Object Parameters	
	Number of Connection Template objects:	
	«< Back Forward >> Cancel Finish	
		Ļ
L		4150

Figure 9-43 Deployment Wizard - Object Parameters Window

Step 4 Enter the Number of Connection Template objects you wish to deploy.

Step 5 Click Forward.

Step 6 Enter a name for the new Connection Template in the Object Parameters panel.

Figure 9-44 Deployment Wizard - Object Parameters Window

C	Enter a name for the new onnection Template object		
Deployme	nt Wizard – Object Para	ameters	
Object Parameters			
Connection Template name:	ConnectionTemplate-New		
«« Back Forward »»		Cancel	Finisti
		Current	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1			415

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- Step 7 Click Forward.
- **Step 8** Repeat steps 6 and 7 for the Number of Connection Template objects entered in step 4.
- Step 9 The Deployment Summary details appear in the Deployment Wizard Summary window (see Figure 9-45).

Figure 9-45 Deployment Wizard - Summary Window

Deployment Wizard – Summary	
Ready to deploy 1 object using the template Create Connection Template (s) Press <finish> to continue.</finish>	
«< Back	Finish
	Opployment Wizard – Summary Summary Ready to deploy 1 object using the template Create Connection Template (s) Press (Finish> to continue. «< Back Forward >> Cancel

- **Step 10** Check the summary information displayed is correct.
- Step 11 Click Finish (when the Deployment Summary information is correct) to complete the deployment.

After deploying a connection template, you should then configure them. Proceed to the "Configuring Connection Templates" section on page 9-33 for further details.

Configuring Connection Templates

To configure connection templates, follow these steps:

- Step 1 Place the cursor over a relevant object in the a network map, a relevant object in the map view, or use an object pick list on an open Element Manager window. See the Table 9-1 on page 9-2 for information on the objects you can deploy from.
- Step 2 Click and hold down the right mouse button.

Step 3 Select the Cisco 6400 UAC, Connection, Connection Template Configuration option. The Connection Template Configuration window (see Figure 9-46) appears.

-	Connection	i Template Configurat	ion	
File Edit Options Window Navigatio	n			Help
ConnectionTemplate=New 🛆 Qo	S Parameters			(
	Quality of Service (Receive)		Quality of Service (Transmit)	
	QoS Category	ubr 🗵	QoS Category	ubr 🗵
	Peak Cell Rate	100	Peak Cell Rate	100
	Sustainable Cell Pate		Sustainable Cell Rate	10
	Minimum Cell Rate	20	Minimum Cell Rate	20
	Max Burst (Cell Size		Max Burst Cell Size	10
	Cell Delay Variation Tolerance	20	Cell Delay Variation Tolerance	20
	Ар	ply	Delete	
Connection Template				
Status: Cisco6400ConnectionTemplate (deco	ommissioned)			

Figure 9-46 Connection Template Configuration Window (QoS Parameters Tab)

- **Step 4** Select a connection template from the Connection Template list displayed.
- Step 5 Configure the Quality of Service (Receive) and Quality of Service (Transmit) parameters, as required. See the "Service/Subscriber Connection Window" section on page 10-60 for further details on the parameters displayed.
- **Step 6** Click **Apply** to apply the settings to the selected connection template.

Note Connection templates allow you to reconfigure the Quality of Service (Receive) and Quality of Service (Transmit) parameters set for a subscriber without disruption to the service (that is, without having to disconnect a subscriber, change parameters and then reconnect the subscriber).

Step 7 Select the Close option from the File menu to close the Connection Template Configuration window.

Deleting Connection Templates

Note

Before deleting a connection template you must disconnect any subscribers connected to a service instance using that connection template.

To delete connection templates, follow these steps:

- Step 1 Place the cursor over a relevant object in the a network map, a relevant object in the map view, or an object pick list on an open Element Manager window. See Table 9-1 on page 9-2 for information on the objects you can deploy from.
- Step 2 Click and hold down the right mouse button.
- Step 3 Select the Cisco 6400 UAC, Connection, Connection Template Configuration option. The Connection Template Configuration window (see Figure 9-46) appears.
- Step 4 Select a connection template from the Connection Template list displayed.
- Step 5 Click Delete to delete the selected connection template.
- Step 6 Select Close from the File menu to close the Connection Template Configuration window.

Service Provisioning

One of the most important aspect of the Cisco 6400 SCM application is Service Connection Management. The Cisco 6400 UAC contains multiple network elements, an ATM switch, multiple router cards (NRPs), and multiple line cards. Services are deployed across these network elements, a multistage process involving both SNMP and Cisco IOS management commands. The Cisco 6400 SCM application enables point-and-click connection of end subscribers to 6400-based services with all of the underlying Cisco IOS and SNMP operation hidden.

The Cisco 6400 SCM software is designed to help simplify Cisco 6400 UAC service configuration. A typical work flow is described in Figure 9-47.



Figure 9-47 Setting Up Services on the Cisco 6400 UAC

The "Configuring and Commissioning a Service Instance" section on page 9-40 is the only section that involves direct configuration of the Cisco 6400 UAC hardware.

Creating a Service Instance

A service instance is an object that holds all the information related to that service. A service instance object must be created (deployed) before the service instance can be configured.

This section includes an example that describes how to create a service instance for an ATM Service. The procedure for creating a service instance for any other service types is very similar to that for the ATM Service.

To create a service instance, follow these steps:

Step 1 Select the Cisco 6400 UAC, Service, Deploy, Appropriate Service option from a selected chassis.



Where the *Appropriate* **Service** is the type of service instance you wish to create (that is, ATM, PPPoA-SD, L2TP, RFC1483 Bridging, RFC1483 IRB, IP Uplink, or RFC1483 Routing).
The Deployment Wizard Object Parameters (1 of 2) window appears (see Figure 9-48).

Figure 9-48 Deployment Wizard - Object Parameters (1 of 2) Window

	Enter the number of service objects you wish to create	
-	Deployment Wizard – Object Parameters 🛛 🕴 🗖	
	Object Parameters	
	Number of ATM Service objects:	
	«< Back Forward >> Cancel Finish	
	Å	+
	,,	41524

- **Step 2** Enter the **Number of Service objects** to create. A single ATM Service object was entered in the example shown in Figure 9-48.
- Step 3 Select Forward. The Deployment Wizard Object Parameters (2 of 2) window appears (see Figure 9-49).

		Ente the s	er the name for ervice instance			
Dbj	ject Param	Deployme eters	ent Wizard – C)bject Paran	neters	· .
ATM	Service n	ame:	ATMService-One	•		
	Back	Forward >>			Cancel	Finish
						} }
						41525

Figure 9-49 Deployment Wizard - Object Parameters (2 of 2)

Step 4 Enter a Service Instance Name. ATM Service- One was entered in the example shown in Figure 9-49.Step 5 Select Forward.



Repeat steps 4 and 5 for the **Number of Service Instances** entered in step 2, when required.

Step 6 Click Forward. The Deployment Wizard Summary window appears (see Figure 9-50).

The Summary panel — displays information about the deployment	Deployment Wizard - Summary Summary Ready to deploy 1 object using the template ATM Service under Chassis Press <finish> to continue.</finish>	
	«< Back Forward >> Cancel Finish	

Figure 9-50 Deployment Wizard - Summary

Summary information displays in the Summary panel.

- Step 7 Check the Summary information is correct.
- Step 8 Click Finish (when the Deployment Summary information is correct) to create the new Service Instance objects.
- **Step 9** Proceed to the "Configuring and Commissioning a Service Instance" section on page 9-40.

The new service instances created now displays in the Cisco 6400 Service View at the left side of the Map Viewer window. You will have to refresh the view. Figure 9-51 shows an example of the ATM Service-ATM Service Instance One service instance created in the previous example.





Configuring and Commissioning a Service Instance

After you create the service instance object, you should configure and then commission the service instance from the appropriate Service Configuration window. The service instance object can be configured in two ways:

- By applying an appropriate service profile and then manually configuring each of the remaining parameter in that service instance.
- By manually configuring each parameter in the service instance.

This section describes how launch the appropriate Service Configuration window, apply a service profile (if required), configure the remaining parameters, and then commission the service instance for each of the available Cisco 6400 SCM services. Figure 9-52 displays a typical workflow for configuring and then commissioning a service instance.

Figure 9-52 Configuring and Commissioning a Service Instance



Configuring and Commissioning a Pure ATM Service Instance

To configure and commission a Pure ATM switching service instance, follow these steps:

Step 1

Select the **Cisco 6400 UAC**, **Service**, **Configure ATM Service** option from the egress ATM line card object in MapViewer.



You cannot apply a profile to the pure ATM switching service.

The ATM Service Configuration window appears (see Figure 9-53). See the "ATM Service Configuration Window" section on page 10-24 for further details on the parameters displayed.

Figure 9-53 ATM Service Configuration Window (Service Details Tab)

	ATM Service Configuration	
	File Edit Options Window	Help
Select a — chassis	Service Details Service Uplink Service Description Enter a Service description here (when required).	
	Cisco 6400 Subscriber Connections	
Select an AIM — service instance only ATM service	ATMService-scott ATMService-scott ATMService-scott	
displayed here)	Current Connections Subscriber ID / Name	
	Commission Service	
	Status: Cisco64004TMService (decommissioned), Cisco6400Chassis (decommissioned)	

Step 2 Select the appropriate Cisco 6400 chassis and ATM Service instance from the lists displayed at the left side of the window.

Only the ATM service instance objects (for the selected chassis) are displayed in the ATM Services list. Service instances for other service types are listed in their appropriate Service Configuration windows. For example, L2TP service instance objects are displayed in the L2TP Configuration window. The ATM Services list is empty when no ATM Service instances have been created. See the "Creating a Service Instance" section on page 9-36 for details on how to create a service instance.

Configuring the ATM Service Parameters

- **Step 3** Enter a Service Description (when required).
- **Step 4** Select a connection from the ATM Connection list.
- Step 5 Enter Subscriber VPI, Subscriber VCI and Subscriber Name in the Subscriber Connections panel, as required.

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Step 6 Select the Service Uplink tab.

4	A	TM Service Configuration	•
File Edit Options Window			<u>H</u> elp
¦aa≣©√ 0 <	X		
	Service Details Service Uplink		(
	Service Uplink PVC		
	Uplink ATM Port	No selection	
	Uplink VPI		
	Uplink VCI		
Cisco 6400			
ATM Services			
Commission Service			
atus: Cisco6400ATMService (decommis:	sioned), Cisco6400Chassis (decom	wissioned)	

Figure 9-54 ATM Service Configuration Window (Service Uplink Tab)

Step 7 Enter details into the parameters displayed in the Service Uplink PVC panel, as required. See the "Service Uplink Tab" section on page 10-25 for further details on the parameters displayed.

Commissioning the Pure ATM Service Instance



This is the first stage at which you actually "roll" the selected service configuration onto the Cisco 6400 UAC hardware.

Step 8 Click **Commission Service** to save the configuration information you have entered and roll the service onto the Cisco 6400 UAC. A pop up window appears for you to confirm that you wish to commission the selected service.

Figure 9-55	About to Change	Service State	Confirmation	Window

-	•
About to change se	rvice state. OK?
Yes	No

Step 9 Select Yes to commission the service (or No to return to the ATM Service Instance Configuration window without commissioning the ATM service). An Action Report window appears. The Action Report window details the Cisco IOS commands executed when the service is commissioned. Invalid Cisco IOS commands result in a failure to commission the service.

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- Step 10 Check the details in the Action Report window to ensure that the service was commissioned successfully.
- Step 11 Select Save to save the Action Report, if required.
- Step 12 Select Close to close the Action Report window and return to the Service Instance Configuration window.
- Step 13 Select Close from the File menu to close the Service Instance Configuration window.

Configuring and Commissioning a PPPoA-SD Service Instance

To configure and commission a PPPoA-SD service instance, follow these steps:

Step 1 Select the Cisco 6400 UAC, Service, Configure PPPoA-SD Service option from a Site, Shelf, Chassis, or service instance object. The PPPoA-SD Service Configuration window appears (see Figure 9-56).

Figure 9-56 PPPoA-SD Service Configuration Window (PPPoA-SD Configuration Tab)

	PPPoA-	SD Service Configura	tion		•
File Edit Options Window					Help
ÈL A À ≡ D ✓ O ·	Configuration Service Details	meters	IP Address Pool		
Ţ	IP Unnumbered Interface	Fast Ethernet	Lower IP Address Higher IP Address VC Parameters	192 • 168 • 238 • 52 192 • 168 • 238 • 60	
Cisco 6400 PPPOASDService-One	Subnet Mask Authentication Type Peer DHCP	mschap Z	Subscriber Encapsulation	aal5ciscoppp	
PPPoA-SD Services					
Commission Service	56400PPPIPService (decommissioned), C	isco6400Chassis (decommis	sioned)		

Step 2 Select the appropriate Cisco 6400 and PPPoA-SD Service instance from the lists displayed on the left side of the window.

Only the PPPoA-SD service instance objects (for the selected chassis) are displayed in the PPPoA-SD Services list. Service instances for other service types are listed in their appropriate Service Configuration windows. For example, L2TP service instance objects are displayed in the L2TP

Configuration window. The PPPoA-SD Services list is empty when no PPPoA-SD instances have been created. See the "Creating a Service Instance" section on page 9-36 for details on how to create a service instance.

Note

Proceed to the "Configuring the PPPoA-SD Service Parameters" section on page 9-44 if you are not applying a service profile.

Applying a PPPoA-SD Service Profile

- Step 3 Select Apply Profile from the Edit menu.
- **Step 4** Select the appropriate profile from the list of profiles displayed. The profile parameters are copied to the appropriate service instance parameters in the PPPoA-SD Service Configuration window and appear in blue.

Configuring the PPPoA-SD Service Parameters

See the "PPPoA-SD Service Configuration Window" section on page 10-26 for further details on the parameters displayed.

- Step 5 Configure the parameters displayed in the Virtual Template Parameters, IP Address Pool, and VC Parameters panels, as required.
- Step 6 Select the Service Details tab.



-	PPPoA-SD Service Configuration	· []
File Edit Options Window		Help
xi & ≧ ≣ ⊑ √ 0	0	
CHASSIS-Region 1	Configuration Service Details Service Description Enter an optional Service description here.	
Cisco 6400	Subscriber Connections	
PPPoASDService-One	Subscriber VPI Subscriber VCI Current Connections Subscriber ID / Name	
PPPoA-SD Services		
Commission Service		
Status: Cisco6400NRP (unknown), Cisc	coG400PPPIPService (decommissioned), CiscoG400Chassis (decommissioned)	

See the "PPPoA-SD Service Configuration Window" section on page 10-26 for further details on the parameters displayed.

- Step 7 Enter a Service Description, if required.
- Step 8 Select a connection from the Current Connection list and configure the values in the Subscriber Connections panel, as required.

Commissioning the PPPoA-SD Service

Step 9 Click **Commission Service** to roll the service onto the selected Cisco 6400 UAC. A pop up window appears for you to confirm that you wish to commission the selected service.

Figure 9-58 About to Change Service State Confirmation Window



Step 10 Select Yes to commission the service (or No to return to the Service Instance Configuration window). The Action Report window appears.

-	Action Report	и	
Т	elnetting to : 192,168,238,10	ľ	2
X R C	>>terminal length 0 Nincewind ache file /tmp/c6400_cache_192,168,238,10_6_0_0 doesn't exist		
R Ci	efreshing free VPI/VCI cache hosen 0 40, 46		
X Ei R T	>>configure terminal inter configuration commands, one per line. End with CNTL/Z. incewind(config) elnetting to : 192.168.238.12		
> N	>>terminal length 0 RP		7
		Z	
Γ	<u>S</u> ave <u>C</u> os	e	

Figure 9-59 Action Report Window

The Action Report window details the Cisco IOS commands executed when the service is commissioned. Invalid Cisco IOS commands result in a failure to commission the service.

Step 11 Check the details in the Action Report window to ensure that the service was commissioned successfully.

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<u>A</u> Caution	The Cisco 6400 SCM will roll-back configuration changes applied if an error is detected in the execution of the Cisco IOS command sequence with your selected parameters. This insures that the Cisco 6400 UAC remains in a consistent state, even when errors are made entering parameters.					
Step 12	Select	Save to save the Action Report, if required.				
Step 13	Select Close to close the Action Report window and return to the Service Instance Configuration window.					
Step 14	Select	Save from the File menu to save the parameters configured.				
Step 15	Select Close from the File menu to close the PPPoA-SD Service Configuration window.					
	Note	The PPPoA-SD Service requires additional configuration. Proceed to the "Additional IOS Configuration For the PPPoA-SD Service" section on page 9-46 for further details.				

Additional IOS Configuration For the PPPoA-SD Service

For the PPPoA-SD service to pass traffic to a designated trunk port, Cisco IOS must be used (to route traffic via layer 3 to a destination network). One way of doing this is to create a PVC on the NRP to support the routing of traffic to the trunk port and then create the required entries in the IP Routing Table.

Execute (on the selected NRP) the following Cisco IOS commands to configure a PPPoA-SD service to pass traffic to a designated trunk port:

NRP(config)#interface atm0/0/0.<Sub-Interface Number> point-to-point

NRP(config-if)#ip address <IP Address> <Subnet Mask>

NRP(config-if)#pvc </NRP-Interface-vpi>/<NRP-Interface-vci>

NRP(config-if-vc)#class <vc-class-name>

NRP(config-if-vc)#protocol ip <Dest IP Address> no broadcast

where,

<Sub-Interface Number> is a number for the sub-interface

<IP Address> is the IP Address of the sub-interface

<Subnet Mask> is the Subnet Mask of the sub-interface

<*NRP-Interface-vpi>* is the same VPI value as used when a PVC is created on the NSP

<*NRP-Interface-vci>* is the same VPI value as used when a PVC is created on the NSP

<Dest IP Address> is the destination IP Address mapped to the PVC

<vc-class-name> is the name of the vc-class created previously

Now create the required entries in the IP Routing Table:

NRP(config)#ip route <*Dest IP Address*> 255.255.255.255 atm0/0/0.<*Sub-Interface Number*> where,

<Dest IP Address> is as configured previously

<Sub-Interface Number> is as configured previously.

Configuring and Commissioning an L2TP Service Instance

To configure and commission an L2TP service instance, follow these steps:

Step 1 Select the Cisco 6400 UAC, Service, Configure L2TP Service option from a Site, Shelf, Chassis, or service instance object. The L2TP Service Configuration window appears (see Figure 9-60).

Figure 9-60 L2TP Service Configuration Window (PPPoA-SD L2TP Configuration Tab)

-	L2TP	Service Configuration			• •
File Edit Options Window					Help
120 10					
CHASSIS-Region 1	Configuration Service Details Service	vice Uplink			
	Tunnel Parameters		VC Parameters		
	Tunnel Number	1	Subscriber Encapsulation	aal5ciscoppp 🗵	
	Domain Name		Encapsulation Type	aal5snap 🗵	
	Destination IP Address	192 . 168 . 238 . 12	PVC IP Address	0.0.0.0	
	Authentication Name		Sub-Interface		
Cisco 6400	Authentication Password		IP Address	192 . 168 . 236 . 10	
L2TPService-L2TP One	Authentication Type	none 🗵	Subnet Mask	192 . 168 . 238 . 14	
L2TPService-scott	NRP Selection				
	NRP	No selection			
L2TP Services					
Commission Service					
Status: Disco6400ServiceUplink (deco	wissioned) Cisco640012TPService (de	commissioned) Cisco6400Chas	eie (decomiseioned)		-
vision, crecondorolerviceopiink (decor	and a reaction of the second o	connectorieury cracoo400chds:	444 (00000010000)		

See the "Configuration Tab" section on page 10-29 for details on the parameters displayed.

Step 2 Select the appropriate Cisco 6400 and L2TP Service from the lists displayed on the left side of the window.

Only the L2TP service instance objects (for the selected chassis) are displayed in the L2TP Services list. Service instances for other service types are listed in their appropriate Service Configuration windows. For example, IP Uplink service instance objects are displayed in the IP Uplink Configuration window. The L2TP Services list is empty when no L2TP service instances have been created. See the "Creating a Service Instance" section on page 9-36 for details on how to create a service instance.



Note Proceed to the "Configuring the L2TP Service Parameters" section on page 9-48 when you are not applying a service profile.

Applying an L2TP Service Profile

- Step 3 Select Apply Profile from the Edit menu.
- **Step 4** Select the appropriate profile from the list of profiles displayed. The profile parameters are copied to the appropriate service instance parameters in the L2TP Service Configuration window and appear in blue.

Configuring the L2TP Service Parameters

- Step 5 Configure the parameters displayed on the **Configuration** tab, as required.
- Step 6 Select the Service Details tab.

Figure 9-61 L2TP Service Configuration Window (Service Details Tab)

-	L2TP Service Configuration	· []
File Edit Options Window		Help
x A ⇔ ≡ 🗗 ✔ 😯	Q	
CHASSIS-Region 1	Configuration Service Details Service Uplink Service Description	
Cisco 6400		
L2TPService-L2TP One L2TPService-L2TP Service L2TPService-scott	Subscriber Connections Subscriber VPI Subscriber VCI	
L2TP Services	Current Connections Subscriber ID / Name	
Commission Service		
Status: Cisco6400ServiceUplink (dec	ommissioned), Cisco6400L2TPService (decommissioned), Cisco6400Chassis (decommissioned)	

See the "Service Details Tab" section on page 10-31 for further details on the parameters displayed.

- Step 7 Enter a Service Description in the Service Details panel, if required.
- Step 8 Select Allow or **Prevent** over-subscription.

Over-subscription is set to **Allow** by default and an unlimited number of subscribers can be connected to the service. Selecting to **Prevent Oversubscription** ensures that the SCM limits the number of subscribers connected such that the sum of the subscriber's peak cell rates never exceeds the peak cell rate reserved for the service on the uplink. Over-subscription functionality is not applicable to the PPPoA-SD and ATM services.

- Step 9 Select a connection from the Current Connection list and configure the values in the Subscriber Connections panel, as required.
- Step 10 Select the Service Uplink tab.

	L2TP S	ervice Configuration			
e Edit Options <u>Wi</u> ndow					Hel
≜≧≣©√ 0 :					
		o Uplink			
CHASSIS-Region 1	Configuration Service Details Servic	e opinik			
	Service Uplink PVC		Internal NSP/NRP PVC		
	Uplink ATM Port	No selection 🗵	VPI/VCI Allocation	Automatic 🗵	
	Uplink VPI		Internal VPI		
	Uplink VCI		Internat VCI		
	Quality of Service (Receive)		Quality of Service (Transmit) –		
isco 6400	QoS Category	ubr 🖂	QoS Category	<u> </u>	
2TPService-L2TP One	Peak Cell Rate		Peak Cell Rate		
_2TPService-scott	Sustainable Cell Rate		Suchanable Cell Rale		
	Minimum Cell Rate		Minimum Cell Rate		
	Max Buist Cell Size		Miks Burst Cell Size		
	Cell Delay Variation Tolerance		Cell Delay Variation Tolerance		
21P Services					
Commission Service					
tus: Cisco6400ServiceUplink (decom	missioned), Cisco6400L2TPService (decom	missioned), Cisco6400Chas	sis (decommissioned)		

Figure 9-62 L2TP Service Configuration Window (Service Uplink Tab)

See the "Service Uplink Tab" section on page 10-32 for further details on the parameters displayed.

Step 11 Configure the parameters displayed in the Service Uplink PCV, Quality of Service (Receive), Internal NSP, NRP PVC and Quality of Service (Transmit), as required.

Commissioning the L2TP Service

Step 12 Click Commission Service to roll the service onto the Cisco 6400 UAC.

A pop up window appears for you to confirm that you wish to commission the selected service.

Figure 9-63 About to Change Service State Confirmation Window



Step 13 Select Yes to commission the service (or No to return to the L2TP Service Configuration window). The Action Report window appears.

Figure 9-64 Action Report Window



The Action Report window details the Cisco IOS commands executed when the service is commissioned. Invalid Cisco IOS commands result in a failure to commission the service.

Step 14 Check the details in the Action Report window to ensure that the service was commissioned successfully.

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Caution The Cisco 6400 SCM will roll-back configuration changes applied if an error is detected in the execution of the Cisco IOS command sequence with your selected parameters. This insures that the Cisco 6400 UAC remains in a consistent state, even when errors are made entering parameters.

- Step 15 Select Save to save the Action Report, if required.
- Step 16 Select Close to close the Action Report window and return to the Service Instance Configuration window.
- Step 17 Select Save from the File menu to save the parameters configured.
- Step 18 Select Close from the File menu to close the L2TP Service Configuration window.

Chapter 9 Service/Subscriber Provisioning

Configuring and Commissioning an RFC1483 Bridging Service Instance

To configure and commission an RFC1483 Bridging service instance, follow these steps:

Select the Cisco 6400 UAC, Service, Configure RFC1483 Bridging Service option from a Site, Shelf, Step 1 Chassis, or service instance object. The RFC1483 Bridging Service Configuration window appears:

Figure 9-65 RFC1483 Bridging Service Configuration Window (Configuration Tab)

	RFC1483	Bridging Service Configu	Iration		
ile Edit Options Window					Help
IA⊖ ≡ © √ 0 K	S .				
CHASSIS-Region 1	Configuration Service Details 5	Service Uplink			
	Bridge Parameters		Subscriber Policy		
	Bridge Protocol	IEEE 🗵	Address Resolution Protocol	Permit 🗵	
	Bridge Group		Broadcast	Deny 🗵	
		,	Multicast	Permit 🗵	
	VC Parameters		Unknown Destination	Deny 🗵	
Cisco 6400	Encansulation Type	adFanan	Spanning Tree Protocol	Deny 🗵	
RFC1483BridgingService-O	Encapoaranion Type	aalosnap	Cisco Discovery Protocol	Deny 🗵	
RFC1483BridgingService-T\	NRP Selection				
	NRP	No selection 🗵			
RFC1483 Bridging Services					
Commission Service					
atus: Cisco6400ServiceUplink (decom	missioned), Cisco6400BridgedBridg	edService (decommissioned), C	isco6400Chassis (decommissioned)		

See the "Configuration Tab" section on page 10-34 for further details on the parameters displayed.

Step 2 Select the appropriate Cisco 6400 and RFC1483 Bridging Service from the lists displayed on the left side of the window.

Only the RFC1483 Bridging service instance objects (for the selected chassis) are displayed in the RFC1483 Bridging Services list. Service instances for other service types are listed in their appropriate Service Configuration windows. For example, L2TP service instance objects are displayed in the L2TP Configuration window. The RFC1483 Bridging Services list is empty when no RFC1483 Bridging Service instances have been created. See the "Creating a Service Instance" section on page 9-36 for details on how to create a service instance.

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Note

Proceed to the "Configuring the RFC1483 Bridging Service Parameters" section on page 9-52 when you are not applying a service profile.

Applying a RFC1483 Bridging Service Profile

- Step 3 Select Apply Profile from the Edit menu.
- **Step 4** Select the appropriate profile from the list of profiles displayed. The profile parameters are copied to the appropriate service instance parameters in the RFC1483 Bridging Service Configuration window and appear in blue.

Configuring the RFC1483 Bridging Service Parameters

- Step 5 Configure the parameters displayed in the Bridge Parameters, VC Parameters, and Subscriber Policy panels, as required.
- Step 6 Select the Service Details tab.

Figure 9-66 RFC1483 Bridging Service Configuration Window (BR Configuration Tab)

-	RFC1483 Bridging Service Configuration	· []
File Edit Options Window		<u>H</u> elp
XIA 🗠 🗏 🖬 🗸 🧿		
CHASSIS-Region 1	Configuration Service Details Service Uplink	
7	Service Description	
Cisco 6400		
RFC1488BridgingService=0	Subscriber Connections Subscriber VPI	
	Subscriber VCI	
RFC1483 Bridging Services	Current Connections Subscriber ID / Name	
Commission Service		
Status: Cisco6400ServiceUplink (dec	commissioned), Cisco6400BridgedBridgedService (decommissioned), Cisco6400Chassis (decommissioned)	

See the "Service Details Tab" section on page 10-35 for further details on the parameters displayed.

- **Step 7** Enter a Service Description in the Service Details panel, if required.
- Step 8 Select Allow or **Prevent** oversubscription.

Oversubscription is set to **Allow** by default and an unlimited number of subscribers can be connected to the service. Select **Prevent Oversubscription** to ensure the SCM limits the number of subscribers connected such that the sum of the subscriber's peak cell rates never exceeds the peak cell rate reserved for the service on the uplink. Oversubscription functionality is not applicable to the PPPoA-SD and ATM services.

Step 9 Select a connection from the Connection list and configure the values in the Subscriber Connections panel, as required.

Step 10 Configure the parameters displayed in the Subscriber Connections panel.

Step 11 Select the Service Uplink tab.

	RFC1483 Brid	ging Service Config	uration		-
le <u>E</u> dit <u>O</u> ptions <u>Wi</u> ndow					<u>H</u> elp
ad ≡ © √ 0 🛇	}				
		a Unlink			
CHASSIS-Region 1	Configuration Service Details Servic	e opiink			
	Service Uplink PVC		Internal NSP/NRP PVC		
	Uplink ATM Port	No selection 🛛 🗵	VPI/VCI Allocation	Automatic 🗵	
	Uplink VPI		internal VPI		
	Uplink VCI		Internat VCI		
	Quality of Service (Receive)		Quality of Service (Transmit)		
sco 6400	Quality of Service (necerve)		duality of betvice (maishing)		
C1483BridgingService-O	QoS Category	ubr 🗵	QoS Category	ubr 🗵	
FC1483BridgingService-Th	Peak Cell Rate		Peak Cell Rate		
FC1483BridgingService-T\	Sustainable Cell Pate		Sudiainable Cell Rale		
	Minimum Cell Rate		Minimum Cell Rate		
$\overline{\nabla}$	Max Burst (Cell Size		Max Burst Cell Size		
	Cell Delay Variation Tolerance		Cell Delay Variation Tolerance		
FC1483 Bridging Services		,			
Commission Service					
ust CiscoEd00ServiceUplink (deceme	iccionad) CiccoEd00PaidoadPaidoadCom	uice (decommissioned)	CiscoEd00Chassis (decompissioned)		
Jus, ciscoo40036 Viceopiink (decomm.	rssroned/, crscoo4000 rugedbi rugedbei v	/ICE (UECONNIISSIONEU/,)	CISCUU4000HBSSIS (BECONNIISSIOHED/		

Figure 9-67 RFC1483 Bridging Service Configuration Window (Service Uplink Tab)

See the "Service Uplink Tab" section on page 10-37 for further details on the parameters displayed.

Step 12 Configure the parameters displayed in the Service Uplink PCV, Quality of Service (Receive), Internal NSP, NRP PVC, and Quality of Service (Transmit) panels, as required.

Commissioning the RFC1483 Bridging Service

Step 13 Click Commission Service to roll the service onto the Cisco 6400 UAC.

A pop up window appears for you to confirm that you wish to commission the selected service.

Figure 9-68	About to Change	Service State	Confirmation	Window

		• 🗆
🕐 A	bout to change	e service state. OK?
Yes	;	No

Step 14 Select Yes to commission the service (or No to return to the RFC1483 Bridging Service Configuration window). The Action Report window appears.

Figure 9-69 Action Report Window

-	Action Report 🧧 🗖	
T	elnetting to : 192,168,238,10	
X R C	<pre>>>terminal length 0 incewind ache file /tmp/c6400_cache_192.168.238.10_6_0_0 doesn't exist</pre>	
R) Cl	efreshing free VPI/VCI cache hosen 0 40, 46	
≻ Ei R Ti	>>configure terminal nter configuration commands, one per line. End with CNTL/Z. incewind(config) elnetting to : 192.168.238.12	
X NI M	>>terminal length 0 RP	
	<u>Save</u>	05020

The Action Report window details the Cisco IOS commands executed when the service is commissioned. Invalid Cisco IOS commands result in a failure to commission the service.

Step 15 Check the details in the Action Report window to ensure that the service was commissioned successfully.

/!\

- **Caution** The Cisco 6400 SCM will roll-back configuration changes applied if an error is detected in the execution of the Cisco IOS command sequence with your selected parameters. This insures that the Cisco 6400 UAC remains in a consistent state, even when errors are made entering parameters.
- Step 16 Select Save to save the Action Report, if required.
- Step 17 Select Close to close the Action Report window and return to the Service Instance Configuration window.
- Step 18 Select Save from the File menu to save the parameters configured.

Select Close from the File menu to close the RFC1483 Bridging Service Configuration window.

Configuring and Commissioning a RFC1483 IRB Service Instance

To configure and commission an RFC1483 IRB service instance, follow these steps:

Step 1 Select the Cisco 6400 UAC, Service, Configure RFC1483 IRB Service option from a Site, Shelf, Chassis, or service instance object.

The RFC1483 IRB Service Configuration window appears.

Figure 9-70 RFC1483 IRB Service Configuration Window (Configuration Tab)

	RFC1483 I	RB Service Configuration			
ile <u>E</u> dit <u>O</u> ptions <u>Wi</u> ndow					He
4 ☆ ≡ © √ 0 ·	Q				
CHASSIS-Region 1	Configuration Service Details Service	ce Uplink			
	Bridge Parameters		Subscriber Policy		
	Bridge Group	20	Address Resolution Protocol	Permit 🗵	
	Bridge Protocol	IEEE <u></u>	Broadcast	Deny 🗵	
-	Virtual Interface ID Address		Multicast	Permit 🗵	
	Viltuai liitenate ir Auuless		Unknown Destination	Deny 🗵	
Cisco 6400	Virtual Interface Subnet Mask	255 . 255 . 255 . 0	Spanning Tree Protocol	Deny 🗵	
RFC1463IRBService-One	Virtual Interface MAC Address	35 34 33 32 31 30	Cisco Discovery Protocol	Deny 🗵	
RFC1483IRBService-Two	Sub-Interface		VC Parameters		
	IP Address	0.0.0	Encapsulation Type a	aal5snap 🗵	
	Subnet Mask	255 . 255 . 255 . 0	PVC IP Address	0.0.0.0	
FC1483 IRB Services					
	NRP Selection		IP Route Configuration		
Commission Service	NRP	No selection	IP Route	Enable 🗵	
tus: Cisco6400ServiceUplink (deco	mmissioned), Cisco6400BridgedRoutedServ	ice (decommissioned), Cisco6400	Chassis (decommissioned)		

See the "Configuration Tab" section on page 10-39 for further details on the parameters displayed.

Step 2 Select the appropriate Cisco 6400 and RFC1483 IRB Service Instance from the lists displayed on the left side of the window.

Only the RFC1483 IRB service instance objects (for the selected chassis) are displayed in the RFC1483 IRB Services list. Service instances for other service types are listed in their appropriate Service Configuration windows. For example, L2TP service instance objects are displayed in the L2TP Configuration window. The RFC1483 IRB Services list is empty when no RFC1483 IRB Service instances have been created. See the "Creating a Service Instance" section on page 9-36 for details on how to create a service instance.



Proceed to the "Configuring the RFC1483 IRB Service Parameters" section on page 9-56 when you are not applying a service profile.

Applying a RFC1483 IRB Service Profile

- Step 3 Select Apply Profile from the Edit menu.
- **Step 4** Select the appropriate profile from the list of profiles displayed. The profile parameters are copied to the appropriate service instance parameters in the RFC1483 IRB Service Configuration window and appear in blue.

Configuring the RFC1483 IRB Service Parameters

- Step 5 Configure the parameters displayed on the **Configuration** tab, as required.
- Step 6 Select the Service Details tab.

Figure 9-71 RFC1483 IRB Service Configuration Window (Service Details Tab)

RFC1483 IRB Service Configuration	• 🗆
File Edit Options Window	Help
CHASSIS-Region 1 Configuration Service Details Service Uplink	
Service Description	
Cisco 6400	
RFC1483IRBService-One Subscriber Connections Subscriber VPI	
Subscriber VCI	
RFC1483 IRB Services Current Connections Subscriber ID / Name	
Commission Service	
Status: Cisco6400ServiceUplink (decommissioned), Cisco6400BridgedRoutedService (decommissioned), Cisco6400Chassis (decommissioned)	

See the "Service Details Tab" section on page 10-41 for details on the parameters displayed.

- Step 7 Enter a Service Description in the Service Details panel, if required.
- Step 8 Select whether to Allow or Prevent oversubscription.

Oversubscription is set to **Allow** by default and an unlimited number of subscribers can be connected to the service. Selecting to **Prevent Oversubscription** ensures that the SCM limits the number of subscribers connected such that the sum of the subscriber's peak cell rates never exceeds the peak cell rate reserved for the service on the uplink. **Oversubscription** functionality is not applicable to the PPPoA-SD and ATM services.

Step 9 Select a connection from the Connection list and configure the values in the Subscriber Connections panel, as required.

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Step 10 Select the Service Uplink tab.

	RFC1483 IRI	B Service Configura	ation		•
le <u>E</u> dit <u>O</u> ptions <u>W</u> indow					He
a ≱ ≡ Q √ (0 }	Q				
		a Unlink			
CHASSIS-15	Configuration Service Details Servic	e opink			
	Service Uplink PVC		Internal NSP/NRP PVC		
	Uplink ATM Port DS3-	7-1/ATM-7-1-0 🗵	VPI/VCI Allocation	Automatic 🗵	
	Uplink VPI	35	inlemai VPI		
_	Uplink VCI	270	Internet VCI		
	Quality of Service (Receive)		Quality Of Service (Transmit)		
LISCO 64UU	QoS Category	ubr 🗵	QoS Category	ubr 🗵	
RFC1463IRBService-1	Peak Cell Rate	1500	Peak Cell Rate	1000	
RFC1483IRBService-3	Sustainable Cell Rate		Susteinable Cell Rate		
	Minimum Cell Rate		Minimum Cell Rate		
Ų	Max Buist Cell Size		Max Burst Cell Size		
CI483 IBB Services	Cell Delay Variation Tolerance		Cell Delay Variation Tolerance		
Commission Service					
tus: Cisco6400ServiceUplink (decor	mmissioned), Cisco6400BridgedRoutedServi	ice (decommissione		Dynamic updates are enab	oled

Figure 9-72 RFC1483 IRB Service Configuration Window (Service Uplink Tab)

See the "Service Uplink Tab" section on page 10-43 for details on the parameters displayed on the **Service Uplink** tab.

Step 11 Configure the parameters displayed on the Service Uplink tab, as required.

Commissioning the RFC1483 IRB Service

Step 12 Click Commission Service to roll the service onto the Cisco 6400 UAC.

A pop up window appears for you to confirm that you wish to commission the selected service.

Figure 9-73	About to Change	Service State	Confirmation	Window

		· 🗆	
?	About to chang	je service state. OK?	
Ľ	es	No	1761

.

Step 13 Select Yes to commission the service (or No to return to the RFC1483 IRB Service Configuration window). The Action Report window appears.

Figure 9-74 Action Report Window

-	Action Report 🗾 🔹 🗖
Т	elnetting to : 192,168,238,10
≻	>>terminal length 0
R	incewind
C	ache file /tmp/c6400_cache_192.168.238.10_6_0_0 doesn't exist
R	efreshing free VPI/VCI cache
C	hosen 0 40, 46
)∑	>>configure terminal
Ei	nter configuration commands, one per line. End with CNTL/Z.
R	incewind(config)
Ti	elnetting to : 192.168.238.12
×	>>terminal length 0
N M	RP
	<u>Save</u>

The Action Report window details the Cisco IOS commands executed when the service is commissioned. Invalid Cisco IOS commands result in a failure to commission the service.

Step 14 Check the details in the Action Report window to ensure that the service was commissioned successfully.

<u></u> Caution	The Cisco 6400 SCM will roll-back configuration changes applied if an error is detected in the execution of the Cisco IOS command sequence with your selected parameters. This insures that the Cisco 6400 UAC remains in a consistent state, even when errors are made entering parameters.
Step 15	Select Save to save the Action Report, if required.
Step 16	Select Close to close the Action Report window and return to the Service Instance Configuration window.
Step 17	Select Save from the File menu to save the parameters configured.

Select Close from the File menu to close the RFC1483 IRB Service Configuration window.

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Figure 9-75 IP Uplink Service Configuration Window (IP Uplink Configuration Tab)

Configuring and Commissioning an IP Uplink (for PTA-MD and RBE Subscribers) Service Instance

To configure and commission an IP Uplink service instance, follow these steps:

Let Edit Options Window Hei Image: Configuration Local Service Profile Service Uplink Image: Configuration Local Service Profile Service Uplink Image: Cisco 6400 Sub-Interface Image: Profile Service PTA Image: Profile Service Three Image: PuplinkService-Three Image: PuplinkService-Three Image: Profile Service Profile Service Profile Image: PuplinkService-Three Image: PuplinkService-Three Image: PuplinkService-Three Image: Profile Service Profile Service Profile Image: PuplinkService-Three Image: PuplinkService-Three Image: Profile Service Profile Service Profile Service Profile Image: PuplinkService-Three Image: PuplinkService Profile Service Service Profile Service Servic	7				- [
Image: Service Profile Service Profile Service Uplink Clsco 6400 Service Description Image: Service Profile Image: Service Profile Service Description Image: Service Profile Image: Service Profile Service Description Image: Service Profile Image: Service Profile Sub-Interface Next Hop Image: Service Profile Sub-Interface Next Hop Image: Service Profile Subnet Mask 255 + 255 + 0 Image: Service Profile Subnet Mask 255 + 255 + 0 Image: Service Profile Subnet Mask 255 + 255 + 0 Image: Service Profile Subnet Mask 255 + 255 + 0 Image: Service Profile Subnet Mask Service Profile Configure Yes Image: Service Service Image: Service NRP Next Hop Next Hop Next Hop Image: Service	ile Edit Options Window				Help
CHASSIS-Region 1 Configuration Local Service Profile Service Uplink Cisco 6400 Sub-Interface Next Hop Next Hop IPUplinkService-PTA IP Address 0,0,0,0 Next Hop IP Address 0,0,0,0 IPUplinkService-Three IP Address 0,0,0,0 Next Hop Gateway Key Local Service Profile IP Uplink Services Encapsulation Type aal5snap Local Service Profile Configure Yes IP Uplink Services NRP No selection NRP No selection Despte undetes are availed	: 4 2 Ξ 🖬 🖌 🕢	\bigcirc			
Cisco 6400 IPUplinkService-One IPUplinkService-Trae IPUplinkService-Trae IPUplinkService-Two	CHASSIS-Region 1	Configuration Local Service	Profile Service Uplink		A
Cisco 6400					R
IP UplinkService-One IP Address 0,0,0,0 Next Hop IP Address 0,0,0,0 IP UplinkService-Trae Subnet Mask 255,255,0 Next Hop IP Address 0,0,0,0 IP UplinkService-Two Subnet Mask 255,255,0 Next Hop IP Address 0,0,0,0 IP UplinkService-Two Subnet Mask 255,255,0 Next Hop IP Address 0,0,0,0 IP Uplink Service-Two Assigned Number Local Service Profile Configure Yes IP Uplink Services NRP No selection NRP Next Hop IP Address Next Hop IP Address IP Uplink Services NRP No selection Mext Hop IP Address Departure updates are applied	Cisco 6400	Sub-Interface		Next Hop	
IPUplinkService-Three IPUplinkService-Two IPUplinkService-Two IPUplinkService-Two IPUplinkService-Two IPUplinkService-Two IPUplinkService-Two IPUplinkService-Two IPUplinkService-Two IPUplinkServices IPUplinkServices IPUplinkServices IPUplinkService IPUplinkService IPUplinkServices IPUplinkService IPUplinkServices IPUplinkService INRP No selection NRP No selection Intervice Intervice Intervice Intervice Intervice IPUplinkService	PUplinkService-One	IP Address	0.0.0	Next Hop IP Address	0.0.0.0
Encapsulation Type aal5snap Local Service Profile Configure Yes NRP Selection NRP No selection NRP No se	IPUplinkService-Three	Subnet Mask	255 . 255 . 255 . 0	Next Hop Gateway Key	
Assigned Number Configure Yes IP Uplink Services NRP Selection NRP No selection NRP No selection NRP No selection The selection Impaging updates are enabled	ir opinikaervice- rwo	Encapsulation Type	aal5snap 👱	Local Service Profile	
IP Uplink Services IP Commission Service NRP No selection NRP N	V V	Assigned Number		Configure	Yes 🔽
IP Uplink Services NRP No selection Image: commission Service		NRP Selection			
Commission Service	IP Uplink Services	NRP	No selection		
stus: CiscoEd00CemuicalDirk (decommissioned) CiscoEd00PT0MTCemuica (decommissioned)	Commission Service				
	atus: Cisco6400ServiceUplink (deco	ommissioned), Cisco6400PTAMDServ	vice (decommissioned),		Dynamic updates are enabled

Select the Cisco 6400 UAC, Service, Configure IP Uplink Service option from a Site, Shelf, Chassis,

or service instance object. The IP Uplink Service Configuration window appears (see Figure 9-75).

See the "Service Uplink Tab" section on page 10-50 for further details on the parameters displayed.

Step 2 Select the appropriate Cisco 6400 and IP Uplink service instance from the lists displayed on the left side of the window.

Only the IP Uplink service instance objects (for the selected chassis) are displayed in the IP Uplink Services list. Service instances for other service types are listed in their appropriate Service Configuration windows. For example, L2TP service instance objects are displayed in the L2TP Configuration window. The IP Uplink Services list is empty when no IP Uplink Service instances have been created. See the "Creating a Service Instance" section on page 9-36 for details on how to create a service instance.



Proceed to the "Configuring the IP Uplink (for PTA-MD and RBE Subscribers) Service Parameters" section on page 9-60 when you are not applying a IP Uplink service profile.

Step 1

Applying a IP Uplink (for PTA-MD and RBE Subscribers) Service Profile

- Step 3 Select Apply Profile from the Edit menu.
- **Step 4** Select the appropriate profile from the list of profiles displayed. The profile parameters are copied to the appropriate service instance parameters in the IP Uplink Service Configuration window and appear in blue.

Configuring the IP Uplink (for PTA-MD and RBE Subscribers) Service Parameters

- Step 5 Configure the parameters displayed on the IP Uplink Configuration tab, as required.
- Step 6 Select the Local Service Profile tab.

Figure 9-76 IP Uplink Service Configuration Window (Local Service Profile Tab)

-	IP Uplink Service Configuration	on	
File Edit Options Window			<u>H</u> elp
N & B = D < 0 <	2		
CHASSIS-Region 1	Configuration Local Service Profile Service Uplink		
	General	DNS Redirection / Fault Tolerance	
	Name	DNS Fault Tolerance Enabled	
V	Description	Primary DNS Server 0 . 0 . 0 .	0
Cisco 6400	Type Passthrough 🔽	Secondary DNS Server 0.0.0.	0
PUplinkService-One	Mode Sequential 🗵	Queenta QANGA Antinumtin	
IPUplinkService-Three IPUplinkService-Two	Password Domain Name(s)	PACIUS IP Addiess	0
	Service Route	RADIUS Auth-Port 164	5
	Idle Timeout (seconds)	PACIUS Acci-Port 184	8
IP Uplink Services	Session Timeout (seconds)	RADIUS Secret]
Commission Service			
tatus: Cisco6400ServiceUplink (decom	missioned), Cisco6400PTAMDService (decommissioned),	Dynamic updates are ena	bled

See the "Local Service Profile Tab" section on page 10-48 for further details on the parameters displayed.

Step 7 Configure the parameters displayed on the Local Service Profile tab, as required.

Step 8 Select the Service Uplink tab.

	IP Uplink Service Configuration		
le <u>E</u> dit <u>O</u> ptions <u>Wi</u> ndow			He
aa = Q < 0 :	0		
CHASSIS-Region 1	Configuration Local Service Profile Service Uplink		
	Service Uplink PVC	Internal NSP/NRP PVC	
	Uplink ATM Port No selection 🗹	VPI/VCI Allocation Automatic	V
	Uplink VPI	internal VPI	
	Uplink VCI	Internal VCI	
Cisco 6400			
PUnlinkService_One	Quality of Service (Receive)	Quality of Service (Transmit)	
IPUplinkService-PTA	QoS Category ubr 👱	QoS Category ubr	X
IPUplinkService-Three IPUplinkService-Two	Peak Cell Rate	Peak Cell Rate	
	Sustainable Cell Pate	Sustainable Cell Pate	
∇	Minimum Cell Rate	Minimum Cell Rate	
	Max Burst Cell Size	Max Burst Cell Size	
P Uplink Services	Cell Delay Variation Tolerance	Cell Delay Variation Tolerance	
Commission Service			
tus: Cisco6400ServiceUplink (decom	missioned), Cisco6400PTAMDService (decommissioned),	Dynamic updates are e	nabled

Figure 9-77 IP Uplink Service Configuration Window (Service Uplink Tab)

See the "Service Uplink Tab" section on page 10-50 for further details on the parameters displayed.

Step 9 Configure the parameters displayed on the Service Uplink tab, as required.

Commissioning the IP Uplink (for PTA-MD and RBE Subscribers) Service

Step 10 Click **Commission Service** to roll the service onto the Cisco 6400 UAC. A pop up window appears for you to confirm that you wish to commission the selected service.

Figure 9-78 About to Change Service State Confirmation Window



Step 11 Select Yes to commission the service (or No to return to the IP Uplink Service Configuration window). The Action Report window appears.

Figure 9-79 Action Report Window

-	Action Report 🗾 🧃 🗖
Т	elnetting to : 192.168.238.10
>	>>terminal length 0
R	Lincewind
C	ache file /tmp/c6400_cache_192,168,238,10_6_0_0 doesn't exist
R	efreshing free VPI/VCI cache
C	hosen 0 40, 46
>	>>configure terminal
E	inter configuration commands, one per line. End with CNTL/Z.
R	incewind(config)
T	elnetting to : 192.168.238.12
>	>>terminal length 0
N 1	RP
	<u>S</u> ave <u>C</u> ose

The Action Report window details the Cisco IOS commands executed when the service is commissioned. Invalid Cisco IOS commands result in a failure to commission the service.

Step 12 Check the details in the Action Report window to ensure that the service was commissioned successfully.

\triangle	
Caution	The Cisco 6400 SCM will roll-back configuration changes applied if an error is detected
	in the execution of the Cisco IOS command sequence with your selected parameters. This
	insures that the Cisco 6400 UAC remains in a consistent state, even when errors are made
	entering parameters.

- Step 13 Select Save to save the Action Report, if required.
- Step 14 Select Close to close the Action Report window and return to the Service Instance Configuration window.
- Step 15 Select Save from the File menu to save the parameters configured.

Select Close from the File menu to close the IP Uplink Service Configuration window.

L	Chapter 9	Service/Subscriber	Provisioning
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Configuring and Commissioning an RFC1483 Routing Service Instance

To configure and commission an RFC1483 routing service instance, follow these steps:

Select the Cisco 6400 UAC, Service, Configure RFC1483 Routing Services option from a Site, Shelf, Step 1 Chassis, or service instance object. The RFC1483 Routing Service Configuration window appears (see Figure 9-80).

Figure 9-80 RFC1483 Routing Service Configuration Window (Configuration Tab)

-	RFC14	483 Routing Service Configuration	
File Edit Options Window			<u>H</u> elp
kia≥ ≡ © √ 0 <	Σ		
	Configuration Service Detail	s Service Uplink	
	Sub-Interface		
	IP Address	192 . 230 . 30 . 12	
	Subnet Mask	255 . 255 . 255 . 0	
	NRP Selection		
Cisco 6400	NRP	NRP-5	
RFC1483RoutingService-Of RFC1483RoutingService-Th RFC1483RoutingService-Tw			
RFC1483 Routing Services			
Commission Service			
}tatus: Cisco6400ServiceUplink (decomm	nissioned), Cisco6400RFC1483S	ervice (decommissioned), Cisco6400Chassis (decommissioned)	

See the "RFC1483 IRB Service Profile Configuration Window" section on page 10-11 for further details on the parameters displayed.

Step 2 Select the appropriate Cisco 6400 and RFC1483 Routing Service instance from the lists displayed on the left side of the window.



RFC1483 Routing service profiles cannot be created for the RFC1483 Routing service and therefore cannot be applied.

Configure the parameters displayed on the Configuration tab, as required. Step 3

Cisco 6400 Service Connection Manager User Guide

Step 4 Select the Service Details tab.

-	RFC148	33 Routing Service Configuration	· []
File Edit Options Window			Help
xi & ≧ ≣ ⊑ ✓ 0 ♀			
CHASSIS-kev Configur	ation Service Details	Service Uplink Enter an optional Service Description here.	
Cisco 6400	Ibscriber Connections		
RECI408RoutingService-Of A RFC1483RoutingService-Th RFC1483RoutingService-Tv	Current Connections	Subscriber VPI	
RFC1483 Routing Services			
Commission Service			
Status: Cisco6400NRP (unknown), Cisco6400Servi	ceUplink (decommission	ed), Cisco6400RFC1483Service (decommissioned), Cisco6400Chassis (decommissioned)	

Figure 9-81 RFC1483 Routing Service Configuration Window (Service Details Tab)

- Step 5 Enter a Service Description in the Service Details panel, when required.
- Step 6 Select a connection from the Current Connection list and configure the parameters in the Subscriber Connections panel, as required.
- Step 7 Select the Service Uplink tab.

	Q						
CHASSIS-kev	Configuration Service Details 3	Service Uplink					
	Cisco6400ServiceUplink	Internal NSP/NRP P	VC		Service Uplink P	/C	
		VPI/VCI Allocation	Automa	tic 🗵	Uplink ATM Port	DS3-7-1/ATM- 🗵	
		internal VPI			Uplink VPI		
		Internal YCI			Uplink VCI		
4		VC Parameters					
Cisco 6400	$\overline{\nabla}$	CPE supports ARP	yes	X	Encapsulation Typ	e aal5snap 🗵	
		PVC IP Address	0.	0.0.0			
RFC1483RoutingService-Or RFC1483RoutingService-Th	Quality of Service (Receive))		- Quality of Ser	vice (Transmit)		
RFC1483RoutingService-Tv	QoS Category	ubr	X	QoS Category		ubr 🗵	
	Peak Cell Rate		100	Peak Cell Rate		100	
	Sustainable Cell Pate			Sustainable Ce	il Pato		
	Minimum Cell Rate		20	Minimum Cell F	late	20	
RFC1483 Routing Services	Max Burst Cell Size			Max Buist Cell	S-2+		
	Cell Delay Variation Tolerance	9	10	Cell Delay Vari	iation Tolerance	10	
Commission Service							
			Ad	d			

Figure 9-82 RFC1483 Routing Service Configuration Window (Service Uplink Tab)

See the "RFC1483 Routing Service Configuration Window" section on page 10-52 for further details on the parameters displayed.

- Step 8 Configure the parameters displayed on the Service Uplink tab, as required.
- Step 9 Click Add to add a new service uplink. The RFC1483 services can have multiple service uplinks.

Commissioning the RFC1483 Routing Service

Step 10 Click **Commission Service** to roll the service onto the Cisco 6400 UAC. A pop up window appears for you to confirm that you wish to commission the selected service.

Figure 9-83	About to Change	Service State	Confirmation	Window

?	About to c	hange service state. OK?	
	<u>Y</u> es	No	41761

Step 11 Select Yes to commission the service (or No to return to the RFC1483 Routing Service Configuration window). The Action Report window appears.

Figure 9-84 Action Report Window

-	Action Report 🗾 🔹 🗖
Т	elnetting to : 192.168.238.10
X	>>terminal length 0
R	incewind
C	ache file /tmp/c6400_cache_192.168.238.10_6_0_0 doesn't exist
R	efreshing free VPI/VCI cache
C	hosen 0 40, 46
)∑	>>configure terminal
Ei	nter configuration commands, one per line. End with CNTL/Z.
R	incewind(config)
Ti	elnetting to : 192.168.238.12
×	>>terminal length 0
N M	RP
	<u>S</u> ave <u>Q</u> ose

The Action Report window details the Cisco IOS commands executed when the service is commissioned. Invalid Cisco IOS commands result in a failure to commission the service.

Step 12 Check the details in the Action Report window to ensure that the service was commissioned successfully.

/!\

- **Caution** The Cisco 6400 SCM will roll-back configuration changes applied if an error is detected in the execution of the Cisco IOS command sequence with your selected parameters. This insures that the Cisco 6400 UAC remains in a consistent state, even when errors are made entering parameters.
- Step 13 Select Save to save the Action Report, if required.
- Step 14 Select Close to close the Action Report window and return to the Service Instance Configuration window.
- Step 15 Select Save from the File menu to save the parameters configured.

Select Close from the File menu to close the RFC1483 Routing Service Configuration window.

Figure 9-85 displays a typical work flow that describes how to create, configure and connect subscribers (that is, provision end customers).

Subscriber Provisioning

Figure 9-85 Subscriber Provisioning Work Flow



The first step is to create (deploy) one or more subscriber objects. Each subscriber object can then be configured with their own particular details (for example, connection or contact details).

Each subscriber can then be connected to one or more service instances. Service instances were created earlier. See the "Creating a Service Instance" section on page 9-36 for further details.

Creating a Subscriber

Subscriber objects hold information related to the end subscriber. Subscribers are created by deploying them onto a selected Line Card.

To create subscribers, follow these steps:

Step 1 Select the Cisco 6400 UAC, Subscriber, Deploy option from a Line Card. The Deployment Wizard - Object Parameters window (1 of 2) appears. (see Figure 9-86)

Enter the Subscriber ob	number of pjects to create		
Deployment \ Object Parameters	/izard – Object Parar	neters	•
Number of Subscriber objects:	<u>1</u>		
«< Back Forward >>		Cancel	Finish
			415

Figure 9-86 Deployment Wizard - Object Parameters (1 of 2)

Step 2 Enter the Number of Subscriber objects you wish to create. A single Subscriber object was entered in the example. (see Figure 9-86)

Step 3 Select Forward. The Deployment Wizard - Object Parameters (2 of 2) window appears. (see Figure 9-87)

	Enter the Subscriber's ID		
Ē	Deployment Wizard – Object Parameters		回
L	Object Parameters		
L	Subscriber ID: Subscriber-JohnSmith		
L			
L			
L			
L			
L			
L			
L	<	;	
L		E	
			11520

Figure 9-87 Deployment Wizard - Object Parameters (2 of 2)

Step 4 Enter a Subscriber ID. John Smith was entered in the example. (see Figure 9-87)

Step 5 Click Forward.



Step 6 Click Forward. The Deployment Wizard Summary window appears (see Figure 9-88).

	Deployment Wizard - Summary	
The Summary panel – displays information about the deployment	→ Ready to deploy 1 object using the template Create Subscriber(s) Press 〈Finish〉 to continue.	
	< Back Forward >> Cancel	Finish

Figure 9-88 Deployment Wizard - Summary

Summary information displays in the Summary panel.

- Step 7 Check the Summary information is correct.
- Step 8 Click Finish (when the Deployment Summary information is correct) to create the new Subscriber objects.
- Step 9 Proceed to the "Configuring a Subscriber" section on page 9-71.

Deleting a Subscriber

To delete a subscriber object, follow these steps:

Step 1	Select the Cisco 6400) UAC, Subscriber,	Configure Subscriber	r option at an	appropriate	Line (Card.
--------	-----------------------	--------------------	----------------------	-----------------------	-------------	--------	-------

- Step 2 Select the Subscriber from the list at the left side of the window and right click.
- Step 3 Select Delete Objects.
- Step 4 Check the Deletion Summary details.
- Step 5 Click Finish.

Chapter 9 Service/Subscriber Provisioning

Configuring a Subscriber

To configure a subscriber's details, follow these steps:

Step 1 Select the Cisco 6400 UAC, Subscriber, Configure Subscriber option at an appropriate Line Card. The Subscriber Configuration window appears (see Figure 9-89).

Figure 9-89 Subscriber Configuration Window (Connections Tab)

	Subscriber Cor	nfiguration		•
File Options Navigation Edit Lay	out			<u>H</u> elp
Image: Construction of the second	Connections Subscriber Details (Optional) Connection Details Cisco6400L2TPConnection 1 Cisco6400L2TPConnection 2 Cisco6400L2TPConnection 3 Cisco6400L2TPConnection 4 Current Connections Current Connections	Service Instance Name Service Instance VPI Service Instance VCI Subscriber VPI Subscriber VCI	String 499 String 623 String 413 String 21 String 969	
Status (normal)				

See the "Subscriber Configuration Window" section on page 10-57 for details on the parameters that appear on the Subscriber Configuration window.

- Step 2 Select a Cisco 6400 and Subscriber from the appropriate lists at the left side of the window.
- Step 3 Select a Current Connection from the list displayed in the Connection Details panel.
- Step 4 Configure the parameters displayed in the Connection Details panel.

Step 5 Select the Subscriber Details (Optional) tab.

	Subscriber Configuration	•
File Options Navigation Edit Layo	ut	Help
Cisco6400Chassis 0 Cisco6400Chassis 1 Cisco6400Chassis 3 Cisco6400Chassis 3 Cisco6400Chassis 4 Cisco6400Chassis 5 Cisco6400Chassis 6 Cisco6400Chassis 7 Cisco6400Chassis 7 Cisco6400Chassis 7	Connections Subscriber Details (Optional) Contact Name & Address Contact ID / Name Contact Details	
Cisco 6400	Subscriber Name & Address Subscriber ID / Name	
	Subscriber Details	
Subscriber		

Figure 9-90 Subscriber Configuration Window (Subscriber Details (Optional) Tab)

Note Entering information into the **Subscriber Details (Optional)** tab is voluntary. You can enter any information you like into the **Subscriber Details** tab. For example, you may decide to enter a subscriber identification in the **Subscriber Name** box and an e-mail address in the **Subscriber Address** box.

- Step 6 Enter a Contact ID / Name and Contact Address into the Contact Name & Address panel, as required.
- Step 7 Enter a Subscriber ID / Name and Subscriber Details into the Subscriber Name & Address panel, as required.
- **Step 8** Select the **Save** option from the **File** menu to save the subscriber information.
- Step 9 Select the Close option from the File menu to close the Subscriber Configuration window.

Connecting a Subscriber to a Service Instance

Subscribers are connected to service instances within the Service/Subscriber Connection window. The Service/Subscriber Connection window displays three tabs: Connection details, Connect to Single Domain, and Connect to Multi-Domain. Configuration information is required into one or more tabs when connecting a subscriber to a service instance. Certain parameters are grayed out, depending upon what type of service you are trying to connect to.
Table 9-2 displays the Cisco 6400 SCM service types and the tabs in the Service/Subscriber Connection window that should be configured for each service type.

Cisco 6400 Service Type	Connection Details Tab	Connect To Single Domain Tab	Connect to Multi-Domain Tab
Pure ATM Switching Service	Configure the parameters displayed in the Connection Parameters and Internal	Configure the parameters displayed, as required for all service types. Click Connect when required.	Not required
PPPoA Single Domain	NSP, NRP PVC panels for all service types, as		Not required
L2TP	Icquireu.		Not required
RFC1483 Routing			Not required
RFC1483 Bridging		Not required	
RFC1483 IRB	_		Not required
IP Uplink			Configure the parameters displayed, as required. Click Connect when required.

 Table 9-2
 Connecting a Subscriber to a Service Instance

To connect a subscriber to a service instance, follow these steps:

Step 1 Select the Cisco 6400 UAC, Subscriber, Connect option from an NSP card.

The Service/Subscriber Connection window (shown in Figure 9-91) appears. See the "Service/Subscriber Connection Window" section on page 10-60 for further details on the parameters displayed.

	Service/Subscriber Connection	
File Edit Options Window	Service/Subscriber Connection	Help
Chassis-192.168.238.10	Connection Details Connect to Single Domain Connect to Multi-Domain	
	Connection Parameters	
	Ingress VPI xv	
Cisco 6400	Ingress VCI	
Subscriber-JohnSmith	Internal NSP/NRP PVC	
Subscriber	Infernat VCI	
ConnectionTemplate-JohnSt	VPI/VCI Allocation Automatic Z	
Connection Template		
Status: ServiceInstance (decommissi	ioned), Cisco6400ConnectionTemplate (decommi: Dynamic updates are enabled)	oled

Figure 9-91 Service/Subscriber Connection Window (Connection Details Tab)

- Step 2 Select a Cisco 6400 chassis from the Cisco 6400 list displayed on the left side of the window.
- Step 3 Select a Subscriber from the Subscriber list displayed on the left side of the window.
- **Step 4** Select a **Connection Template** from the Connection Template list displayed on the left side of the window.
- Step 5 Configure the parameters in the Connection Parameters, and Internal NPS, NRP PVC frames, as required.

Step 6 Select the Connect to Single Domain tab.



When you select an IP Uplink service (Service Type of PTA-MD) and this service instance does not have a Local Service Profile (LSP) configured, the Connect button is grayed out. When you do connect to an IP Uplink service using the Connect to Single Domain tab, this is equivalent to the PTA-MD static case used in Release 1.3 of the Cisco 6400 SCM software.

Figure 9-92 Service/Subscriber Connection Window (Connect to Single Domain Tab)

-	Service/Subscriber Connect	ion	• 🗆
File Edit Options Window			<u>H</u> elp
x & ⊖ ≡ ⊡ √ 0	Q		
Chassis-192.168.238.10	Connection Details Connect to Single Domain	Connect to Multi-Domain	
	Service Instance	Subscriber Parameters	_
	ATMService-1	Usemane	Ī
Circo 6400	IPUplinkService-1 IPUplinkService-2	Password	
Subscriber-JohnSmith	IPUplinkService-3 IPUplinkService-4	Service Access Mode Exclusive	
	L2TPService - 1 PPPoASDService - 1	CPE supports APP	
	RFC1483BridgingService-1 RFC1483IRBService-1	PVC IP Address 0.0.0	1
Subscriber	RFC1483RoutingService-1	Sub-Interface	
ConnectionTemplate-JohnSt		IP Address 0.0.0	1
	Service Type ATM	Subnel Mask 255 . 255 . 255 . 0	
V	Connect	Encapsulation Type aal5snap 🗵	
Connection Template			
Status: ServiceInstance (decommissio	ned), Cisco6400ConnectionTemplate (decommi:	Dynamic updates are ena	abled

Step 7 Select a Service Instance from the list displayed in the Service Instance panel.

A Service Instance is a service object, that is, a single service deployed on the Cisco 6400 UAC. It contains all of the configuration information required for the service to run.



Note Inappropriate parameters are grayed out in each of the frames displayed on the Connection Details, Connect to Single Domain, and Connect to Multi-Domain tabs when a Service Instance is selected.

- Step 8 Configure the parameters displayed in the Connect to Single Domain tab, as required.
- Step 9 Select the Connect to Multi-Domain tab.

	Service/Subscriber Co	nnection	
ile Edit Options Window			<u>H</u> elp
& ⇔ ≡ ₽ √ 0	\bigcirc		
Chassis-192.168.238.10	Connection Details Connect to Single Do	omain Connect to Multi-Domain	
	Node Route Processor	Subscriber Parameters	
	NRP-5	Connection Type PPPoE 🗾	
Cisco 6400	NRP-6	IP Address 0 . 0 . 0 . 0	
Subscriber-JohnSmith		Subnei Mask 255 - 255 - 255 - 0	
		Encapsulation Type	
Subscriber			
ConnectionTemplate-JohnSt	7	i	
$\overline{\nabla}$	Connect		

Figure 9-93 Service/Subscriber Connection Window (Connect to Multi-Domain Tab)

- Step 10 Select an NRP from the Node Route Processor list.
- Step 11 Configure the parameters displayed in the Connect to Multi-Domain tab, as required.
- Step 12 Click Connect. A pop up window appears (see Figure 9-94) asking you to confirm that you wish to connect the selected subscriber.

Figure 9-94 Connect Subscriber to NRP Window

Connect Sub	scriber to NRP ?
Yes	No

Step 13 Click Yes to proceed. An Action report window appears displaying the Cisco IOS transaction log as connection occurs.



A Subscriber connection object is automatically created and placed below the appropriate service instance in the Cisco6400ServiceView and also in the Cisco6400SubscriberView below the appropriate subscriber object. Performance logging can be Activated or Deactivated for each subscriber connection object. See Table 8-1 on page 8-2 for further details.



The **Connect** button is grayed out when the Service Instance is in a **Commissioned** state.

If the **Connect** operation fails the service instance remains in the **Decommissioned** state (that is, no configuration is applied to the Cisco 6400 UAC). The Action Report window may identify why the connection failed. Failure diagnostics information can also be located by examining the Cisco IOS log.

Common failure causes can include:

- Specifying duplicate (already used) Ingress PVC details.
- Forgetting to configure the QoS Parameters in the connection template.
- Specifying invalid Ingress PVC details.
- Selecting the **Manual** option for **Internal PVC Parameters** allocation and selecting a PVC that is already allocated.

Disconnecting a Subscriber from a Service Instance

To disconnect a subscriber from a service instance, follow these steps:

Step 1 Select the Cisco 6400 UAC, Subscriber, Disconnect s option from an NSP card. The Service/Subscriber Disconnection window appears.



	Service/Subscriber E	Disconnection		•
File Options Navigation Action	s Edit Layout			Help
Cisco6400Chassis 0 Cisco6400Chassis 1 Cisco6400Chassis 2 Cisco6400Chassis 3 Cisco6400Chassis 4 Cisco6400Chassis 5 Cisco6400Chassis 5 Cisco6400Chassis 7 Cisco6400Chassis 7 Cisco6	Connection Details Cisco8400Subscriber 0 Cisco8400Subscriber 2 Cisco8400Subscriber 2 Cisco8400Subscriber 3 Subscriber	Subscriber ID / Name Subscriber VPI Subscriber VCI	String 413 String 623 String 197	
Cisco6400ATMPort 0 Cisco6400ATMPort 1 Cisco6400ATMPort 2 Cisco6400ATMPort 3 Cisco6400ATMPort 4	Cisco8400L2TPConnection 0 Cisco8400L2TPConnection 1 Cisco8400L2TPConnection 2 Cisco8400L2TPConnection 3	Service Instance Name Service Instance VPI Service Instance VCI	String 21 String 989 String 83	
Disconnect Status (normal) >				

See the "Service/Subscriber Disconnection Window" section on page 10-64 for further details on the parameters contained in the Service/Subscriber Disconnection window.

- Step 2 Select the Cisco 6400 chassis and ATM Port from the lists displayed on the left side of the window.
- Step 3 Select a Subscriber and Current Connections from the from the lists displayed in the Connection Details panel.
- Step 4 Click **Disconnect**. A pop up window appears to inform you that the selected subscriber is about to be disconnected.



-	· []
About to Disc	connect Subscriber. OK?
Yes	No

Step 5 Click Yes to disconnect the subscriber. The Action Report window appears confirming that the subscriber was disconnected.

Figure 9-97 Action Report Window

-	Action Report	-
T	Felnetting to : 192.168.238.10	
	>>>terminal length 0 Pincewind	
	Sincewind S>>configure terminal Enter configuration commands, one per line. End with CNTL/Z.	
	<pre>>>>interface atm 2/0/0 Sincewind(config-if)</pre>	
> F	>>>no atm pvc 100 180 Rincewind(config-if)	
Þ	>>>no atm connection-traffic-table-row index 63999	
μ 2	WARNING: Device returned `% Row in use on VC/VP connection' while & Row in use on VC/VP connection	e
F	Rincewind(config	
*	*** No errors encountered ***	
L		
	<u>S</u> ave <u>C</u> os	e

Step 6 Click **Close** to close the Action Report window or click **Save** to save the Action Report. The Action Report can be saved and used for diagnostic purposes. The "*** *No errors encountered* ***" message appears to show that disconnection was successful.

Administration

Editing a Currently Connected Subscriber's Details

This operation can be performed without disconnecting the subscriber. To edit a currently connected subscriber's details, follow these steps:

Step 1	Select the	Configure	Subscribers	option	from	a line	card.
--------	------------	-----------	-------------	--------	------	--------	-------

- Step 2 Select the NSP, DSLAM and Subscriber to display the subscribers details.
- Step 3 Enter the Contact and Subscriber Details and then save your changes.

Moving Subscribers between Services (or NRPs)

To move subscribers between services (or NRPs), follow these steps:

- Step 1 From a line card select disconnect subscribers.
- Step 2 Select the subscriber to disconnected.
- Step 3 Press the **Disconnect** button.
- Step 4 Select a new service.
- Step 5 Connect the subscriber to a new service instance (and NRP, if appropriate).

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http://golfingnear.com Email search by domain

http://emailbydomain.com Auto manuals search

http://auto.somanuals.com TV manuals search

http://tv.somanuals.com