



# Services Portal 3.0

## Installation and Configuration Guide



# Please Read

## Important

Please read this entire guide. If this guide provides installation or operation instructions, give particular attention to all safety statements included in this guide.

# Notices

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# About This Guide

## Introduction

Interactive service offerings have exploded in the last few years, changing the way subscribers view cable TV. The steady addition of cutting-edge offerings leaves subscribers asking, “How can I get there NOW?”

With Services Portal 3.0, one click on the remote control provides immediate access to a menu of interactive services and popular channels.

## Purpose

This document provides step-by-step procedures for installing, upgrading, and configuring your Services Portal version 3.0. It focuses primarily on procedures rather than conceptual information. A companion guide, *Designing the Look and Feel for Your Services Portal*, (part number 4002639) was written to help marketing personnel make key customization decisions before you install the Services Portal.

## Scope

This guide is written for Services Portal version 3.0, which consists of Services Portal Client version 3.0.1.6 and Services Portal Server version 3.0.1.4.

**Note:** Screens shown in this guide are simulations and may not exactly reflect your experience.

## Read Me

Please read all instructions before beginning the upgrade process. If you are uncomfortable with any of the procedures presented in these instructions, contact Cisco Services for assistance.

## Audience

This guide is written for system operators who will install, upgrade, configure, customize, and maintain the Services Portal.

## Related Publications

You may find the following publications useful as resources when you implement the procedures in this document.

- *Designing the Look and Feel of Your Services Portal* (part number 4002639)

## About This Guide

- *Enhancing Your Subscribers' Experience: SARA Configurable Options* (part number 4002178)
- *Guidelines for Adding URL Modifiers and Replacing URL Keywords* (part number 4002527)

## Document Version

This is the third release of this document. In addition to minor text and graphic changes, the following table provides the technical changes to this document.

Description	See Topic
<i>Installation and Upgrade Topics</i>	
Updated procedures for compatibility with SR 2.7/3.7/4.2	Throughout document
Updated installation and upgrade instructions to include using the new installation tool (required with Solaris 10 and later)	Throughout document
Added upgrade instructions	<i>Upgrade the Services Portal</i> (on page 53)
Information on preserving your configurations when you upgrade	<i>Preserving Your Previous Configuration</i> (on page 57)
Roll back instructions	<i>Rolling Back to a Previous Version</i> (on page 141)
Information on preserving your configurations when you roll back the version	<i>Restore the Configuration</i> (on page 143)
<i>Configuration Topics</i>	
Updated information regarding high-resolution graphics	Throughout document
Added information about using custom fonts in Services Portal	<i>Define the Title Text Font</i> (on page 118)
Added information about rounding both edges of buttons	<i>Define Button Edges</i> (on page 96)

# 1

## Before You Begin

### Introduction

- Which button on the remote control should launch the Services Portal?
- Do you want the Services Portal to display as a transparent toolbar over the current channel or should it take up the full screen?
- Which services will you add to the portal?
- Do you have a custom background image for your portal?

This list of questions represents just a few of the many options for customizing your Services Portal. Before you install and configure the Services Portal, you need answers to these and other questions.

Each customization option requires careful consideration and planning. For this reason, we created this chapter to let your marketing department answer these questions before installation.

All of the information you need to set up the Services Portal is included in the worksheets contained in this chapter.

### In This Chapter

- Overview ..... 2
- Services Portal Configuration Worksheets..... 3

## Overview

What is the Services Portal? In short, it is an answer to the question, “How can I get there NOW?”

Interactive service offerings have exploded in the last few years, changing the way subscribers view cable TV. With anything-On-Demand (xOD), subscribers can watch the year’s biggest action flick at their convenience. With walled garden applications like the Fusion™ application, subscribers can read the news on the TV while drinking their morning coffee. Subscribers with digital video recorders (DVRs) can record programs and movies to view later – all from the set-top.

The on-screen program guide is an excellent tool for channel surfing. However, it can add precious seconds when subscribers just want to watch episode 39 of *The Sopranos*, just want to get to the latest traffic report, or just want to review the list of movies they are recording...NOW! With the Services Portal, one click on the remote provides immediate access to a menu of interactive services and popular channels.

**Important:** If you have already upgraded your DNCS System Release, you must follow the directions in *Installing the Services Portal Package Information* (on page 58) before you can successfully upgrade Services Portal.

## Introduction to Installing and Configuring the Services Portal 3.0

If you do not have a completed copy of these worksheets, contact your marketing department to obtain answers to the questions presented in the worksheets. Your marketing department may also provide a paper prototype for how the Services Portal should look and electronic files of translations for service names and other text elements.

**Note:** If you are upgrading Services Portal from a previous version, go to *Upgrade the Services Portal* (on page 53).

## Services Portal Configuration Worksheets

Refer to these worksheets as you install and configure your Services Portal.

### Access, Timers, and Launch Mode

**Access Method (circle one):**    A key       Guide key       Menu key

**Launch the Services Portal each time a subscriber turns on the set-top? (Check one)**

- ☐ Yes
- ☐ No

**Power On Time Out:** \_\_\_\_\_ seconds (applies if Services Portal is a Power-On service)

**Time Out After Activation:** \_\_\_\_\_ seconds

**Launch Mode (check one):**

- ☐ Toolbar
- ☐ Full Screen

## Service List

**Number of Services to Display at Once:** \_\_\_\_\_ (7 is maximum)

Enter the label and icon number for each service in the order in which you want them to appear.

Label	Icon Number	Label	Icon Number
1 (Reserved for IPG)		17	
2		18	
3		19	
4		20	
5		21	
6		22	
7		23	
8		24	
9		25	
10		26	
11		27	
12		28	
13		29	
14		30	
15		31	
16		32	

## Button Configuration

**Button Color** (if different from default): \_\_\_\_\_

**Rounding (circle one):**    Left Side Rounded      Both Sides Rounded

**Change the default text font for buttons?** (check one)

- ☐ Yes, enter the font to use: \_\_\_\_\_
- ☐ No

### Notes:

- Custom fonts are only available on high-resolution set-top boxes. Low-resolution set-top boxes ignore the font settings and use the default fonts. (If you do not specify a font, the default Services Portal fonts will be used.)
- All fonts must be **.bft** files.

## Button Position and Widths for Toolbar Mode

Use the following form to record custom values for the position and widths of buttons for the Toolbar mode. You can also refer to this form for default values for button positions and widths.

**Note:** If you are using Services Portal with high-resolution graphics, enter these values as if they are low-resolution graphics. Services Portal will display the graphics correctly in the high-resolution versions.

	Default Values	Custom Values
Button 1	Left = 29	Left =
	Top = 42	Top =
	Width = 84	Width =
Button 2	Left = 24	Left =
	Top = 64	Top =
	Width = 89	Width =
Button 3	Left = 20	Left =
	Top = 86	Top =
	Width = 93	Width =
Button 4	Left = 18	Left =
	Top = 108	Top =
	Width = 95	Width =
Button 5	Left = 18	Left =
	Top = 130	Top =
	Width = 95	Width =
Button 6	Left = 20	Left =
	Top = 152	Top =
	Width = 93	Width =
Button 7	Left = 24	Left =
	Top = 174	Top =
	Width = 89	Width =

## Button Position and Widths for Full Screen Mode

Use the following form to record custom values for the position and widths of buttons for the Full Screen mode. You can also refer to this form for default values for button position and width.

**Note:** If you are using Services Portal with high-resolution graphics, enter these values as if they are low-resolution graphics. Services Portal will display the graphics correctly in the high-resolution versions.

	Default Values	Custom Values
Button 1	Left = 25	Left =
	Top = 58	Top =
	Width = 95	Width =
Button 2	Left = 25	Left =
	Top = 80	Top =
	Width = 95	Width =
Button 3	Left = 25	Left =
	Top = 102	Top =
	Width = 95	Width =
Button 4	Left = 25	Left =
	Top = 124	Top =
	Width = 95	Width =
Button 5	Left = 25	Left =
	Top = 146	Top =
	Width = 95	Width =
Button 6	Left = 25	Left =
	Top = 168	Top =
	Width = 95	Width =
Button 7	Left = 25	Left =
	Top = 190	Top =
	Width = 95	Width =



## Parental Control

**Prevent subscribers from blocking certain services?** (check one)

- ☐ Yes  
☐ No

If **yes**, list the services you want to prevent subscribers from blocking.

**Change the default text for any Parental Control messages?** (check one)

- ☐ Yes  
☐ No

If **yes**, enter the changes in this form. To minimize data-entry errors, we recommend that you provide an electronic copy of the list to the installer.

### PIN Entry Text

English

French (optional)

Spanish (optional)

### PIN Entry Text to Clear Blocked Service

English

French (optional)

Spanish (optional)

### Blocked Service Barker Text

English

French (optional)

Spanish (optional)

### Blocked Service B Key Text

English

French (optional)

Spanish (optional)

### PIN Entry Text to Clear All Blocked Services

English

French (optional)

Spanish (optional)

**Change the default text font for the Parental Control button (the "B" button)?**

(check one)

- ☐ Yes  
☐ No

If **yes**, enter the font to use: \_\_\_\_\_

**Notes:**

- Custom fonts are only available on high-resolution set-top boxes. Low-resolution set-top boxes ignore the font settings and use the default fonts. (If you do not specify a font, the default Services Portal fonts will be used.)
- All fonts must be **.bft** files.

## Special Filtering Options

**Show or hide blocked services (check one):**

- ☐ Show  
☐ Hide

**Show or hide unauthorized services (check one):**

- ☐ Show  
☐ Hide

## Services Portal Branding

**Use a custom background image? (check one)**

- ☐ Yes  
☐ No

If you are using the **same custom background** for each SA Resident Application (SARA) color scheme, list the name of the JPG file:

\_\_\_\_\_

If you are using a **different custom background** for each SARA color scheme, list the name of the JPG file for each color scheme:

<b>SARA Color Scheme</b>	<b>Services Portal Custom Background Image</b>
Town Square	
Golf Course	
Board Walk	
Ball Park	
Roller Rink	
Aquarium	
Campground	

**Do you want to use customized fonts for the Title? (Check one)**

- ☐ Yes  
☐ No

If **yes**, list the the custom font here: \_\_\_\_\_

**Notes:**

- Custom fonts are only available on high-resolution set-top boxes. Low-resolution set-top boxes ignore the font settings and use the default fonts. (If you do not specify a font, the default Services Portal fonts will be used.)
- All fonts must be **.bft** files.

**Show Logo Imported by SARA? (Check one)**

- ☐ Yes  
☐ No

**Note:** Check **No** if your logo is embedded in a custom background.

**Add Title Through the Services Portal Configuration Tool? (Check one)**

- ☐ Yes  
☐ No

**Note:** Check **No** if your title is embedded in a custom background.

If **yes**, specify the title to add:

\_\_\_\_\_

## Navigational Aids

**Page Up and Down (+/-) button images or Up and Down arrow images? check one:**

- ☐ Page +/-  
☐ Up and Down arrow images

Enter the location of the button images (x and y coordinates, or approximate location):

X: \_\_\_\_\_ Approximate location: \_\_\_\_\_

Y: \_\_\_\_\_

**Note:** If you are using Services Portal with high-resolution graphics, enter these values as if they are low-resolution graphics. Services Portal will display the graphics correctly in the high-resolution versions.

**Show or hide the Where Am I banner? (applies to Full Screen mode only, check one):**

- ☐ Show  
☐ Hide

### General placement of navigation buttons

**Note:** Specify general placement, such as “lower right corner.” You can also show placement on your prototype.

Key	Placement
Title Text	
A key	
B key	
Exit key (Toolbar Mode only)	
Select key	
MSO logo	

# 2

## Install the Services Portal

### Introduction

This chapter contains instructions for installing the Services Portal. The procedures are listed in sequential order, and they are written assuming that you can complete them without interruption.

### In This Chapter

■ Overview .....	12
■ Set Up the BFS .....	14
■ Define a Services Portal Package .....	29
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■ Define How Subscribers Open the Services Portal .....	46
■ Authorize a Test Set-Top .....	49
■ Add the Font Files to the BFS Server.....	51

## Overview

**Note:** If you are upgrading Services Portal from a previous version, go to *Upgrade the Services Portal* (on page 53).

## Time To Complete

Installing Services Portal and configuring the application on the Digital Network Control System (DNCS) takes approximately 1 to 2 hours to complete.

## Software Needed

Before starting the installation, make sure that you have the following installation CDs:

- Services Portal Server Installation (version 3.0.1.4)
- Services Portal Client Installation (version 3.0.1.6)

## Client Software and System Release Compatibility

Services Portal 3.0, consisting of Services Portal Client version 3.0.1.6 and Services Portal Server version 3.0.1.4, was tested and released against the following software.

Software	Versions
Client Software	■ SARA 1.59 and PowerTV OS 3.24
	■ SARA 1.60 and PowerTV OS 3.13
	■ SARA 1.89 and PowerTV OS 6.14
	■ SARA 1.89 and PowerTV OS
System Release	■ SR 2.5/3.5 SP2
	■ SR 2.7/3.7
	■ SR 4.0 SP2
	■ SR 4.2

### Notes:

- This section provides compatibility of released software. If you have a question about current testing status against Services Portal 3.0, contact the representative who handles your account.
- For a complete configuration listing for the release of Services Portal 3.0, please contact CiscoServices.

## Other Resident Applications

The Services Portal has only been qualified to work with our set-top boxes running the SA Resident Application (SARA). If you use non-SA set-top boxes, you should be able to run Services Portal if you also use SARA and the PowerTV operating system.

## Set Up the BFS

The Broadcast File System (BFS) is the primary means of communication between the DNCS and set-tops (Digital Home Communication Terminals or DHCTs).

The BFS uses data *carousels* (also known as *data pumps* or *sources*) to send the files that tell the set-top how to properly run specific applications. These carousels make the information available to all set-tops in the system. However, only those set-tops specifically authorized and looking for the information receive it.

### Process Overview

To set up the BFS to process Services Portal data, you must complete the following procedures, which are detailed in this section.

- 1 Add the new inband carousel to the PAT table.
- 2 Add Services Portal to the source list.
- 3 Define the inband source.
- 4 Create the inband and out-of-band carousels.
- 5 Authorize the BFS servers for the inband and out-of-band carousels.
- 6 Create the client BFS inband and out-of-band servers.
- 7 Tear down the BFS sessions.



## Add the Inband Carousel to the PAT Table

### Determining the Session Number

- 1 On the DNCS Administrative Console, click the **DNCS** tab.
- 2 Click the **Application Interface Modules** tab.
- 3 Click **Source**. The Source List window opens.



The screenshot shows a window titled "Source List" with a menu bar containing "File", "View", and "Help". Below the menu bar is a table with three columns: "Source Name", "Source ID", and "Current Security Mode". The table contains the following data:

Source Name	Source ID	Current Security Mode
A007 TBS	1007	Clear
A008 GTV	1008	Clear
A009 UPA	1009	Clear
A024 ESPN	1024	Clear
A031 FOXN	1031	Clear
A036 TWC	1036	Clear
A037 GOLF	1037	Clear
A067 USA	1067	Clear
A073 SCIFI	1073	Clear
A077 GALA	1077	Clear

- 4 Click the **Source ID** column header to sort the list of sources by source ID.
- 5 Write down two unused source numbers greater than 200 in the following spaces.

**Services Portal Inband Source** \_\_\_\_\_

**Services Portal Out-of-band Source** \_\_\_\_\_

### Notes:

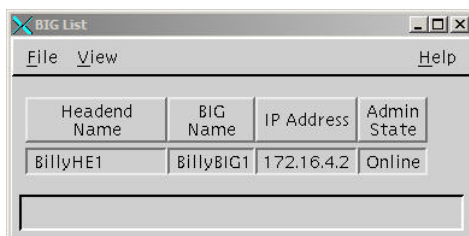
- You will use the inband source number as the session number for the inband carousel in this procedure.
- You will use both the inband source and the out-of-band source numbers later in this section.
- Our numbering convention uses even numbers for inband sources and odd numbers for out-of-band sources.
- We recommend that the inband and out-of-band source IDs are sequential if possible. For example, source ID 202 for inband and source ID 203 for out-of-band.
- You must use numbers greater than 200. Source IDs 1 through 200 are reserved for system-built sources.

- 6 Close the Source List window from the **File** menu.

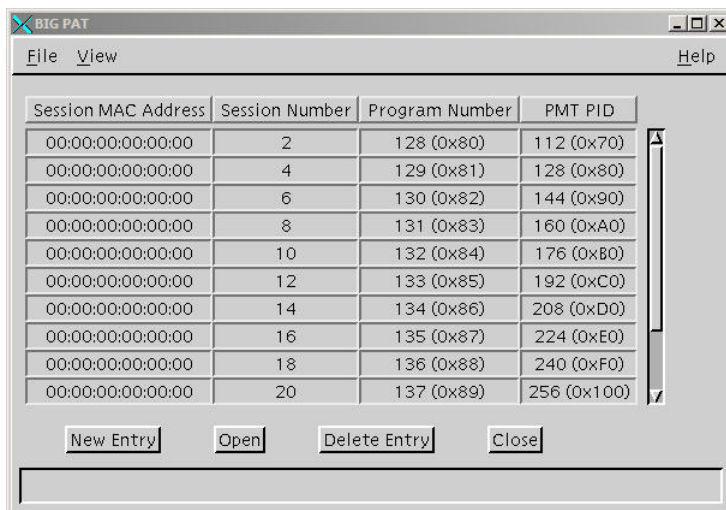
### Adding the Inband Carousel to the BIG PAT Table

Note: If you use Direct ASI instead of a BIG, skip this procedure and go to *Adding the Inband Carousel to the ASI PAT Table* (on page 18).

- 1 From the DNCS Administrative Console, click the **Network Element Provisioning** tab.
- 2 Click **BIG**. The BIG List window opens.

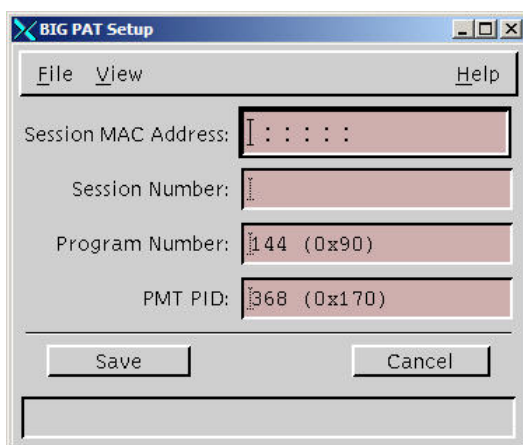


- 3 On the BIG List window, double-click the **BFS BIG**. The Set Up BIG window opens.
- 4 Click **PAT Configuration**. The BIG PAT window opens.



- 5 Verify that the session numbers and program numbers are in sequential order.
- 6 Does your BIG PAT table meet the requirements specified in the previous step?
  - If **yes**, go to the next step.
  - If **no**, stop this procedure and call Cisco Services.

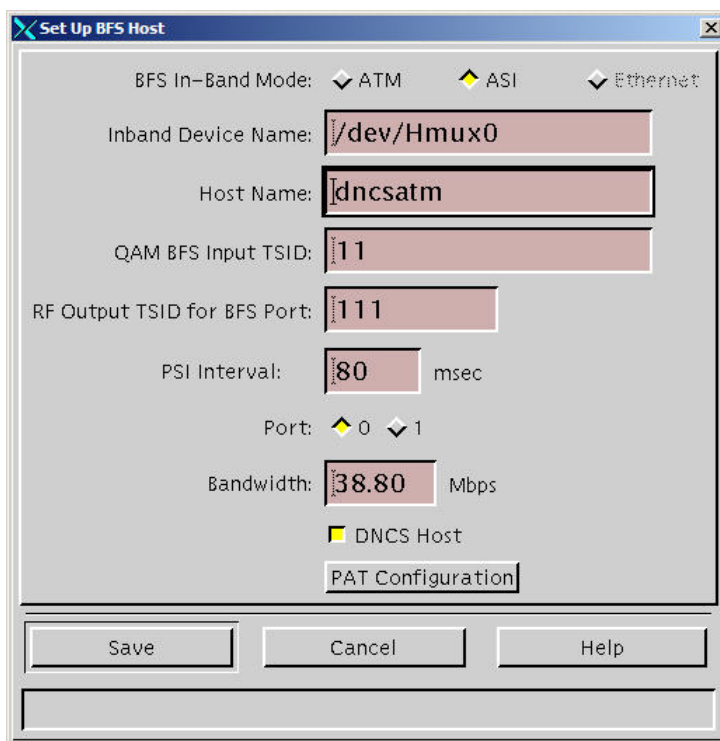
- 7 Click **New Entry** on the BIG PAT window. The BIG PAT Setup window opens.



- 8 For **Session MAC Address**, type twelve zeroes (00:00:00:00:00:00), and press **Tab**.  
**Note:** Do not type the colons.
- 9 For **Session Number**, type the source ID for the *inband* carousel, and click **Save**. You recorded this number in *Determining the Session Number* (on page 15).  
**Note:** The values for **Program Number** and **PMT PID** appear automatically.
- 10 Close the BIG PAT window.
- 11 In the Set Up BIG window, click **Apply** and then click **Cancel**. Changes to the BIG PAT window are applied, and the Set Up BIG window closes.
- 12 Go to *Adding the Services Portal to the Source List* (on page 20).

### Adding the Inband Carousel to the ASI PAT Table

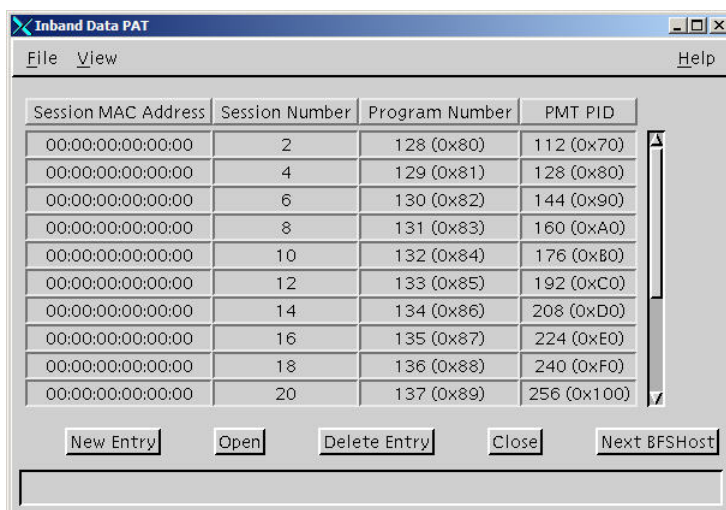
- 1 On the DNCS Administrative Console, click the **Application Interface Modules** tab.
- 2 Click the **BFS Admin** tab. The Site BFS Administration window opens.
- 3 Click the **Hosts** tab.
- 4 Double-click **dnccsatm**. The Set Up BFS Host window opens.



The 'Set Up BFS Host' window is shown with the following configuration:

- BFS In-Band Mode: ☒ ATM ☒ ASI ☐ Ethernet
- Inband Device Name:
- Host Name:
- QAM BFS Input TSID:
- RF Output TSID for BFS Port:
- PSI Interval:  msec
- Port: ☒ 0 ☐ 1
- Bandwidth:  Mbps
- ☒ DNCS Host
- 
- 

- 5 Click **PAT Configuration**. The Inband Data PAT window opens.



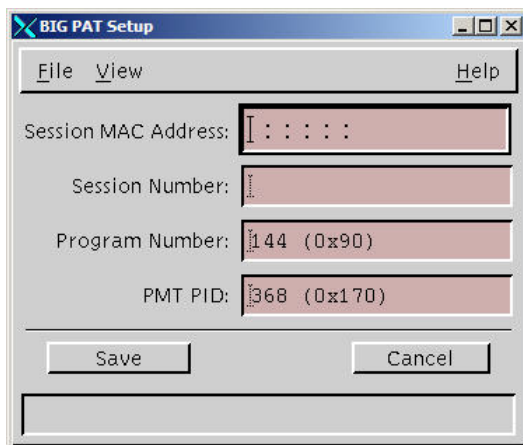
The 'Inband Data PAT' window displays a table with the following data:

Session MAC Address	Session Number	Program Number	PMT PID
00:00:00:00:00:00	2	128 (0x80)	112 (0x70)
00:00:00:00:00:00	4	129 (0x81)	128 (0x80)
00:00:00:00:00:00	6	130 (0x82)	144 (0x90)
00:00:00:00:00:00	8	131 (0x83)	160 (0xA0)
00:00:00:00:00:00	10	132 (0x84)	176 (0xB0)
00:00:00:00:00:00	12	133 (0x85)	192 (0xC0)
00:00:00:00:00:00	14	134 (0x86)	208 (0xD0)
00:00:00:00:00:00	16	135 (0x87)	224 (0xE0)
00:00:00:00:00:00	18	136 (0x88)	240 (0xF0)
00:00:00:00:00:00	20	137 (0x89)	256 (0x100)

Buttons at the bottom:

- 6 Verify that the session numbers and program numbers are in sequential order.

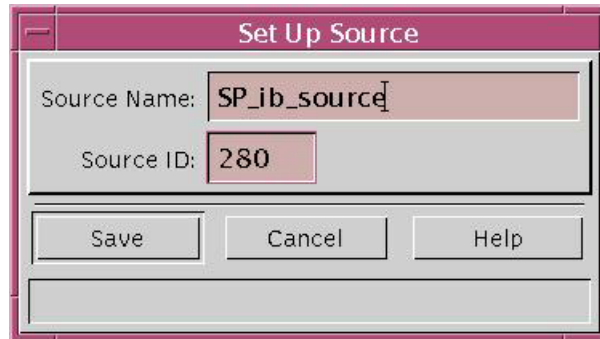
- 7 Does your PAT table meet the requirements specified in the previous step?
  - If **yes**, go to the next step.
  - If **no**, stop this procedure and call Cisco Services.
- 8 Click **New Entry** on the BIG PAT window. The BIG PAT Setup window opens.



- 9 For **Session MAC Address**, type twelve zeroes (00:00:00:00:00:00), and press **Tab**.  
**Note:** Do not type the colons.
- 10 For **Session Number**, type the source ID for the *inband* carousel, and click **Save**. You recorded this number in *Determining the Session Number* (on page 15).  
**Note:** The values for **Program Number** and **PMT PID** appear automatically.
- 11 Close the BIG PAT window.
- 12 In the Inband Data Pat window, click **Close**.
- 13 In the Set Up BFS Host window, click **Save** then **Cancel**.
- 14 Close the Site DNCS BFS Administration window.
- 15 Go to *Adding the Services Portal to the Source List* (on page 20).

## Adding the Services Portal to the Source List

- 1 From the DNCS Administrative Console, click the **DNCS** tab.
- 2 Click the **System Provisioning** tab.
- 3 Click **Source** in the Service Provisioning group. The Source List window opens.
- 4 On the **File** menu, click **New**. The Set Up Source window opens.
- 5 For Source Name, type **SP\_ib\_source**.
- 6 For **Source ID**, type the source ID you recorded for the *inband* source in the previous procedure.



- 7 Click **Save**. The system saves the source information in the DNCS database and closes the Set Up Source window. The Source List window updates to include the new source.
- 8 Leave the Source List window open, and go to **Defining the Inband Source**, next in this document.

## Defining the Inband Source

After you add the Services Portal sources to the DNCS database, you must define parameters for the inband source so that the BFS knows how to process the service content.

When you define a source, you also build a *session*. Sessions define and allocate the resources that the network uses to deliver service content. It may help to think of a session as a pipeline through the DBDS that delivers specific service content.

Complete these steps to define the inband BFS source.

**Note:** This process is also known as provisioning the source.

- 1 In the Source List window, select the **SP\_ib\_source**.
- 2 On the **File** menu, click **Source Definitions**. The Source Definition List window opens for SP\_ib\_source.
- 3 On the **File** menu, click **New Digital**. The Set Up Digital Source Definition window opens.

- 4 In the **Session ID** box on the left, type 12 zeros.

Session ID: 00:00:00:00:00:00

- 5 In the **Session ID** box on the right, type the source ID you used for the inband source.

**Example:**

**Set Up Digital Source Definition**

**Digital Source Set Up**

Source Name: SP\_ib\_source

Session ID: 00:00:00:00:00:00 280

Sources normally become effective as soon as they are saved. If you want to delay the source's effective date and time, check the box below.

☒ Specify effective date and time.

Cancel Next >> Help

- 6 Digital source sessions usually become effective as soon as they are saved. Do you want to delay the effective date and time of this session?
- If **yes**, go to the next step.
  - If **no**, go to step 12.

**Note:** Subscribers cannot view the Services Portal until either the session is saved or the time that you specify arrives.

- 7 Click **Specify effective date and time**, and then click **Next**. The Set Start Time/Date window opens.

**Set Start Time/Date**

When does this source start?

Effective Date: MM/DD/YYYY

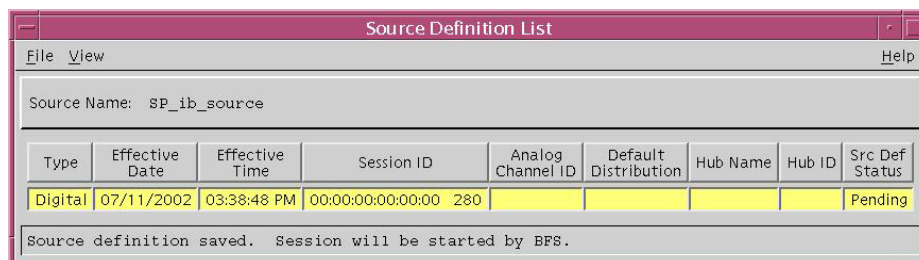
Effective Time: HH:MM:SS AM/PM

Cancel << Back Next >> Help

- 8 In the **Effective Date** box, type the month, day, and year you want subscribers to be able to view the Services Portal. Use the format **MM/DD/YYYY**.

- 9 In the **Effective Time** box, type the hour, minute, and second you want subscribers to be able to view the Services Portal.  
**Note:** Enter the time in 12-hour time format. You must type two digits for each value, the system adds the colons for you.
- 10 Click **AM** or **PM**.
- 11 Click **Next**. The **Define Session** window opens.
- 12 Click the **BFS** option.
- 13 Click **Next**. The Save Source Definition window opens.
- 14 Click **Save**. The system saves the source definition in the DNCS database, and creates the session you built for it. The Source Definition List refreshes to show the new source definition.

**Example:**



Type	Effective Date	Effective Time	Session ID	Analog Channel ID	Default Distribution	Hub Name	Hub ID	Src Def Status
Digital	07/11/2002	03:38:48 PM	00:00:00:00:00:00 280					Pending

Source definition saved. Session will be started by BFS.

- 15 Close the Source Definition List window from the **File** menu.
- 16 Close the Source List window from the **File** menu.
- 17 Go to **Creating the Inband BFS Carousel**, next in this section.

## Creating the Inband BFS Carousel

The BFS uses data carousels to send the files that tell the set-top how to run applications, such as Services Portal. The inband carousel sends data files through the BFS QAM modulator to the set-tops at a rate of about 27 megabits per second (Mbps).

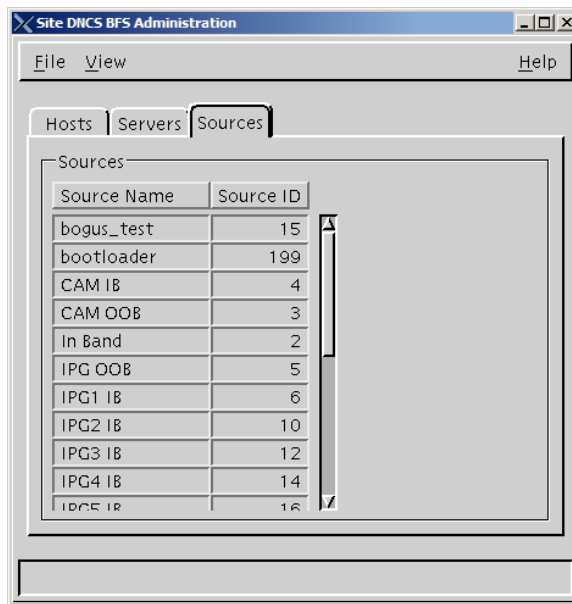
Complete these steps to create the inband BFS carousel for the Services Portal.

**Notes:**

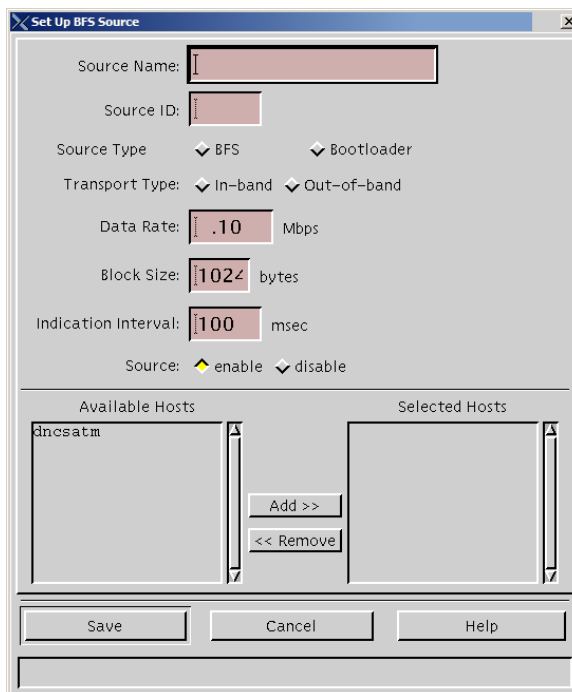
- For **Source Name** in step 5, type **SP\_ib\_source**.
  - For **Source ID** in step 6, type the ID for the inband source you recorded in *Add the Inband Carousel to the PAT Table* (on page 15).
- 1 From the DNCS Administrative Console, click the **Application Interface Modules** tab.
  - 2 Click **BFS Admin**. The BFS Administration window opens.



- 3 Click the **Sources** tab.



- 4 On the **File** menu, click **New**. The Set Up BFS Source window opens.



- 5 For **Source Name**, type the source name for the inband source.
- 6 For **Source ID**, type the source ID for the inband source.
- 7 For **Source Type**, click **BFS**.
- 8 For **Transport Type**, click **In-band**.
- 9 For **Data Rate**, type **1.00**.

- 10 For **Block Size**, type **4000**.

**Note:** We recommend a block size of 4000 bytes for optimum performance. However, if the broadband integrated gateway (BIG) in your headend cannot process the data at this rate, use the default block size of 1024 bytes.

- 11 Keep the default value for the **Indication Interval**.
- 12 For **Source**, click **enable**.
- 13 From **Available Hosts**, select **dnscatm**.
- 14 Click **Add**. The dnscatm host moves to **Selected Hosts**.
- 15 Click **Save**.
- 16 Go to **Creating the Out-of-Band BFS Carousel**, next in this section.

## Creating the Out-of-Band BFS Carousel

The out-of-band carousel acts as a backup in case the inband path becomes unavailable for some reason. The out-of-band carousel sends data files through the QPSK modulator to the set-tops in your system at a rate of about 1.54 Mbps.

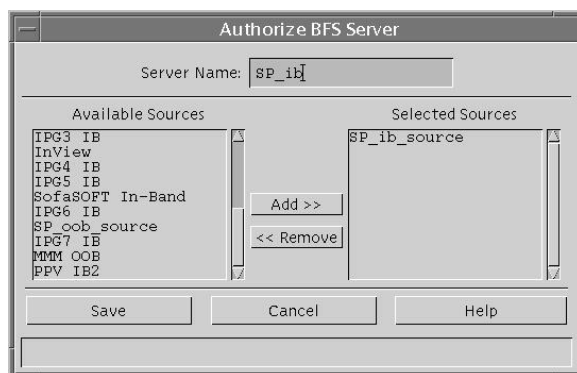
Complete these steps to create the out-of-band BFS carousel for the Services Portal.

### Notes:

- For Source Name in step 3, type **SP\_oob\_source**.
  - For Source ID in step 4, type the source ID for the out-of-band source you recorded in *Add the Inband Carousel to the PAT Table* (on page 15).
- 1 In the BFS Administration window, click the **Sources** tab.
  - 2 On the **File** menu, click **New**. The Set Up BFS Source window opens.
  - 3 For **Source Name**, type the source name for the out-of-band source.
  - 4 For **Source ID**, type the source ID for the out-of-band source.
  - 5 For **Source Type**, click **BFS**.
  - 6 For **Transport Type**, click **Out-of-band**.
  - 7 For **Data Rate**, type **.01**.
  - 8 For **Block Size**, type **1024**.
  - 9 Keep the default value for **Indication Interval**.
  - 10 For **Source**, click **enable**.
  - 11 From **Available Hosts**, select **dnscatm**.
  - 12 Click **Add**. The selection moves to **Selected Hosts**.
  - 13 Click **Save**.
  - 14 Go to **Authorizing the Services Portal Inband Server**, next in this section.

## Authorizing the Services Portal Inband Server

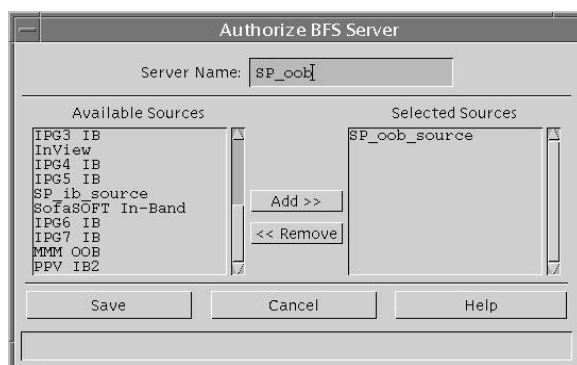
- 1 On the BFS Administration window, click the **Servers** tab.
- 2 On the **File** menu, click **New**. The Authorize BFS Server window opens.
- 3 For Server Name, type:  
**SP\_ib**
- 4 From **Available Sources**, select **SP\_ib\_source**.
- 5 Click **Add**. The server appears in **Selected Sources**.



- 6 Click **Save**.
- 7 Go to **Authorizing the Out-of-Band Server**, next in this section.

## Authorizing the Out-of-Band Server

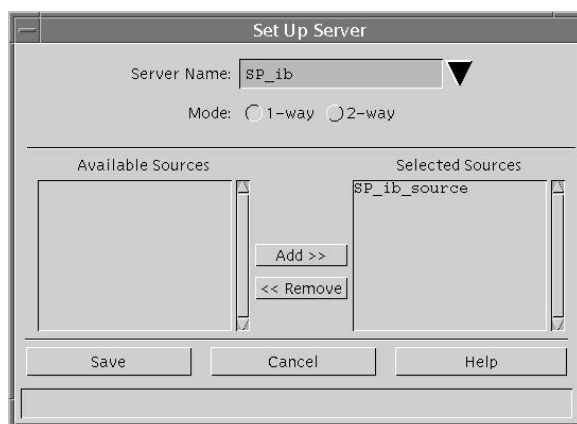
- 1 Ensure the **Servers** tab is still selected in the BFS Administration window.
- 2 On the **File** menu, click **New**. The Authorize BFS Server window opens.
- 3 For Server Name, type:  
**SP\_oob**
- 4 From **Available Sources**, select **SP\_oob\_source**.
- 5 Click **Add**. The selection moves to **Selected Sources**.



- 6 Click **Save**.
- 7 Close the BFS Administration window from the **File** menu.
- 8 Go to **Creating the Client BFS Inband Server**, next in this section.

## Creating the Client BFS Inband Server

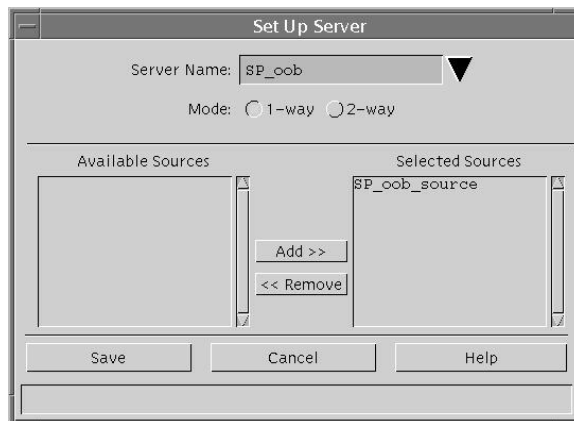
- 1 On the DNCS Administrative Console, click the **Application Interface Modules** tab.
- 2 Click **BFS Client**. The Broadcast File Server List window opens.
- 3 On the **File** menu, click **New Server**. The Set Up Server window opens.
- 4 In the **Server Name** list, click **SP\_ib**.
- 5 For mode, click **1-way**.
- 6 From Available Sources, select **SP\_ib\_source**.
- 7 Click **Add**. The SP\_ib\_source is added to Selected Sources.



- 8 Click **Save**.
- 9 Go to **Creating the Client BFS Out-of-Band Server**, next in this section.

## Creating the Client BFS Out-of-Band Server

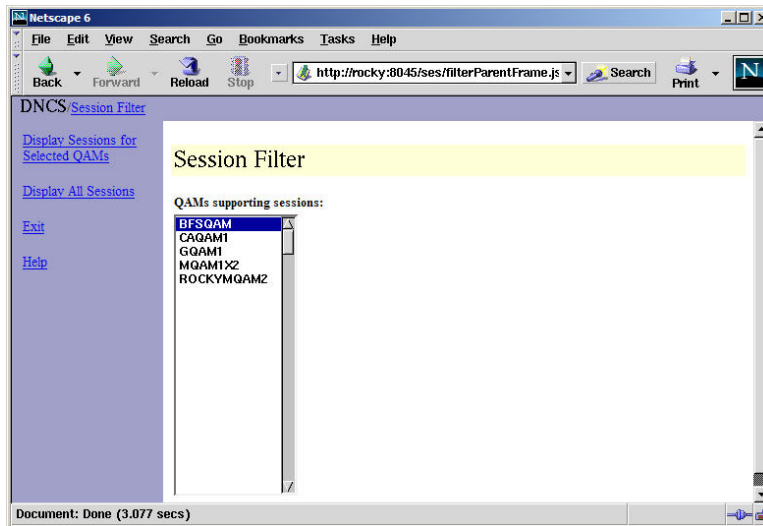
- 1 Return to the Broadcast File Server List window.
- 2 On the **File** menu, click **New Server**. The Set Up Server window opens.
- 3 In the **Server Name** list, click **SP\_oob**.
- 4 For **mode**, click **1-way**.
- 5 From **Available Sources**, select **SP\_oob\_source**.
- 6 Click **Add**. The SP\_oob\_source is added to **Selected Sources**.



- 7 Click **Save**.
- 8 Close the Broadcast File Server List window from the **File** menu.
- 9 Go to **Tearing Down the BFS Sessions**, next in this section.

## Tearing Down the BFS Sessions

- 1 From the DNCS tab, click the **Utilities** tab, and then click **Session List**. The Session Filter window opens.



- 2 Select the **BFS QAM** and click **Display Sessions for Selected QAM**. The session data for the BFS QAM appears.
- 3 Click the **Select** box adjacent to the lowest numbered session. A checkmark appears in the Select box to the left of that session.
- 4 Click **Teardown Selected Sessions**. BFS will tear down all sessions and will then rebuild each session.  
**Note:** It may take a few minutes for all of the sessions to rebuild.
- 5 When all sessions have been rebuilt (the session IDs are green in color), click **Exit all Session screens**.
- 6 Go to *Define a Services Portal Package* (on page 29).

## Define a Services Portal Package

After you set up the BFS, you must define a Services Portal package.

A package consists of one or more services that are available only to subscribers authorized for the package.

Use an existing authorization package, or create a new package for the Services Portal.

- If you want to use an existing package, go to *Determining the Services Portal Package EID* (on page 30).
- If you want to create a new package, continue to **Setting Up a New Services Portal Package**, next in this section.

### Setting Up a New Services Portal Package

Complete these steps to define a new Services Portal authorization package.

- 1 From the DNCS Administrative Console, click the **DNCS** tab.
- 2 Click the **System Provisioning** tab.
- 3 Click **Package**. The Package List window opens.  
**Note:** If **Subscription Only** is selected, click **Show** and choose **All Packages** to view a list of all packages.
- 4 On the **File** menu, click **New**. The Set Up Package window opens.
- 5 For **Package Name**, enter an appropriate name for the package, such as **Services Portal**.  
**Important:** The **Unlimited** option for **Duration** is selected by default. This option lets the subscriber have unlimited access to the package. Do not change this option without first consulting CiscoServices.
- 6 Click **Save**.
- 7 Go to **Determining the Services Portal Package EID**, next in this section.

## Determining the Services Portal Package EID

When you add a package, the DNCS automatically assigns an EID to the package. When you install the Services Portal server, you need this EID number to register the Services Portal package with the SAM.

However, the SAM can recognize only the *decimal* value of the package EID. For a variety of system design reasons, the Set Up Package window displays the EID as a *hexadecimal* value.

Complete these steps to locate the EID for the Services Portal package and convert the EID from a hexadecimal value to a decimal value.

- 1 In the Package List window, select the package for the Services Portal.
- 2 On the **File** menu, click **Open**. The Set Up Package window opens.
- 3 Record the number shown for the **EID** here \_\_\_\_\_.
- 4 Click **Cancel** to close the Set Up Package window and return to the Package List window.
- 5 Close the Package List window from the **File** menu.
- 6 Your next step is to convert the package EID from a hexadecimal value to a decimal value. Go to **Converting a Package EID to Decimal**, next in this section.



## Converting a Package EID to Decimal

- 1 After you determine the Services Portal package EID, use the following table to locate the EID in the **HEX** column.

- 2 Then, locate the corresponding decimal value in the **DEC** column.

For example, if the package EID is **1f**, the decimal value is **31**.

- 3 Record the decimal value for the package EID here \_\_\_\_\_.

HEX	DEC	HEX	DEC	HEX	DEC	HEX	DEC	HEX	DEC	HEX	DEC	HEX	DEC	HEX	DEC
0	0	20	32	40	64	60	96	80	128	a0	160	c0	192	e0	224
1	1	21	33	41	65	61	97	81	129	a1	161	c1	193	e1	225
2	2	22	34	42	66	62	98	82	130	a2	162	c2	194	e2	226
3	3	23	35	43	67	63	99	83	131	a3	163	c3	195	e3	227
4	4	24	36	44	68	64	100	84	132	a4	164	c4	196	e4	228
5	5	25	37	45	69	65	101	85	133	a5	165	c5	197	e5	229
6	6	26	38	46	70	66	102	86	134	a6	166	c6	198	e6	230
7	7	27	39	47	71	67	103	87	135	a7	167	c7	199	e7	231
8	8	28	40	48	72	68	104	88	136	a8	168	c8	200	e8	232
9	9	29	41	49	73	69	105	89	137	a9	169	c9	201	e9	233
a	10	2a	42	4a	74	6a	106	8a	138	aa	170	ca	202	ea	234
b	11	2b	43	4b	75	6b	107	8b	139	ab	171	cb	203	eb	235
c	12	2c	44	4c	76	6c	108	8c	140	ac	172	cc	204	ec	236
d	13	2d	45	4d	77	6d	109	8d	141	ad	173	cd	205	ed	237
e	14	2e	46	4e	78	6e	110	8e	142	ae	174	ce	206	ee	238
f	15	2f	47	4f	79	6f	111	8f	143	af	175	cf	207	ef	239
10	16	30	48	50	80	70	112	90	144	b0	176	d0	208	f0	240
11	17	31	49	51	81	71	113	91	145	b1	177	d1	209	f1	241
12	18	32	50	52	82	72	114	92	146	b2	178	d2	210	f2	242
13	19	33	51	53	83	73	115	93	147	b3	179	d3	211	f3	243
14	20	34	52	54	84	74	116	94	148	b4	180	d4	212	f4	244
15	21	35	53	55	85	75	117	95	149	b5	181	d5	213	f5	245
16	22	36	54	56	86	76	118	96	150	b6	182	d6	214	f6	246
17	23	37	55	57	87	77	119	97	151	b7	183	d7	215	f7	247
18	24	38	56	58	88	78	120	98	152	b8	184	d8	216	f8	248
19	25	39	57	59	89	79	121	99	153	b9	185	d9	217	f9	249
1a	26	3a	58	5a	90	7a	122	9a	154	ba	186	da	218	fa	250
1b	27	3b	59	5b	91	7b	123	9b	155	bb	187	db	219	fb	251
1c	28	3c	60	5c	92	7c	124	9c	156	bc	188	dc	220	fc	252
1d	29	3d	61	5d	93	7d	125	9d	157	bd	189	dd	221	fd	253
1e	30	3e	62	5e	94	7e	126	9e	158	be	190	de	222	fe	254
1f	31	3f	63	5f	95	7f	127	9f	159	bf	191	df	223	ff	255

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## Install the Services Portal Server

This section contains instructions for installing the Services Portal server onto the Application Server.

**Note:** If you are upgrading Services Portal from a previous version, go to *Upgrade the Services Portal* (on page 53).

The filenames and UNIX syntax in these procedures are case-sensitive. Type filenames and paths exactly as they appear in the procedures.

### Recording Configuration Information

During the server installation, verify the following configuration information:

- **DNCS\_HOST** - the server name or the alias of the server where the DNCS is running
- **APPSERV\_HOST** - the server name or the alias of the server where the Application Server is running

Before you begin the installation process, complete the following steps to record the configuration information you need for the server installation.

- 1 From the Application Server, open an xterm window.
- 2 Log in as **dncs** user.  
Type **echo \$DNCS\_HOST** and press **Enter**.
- 3 Record the value that appears in the space provided.  
**DNCS\_HOST** \_\_\_\_\_
- 4 Type **echo \$APPSERV\_HOST** and press **Enter**.
- 5 Record the value that appears in the space provided.  
**APPSERV\_HOST** \_\_\_\_\_
- 6 Leave the xterm window open, and go to one of the following:
  - If this is a new installation, go to **Installing the Services Portal Server**, next in this document.
  - If this is an upgrade to a new version, go to *Upgrading the Services Portal Server* (on page 61).

## Installing the Services Portal Server

- 1 Make sure you are logged in as root on the Application Server. If not, follow these instructions.
    - a Open an xterm window.
    - b Log on as root (**su**).
    - c Type the root password and press **Enter**.
    - d Source in the environment variables again by typing the following command and pressing **Enter**:  
`./dvs/appserv/bin/appservSetup`
  - 2 Insert the **Services Portal Server** CD into the CD-ROM of the Application Server. Wait for the Application Server to mount the CD.
  - 3 In an xterm window on the Application Server where you are logged in as root user, type **df** and press **Enter** to confirm that the Application Server mounted the CD successfully. The last line of the df command output lists the number of free disk blocks on the CD.
- Note:** The fact that the CD is listed in the df command output indicates that the Application Server mounted the CD successfully.
- 4 Type **cd /cdrom/cdrom0** and press **Enter**.
  - 5 Type **install\_pkg** and press **Enter**.

### Results:

- The Application Server lists the packages that will be installed.
  - A message appears asking you to confirm that you want to proceed with the installation.
- 6 Type **y** and press **Enter**. A license agreement window appears.
  - 7 Press **Enter** to start the installation. The system displays installation configuration options. The following list describes the configuration options available.
    - **DNCS\_HOST** — The server name or the alias of the server where the DNCS is running. This server is usually aliased as *dncs\_host*.
    - **APPSERV\_HOST** — The server name or the alias of the server where the appserv is running. This server is usually aliased as *appserv\_host*.
    - **BASDIR** — The base directory where the Application Server was installed (usually **/dvs**).
    - **APPDIR** — The directory where you want the Services Portal to be installed.
    - **SVCNAME** — What you want to call the Services Portal SAM Service.
    - **LDESC** — The long description of the Services Portal SAM Service.
    - **APPURL** — The application URL for Services Portal SAM Service.
    - **INFORMIXDIR** — The directory where Informix is located on the dncs machine.

- **INFORMIXSERVER** – The alias of the computer where Informix is located.
  - **DNCSDB** – The name of the DNCS database.
- 8 Do the **DNCS\_HOST** and **APPSERV\_HOST** values match the values you recorded in *Recording Server Configuration Information* (on page 56)?
    - If **yes**, go to the next step.
    - If **no**, change the appropriate values and then go to the next step.
  - 9 Widen the xterm window to the entire width of your screen. This helps you see the remaining steps clearly.
  - 10 Type the number corresponding to **APPURL**.
  - 11 Retype the *entire* SAM URL, making the appropriate changes as detailed in the following steps.
    - a Add the version number of the Services Portal *client* (3.0.1.x) immediately after the **ispguide.ptv;** parameter. Use the format **version=x.x.x.x**  
**Example:** If you are using Services Portal client version 3.0.1.5, type **version=3.0.1.5** (type the periods).
    - b Add the EID number (package number) immediately following the version number parameter. You recorded the EID earlier in this document. Use the format **EID=#**.
    - c We recommend that you download the Services Portal onto the set-tops as part of the boot procedure. However, if you experience a significant increase in boot time, you can set **loadOnBoot** to false (**F**).  
Do you want to load the application on boot?
      - If **yes**, leave **loadOnBoot=T**.
      - If **no**, change the parameter to **loadOnBoot=F**.**Example:**  
**bfs://SP\_ib/ispguid.ptv;version=3.0.1.5; EID=2;obstructedRect=0,0,639,479; loadOnBoot=T**
- Important:** This information should appear continuously on one line. Do not insert any spaces.
- 12 Type **c** and press **Enter** to continue the installation. The software begins loading and the system displays an **installation of SAlisp was successful** message when it has completed.
  - 13 In the xterm window, type **cd /** and then press **Enter**. The root directory becomes the working directory.
  - 14 Type **eject cd** and then press **Enter**. The system ejects the CD.
  - 15 Go to *Save the Configuration* (on page 35).

## Save the Configuration

This section provides instructions for saving the configuration defined during server installation.

### Saving the Configuration

- 1 From the DNCS Administrative Console, click the **Server Applications** tab.
- 2 Click **Reload Applications**. The Services Portal button appears on the Server Applications tab.
- 3 Click the **Services Portal** button. The SP Service Guide opens.
- 4 On the **File** menu, click **Save**. The system creates the **config.dat** file. A message similar to the following appears at the bottom of the Services Portal window:  
**Config file saved at: /dvs/appFiles/ServicesPortal/data/**
- 5 On the **File** menu, click **Exit**. The SP Service Guide closes.
- 6 Go to *Install the Services Portal Client* (on page 36).

## Install the Services Portal Client

This section contains instructions for installing the Services Portal client onto the Application Server.

The filenames and UNIX syntax in these procedures are case-sensitive. Type filenames and paths exactly as they appear in the procedures.

### Installing the Services Portal Client

- 1 Insert the **Services Portal Client** CD into the CD-ROM drive of the Application Server. Wait for the Application Server to mount the CD.
- 2 In an xterm window on the Application Server where you are logged in as root user, type **df** and press **Enter** to confirm that the Application Server mounted the CD successfully. The last line of the **df** command output lists the number of free disk blocks on the CD.  
**Note:** The fact that the CD is listed in the **df** command output indicates that the Application Server mounted the CD successfully.
- 3 Type **cd /cdrom/cdrom0** and press **Enter**.
- 4 Type **install\_pkg** and press **Enter**.

#### Results:

- The Application Server lists the packages that will be installed.
  - A confirmation message appears asking you to confirm that you want to proceed with the installation.
- 5 Type **y** and press **Enter**. A license agreement window appears.
  - 6 Press **Enter** to start the installation. The system displays an installation configuration menu.
  - 7 Verify the inband source ID (the number corresponding to **INBFSSRC**). Is the inband source ID correct?
    - If **yes**, click **Next**.
    - If **no**, type the *inband* source ID for Services Portal and Press **Enter**.
  - 8 Verify the out-of-band source ID (the number corresponding to **OBFSRC**). Is the out-of-band source ID correct?
    - If **yes**, Type **c** and press **Enter** to continue the installation.
    - If **no**, type the *out-of-band* source ID for Services Portal and type **c** and press **Enter** to continue the installation.

The software begins loading and the system displays an **installation of SALisp was successful** message when it has completed.

- 9 In the xterm window, type **cd /** and then press **Enter**. The root directory becomes the working directory.

- 10 Type **eject cd** and then press **Enter**. The system ejects the CD.
- 11 Do you need to add support for Pace set-tops?
  - If **yes**, go to *Install Pace Set-Top Support* (on page 40).
  - If **no**, go to *Define How Subscribers Open the Services Portal* (on page 46).

## Install Additional Set-Top Support for Services Portal

Follow the instructions in this section to set up support for additional set-tops (Pace and/or RNG/Linux set-tops), which requires the following steps:

- 1 Create new directories in the `/dvs/appFiles/ServicesPortal` directory.
- 2 Copy the SARA ptv file to the correct directory.
- 3 Acquire and copy the additional ptv files to the correct directories.
  - For Pace set-tops, see *Install Pace Set-Top Support* (on page 40)
  - For RNG/Linux set-tops, see *Install RNG/Linux Set-Top Support* (on page 42)
- 4 Set up the BFS client for the new ptv files.
- 5 Set up the SAM service for the new ptv files.

This section contains procedures for each of these steps.

### Creating New Directories for the ptv Files

- 1 Open an xterm window on the Application Server.
- 2 Type the following command and press **Enter** to make the Services Portal directory active.  
**`cd /dvs/appFiles/ServicesPortal`**
- 3 Create the directory **cpu1** by typing the following command and pressing **Enter**.  
**`mkdir cpu1`**
- 4 Create the directory **cpu2** by typing the following command and pressing **Enter**.  
**`mkdir cpu2`**
- 5 Create the directory **cpu3** by typing the following command and pressing **Enter**.  
**`mkdir cpu3`**
- 6 Go to *Copying the SARA ptv File to the Correct Directory* (on page 39).



## Copying the SARA ptv File to the Correct Directory

- 1 In the Application Server xterm window, move the SARA ptv file to the cpu1 directory by typing the following command and pressing **Enter**.  
**mv ispguid.ptv /dvs/appFiles/ServicesPortal/cpu1**
- 2 Do you need to add support for Pace set-tops?
  - If **yes**, go to *Install Pace Set-Top Support* (on page 40). After you have finished there, go to step 3.
  - If **no**, go to step 3.
- 3 Do you need to add support for RNG/Linux set-tops?
  - If **yes**, go to *Install RNG/Linux Set-Top Support* (on page 42).
  - If **no**, go to *Setting Up the BFS Client for the Additional ptv Files* (on page 43).

## Install Pace Set-Top Support

Follow the instructions in this section to set up support for the Pace set-tops, which requires the following steps:

- 1 Acquire the ptv file from the FTP server.
- 2 Copy the ptv file to the correct directory.
- 3 Set up the BFS client for the Pace ptv file.
- 4 Set up the SAM service for the Pace ptv file.

This section contains procedures for each of these steps.

### Acquiring and Copying the Pace ptv File to the Correct Directory

- 1 In the Application Server xterm window, type **cd /export/home/dnscs/download** and press **Enter**.
- 2 Log on to the FTP server.

#### Notes:

- The address of the server is **ftp.sciatl.com** or **192.133.243.133**.

**Note:** The address for the FTP server is subject to change. If you are unable to reach the FTP server, please contact Cisco Services for the latest address.

- The username is **anonymous**.
- The password is the e-mail address of the person logging in.

- 3 Type **cd /pub/scicare/RELEASED/ServicesPortal/Pace** and press **Enter**.
- 4 Type **bin** and press **Enter**. The system sets the ftp transfer mode to binary.
- 5 Type **hash** and press **Enter**. The system configures itself to display hash marks that show file-transfer progress.
- 6 Type **prompt** and press **Enter**. This command turns off the interactive mode of the FTP utility.
- 7 Type **get ispguid.ptv** and press **Enter**.

**Note:** This command starts the transfer of the file from the FTP server to the Application Server. A # symbol displays on the screen for each 8192 bytes transferred from the FTP server to the Application Server or DNCS.

- 8 When the download is complete, type **bye** and press **Enter** to log out of the FTP server.

- 9 Go to the directory that contains the Pace ptv file by typing the following command and pressing **Enter**.  
**cd /export/home/dnscs/download**
- 10 Move the Pace ptv file to the cpu2 directory by typing the following command and pressing **Enter**.  
**mv ispguid.ptv /dvs/appFiles/ServicesPortal/cpu2**
- 11 Do you need to add support for RNG/Linux set-tops?
  - If **yes**, go to *Install RNG/Linux Set-Top Support* (on page 42).
  - If **no**, go to *Setting Up the BFS Client for the Additional ptv Files* (on page 43).

## Install RNG/Linux Set-Top Support

Follow the instructions in this section to set up support for the RNG/Linux set-tops, which requires the following steps:

- 1 Acquire the ptv file from the FTP server.
- 2 Copy the ptv file to the correct directory.
- 3 Set up the BFS client for the RNG/Linux ptv file.
- 4 Set up the SAM service for the RNG/Linux ptv file.

This section contains procedures for each of these steps.

### Acquiring and Copying the RNG/Linux ptv File to the Correct Directory

- 1 In the Application Server xterm window, type **cd /export/home/dnscs/download** and press **Enter**.
- 2 Log on to the FTP server.

#### Notes:

- The address of the server is **ftp.sciatl.com** or **192.133.243.133**.

**Note:** The address for the FTP server is subject to change. If you are unable to reach the FTP server, please contact Cisco Services for the latest address.

- The username is **anonymous**.
- The password is the e-mail address of the person logging in.

- 3 Type **cd /pub/scicare/RELEASED/ServicesPortal/Linux\_RNG** and press **Enter**.
  - 4 Type **bin** and press **Enter**. The system sets the ftp transfer mode to binary.
  - 5 Type **hash** and press **Enter**. The system configures itself to display hash marks that show file-transfer progress.
  - 6 Type **prompt** and press **Enter**. This command turns off the interactive mode of the FTP utility.
  - 7 Type **get ispguid.ptv** and press **Enter**.
- Note:** This command starts the transfer of the file from the FTP server to the Application Server. A # symbol displays on the screen for each 8192 bytes transferred from the FTP server to the Application Server or DNCS.
- 8 When the download is complete, type **bye** and press **Enter** to log out of the FTP server.
  - 9 Go to the directory that contains the RNG/Linux ptv file by typing the following command and pressing **Enter**.

**cd /export/home/dnscs/download**

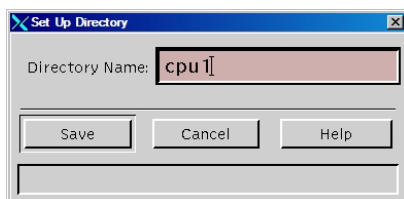
- 10 Move the RNG/Pace ptv file to the cpu3 directory by typing the following command and pressing **Enter**.

**mv ispguid.ptv /dvs/appFiles/ServicesPortal/cpu3**

- 11 Go to *Setting Up the BFS Client for the Additional ptv Files* (on page 43).

## Setting Up the BFS Client for the Additional ptv Files

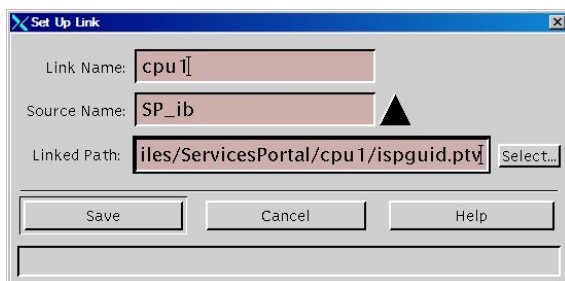
- 1 On the DNCS, click the **Application Interface Modules** tab and click **BFS Client**. The Broadcast File Server List window opens.
- 2 Create the cpu1 directory using the following directions:
  - Highlight the **SP\_ib** BFS in the Broadcast File Server List list.
  - Select **File > New Directory**. The Set Up Directory window opens.



- Type **cpu1** in the Directory Name field.
  - Click **Save**.
- 3 Create the cpu2 directory using the following directions:
    - Highlight the **SP\_ib** BFS in the Broadcast File Server List list.
    - Select **File > New Directory**. The Set Up Directory window opens.
    - Type **cpu2** in the Directory Name field.
    - Click **Save**.
  - 4 Create the cpu3 directory using the following directions:
    - Highlight the **SP\_ib** BFS in the Broadcast File Server List list.
    - Select **File > New Directory**. The Set Up Directory window opens.
    - Type **cpu3** in the Directory Name field.
    - Click **Save**.

- 5 Double-click the SP\_ib BFS to expand its contents.

- 6 Set up the link for the cpu1 directory using the following directions:
  - Highlight the **cpu1** directory. Select **File > New Link**. The Set Up Link window opens.

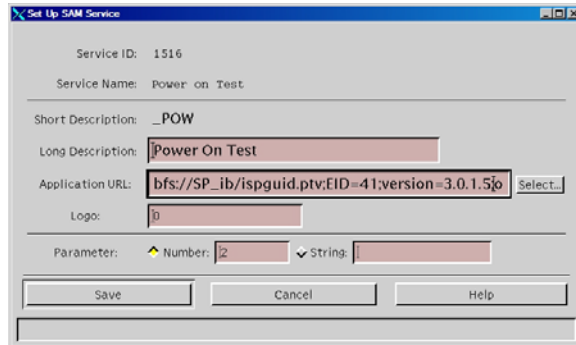


- Type **cpu1** for the Link Name.
- The Source Name should be **SP\_ib**.

- Type **/dvs/appFiles/ServicesPortal/cpu1/ispguid.ptv** for the Linked Path.
  - Click **Save**.
- 7 Set up the link for the **cpu2** directory using the following directions:
- Highlight the **cpu2** directory. Select **File > New Link**. The Set Up Link window opens.
  - Type **cpu2** for the Link Name.
  - The Source Name should be **SP\_ib**.
  - Type **/dvs/appFiles/ServicesPortal/cpu2/ispguid.ptv** for the Linked Path.
  - Click **Save**.
- 8 Set up the link for the **cpu3** directory using the following directions:
- Highlight the **cpu3** directory. Select **File > New Link**. The Set Up Link window opens.
  - Type **cpu3** for the Link Name.
  - The Source Name should be **SP\_ib**.
  - Type **/dvs/appFiles/ServicesPortal/cpu3/ispguid.ptv** for the Linked Path.
  - Click **Save**.
- 9 Close the Broadcast File Server List window.

## Setting Up the SAM Service for the Additional ptv Files

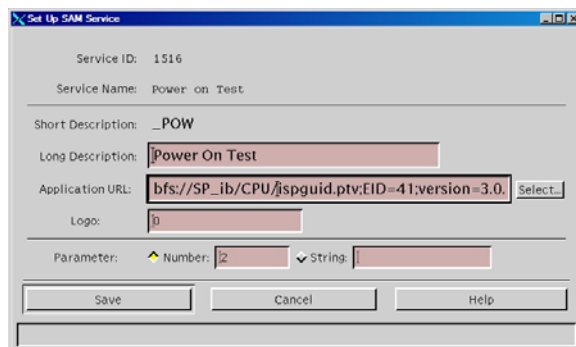
- 1 On the DNCS, click the **Application Interface Modules** tab and click **SAM Service**. The SAM Service List window opens.
- 2 Double-click the **\_POWR** SAM Service. The Set Up SAM Service window opens.



- 3 In the Application URL field, edit the link to insert **/CPU** between **//SP\_ib** and **/ispguid.ptv**.

**Example:** After editing, the link should look similar to the following link:

**bfs://SP\_ib/CPU/ispguid.ptv;EID=41;version=3.0.1.5;obstructedRect=0,0,639,479;loadOnBoot=T**



- 4 Click **Save**.
- 5 In the SAM Service List window, double-click the **\_KEYA** SAM Service. The Set Up SAM Service window opens.
- 6 In the Application URL field, edit the link to insert **/CPU** between **//SP\_ib** and **/ispguid.ptv**.  
**Example:** After editing, the link should look similar to the following link:  
**bfs://SP\_ib/CPU/ispguid.ptv;EID=41;version=3.0.1.5;obstructedRect=0,0,639,479;loadOnBoot=T**
- 7 Click **Save**.
- 8 Close the SAM Service List window.

## Define How Subscribers Open the Services Portal

Subscribers can open the Services Portal by pressing one of the following keys on the remote control:

- A key
- Guide key
- Menu key

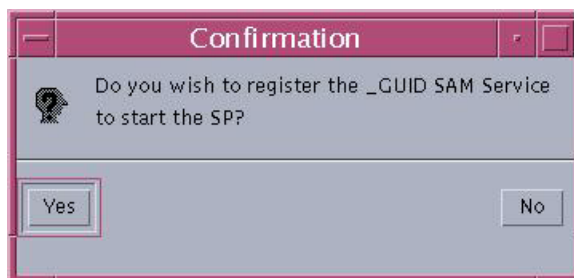
Choose the best access method for your subscribers. You can only assign one launch key for all subscribers.

Complete *one* of the following procedures based on your selection.

**Important:** Do *not* use the Menu key to launch the Services Portal unless *all* of your Services Portal customers are using a remote with a Menu key.

### Defining the A Key or the Guide Key to Open the Services Portal

- 1 Complete the following steps to open the SP Service Guide.
  - a From the DNCS Administrative Console, click the **Server Applications** tab.
  - b Click **Services Portal**. The SP Service Guide opens with the Display Frame tab selected.
- 2 Click the **Display Information** tab.
- 3 For **Activation through**, click either **A Key** or **Guide Key**. A confirmation message appears.





- 4 Click **Yes** to register the key.

**Important:** If you change your mind and register a different key later, keep in mind that the SAM Service is automatically built based on the SAM URL you specified during the *server* installation. Therefore, if you manually change the SAM URL *after* you install the server, you need to add these changes to the SAM URL after you register the new key.

For example, if you change the EID (package number), you need to make this change again from the Set Up SAM Service window on the DNCS.

- 5 Go to *Authorize a Test Set-Top* (on page 49).

**Important:** Do not go to **Defining the Menu Key to Open the Services Portal**. You can define only one launch key.

## Defining the Menu Key to Open the Services Portal

**Important:** Do *not* use the Menu key to launch the Services Portal unless *all* of your Services Portal customers use remote controls with Menu keys. Currently, the following AllTouch™ remote control models have Menu keys: AT2000, AT2400, AT8420, and the AT8400. Future models of remote controls may also support Menu keys.

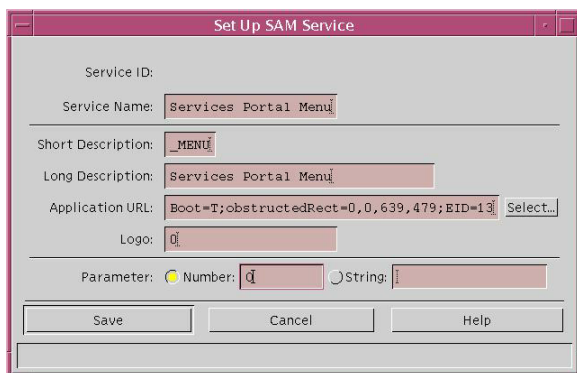
- 1 From the DNCS Administrative Console, click the **Application Interface Modules** tab.
- 2 Click **SAM Service**. The SAM Service List window opens.
- 3 On the **File** menu, click **New**. The Set Up SAM Service window opens.
- 4 For **Service Name**, type **Services Portal Menu**.
- 5 For **Short Description**, type **\_MENU**.
- 6 For **Long Description**, type **Services Portal Menu**.
- 7 In the **Application URL** box, type the URL for Services Portal. Make sure that you type the EID # of the Services Portal package after the **EID=** parameter.

**Example:**

**bfs://SP\_ib/ispguid.ptv;version=3.0.1.5; EID=2;obstructedRect=0,0,639,479;loadOnBoot=T**

- 8 For **Logo**, make sure the value is **0**.

- 9 For **Parameter**, make sure that **Number** is selected with a value of 0.



- 10 Click **Save**.

**Important:** If you use the Menu key, do not select either the A key or Guide key option from **Activation through in the Display Information** tab for the SP Service Guide.

- 11 Go to *Authorize a Test Set-Top* (on page 49).

## Authorize a Test Set-Top

If you created a new authorization package for the Services Portal, you need to provision set-tops with this new package.

This section contains instructions for adding the Services Portal package to the list of packages that are available to an individual set-top. Use these instructions to test an individual set-top or a small sample of set-tops.

If you want to add the Services Portal Package to a large number of set-tops at once, you must add this package through your billing system.

### Authorizing a Test Set-Top with a Services Portal Package

Complete these steps to provision a set-top with the Services Portal package.

- 1 On the DNCS Administrative Console, click the **DNCS** tab.
- 2 Click the **Element Provisioning** tab.
- 3 Click **DHCT**. The DHCT Provisioning window opens.
- 4 In the DHCT Provisioning window, do the following:
  - a Click **Open**.
  - b Click **By MAC Address**.
  - c Type the MAC Address of a DHCT in the **By MAC Address** box.
  - d Click **Continue**. The Set Up DHCT window opens.
- 5 Click the **Secure Services** tab. The Secure Services tab of the Set Up DHCT window opens, which displays available and selected packages.
- 6 In the **Available** box, select the **Services Portal** package.

- 7 Click **Add**. The package appears in the Selected box.

The image shows a Windows-style dialog box titled "Set Up DHCT". It has two tabs: "Communications" and "Secure Services", with "Secure Services" currently selected. The "MAC Address" is displayed as "00:40:7B:C1:95:AC". Below this, the "Secure Element Serial Number" is "00:40:7B:35:BE:15". A "Key Certificate" section shows a name: "C=US;O=Scientific-Atlanta;OU=Scientific-Atlanta Mexico;CN=PK00407b35be15", with "Clear" and "Load from batch CD..." buttons. The "Packages" section contains two list boxes: "Available" (empty) and "Selected" (containing "Services Portal"), with "Add >>" and "<< Remove" buttons between them. The "Options" section includes checkboxes for "IPPV Enable" (checked), "DMS Enable" (checked), "DIS Enable" (unchecked), "Analog Enable" (checked), and "Fast Refresh Enable" (unchecked). It also has input fields for "IPPV Credit Limit" and "Max. IPPV Events", both set to "32", and "Location X:" and "Y:" both set to "0". At the bottom, there are buttons for "DHCT Instant Hit", "Poll DHCT for IPPV Data", "Save", "Cancel", and "Help".

- 8 Click **Save**.
- 9 Repeat steps 4 through 8 for each set-top you want to test.
- 10 In the DHCT Provisioning window, click **Cancel**.
- 11 Go to *Add the Font Files to the BFS Server* (on page 51).

## Add the Font Files to the BFS Server

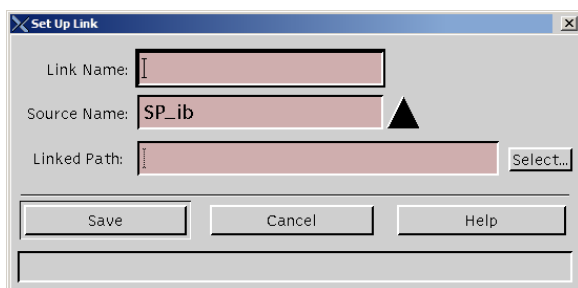
Before you can use custom fonts on the Title, on buttons, or for Parental Control messages, you must add links to the font files you want to use on the BFS server. This section includes the procedures for adding the font file links to the BFS server.

### Notes:

- Custom fonts are only available on high-resolution set-top boxes. Low-resolution set-top boxes ignore the font settings and use the default fonts.
- If you do not specify a font, the default Services Portal fonts will be used.
- Fonts must be Binary File Transfer (.bft) files. Conversion utilities (such as Font Gizmo from PowerTV®) exist to convert font files to .bft files. Contact Cisco Services for more information.
- The fonts you use must be placed in the application server's `/dvs/appFiles/ServicesPortal/data` directory.

## Adding the Font Files to the BFS Server

- 1 On the DNCS Administrative Console, click the **Application Interface Modules** tab.
- 2 Click **BFS Client**. The Broadcast File Server List window displays.  
**Note:** If your DNCS hosts multiple sites, you must first select the site associated with the Services Portal before the Broadcast File Server List window displays.
- 3 Click **SP\_ib**.
- 4 From the **File** menu, select **New Link**. The Set Up Link window displays.



- 5 Type the name of the font in **Link Name**.  
**Example:** If your font name is font1.bft, type **font1.bft** in Link Name.
- 6 Type the path to the font file in **Linked Path**.  
**Example:** Type `/dvs/appFiles/ServicesPortal/data/font1.bft` in Link Name.
- 7 Click **Save**. The Set Up Link window closes.
- 8 Repeat steps 3 through 7 for each font you want to use with Services Portal.

- 9 When you are finished linking the fonts, select **File** then **Close** on the Broadcast File Server List window.
- 10 Do you want to launch the Services Portal each time a subscriber turns on the set-top?
  - If **yes**, go to *Launching the Services Portal When the Set-Top is Powered On* (on page 67)
  - If **no**, go to *Defining Timeouts* (on page 71)

# 3

## Upgrade the Services Portal

### Introduction

This chapter contains the procedures for upgrading the Services Portal from a previous version. Use these procedures only if you have previously installed an earlier version of Services Portal. If you are installing Services Portal for the first time, or on a new server, follow the procedures in *Install the Services Portal* (on page 11).

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■ Preserving Your Previous Configuration.....	57
■ Installing the Services Portal Package Information .....	58
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## Before You Begin

There are a few considerations you should make before you upgrade your Services Portal:

- If you have already upgraded your DNCS System Release, you must follow the directions in *Installing the Services Portal Package Information* (on page 58) before you can successfully upgrade Services Portal.
- If your marketing department wants to change the look and feel of the Services Portal, make sure they give you a completed copy of the Services Portal configuration worksheets. You can find the worksheets in *Services Portal Configuration Worksheets* (on page 3) and in *Designing the Look and Feel of Your Services Portal*.
- The upgrade process reads the configuration of the current installation and uses those settings to configure the upgrade.  
However, you should gather some configuration information of your DBDS. See *Recording Configuration Information* (on page 32) for more information on gathering this information.
- If you feel you might need to roll back to the previous version of Services Portal, for any reason, make sure you follow these recommendations:
  - Keep your installation CDs of the previous version of Services Portal Client and Server.
  - Make sure to follow the procedures in *Preserving Your Previous Configuration* (on page 57) as a precaution.

**Note:** The upgrade process overwrites the existing config.dat file, but it preserves the configuration from the previous version.

**Important:** The filenames and UNIX syntax in these procedures are case-sensitive. Type filenames and paths exactly as they appear in the procedures.



## Information You Need Before You Upgrade

You will need to gather the following information before you begin the upgrade to Services Portal 3.0. Record the information in the space provided.

Information needed	Found in...	Used in...	Record information here
<b>Version number</b> of the Services Portal client (3.0.1.x)	On the SP Client Installation CD	SAM URL ( <b>APPURL</b> )	
Services Portal package <b>EID number</b> (hexadecimal)	Go to <i>Determining the Services Portal Package EID</i> (on page 30) for more information	SAM URL ( <b>APPURL</b> )	
Services Portal <b>client inband source ID</b>	Go to <i>Defining the Inband Source</i> (on page 20) for more information	Client configuration ( <b>INBFSSRC</b> )	
Services Portal <b>client out-of-band source ID</b>	Go to <i>Creating the Client BFS Out-of-Band Server</i> (on page 27) for more information	Client configuration ( <b>OBFSSRC</b> )	

## Upgrade Process Overview

The upgrade process consists of the following tasks:

- Recording server configuration information
- Preserving your previous configuration
- Installing the Services Portal package information (only if you have upgraded your DNCS System Release since the previous Services Portal installation)
- Uninstalling the previous version of Services Portal
- Upgrading the Services Portal Server
- Saving the Services Portal Server configuration
- Upgrading the Services Portal client
- Updating the Services Portal SAM Service

The following section details the procedures for each of these tasks.

## Recording Server Configuration Information

During the server installation, verify the following configuration information:

- **DNCS\_HOST** - the server name or the alias of the server where the DNCS is running
- **APPSERV\_HOST** - the server name or the alias of the server where the Application Server is running

Before you begin the installation process, complete the following steps to record the configuration information you need for the server installation.

- 1 From the Application Server, open an xterm window.
- 2 Log in as **dncs** user.  
Type **echo \$DNCS\_HOST** and press **Enter**.
- 3 Record the value that appears in the space provided.  
**DNCS\_HOST** \_\_\_\_\_
- 4 Type **echo \$APPSERV\_HOST** and press **Enter**.
- 5 Record the value that appears in the space provided.  
**APPSERV\_HOST** \_\_\_\_\_

## Preserving Your Previous Configuration

**Important:** If you are upgrading and you need to preserve the ability to roll back the Services Portal to a previous version, you must copy and rename the **config.dat** file to prevent the new installation from overwriting the earlier version's configuration parameters. To do this, complete the following procedure before you begin the upgrade to Services Portal 3.0.

- 1 Open an xterm window on the DNCS.
- 2 Type **cd /dvs/appFiles/ServicesPortal/data** and press **Enter**. The /dvs/appFiles/ServicesPortal/data directory becomes the working directory.
- 3 Type **cp -p config.dat config.vXX** (where XX is your current version number of the Services Portal, before upgrading) and press **Enter**. This copies, renames, and date stamps the configuration file so that you keep a copy of the original config.dat file.

**Example:** If you are upgrading from Services Portal 2.0, copy the configuration file as **config.v20**. Type the following command and press **Enter**:

```
cp -p config.dat config.v20
```

- 4 Proceed with the upgrade.

If you need to roll the version back, rename the file back to its original name (**config.dat**) after you roll back the version to preserve your configuration of the earlier Services Portal version. Refer to *Rolling Back to a Previous Version* (on page 141) for more information.

**Important:** Keep the installation CD of the previous version of Services Portal. This will help if you ever need to roll back the version.

## Installing the Services Portal Package Information

If you have already upgraded your DNCS System Release and did not preserve the `/var/sadm/pkg/SAIisp` or `/var/sadm/pkg/SAISPC` directories, use the following procedure to install the Services Portal package information files before you uninstall the previous version of the Services Portal server.

**Note:** If you do not have Internet connectivity on your Application Server, follow this procedure from your DNCS and transfer the file to your Application Server.

- 1 Open an xterm window on the Application Server (or on your DNCS if you do not have Internet connectivity on your Application Server).
- 2 Type **su -** and press **Enter** to log on as root user. The password prompt appears.
- 3 Type the root password and press **Enter**.
- 4 Type **cd /tmp** and press **Enter**.
- 5 Log on to the FTP server.

**Notes:**

- The address of the server is **ftp.sciatl.com** or **192.133.243.133**.

**Note:** The address for the FTP server is subject to change. If you are unable to reach the FTP server, please contact Cisco Services for the latest address.

- The username is **anonymous**.
- The password is the e-mail address of the person logging in.

- 6 Type **cd /pub/scicare/RELEASED/ServicesPortal** and press **Enter**.
- 7 Type **bin** and press **Enter**. The system sets the ftp transfer mode to binary.
- 8 Type **hash** and press **Enter**. The system configures itself to display hash marks that show file-transfer progress.
- 9 Type **prompt** and press **Enter**. This command turns off the interactive mode of the FTP utility.
- 10 Type **get SP\_pkginfo.tar** and press **Enter**.
 

**Note:** This command starts the transfer of the files from the FTP server to the Application Server. A **#** symbol displays on the screen for each 8192 bytes transferred from the FTP server to the Application Server or DNCS.
- 11 When the download is complete, type **bye** and press **Enter** to log out of the FTP server.
- 12 Move the `SP_pkginfo.tar` file into the `/var/sadm/pkg` directory on the Application Server.
- 13 Did you download the file from the DNCS?
  - If **yes**, close the xterm window on the DNCS. Open an xterm window on the Application Server and log onto the Application Server as **root user**.
  - If **no**, continue with step 14.

- 14 Type **cd /var/sadm/pkg** to make the /var/sadm/pkg directory the active directory.
- 15 Type **tar xvpf SP\_pkginfo.tar** to untar the files.

You will see information similar to the following list in the xterm window.

The SAISPC and SAIisp package information is installed.

```
x ./SAISPC, 0 bytes, 0 tape blocks
x ./SAISPC/install, 0 bytes, 0 tape blocks
x ./SAISPC/install/checkinstall, 133 bytes, 1 tape blocks
x ./SAISPC/install/copyright, 183 bytes, 1 tape blocks
x ./SAISPC/install/depend, 55 bytes, 1 tape blocks
x ./SAISPC/install/request, 65 bytes, 1 tape blocks
x ./SAISPC/install/request.pl, 2754 bytes, 6 tape blocks
x ./SAISPC/save, 0 bytes, 0 tape blocks
x ./SAISPC/pkginfo, 668 bytes, 2 tape blocks
x ./SAIisp, 0 bytes, 0 tape blocks
x ./SAIisp/install, 0 bytes, 0 tape blocks
x ./SAIisp/install/checkinstall, 128 bytes, 1 tape blocks
x ./SAIisp/install/copyright, 183 bytes, 1 tape blocks
x ./SAIisp/install/depend, 55 bytes, 1 tape blocks
x ./SAIisp/install/postremove, 0 bytes, 0 tape blocks
x ./SAIisp/install/preremove, 872 bytes, 2 tape blocks
x ./SAIisp/install/request, 69 bytes, 1 tape blocks
x ./SAIisp/install/request.pl, 4188 bytes, 9 tape blocks
x ./SAIisp/save, 0 bytes, 0 tape blocks
x ./SAIisp/pkginfo, 949 bytes, 2 tape blocks
```

- 16 Type **exit** and press **Enter** to exit as root user.
- 17 Type **exit** and press **Enter** to close the xterm window on the Application Server.

## Uninstall the Services Portal

### Uninstalling the Services Portal Server

Complete these steps to uninstall the Services Portal Server.

- 1 Open an xterm window on the Application Server.
- 2 Complete the following steps to log on to the xterm window as **root** user.
  - a Type **su -** and press **Enter**. The password prompt appears.
  - b Type the root password and press **Enter**.
- 3 Type the following command and press **Enter**:  
**pkgrm SAIisp**  
**Note:** The I in the command is an uppercase "i".  
**Result:** A confirmation window appears.
- 4 When asked if you want to remove this package, type **y** and press **Enter**. The following warning appears:  
**This package contains scripts which will be executed with super-user permissions during the process of removing this package. Do you want to continue with the removal of this package?**
- 5 Type **y** and press **Enter**. This command deletes the Services Portal Server. The deletion is complete when the following message appears:
- 6 **Removal of <SAIisp> was successful**

### Uninstalling the Services Portal Client

- 1 In the Application Server xterm window where you are logged in as root user, type the following command and press **Enter**:  
**pkgrm SAISPC**  
**Note:** The I in the command is an uppercase "i".  
**Result:** A confirmation window appears.
- 2 Type **y** and press **Enter**. The deletion is complete when the following message appears:  
**Removal of <SAIspc> was successful**
- 3 Press **Enter**.
- 4 Go to *Upgrading the Services Portal Server* (on page 61).

## Upgrading the Services Portal Server

- 1 Insert the **Services Portal Server** CD into the CD-ROM of the Application Server. Wait for the Application Server to mount the CD.
- 2 In an xterm window on the Application Server where you are logged in as root user, type **df** and press **Enter** to confirm that the Application Server mounted the CD successfully. The last line of the df command output lists the number of free disk blocks on the CD.
- Note:** The fact that the CD is listed in the df command output indicates that the Application Server mounted the CD successfully.
- 3 Type **cd /cdrom/cdrom0** and press **Enter**.
- 4 Type **install\_pkg** and press **Enter**.

### Results:

- The Application Server lists the packages that will be installed.
  - A message appears asking you to confirm that you want to proceed with the installation.
- 5 Type **y** and press **Enter**. A license agreement window appears.
  - 6 Press **Enter** to start the installation. The system displays installation configuration options. The following list describes the configuration options available.
    - **DNCS\_HOST** — The server name or the alias of the server where the DNCS is running. This server is usually aliased as *dncs\_host*.
    - **APPSERV\_HOST** — The server name or the alias of the server where the appserv is running. This server is usually aliased as *appserv\_host*.
    - **BASDIR** — The base directory where the Application Server was installed (usually */dvs*).
    - **APPDIR** — The directory where you want the Services Portal to be installed.
    - **SVCNAME** — What you want to call the Services Portal SAM Service.
    - **LDESC** — The long description of the Services Portal SAM Service.
    - **APPURL** — The application URL for Services Portal SAM Service.
    - **INFORMIXDIR** — The directory where Informix is located on the dncs machine.
    - **INFORMIXSERVER** — The alias of the computer where Informix is located.
    - **DNCSDB** — The name of the DNCS database.
  - 7 Do the **DNCS\_HOST** and **APPSERV\_HOST** values match the values you recorded in *Recording Server Configuration Information* (on page 56)?
    - If **yes**, go to the next step.
    - If **no**, change the appropriate values and then go to the next step.

- 8 Widen the xterm window to the entire width of your screen. This helps you see the remaining steps clearly.
  - 9 Type the number corresponding to **APPURL**.
  - 10 Retype the *entire* SAM URL, making the appropriate changes as detailed in the following steps.
    - a Add the version number of the Services Portal *client* (3.0.1.x) immediately after the **ispguide.ptv;** parameter. Use the format **version=x.x.x.x**  
**Example:** If you are using Services Portal client version 3.0.1.5, type **version=3.0.1.5** (type the periods).
    - b Add the EID number (package number) immediately following the version number parameter. You recorded the EID earlier in this document. Use the format **EID=#**.
    - c We recommend that you download the Services Portal onto the set-tops as part of the boot procedure. However, if you experience a significant increase in boot time, you can set **loadOnBoot** to false (**F**).  
Do you want to load the application on boot?
      - If **yes**, leave **loadOnBoot=T**.
      - If **no**, change the parameter to **loadOnBoot=F**.**Example:**  
**bfs://SP\_ib/ispguid.ptv;version=3.0.1.5; EID=2;obstructedRect=0,0,639,479; loadOnBoot=T**
- Important:** This information should appear continuously on one line. Do not insert any spaces.
- 11 Type **c** and press **Enter** to continue the installation. The software begins loading and the system displays an **installation of SAlisp was successful** message when it has completed.
  - 12 In the xterm window, type **cd /** and then press **Enter**. The root directory becomes the working directory.
  - 13 Type **eject cd** and then press **Enter**. The system ejects the CD.



## Saving the Configuration

- 1 From the DNCS Administrative Console, click the **Server Applications** tab.
- 2 Click **Reload Applications**. The Services Portal button appears on the Server Applications tab.
- 3 Click the **Services Portal** button. The SP Service Guide opens.
- 4 On the **File** menu, click **Save**. The system creates the **config.dat** file. A message similar to the following appears at the bottom of the Services Portal window:  
**Config file saved at: /dvs/appFiles/ServicesPortal/data/**
- 5 On the **File** menu, click **Exit**. The SP Service Guide closes.

## Upgrading the Services Portal Client

- 1 Insert the **Services Portal Client** CD into the CD-ROM drive of the Application Server. Wait for the Application Server to mount the CD.
- 2 In an xterm window on the Application Server where you are logged in as root user, type **df** and press **Enter** to confirm that the Application Server mounted the CD successfully. The last line of the **df** command output lists the number of free disk blocks on the CD.  
**Note:** The fact that the CD is listed in the **df** command output indicates that the Application Server mounted the CD successfully.
- 3 Type **cd /cdrom/cdrom0** and press **Enter**.
- 4 Type **install\_pkg** and press **Enter**.

### Results:

- The Application Server lists the packages that will be installed.
  - A confirmation message appears asking you to confirm that you want to proceed with the installation.
- 5 Type **y** and press **Enter**. A license agreement window appears.
  - 6 Press **Enter** to start the installation. The system displays an installation configuration menu.
  - 7 Verify the inband source ID (the number corresponding to **INBFSSRC**). Is the inband source ID correct?
    - If **yes**, click **Next**.
    - If **no**, type the *inband* source ID for Services Portal and Press **Enter**.
  - 8 Verify the out-of-band source ID (the number corresponding to **OBFSRC**). Is the out-of-band source ID correct?
    - If **yes**, Type **c** and press **Enter** to continue the installation.
    - If **no**, type the *out-of-band* source ID for Services Portal and type **c** and press **Enter** to continue the installation.

The software begins loading and the system displays an **installation of SAlisp was successful** message when it has completed.

- 9 In the xterm window, type **cd /** and then press **Enter**. The root directory becomes the working directory.
- 10 Type **eject cd** and then press **Enter**. The system ejects the CD.

## Updating the Services Portal SAM Service

- 1 From the DNCS Administrative Console, click the **Application Interface Modules** tab.
- 2 Click **SAM Service**. The SAM Service List window opens.
- 3 Click the **Short Description** column header to sort the list of services by short description. All services beginning with an underscore (such as \_KEYA) display at the top of the list. The Services Portal SAM service has one of the following short descriptions: \_KEYA, \_GUID, or \_MENU. Look for the service with **ispguide.ptv** in the SAM URL.
- 4 Double-click the Services Portal SAM service. The Set Up SAM Service window opens.
- 5 In the Application URL window, locate the version parameter.  
**Example:** Locate the parameter that looks similar to the following:  
**version=2.1.0.5**
- 6 Change the version number to the version number of the upgraded Services Portal client (3.0.1.x).  
**Example: version=3.0.1.6**
- 7 Click **Save**.



# 4

---

## Launching the Services Portal When the Set-Top is Powered On

### Introduction

This chapter describes how to configure the Services Portal to launch each time the set-top is powered on by the subscriber.

### In This Chapter

- Overview ..... 68
- Creating the Power-On SAM Service..... 69

## Overview

The service or channel that the set-top tunes to when a subscriber presses the Power button on the set-top is known as the *Power-On service*.

You can configure Services Portal as the Power-On service so that Services Portal launches each time the subscriber powers on the set-top.

Some cable service providers let subscribers choose a Power-On service from the General Settings menu. For example, a subscriber may want to see the local sports station every time they turn on the set-top.

Which Power-On service wins if you configure Services Portal to appear at power on? The answer is both!

- In Full Screen mode, Services Portal displays the subscriber's power-on channel in the video window when the subscriber turns on the set-top.
- In Toolbar mode, Services Portal displays the subscriber's power-on channel as the background video underneath the translucent toolbar.

## Creating the Power-On SAM Service

Complete these steps to define a SAM Service that launches the Services Portal each time the set-top is powered on.

- 1 From the DNCS Administrative Console, click the **Application Interface Modules** tab.
  - 2 Click **SAM Service**. The SAM Service List window opens.
  - 3 Click the **Short Description** column header to sort the list of services by short description.  
  
**Note:** All services beginning with an underscore (such as \_KEYA) display at the top of the list. The Services Portal SAM service has one of the following short descriptions: \_KEYA, \_GUID, or \_MENU. Look for the service with **ispguide.ptv** in the SAM URL.
  - 4 Double-click the SAM service for Services Portal. The Services Portal SAM Service opens.
  - 5 Record the SAM URL for the service.
- 
- 6 Click **Cancel**. The SAM Service List window opens.
  - 7 On the **File** menu, click **New**. The Set Up SAM Service window opens.
  - 8 Type the following descriptions.
    - For **Short Description**, type **\_POWR**.
    - For **Long Description**, type **Power-On Services Portal**.
    - For **Service Name**, type **\_POWR**.
  - 9 From **Application URL**, click **Select**. The Application URL Selection window opens.
  - 10 Select the SAM URL you recorded in step 5 of this procedure.
  - 11 Click **OK**. The selected application URL appears in the Application URL box in the Set Up SAM Service window.
  - 12 For **Logo**, type **0** (zero).
  - 13 For **Parameter**, click **Number** and type **0** (zero).
  - 14 Click **Save**.
  - 15 Close the SAM Service List window.
  - 16 Go to *Defining Timeouts* (on page 71).





# 5

## Defining Timeouts

### Introduction

This chapter describes how to configure two different timeout settings (Normal Time Out at Power On and Time Out After Activation) that define how long the Services Portal remains on the TV screen.

### In This Chapter

- Overview ..... 72
- Configuring Timeouts ..... 73

## Overview

You can configure how long the Services Portal appears on the TV screen before disappearing or timing out.

*Timeouts* provide a safety net for subscribers who either cannot find the remote control to exit the portal or are not sure how to exit the portal using the remote control. Timeouts are triggered by a lack of activity. As long as the subscriber is performing tasks in Services Portal, Services Portal remains open.

The Services Portal has two different timeout settings:

- Normal Time Out at Power On
- Time Out After Activation

### Normal Time Out at Power On

If the Services Portal launches each time the set-top is powered on, you need to define the power-on timeout.

Consider this example: A subscriber turns on the set-top, the Services Portal launches as the power-on service, and the subscriber cannot find the remote to exit the portal. How much time should elapse before the Services Portal disappears?

The default for the power-on timeout is 30 seconds. Once this timeout expires, the Services Portal suspends itself.

### Time Out After Activation

The Time Out After Activation setting applies to all Services Portal configurations. Unlike the power-on timeout, this timeout applies when a subscriber launches the Services Portal from a key on the remote control.

For example, assume you set the Time Out After Activation to 20 seconds. If a subscriber launches the Services Portal and does not press a key on the remote, the Services Portal disappears from the screen after 20 seconds.

- In Full Screen mode, the channel the subscriber was tuned to appears in normal view.
- In Toolbar mode, the translucent portal disappears from the screen.

The default for this timeout is 15 seconds.

## Configuring Timeouts

- 1 If the SP Service Guide is not open, complete the following steps to open it.
  - a From the DNCS Administrative Console, click the **Server Applications** tab.
  - b Click **Services Portal**. The SP Service Guide opens with the Display Frame tab selected.
- 2 Click the **Display Information** tab.

The screenshot shows the 'SP Service Guide' window with the 'Display Information' tab selected. The window has a menu bar (File, Tools, Help) and several tabs (Display Frame, Assign Service, Display Information, Text and Font, Graphics). The 'Display Information' tab contains the following fields and options:

- Activation through:** Radio buttons for 'A Key' and 'Guide Key' (selected).
- Video Window:** X: 151, Y: 0, Width: 169, Height: 126.
- Coordinates Table:**

	X Cord	Y Cord
Title Text	30	15
A Key	38	214
B Key	188	215
Exit Key	97	199
Select Key	188	215
MSO Logo	210	145
- Navigation:** Radio buttons for 'Up/Down' and 'Page +/-' (selected), with a value of 94.
- Display Options:**
  - ☒ Display Blocked Service
  - ☒ Display Unauthorized Services
  - ☒ Enable Where-Am-I Banner
- Where-Am-I:** X: 151, Y: 126, Width: 169, Height: 16.
- Timeouts:**
  - Normal Time out at power On: 30 seconds
  - Time out After Activation: 90 seconds
- Buttons:** 'Reset to Default' and 'Launch mode is Fullscreen'.

- 3 Did you define a \_POWR SAM Service to launch the Services Portal at power on?
  - If **yes**, complete the **Normal Time out at power On** field. Enter the number of seconds that should elapse before the Services Portal disappears after the set-top is powered on. Then, go to step 4.
  - If **no**, go to step 4.
- 4 For **Time out After Activation**, enter the number of seconds that should elapse before the Services Portal disappears from the screen after the portal is launched from the remote control.
- 5 On the **File** menu, click **Save**.



# 6

## Choosing the Launch Mode for the Services Portal

### Introduction

This chapter describes the available launch modes and provides instructions for defining the launch mode for your Services Portal.

### In This Chapter

■ Overview .....	76
■ Available Launch Modes .....	77
■ Define the Launch Mode .....	79

## Overview

The launch mode determines how the Services Portal displays when launched by your subscribers. You can choose between a Toolbar Services Portal and a Full-Screen Services Portal.

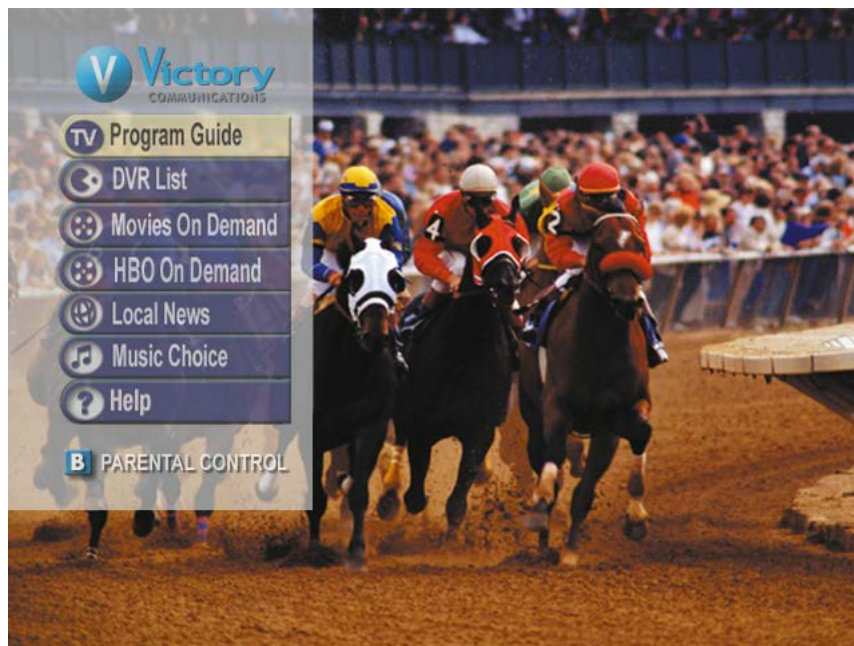
**Important:** The launch mode you choose affects certain configuration options available to you. Therefore, choose the launch mode before you complete any other configuration tasks in subsequent chapters of this document.

## Available Launch Modes

### Toolbar Launch Mode

With Toolbar mode, you can still see the current program or service underneath the Services Portal toolbar. The Services Portal is translucent over the current TV picture. You can adjust the size and position of the toolbar.

In this example, the toolbar size and position allow optimal viewing of the current program. The Toolbar launch mode is a good choice if you want to retain the full video screen when subscribers launch the Services Portal.



## Full Screen Launch Mode

If you want to brand the Services Portal with additional graphics and feature a scaled video window, choose the Full Screen Services Portal.

With Full Screen mode, you can also display a *Where Am I* banner to remind subscribers of the current channel in the video window. The following picture is just one example of a Full Screen Services Portal.



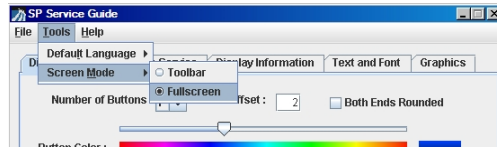


## Define the Launch Mode

This section describes how to define the launch mode for the Services Portal.

### Defining the Launch Mode

- 1 On the **Tools** menu, click **Screen Mode**.
- 2 Click **Toolbar** or **Fullscreen**.



- 3 On the **File** menu, click **Save**. One of the following messages appears at the bottom on the SP Service Guide, confirming your selection:
  - Launch mode is Fullscreen
  - Launch mode is Toolbar



# 7

## Assign and Define Services

### Introduction

This chapter explains how to assign and define services for your Services Portal.

### In This Chapter

■ Overview .....	82
■ Assign Services.....	83
■ Define Details for Services.....	85

## Overview

You can assign the services you want to provide in your portal from a list of all available services. The list of available services includes all services in your SAM service list.

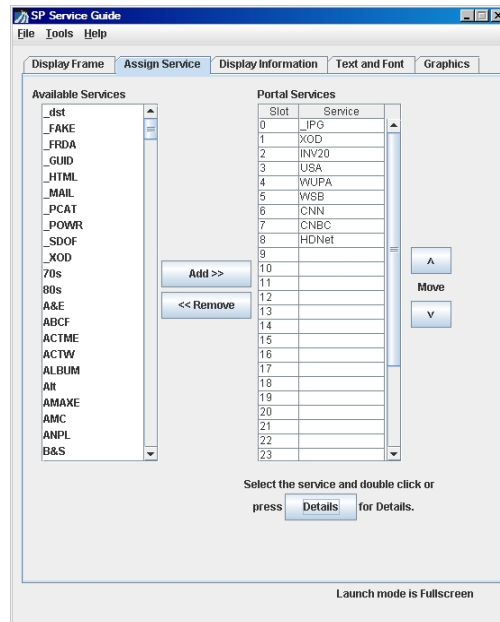
You can add up to 32 services to your Services Portal.


After you have assigned the services you want to provide in your portal, you can define characteristics for each service, such as the icon for a service.

# Assign Services

## Assigning Services

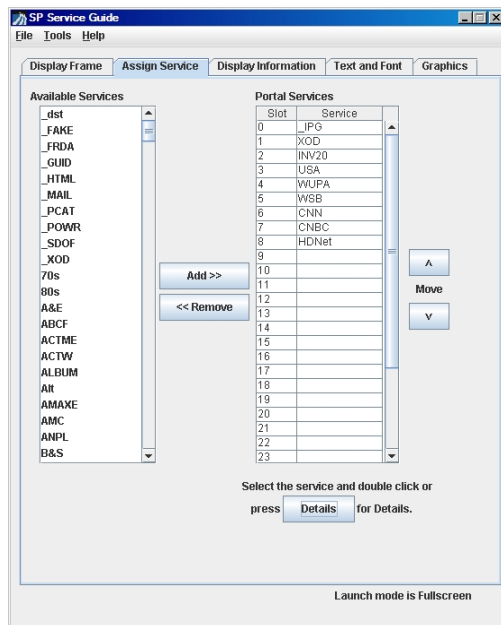
- 1 From the SP Service Guide, click the **Assign Service** tab.



- 2 Select the first service you want to add to your portal from **Available Services**.
  - 3 Under **Portal Services**, click the desired slot for the service you are adding.
  - 4 Click **Add**. The system adds the service to the Services Portal.
  - 5 Repeat steps 2 through 4 for all services you want to add to your portal. You can add up to 32 services to your portal.
  - 6 After you add the services for your portal, use the **Move** arrows to arrange your list of services in the order you want them to display. For example, to move the service in Slot 3 to Slot 4, select the service in Slot 3 and click  (the Move down button).
- Important:** Slot 0 is reserved for the IPG. You cannot move a different service into this slot.
- 7 On the **File** menu, click **Save**. You have successfully assigned services for your portal.
  - 8 Go to *Define Details for Services* (on page 85).

## Removing Services

- 1 From the SP Service Guide, click the **Assign Service** tab.



- 2 Select the service you want to remove from the **Portal Services** column.
- 3 Click **Remove**.
- 4 On the **File** menu, click **Save**.

## Define Details for Services

### Before You Begin

Before you complete the next procedure, it is important to understand the difference between *selected* and *unselected* icons.

To provide a visual cue to subscribers as they select services, the Services Portal toggles between two graphical versions of each service icon and button.

When a subscriber selects a service in the portal, the selected icon for that service appears. These icons normally have a sharp color contrast between the oval-shaped background of the icon and the fill color of the icon artwork.

#### Example:

The following example compares the selected movies icon to the unselected movies icon.

#### Selected Icon



#### Unselected Icon



Icons for services are defined using icon numbers that map to specific icons in the **icons.sgo** file, which is a "strip" of icons. The icon number refers to the position of the unselected icon in the icon strip. The following example shows the icons.sgo file that contains the default icon strip in Services Portal.

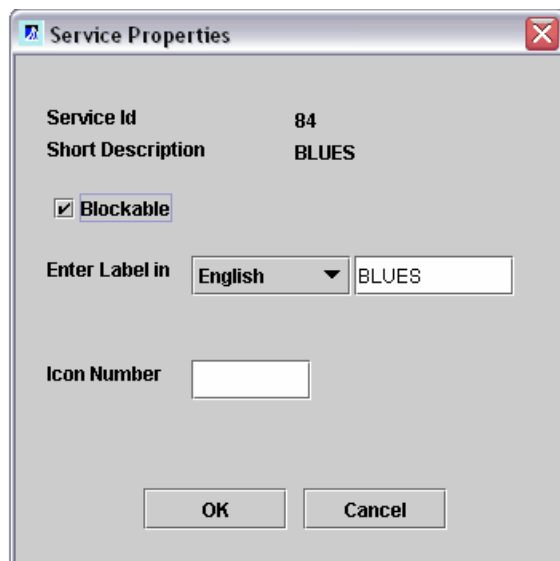


The following procedure requires you to enter the icon number for the unselected version of each icon. Refer to your configuration worksheet for the icon number for each service. Icon numbers for default icons are also provided in the following procedure.

If you have customized icons for the Services Portal, refer to your configuration worksheet.

## Defining Details for Services

- 1 From the **Assign Service** tab, click a service from **Portal Services**.
- 2 Click **Details**. The **Service Properties** window opens.













- 3 To keep subscribers from blocking this service, clear the **Blockable** check box (by default, subscribers can block services).
- 4 Select the service's language from the **Enter Label in** list.
- 5 Type the label for the service.
- 6 Repeat steps 4 and 5 for all the languages this service supports.

**Note:** To speed up this task, you can select a default configuration language from the Tools menu. Refer to *Choosing a Default Configuration Language* (on page 102) for more information.

- 7 If an icon number is specified in your configuration worksheet, choose the icon that you want to use from the list below. Or, if you are using custom icons, refer to your Services Portal Resource Layout file (icons.res.xls).

The following list provides icon numbers for the default icons provided with the Services Portal.

Icon (unselected)	Icon (selected)	Service	Icon Number for the Unselected Version of the Icon
		Movies	1
		TV	2
		Music	3
		Software	4
		Games	5



- 8 For **Icon Number**, type the icon number associated with the unselected version of the icon in the icon strip.
- 9 Click **OK**. The Service Properties window closes, and you can view your list of Portal Services.
- 10 Repeat Steps 1 through 9 for each service in your Portal Services list.
- 11 On the **File** menu, click **Save**. The services you defined appear with the selected labels and icons when the Service Portal is opened by subscribers.



# 8

## Customize Buttons for Services

### Introduction

This chapter explains how to customize the buttons you use for your Services Portal.

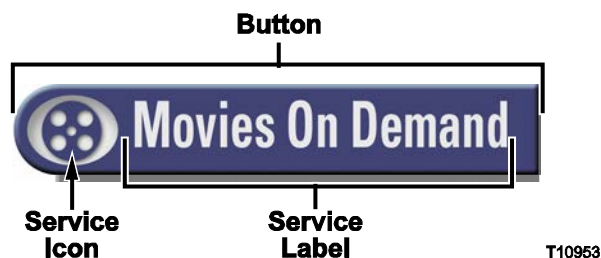
### In This Chapter

■ Overview .....	90
■ Define the Number of Services to Show at One Time .....	91
■ Define Position and Width of Buttons .....	92
■ Positioning Icons on Buttons.....	93
■ Defining the Button Text Font.....	94
■ Define Button Color.....	95
■ Define Button Edges.....	96
■ Change Service Labels for Buttons.....	97

## Overview

Rather than displaying a simple text list of services available from your portal, the Services Portal uses buttons to represent services. The button is the background for the icon and label you have selected for a service.

**Example:**



Buttons make the Services Portal an inviting interface for your subscribers. Subscribers immediately recognize they can select services using the remote control.

We provide default settings for your Services Portal buttons. You can customize these settings for existing buttons using the procedures provided in this chapter.

## Define the Number of Services to Show at One Time

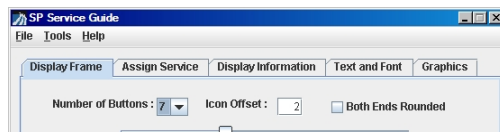
The Services Portal makes it easy for subscribers to scan the list of services. The Services Portal limits the number of services a subscriber has to scan at one time. While you may offer a total of 32 services in your portal, you can only show a maximum of seven services at one time. The following methods allow your subscribers to scroll up and down through the listed services:

- The **Arrow Up** and **Arrow Down** keys on the remote control let subscribers scroll to one additional service at a time. As subscribers scroll through the list of services, the icons and text for each service button change, but the service buttons remain in place.
- The **Page Up** and **Page Down** keys on the remote control replace the current visible services with the services on the previous page or the next page.

For example, assume you have a total of 10 services and you show seven services at a time. If a subscriber presses Page Down from the first page, then the 3 services on the second page appear underneath the last 4 services from the first page. Each page always shows the same number of services.

### Defining the Number of Services to Show At One Time

- 1 From the SP Service Guide, click the **Display Frame** tab if it is not already selected.
- 2 Select the **Number of Buttons** you want to show at one time.



- 3 On the **File** menu, click **Save**.

## Define Position and Width of Buttons

This section describes how to define the position and width of buttons for the services in your Services Portal. You can use the appropriate form in this section to record your custom values.

Use the following worksheets to complete your customization of the buttons:

- For toolbar mode: *Button Position and Widths for Toolbar Mode* (on page 5)
- For full screen mode: *Button Position and Widths for Full Screen Mode* (on page 6)

### Defining Position and Width of Buttons

- 1 From the SP Service Guide, click the **Display Frame** tab, if it is not already selected.

The screenshot shows the 'SP Service Guide' application window with the 'Display Frame' tab selected. The interface includes a menu bar (File, Tools, Help) and several tabs: Display Frame, Assign Service, Display Information, Text and Font, and Graphics. Under the 'Display Frame' tab, there are settings for 'Number of Buttons' (set to 7), 'Icon Offset' (set to 2), and a checkbox for 'Both Ends Rounded'. Below these is a 'Button Color' selection bar with a rainbow gradient. The main area contains a table for configuring seven buttons, with columns for Left, Top, and Width coordinates. At the bottom, there is a 'Reset to Default' button and a status indicator that says 'Launch mode is Fullscreen'.

Button	Left	Top	Width
Button 1:	25	58	95
Button 2:	25	80	95
Button 3:	25	102	95
Button 4:	25	124	95
Button 5:	25	146	95
Button 6:	25	168	95
Button 7:	25	190	95

- 2 Enter the new **Left** and **Top** coordinates if you want to reposition buttons.
- 3 Enter new button **Widths** if you want to change the width of the buttons.
- 4 On the **File** menu, click **Save**.
- 5 View your Services Portal to see if any of your settings require adjustments.
- 6 Repeat this entire procedure until the positions and widths that you want are achieved. If you want to start over, you can click **Reset to Default** to return to the original button settings.

**Important!** Clicking **Reset to Default** resets all of the values in the Display Frame tab. Therefore, before you click Reset to Default, record any customized settings that you want to keep using the appropriate form on the following pages. The form you use depends on the launch mode you have selected.

## Positioning Icons on Buttons

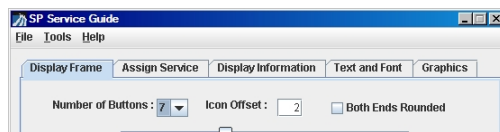
You can position icons horizontally on the button by adjusting the icon offset. The icon offset is the distance of the icon from the left border of the button.



The default icon offset for buttons is 2 pixels (shown in the Less Offset example above). You can change this setting using the following procedure.

### Changing the Icon Offset for Buttons

- 1 From the SP Service Guide, click the **Display Frame** tab if it is not already selected.
- 2 Enter the **Icon Offset** you want to use.



- 3 On the **File** menu, click **Save**.
- 4 View your Services Portal to see if you need to adjust the setting.
- 5 Repeat this procedure, if necessary.

## Defining the Button Text Font

You can define the text font that you use for the Button on-screen display. This section contains the procedures for defining the Button display font.

### Notes:

- Custom fonts are only available on high-resolution set-top boxes. Low-resolution set-top boxes ignore the font settings and use the default fonts.
- If you do not specify a font, the default Services Portal fonts will be used.
- Fonts must be Binary File Transfer (.bft) files. Conversion utilities (such as Font Gizmo from PowerTV®) exist to convert font files to .bft files. Contact Cisco Services for more information.
- The fonts you use must be placed in the application server's `/dvs/appFiles/ServicesPortal/data` directory.
- You must create a BFS link for each font file that you use for Services Portal. Refer to *Add the Font Files to the BFS Server* (on page 51) for more information.

## Defining the Button Text Font

- 1 From the SP Service Guide, click the **Text and Font** tab.
- 2 In the **Fonts** section, enter the font you want to use in the **Button** field.

The screenshot shows the 'SP Service Guide' application window with the 'Text and Font' tab selected. The window has a menu bar (File, Tools, Help) and several tabs: Display Frame, Assign Service, Display Information, Text and Font, and Graphics. The 'Text and Font' tab contains several radio button options for text entry, a language dropdown set to 'English', and two text input fields labeled 'Enter Text:' with 'Services' and 'Portal' entered. Below this is a 'Fonts' section with three text input fields: 'Title' (font1.bft), 'Button' (font2.bft), and 'Parental Control' (font3.bft). At the bottom right, it says 'Launch mode is Fullscreen'.

- 3 On the **File** menu, click **Save**.

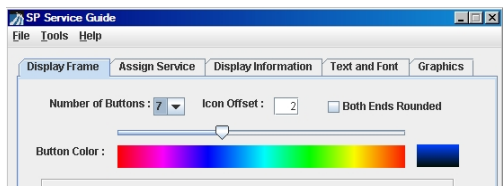


# Define Button Color

You can define the color of the buttons in your Services Portal. If you do not want to change the default button color, skip these procedures.

## Defining Button Color

- 1 From the SP Service Guide, click the **Display Frame** tab.



- 2 Use the **Button Color** slider to define the color of the buttons displayed in Services Portal. The color you choose displays in the box to the right of the slide.
- 3 From the **File** menu, select **Save**.

## Button Color References

The following examples show the approximate slider positions for several popular button colors.

Color	Approximate Slider Position
Red	
Magenta	
Violet	
Blue	
Cyan	
Green	
Yellow	
Orange	

## Define Button Edges

You can define the edges of the buttons in your Services Portal. You can choose one of the following button edges:

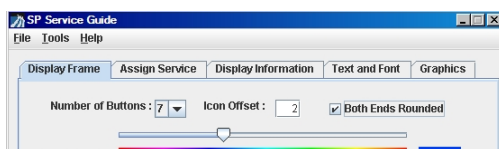
- One side rounded (default) - Only the left button edge will be rounded
- Both sides rounded - Both the left and right button edges will be rounded

If you want to keep the button edges rounded on one side (the default setting), skip these procedures.

### Defining Button Edges

To set the buttons so that they display with both edges rounded, follow these instructions.

- 1 From the SP Service Guide, click the **Display Frame** tab.



- 2 Check the **Both Ends Rounded** box.
- 3 From the **File** menu, click **Save**.

## Change Service Labels for Buttons

When you add a service to your portal, you enter details for the service including the label for services.

This service label appears on the button for the service. When you define button widths, you may find that some service labels are too long for the button. If you like the button width, consider changing the service label to something shorter. If you decide to change the label for a service, you can quickly do so through the Assign Service tab.

### Changing Service Labels for Buttons

- 1 From the SP Service Guide, click the **Assign Service** tab.
- 2 From Portal Services, double-click the service you want to change. The Services Properties window opens.
- 3 From **Enter Label in**, enter the new label for each of the supported languages.

The screenshot shows the 'Service Properties' dialog box. It contains the following fields and controls:

- Service Id:** 84
- Short Description:** BLUES
- Blockable:** A checkbox that is checked.
- Enter Label in:** A dropdown menu currently showing 'English' and a text input field containing 'BLUES'.
- Icon Number:** An empty text input field.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

- 4 Click **OK** in the Service Properties window.
- 5 Repeat steps 3 and 4 for all the labels you want to change.
- 6 On the **File** menu, click **Save**.



# 9

## Customize Parental Control

### Introduction

This chapter explains how to customize Parental Control options in the Services Portal.

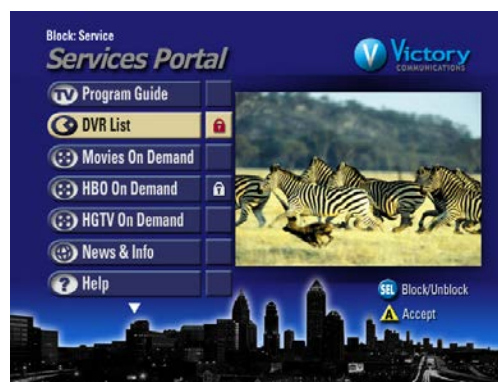
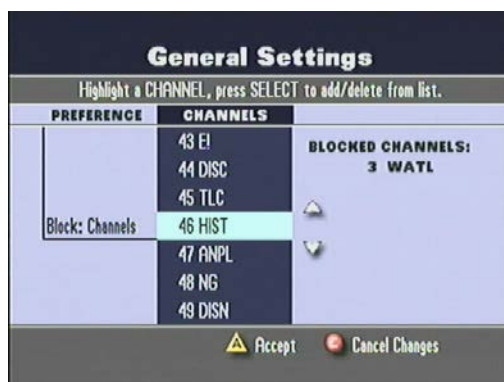
### In This Chapter

- Enable or Disable Parental Control for a Service ..... 100
- Change Parental Control Messages..... 102
- Define the Parental Control Display Font ..... 105
- Default Parental Control Messages..... 106

## Enable or Disable Parental Control for a Service

If a subscriber blocks a channel-based service using the General Settings menu, this service is automatically blocked in the Services Portal. If a subscriber blocks a channel-based service using the Block: Service screen in the Services Portal, this service is automatically blocked in the General Settings menu. This keeps the Services Portal and SARA in sync on blocked channel-based services.

**Example:** The following pictures show the two different access points for blocking channel-based services: General Settings (SARA) and Block: Service (Services Portal).



In addition to channel-based services, you may offer several overlay services in your Services Portal. An overlay service “lays over” another channel, meaning the service either displays on top of the current channel or shows the current channel in a quarter screen or a video window. In fact, the Services Portal itself is an overlay service.

Because overlay services are not assigned to a specific channel, time, or rating, subscribers cannot block overlay services using the General Settings menu. To provide subscribers the benefit of Parental Control for overlay services, the Services Portal extends the blocking feature to overlay services.

## Preventing Subscribers from Blocking Services

Complete these steps to enable or disable parental control for a service.

- 1 From the SP Service Guide, click the **Assign Service** tab.
- 2 From **Portal Services**, double-click the service you want to edit. The Service Properties window opens.
- 3 In the **Blockable** check box, do one of the following, depending on your preference.
  - Select the check box to enable parental control for this service
  - Clear the check box to disable parental control for this service
- 4 Click **OK**.
- 5 On the **File** menu, click **Save**.

## Change Parental Control Messages

If you let subscribers block and unblock services in the Services Portal, you need to provide instructional text related to blocked services.

Default text messages in English, Spanish, and French are provided for the following message types:

- PIN Entry Text
- PIN Entry Text to Clear Blocked Service
- Blocked Service Barker Text
- Blocked Service B Key Text
- PIN Entry Text to clear All Blocked Services

These messages are specific to the blocked service feature of the Services Portal. They do not apply to the blocked services feature of the Interactive Program Guide (IPG).

## Choosing a Default Configuration Language

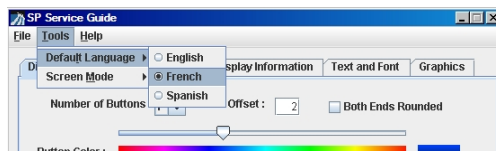
Are you configuring the Services Portal to support multiple languages?

If you are, make sure that you change the text in each supported language. Otherwise, the message text will not match between the different languages.

**Note:** To speed up this task, you can select a default configuration language from the Tools menu. This sets the Enter Label in language to the default language for all service labels.

For example, set the default language to French to enter all the French service labels. Then, set the default language to Spanish to enter all the Spanish service labels.

The default language option in the SP Service Guide is for configuration purposes only and is not related to the language the Services Portal shows to subscribers. The language the Services Portal shows to subscribers is controlled by a setting in SARA.





## Changing Parental Control Messages

- 1 From the SP Service Guide, click the **Text and Font** tab.

SP Service Guide

File Tools Help

Display Frame Assign Service Display Information **Text and Font** Graphics

☒ Enter Title Text
 ☐ Enter Block Service Barker Text

☐ Enter Pin Entry Text
 ☐ Enter Blocked Service B Key Text

☐ Enter Pin Entry Text to clear Blocked Service
 ☐ Enter Pin Entry Text to clear All Blocked Services

Language: English
 Enter Text:
   
Services
   
Portal

Fonts
   
Title: font1.ttf
   
Button: font2.ttf
   
Parental Control: font3.ttf

Launch mode is Fullscreen

- 2 Click the message you want to change.

**Example:** Click **Enter Pin Entry Text** to change the text that displays when the subscriber needs to enter their Parental Control PIN.

SP Service Guide

File Tools Help

Display Frame Assign Service Display Information **Text and Font** Graphics

☐ Enter Title Text
 ☐ Enter Block Service Barker Text

☒ Enter Pin Entry Text
 ☐ Enter Blocked Service B Key Text

☐ Enter Pin Entry Text to clear Blocked Service
 ☐ Enter Pin Entry Text to clear All Blocked Services

Language: English
 Enter Text:
   
Enter PIN to allow changing your
   
Blocked Services

Fonts
   
Title: font1.ttf
   
Button: font2.ttf
   
Parental Control: font3.ttf

Launch mode is Fullscreen

- 3 Type your message text in all supported languages using the **Language** list **Enter Text** box at the bottom of the tab.

**Important:** To make this procedure easier, you can change the default configuration language on the Tools menu. Refer to *Choosing a Default Configuration Language* (on page 102) for more information.

- 4 On the **File** menu, click **Save**.
- 5 Repeat this procedure for other messages if desired.

## Define the Parental Control Display Font

You can define the text font that you use for the Parental Control messages on-screen display. This section contains the procedures for defining the Parental Control messages display font.

### Notes:

- Custom fonts are only available on high-resolution set-top boxes. Low-resolution set-top boxes ignore the font settings and use the default fonts.
- If you do not specify a font, the default Services Portal fonts will be used.
- Fonts must be Binary File Transfer (.bft) files. Conversion utilities (such as Font Gizmo from PowerTV®) exist to convert font files to .bft files. Contact Cisco Services for more information.
- The fonts you use must be placed in the application server's `/dvs/appFiles/ServicesPortal/data` directory.
- You must create a BFS link for each font file that you use for Services Portal. Refer to *Add the Font Files to the BFS Server* (on page 51) for more information.

## Defining the Parental Control Display Font

- 1 From the SP Service Guide, click the **Text and Font** tab.
- 2 In the **Fonts** section, enter the font you want to use in the **Parental Control messages** field.

The screenshot shows the 'SP Service Guide' application window with the 'Text and Font' tab selected. The window contains several radio button options for text entry, a language dropdown set to 'English', and two text input fields labeled 'Services' and 'Portal'. Below these is a 'Fonts' section with three rows: 'Title' with 'font1.bft', 'Button' with 'font2.bft', and 'Parental Control' with 'font3.bft'. At the bottom right, it says 'Launch mode is Fullscreen'.

- 3 On the **File** menu, click **Save**.

## Default Parental Control Messages

You can customize several of the messages in the Parental Control screens for the Services Portal. If you change the message text for a screen, make sure that you change the text in each supported language. Otherwise, the message text among the different languages will not match.

The following tables provide the default message text for each message you can change.

### PIN Entry Text Message Defaults

Language	Default Message Text
English	Enter PIN to allow changing your Blocked Services.
French	Veillez entrer votre NIP pour pouvoir apporter les changements à vos services bloqués.
Spanish	Introduzca el número de identificación personal (PIN) para poder cambiar los servicios bloqueados.

### PIN Entry Text to Clear Blocked Service Message Defaults

Language	Default Message Text
English	Enter PIN to turn off Parental Control and allow viewing of this service only.
French	Veillez entrer votre NIP pour bloquer le contrôle parental et permettre l'accès à ce service uniquement.
Spanish	Introduzca el PIN para desactivar el control paterno y permitir que se vea únicamente este servicio.

### Blocked Service Barker Text Message Defaults

Language	Default Message Text
English	Parental Control prevents viewing this service.
French	Le contrôle parental interdit l'accès à ce service.
Spanish	El control paterno impide que se vea este servicio.

## Blocked Service B Key Text Message Defaults

Language	Default Message Text
English	Allow viewing of this service only.
French	Permet l'accès uniquement à ce service.
Spanish	Permitir que se vea únicamente este servicio.

## PIN Entry Text to Clear All Blocked Services Message Defaults

Language	Default Message Text
English	Enter PIN to turn off Parental Control and allow viewing of all services.
French	Veuillez entrer votre NIP pour bloquer le contrôle parental et permettre l'accès à tous les services.
Spanish	Introduzca el PIN para desactivar el control paterno y permitir que se vean todos los servicios.



# 10

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## Filter the Service List

### Introduction

This chapter describes special options for filtering the list of services that display in the Services Portal.

### In This Chapter

- Show or Hide Blocked Services ..... 110
- Show or Hide Unauthorized Services..... 112

## Show or Hide Blocked Services

The Services Portal displays blocked services by default. With this configuration, any service the subscriber blocks still appears in the Services Portal. If subscribers select a blocked service from the Services Portal, they get a message which does the following:

- States the service is blocked
- Provides the option to turn off Parental Control completely (after entering a PIN)
- Provides the option to unblock that specific service only (after entering a PIN)

When blocked services are always visible, subscribers can quickly find services they may want to unblock.

In contrast, an advantage to hiding blocked services is that subscribers will only see the services they can immediately access. While you may offer 32 services in your Services Portal, a subscriber may only have interest in half of these services. If you configure the Services Portal to hide blocked services, the list of services is simplified.

Perhaps more importantly, if you hide blocked services, parents rest assured that their children do not see programs such as Adult-On-Demand listed in the portal.

If blocked services are hidden in the Services Portal, subscribers can still view the list of all services (including blocked services) by clicking the B key on their remote control and entering a correct Parental Control PIN. Once the PIN is accepted, subscribers can block or unblock services that are defined as blockable.

### Example:



## Showing or Hiding Blocked Services

- 1 From the SP Service Guide, click the **Display Information** tab.
- 2 Select or clear the **Display Blocked Service** check box, depending on the configuration you prefer.
- 3 On the **File** menu, click **Save**.



## Hiding Services When a DAVIC Connection Is Used

Digital Audio Visual Council (DAVIC) defines the end-to-end interoperability of multimedia communication and broadcast and interactive digital audio-visual information. This standard is administered by the Digital Audio Visual Council and EuroCableLabs. Data Over Cable Service Interface Specification (DOCSIS®) defines interface requirements for cable modems involved in high-speed data distribution over cable television system networks. This standard was developed by CableLabs® in North America and approved by the International Telecommunication Union (ITU).

Do you have some applications that work fine with DOCSIS connections but require too much out-of-band (OOB) bandwidth over DAVIC connections? The NODAVIC parameter lets you hide services in the Services Portal list when DAVIC connections are used.

Here's an example of how it works:

- 1 The installer adds an application to the list of services in Services Portal.
- 2 The installer inserts the ;NODAVIC parameter in the SAM URL for the application you want to hide when a DAVIC connection is used. The application appears in the Services Portal for DOCSIS connections but not for DAVIC connections. No rebooting is required.

**Note:** Refer to *Guidelines for Adding URL Modifiers and Replacing URL Keywords* (part number 4002527) for more information.

## Showing Services on HD Set-Tops Only

Do you have some services you want to display for HD set-tops only? The HDONLY parameter lets you show services in the Services Portal list for HD set-tops only.

Here's an example of how it works:

- 1 The installer adds an application to the list of services in Services Portal.
- 2 The installer inserts the ;HDONLY parameter in the SAM URL for the application you want to show for HD set-tops only. The service appears in the Services Portal for HD set-tops only. No rebooting is required.

**Note:** Refer to *Guidelines for Adding URL Modifiers and Replacing URL Keywords* (part number 4002527) for more information.

## Show or Hide Unauthorized Services

The Services Portal displays all unauthorized services by default. You can, however, change this option to hide all unauthorized services.

Hiding unauthorized services simplifies the list of services for your subscribers. In addition, if you offer premium adult-oriented services in your portal, you probably want to hide unauthorized services.

If the services in your portal are acceptable for all ages, consider displaying unauthorized services to let subscribers know what they may be missing.

### Showing or Hiding Unauthorized Services

Follow these steps to show or hide unauthorized services in the portal.

- 1 From the SP Service Guide, click the **Display Information** tab.
- 2 Select or clear the **Display Unauthorized Services** check box, depending on the configuration you prefer.
- 3 On the **File** menu, click **Save**.

# 11

## Brand Your Services Portal

### Introduction

This chapter explains how to brand your Services Portal with a title and your logo.

### In This Chapter

- Overview ..... 114
- Prevent Cropping of Your Services Portal Title ..... 115
- Change or Remove the Title of Your Services Portal..... 117
- Position or Hide the Services Portal Title..... 120
- Position or Hide Your Logo ..... 122
- Customize the Background Image ..... 123

## Overview

If you embed a title and logo in a customized background image, follow the instructions to hide your logo and Services Portal title. Then, go to *Customizing the Background Image* (on page 124).

## Prevent Cropping of Your Services Portal Title

Most TVs crop the video slightly to ensure the edges of the frame look sharp on the TV screen. To make sure that important screen elements are not cropped, avoid placing graphics or text against the edges of the screen.

The Society of Motion Picture and Television Engineers (SMPTE) developed clear screen usage areas known as the Title Safe Area and the Action Safe Area. Observe these areas when designing your Services Portal layout.

### Low Resolution Safe Areas

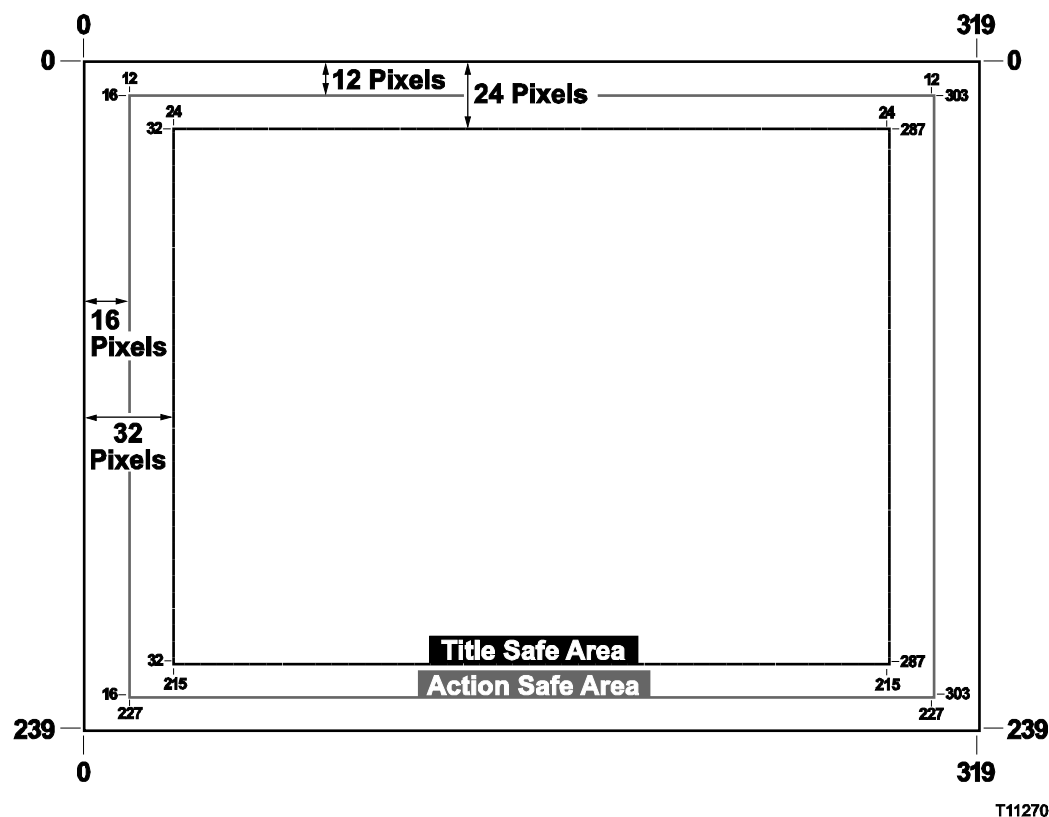
#### Action Safe Area

The Action Safe Area is inside a rectangle that is placed 12 pixels vertically and 16 pixels horizontally and measures 287 x 215. Most televisions will display text and graphics inside the Action Safe area.

#### Title Safe Area

The low-resolution Title Safe Area is inside a rectangle that is placed 24 pixels vertically and 32 pixels horizontally and measures 255 x 191. All television sets will display text and graphics inside the Title Safe Area.

If you reposition the title or logo in your Services Portal or embed these elements in a background graphic, make sure that they are within the Title Safe Area. Otherwise, you risk having parts of the Services Portal background image, inset video, or selection buttons placed in areas of the screen that are cropped on some TVs.



## High Resolution Safe Areas

### Action Safe Area

The Action Safe Area is inside a rectangle that is placed 24 pixels vertically and 33 pixels horizontally and measures 574 x 431. Most high-resolution televisions will display text and graphics inside the Action Safe area.

### Title Safe Area

The high-resolution Title Safe Area is inside a rectangle that is placed 24 pixels vertically and 65 pixels horizontally and measures 450 x 384. All high-resolution television sets will display text and graphics inside the Title Safe Area.

If you reposition the title or logo in your Services Portal or embed these elements in a background graphic, make sure that they are within the Title Safe Area. Otherwise, you risk having parts of the Services Portal background image, inset video, or selection buttons placed in areas of the screen that are cropped on some TVs.

## Change or Remove the Title of Your Services Portal

You can change the title of your Services Portal to reflect your corporate identity. If you change the title, be sure to change the title in all of the supported languages. For your reference, the default titles are as follows:

- English - Services Portal
- French - Portail de services
- Spanish - Portal de servicios

**Important:** The Services Portal title is embedded in a custom background image, clear the title field so that a title does not display on top of your background image. If you do not want to clear the title fields, you can hide the title instead. Refer to *Hiding the Services Portal Title* (on page 121).

### Changing the Title of Your Services Portal

- 1 From the SP Service Guide, click the **Text and Font** tab.
- 2 If it is not already selected, click **Enter Title Text**.

The screenshot shows the 'SP Service Guide' application window with the 'Text and Font' tab selected. The 'Enter Title Text' radio button is chosen. Below it, the 'Language' dropdown is set to 'English'. The 'Enter Text' box contains the text 'Services' and 'Portal'. The 'Fonts' section at the bottom shows three font settings: 'Title' (font1.bft), 'Button' (font2.bft), and 'Parental Control' (font3.bft). The 'Launch mode is Fullscreen' text is visible at the bottom of the window.

- 3 Type the title of your Services Portal for all supported languages using the **Language** list and **Enter Text** box.
- 4 On the **File** menu, click **Save**. You have successfully changed the title of your portal.

- 5 View the portal to see if you like the position of the title. If you want to reposition your title, refer to *Position or Hide the Services Portal Title* (on page 120).

## Define the Title Text Font

You can define the text font that you use for the Title on-screen display. This section contains the procedures for defining the Title display font.

### Notes:

- Custom fonts are only available on high-resolution set-top boxes. Low-resolution set-top boxes ignore the font settings and use the default fonts.
- If you do not specify a font, the default Services Portal fonts will be used.
- Fonts must be Binary File Transfer (.bft) files. Conversion utilities (such as Font Gizmo from PowerTV®) exist to convert font files to .bft files. Contact Cisco Services for more information.
- The fonts you use must be placed in the application server's `/dvs/appFiles/ServicesPortal/data` directory.
- You must create a BFS link for each font file that you use for Services Portal. Refer to *Add the Font Files to the BFS Server* (on page 51) for more information.

### Defining the Title Text Font

- 1 From the SP Service Guide, click the **Text and Font** tab.
- 2 In the **Fonts** section, enter the font you want to use in the **Title** field.

The screenshot shows the 'SP Service Guide' application window with the 'Text and Font' tab selected. The window has a menu bar with 'File', 'Tools', and 'Help'. Below the menu bar are tabs for 'Display Frame', 'Assign Service', 'Display Information', 'Text and Font', and 'Graphics'. The 'Text and Font' tab contains several radio button options for text entry: 'Enter Title Text' (selected), 'Enter Block Service Barker Text', 'Enter Pin Entry Text', 'Enter Blocked Service B Key Text', 'Enter Pin Entry Text to clear Blocked Service', and 'Enter Pin Entry Text to clear All Blocked Services'. Below these options is a 'Language' dropdown menu set to 'English' and an 'Enter Text:' section with two text input fields labeled 'Services' and 'Portal'. At the bottom of the tab is a 'Fonts' section with three text input fields: 'Title' (containing 'font1.bft'), 'Button' (containing 'font2.bft'), and 'Parental Control' (containing 'font3.bft'). A status bar at the very bottom of the window indicates 'Launch mode is Fullscreen'.

- 3 On the **File** menu, click **Save**.



## Removing the Services Portal Title

Complete these steps if you do not want to show the Services Portal title or if the title is embedded in a custom background image. If you do not want to clear the title fields, you can hide the title instead. Refer to *Hiding the Services Portal Title* (on page 121).

- 1 From the SP Service Guide, click the **Text and Font** tab.
- 2 If it is not already selected, click **Enter Title Text**.
- 3 Clear the title field for all supported languages.
- 4 On the **File** menu, click **Save**.

## Position or Hide the Services Portal Title

By default, your Services Portal title appears in the upper left corner of the portal screen. The default coordinates of the title for the Full-Screen launch mode are:

- $x = 30$
- $y = 15$

The default coordinates of the title for the Toolbar launch mode are:

- $x = 40$
- $y = 10$

You can change these coordinates to reposition your title.

### Positioning the Services Portal Title

- 1 From the SP Service Guide, click the **Display Information** tab.

The screenshot shows the 'SP Service Guide' application window with the 'Display Information' tab selected. The 'Activation through' section has 'Guide Key' selected. The 'Video Window' settings are X: 151, Y: 0, Width: 169, Height: 126. Below this is a table of coordinates for various elements:

	X Cord	Y Cord
Title Text	30	15
A Key	38	214
B Key	188	215
Exit Key	97	199
Select Key	188	215
MSO Logo	210	145

Below the table, there are checkboxes for 'Display Blocked Service' (checked), 'Display Unauthorized Services' (checked), and 'Enable Where-Am-I Banner' (checked). The 'Where-Am-I' settings are X: 151, Y: 126, Width: 169, Height: 16. At the bottom, there are settings for 'Normal Time out at power On' (30 seconds) and 'Time out After Activation' (90 seconds). A 'Reset to Default' button is located at the bottom center. The status bar at the bottom right indicates 'Launch mode is Fullscreen'.

- 2 Enter the desired **x** and **y** coordinates for the title text.
- 3 On the **File** menu, click **Save** to save your changes.
- 4 View the results in the Services Portal. If you need to adjust the position, enter and save new **x** and **y** coordinates until the position is where you prefer.

**Important:** Clicking the **Reset to Default** button resets all of the fields in the Display Information tab. Therefore, if you click Reset to Default to start over with the default Title Text coordinates, ensure that you record any customized settings you may have entered for other fields first.

The default coordinates of the title for the Full-Screen launch mode are:

- $x = 30$
- $y = 15$

The default coordinates of the title for the Toolbar launch mode are:

- $x = 40$
- $y = 10$

**Note:** If you are using Services Portal with high-resolution graphics, enter these values as if they are low-resolution graphics. Services Portal will display the graphics correctly in the high-resolution versions.

## Hiding the Services Portal Title

Complete these steps if you do not want to show the Services Portal title or if your title is embedded in a custom background image.

- 1 From the SP Service Guide, click the **Display Information** tab.
- 2 For the title text coordinates, enter **x=0** and **y=0**.
- 3 On the **File** menu, click **Save**.

## Position or Hide Your Logo

When you configure SARA, you have the option of adding your logo to the IPG (Interactive Program Guide). If you added your logo in SARA, this logo automatically appears in the upper left corner of the Services Portal. The default coordinates for the logo for both launch modes are:

- $x = 210$
- $y = 145$

If you want to reposition your logo for the Services Portal, you can reposition your logo in the Display Information tab. If the Services Portal logo is embedded in a custom background image, position the logo at  $x=0$ ,  $y=0$  so that the logo does not display on top of your background image.

**Note:** While you can reposition your existing logo in the Services Portal, you cannot add your logo through the Services Portal.

### Positioning Your Logo

- 1 From the SP Service Guide, click the **Display Information** tab.
- 2 Enter the desired **x** and **y** coordinates for your **MSO Logo**. These coordinates are relative to a 320 x 240 screen resolution.

**Note:** If you are using Services Portal with high-resolution graphics, enter these values as if they are low-resolution graphics. Services Portal will display the graphics correctly in the high-resolution versions.

- 3 On the **File** menu, click **Save** to save your changes.
- 4 View the results in the Services Portal. If you need to adjust the position, enter and save new **x** and **y** coordinates until the position is where you prefer.

**Important:** You can click the **Reset to Default** button to return to the default settings. Clicking this button resets all of the fields in the Display Information tab. Therefore, before you click Reset to Default, record any customized settings that you want to keep.

### Hiding Your Logo

Complete these steps if you do not want to show your MSO logo or if your logo is embedded in a custom background image.

- 1 From the SP Service Guide, click the **Display Information** tab.
- 2 For the **MSO Logo** coordinates, enter **x=0** and **y=0**.
- 3 On the **File** menu, click **Save**.

## Customize the Background Image

You can further brand your Services Portal by creating a custom background. In addition, you can use the custom background to incorporate a special title and logo.

By default, the Services Portal uses the logo defined in SARA. However, if you position the MSO logo at  $x=0$ ,  $y=0$  in the Display Frame tab of the SP Service Guide, the logo does not display on the Services Portal. This option lets you embed the MSO logo into your custom background image. You can also position the Services Portal title at  $x=0$ ,  $y=0$  in the Display Frame tab of the SP Service Guide to hide the default title.

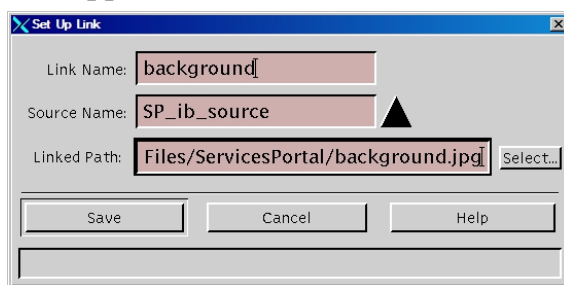
The following picture is an example of a custom background showing the skyline of the local city.



If you let subscribers choose different color schemes, you may want to create a background image for each color scheme.

## Customizing the Background Image

- 1 If you can preview the graphics, complete the following checks:
  - For full screen portals, make sure that each image is sized to **320x240**.
  - For toolbar portals, make sure that each image is sized to **119x240**.
  - Make sure that each image is saved as a JPEG file (.jpg extension).
- 2 On the DNCS, copy the JPEG file(s) to **/dvs/appFiles/ServicesPortal/data**. If you have a PC on the same network as your DNCS, you can transfer the file or files using FTP. Otherwise, copy the file from a floppy disk.
- 3 On the DNCS Administrative Console, click the **Application Interface Modules** tab.
- 4 Click **BFS Client**. The Broadcast File Server List window opens.
- 5 Double-click the **SP\_ib** server and select the **data** folder.
- 6 On the **File** menu, click **New Link**. The Set Up Link window opens.
- 7 For **Linked Path**, choose one of the following options:
  - Browse for the source path by clicking **Select**. On the Path Selection Dialog window, you can browse to the directory, or you can type the directory in the **Filter** box. Then, select your custom JPEG file from the file list, and click **OK**.
  - Type the following source path:  
**/dvs/appFiles/ServicesPortal/data/name of background image.jpg**



- 8 Copy **name of background image.jpg** from the Linked Path and paste it into the **Link Name** box.
  - 9 In the Broadcast File Server List window, click **View** and then **Refresh**. The newly created link icon for your custom background image should now display a “linked” chain.
- Note:** If you do not see the link, double-click the server to display the newly created link.
- 10 If you are creating different backgrounds for different color schemes, repeat steps 6 through 9 for each background image.
  - 11 Close the Broadcast File Server List window from the **File** menu.
  - 12 Complete the following steps to open the SP Service Guide.
    - a From the DNCS Administrative Console, click the **Server Applications** tab.
    - b Click **Services Portal**. The SP Service Guide opens with the Display Frame tab selected.

**13** Click the **Graphics** tab.



**14** Type the name of the custom background image that should be used for each color scheme. If the same background image applies to all color schemes, type that same filename for each color scheme.

**15** On the **File** menu, click **Save**.





# 12

## Customize Navigation Aids

### Introduction

The Services Portal provides several navigation aids, such as the Select key and Up and Down keys. In addition, if you launch the portal in Full-Screen mode, your portal has a video window and can display the Where Am I banner. These elements help your subscribers keep track of where they are.

This chapter explains how to position and resize navigation aids.

### In This Chapter

- Positioning and Sizing the Video Window for Full Screen Launch Mode..... 128
- Positioning and Sizing the Services Portal Window for Toolbar Launch Mode..... 129
- Show, Position, and Size the Where Am I Banner ..... 130
- Position Navigation Keys ..... 131

## Positioning and Sizing the Video Window for Full Screen Launch Mode

- 1 From the SP Service Guide, click the **Display Information** tab.

The screenshot shows the 'SP Service Guide' application window with the 'Display Information' tab selected. The window contains several sections for configuring the display:

- Activation through:** Radio buttons for 'A Key' and 'Guide Key' (selected).
- Video Window:** Fields for X (151), Y (0), Width (169), and Height (126).
- Key Coordinates Table:**

	X Cord	Y Cord
Title Text	30	15
A Key	38	214
B Key	188	215
Exit Key	97	199
Select Key	188	215
MSO Logo	210	145
- Navigation:** Radio buttons for 'Up/Down' and 'Page +/-' (selected), with a value of 94.
- Display Options:** Checkboxes for 'Display Blocked Service' (checked), 'Display Unauthorized Services' (checked), and 'Enable Where-Am-I Banner' (checked).
- Where-Am-I:** Fields for X (151), Y (126), Width (169), and Height (16).
- Timeouts:** 'Normal Time out at power On' (30 seconds) and 'Time out After Activation' (90 seconds).
- Buttons:** 'Reset to Default' and 'Launch mode is Fullscreen' status indicator.

- 2 If you want to reposition the video window, enter the desired x and y coordinates for **Video Window**.
- 3 If you want to resize the video window, enter the desired **Width** and **Height** for **Video Window**.
- 4 On the **File** menu, click **Save**.
- 5 View the result in your Services Portal.
- 6 If you need to adjust the position or size of the video window, return to the Display Information tab and perform steps 2 through 5 until the position is where you prefer.

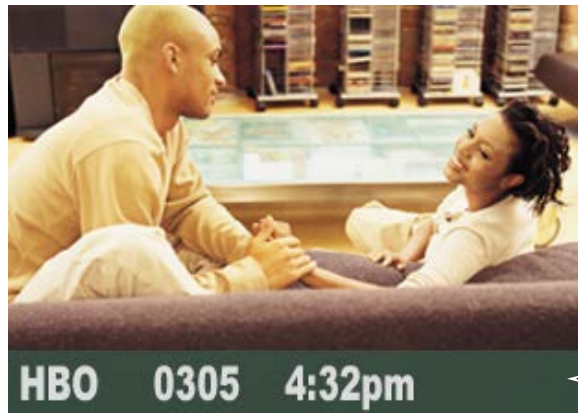
## Positioning and Sizing the Services Portal Window for Toolbar Launch Mode

- 1 From SP Service Guide, click the **Display Information** tab.
- 2 If you want to reposition the Services Portal window, enter the desired **x** and **y** coordinates next to the **Screen Dimensions** label.
- 3 If you want to resize the Services Portal window, enter the desired **Width** and **Height** next to the **Screen Dimensions** label.
- 4 On the **File** menu, click **Save**.
- 5 View the result in your Services Portal.
- 6 If you need to adjust the position or size of the Services Portal window, return to the Display Information tab and perform steps 2 through 5 until the position is where you prefer.

## Show, Position, and Size the Where Am I Banner

If you are launching the Services Portal in Full Screen mode, you have the option of displaying a Where Am I banner.

This banner helps subscribers keep track of the current channel as they browse through the portal. The Where Am I banner displays the current channel, date, and time. While the position of the Where Am I banner is not restricted, we suggest that you keep the banner close to the video window.



← Where Am I? Banner

### Showing, Positioning, and Sizing the Where Am I Banner

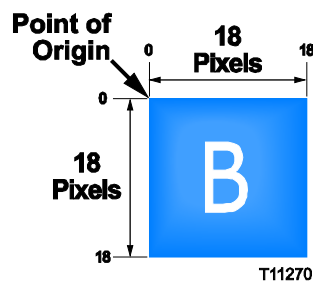
- 1 From the SP Service Guide, click the **Display Information** tab.
- 2 Select the **Enable Where Am I** check box if it is not already selected.
- 3 On the **File** menu, click **Save**.
- 4 View the result in your Services Portal. Do you like the default size and position?
  - If **yes**, you have completed this procedure.
- 5 If **no**, return to the **Display Information** tab and complete steps 5 through 8. Repeat these steps until the size and position are where you prefer.
- 6 If you want to reposition the banner, enter the desired **x** and **y** coordinates next to the **Where Am I Banner** label. The default coordinates are as follows:  
 $x = 151, y = 126$   
**Note:** These coordinates are relative to a 320 x 240 screen resolution.
- 7 If you want to resize the banner, enter the desired width and height next to the **Where Am I Banner** label. The default width and height are as follows:  
 Width = 169, Height = 16
- 8 On the **File** menu, click **Save**.
- 9 View the result in your Services Portal.

## Position Navigation Keys

The Services Portal offers several navigational aids. Typically, these aids are positioned in bottom corner of the screen.

If you move navigational aids, try to maintain a level of positional constancy. Keeping similar elements in the same area of every screen helps subscribers find the information they need more quickly.

The point of origin (or the 0, 0 point) in each navigational aid is the top, left-most pixel in the graphic. For example, you are actually defining the position for the top, left-most pixel in the B key graphic when you position the B key.



**Important:** Observe the Title Safe and Action Safe areas when positioning screen elements. For a diagram depicting the safe areas, see *Prevent Cropping of Your Services Portal Title* (on page 115).

If you are launching the Services Portal in Full-Screen mode, then a video window appears in the Services Portal. By default, this window appears in the upper right corner of the screen. You can customize the size and position of the video window.

**Note:** If you are using Services Portal with high-resolution graphics, enter these values as if they are low-resolution graphics. Services Portal will display the graphics correctly in the high-resolution versions.

The default coordinates and size of the Video Window are:

- $x = 151$
- $y = 0$
- Width = 169
- Height = 126

For Full-Screen mode, the Services Portal is automatically sized to 320x240 with default coordinates of  $x = 0$ ,  $y = 0$ . You cannot change the size or coordinates of the Full-Screen mode Services Portal window.

If you are launching the Services Portal in Toolbar mode, you can change the position and size of the Services Portal window. The default coordinates and size of the Toolbar Services Portal window are:

- $x = 0$
- $y = 0$
- Width = 119
- Height = 240

Complete one of the following procedures in this section, depending on your launch mode.

## Sizes of Navigational Aids

The size of each navigational aid is provided to help you place these elements within the action safe area of the screen. In addition, this information helps you avoid overlapping elements that have slightly different dimensions.

Navigational Aid	Purpose	Size (width x height in pixels)	
		Low Resolution	High Resolution
A key	Accepts Parental Control settings	18 x 18	36 x 36
B key	Opens the Parental Control screens once a valid PIN is entered	18 x 18	36 x 36
Exit key (Toolbar Mode Only)	Exits the Services Portal. Showing this key on the screen is optional	18 x 18	36 x 36
Select key	Select items on the screen. For example, after a subscriber presses the B key for Parental Control, subscribers can lock and unlock services using the Select key. Showing this key on the screen is optional	20 x 20	40 x 40
Up and Down arrow keys	Scroll up or down to another service or page of services. Generally, these arrows should be placed under the list of services	18 x 14	36 x 28

## Positioning Navigation Keys

- 1 From the SP Service Guide, click the **Display Information** tab.

	X Cord	Y Cord
Title Text	30	15
A Key	38	214
B Key	188	215
Exit Key	97	199
Select Key	188	215
MSO Logo	210	145

- 2 Enter the desired **x** and **y** coordinates for each navigation key.  
**Note:** If you want to completely hide a navigation key, you can do so by placing the key in the bottom right corner at **x = 319, y = 239**.
- 3 On the **File** menu, click **Save**.
- 4 View the results in the Services Portal. If you need to adjust positions, enter and save new **x** and **y** coordinates until the position is where you prefer.

**Important:** You can click the **Reset to Default** button to return to the default settings. Clicking this button resets all of the fields in the Display Information tab. Therefore, before you click Reset to Default, record any customized settings that you want to keep. You can record these values using the appropriate table on the next page.

### Navigation Key Positions in Toolbar Mode

Use the following form to record custom values for the positions of navigation keys for the Toolbar mode. You can also refer to this form for default values.

**Note:** If you are using Services Portal with high-resolution graphics, enter these values as if they are low-resolution graphics. Services Portal will display the graphics correctly in the high-resolution versions.

Key	Default Position	Custom Position
A Key or Guide Key	x = 39	x =
	y = 215	y =
B Key	x = 34	x =
	y = 197	y =
Exit Key	x = 95	x =
	y = 197	y =
Select Key	x = 38	x =
	y = 197	y =
Up/Down Key	x = 90	x =
	y = 219	y =

### Navigation Key Positions in Full Screen Mode

Use the following form to record custom values for the positions of navigation keys for the Full Screen mode. You can also refer to this form for default values.

**Note:** If you are using Services Portal with high-resolution graphics, enter these values as if they are low-resolution graphics. Services Portal will display the graphics correctly in the high-resolution versions.

Key	Default Position	Custom Position
A Key or Guide Key	x = 38	x =
	y = 214	y =
B Key	x = 188	x =
	y = 215	y =
Exit Key	x = 97	x =
	y = 199	y =
Select Key	x = 188	x =
	y = 215	y =
Up/Down Key	x = 94	x =
	y = 219	y =



# 13

---

## Transfer Your Services Portal Configuration

### Introduction

This chapter describes how to transfer your Services Portal configuration to a different headend. This chapter assumes you have already installed the Services Portal on the DNCS for this headend.

### In This Chapter

- Copy Existing Configuration Files to a Floppy Disk ..... 136
- Place Copied Configuration Files on a Different Headend ..... 138

## Copy Existing Configuration Files to a Floppy Disk

The first step in transferring an existing Services Portal configuration to a different headend is to copy the existing configuration files to a floppy disk (disk).

**Important:** If you have customized any of the graphic files, it is possible the Services Portal files will not fit on a disk. In this case, you must transfer the files by FTP. If you FTP the files, you can still refer to the following procedure to see which files you need to FTP.

### Copying Existing Configuration Files to a Floppy Disk

**Note:** If your Application Server does not have a floppy disk, write the configuration file to either a CD or FTP the file to your DNCS server.

- 1 Insert a disk into the floppy drive on the AppServer with your configured Services Portal.
- 2 Open an xterm window on the AppServer.
- 3 Type the following and press **Enter**:

```
volcheck -v
```

A message stating the media was found appears. This message confirms that the system can read from and copy to the disk.

- 4 Type the following and press **Enter**:

```
cd /floppy/floppy0
```

The working directory is now /floppy0.

- 5 Type the following and press **Enter**:

```
tar cvf /floppy/floppy0/spData.tar /dvs/appFiles/ServicesPortal/data/* \
```

**Note:** In the above command, a space precedes **cvf**, **/floppy**, **/dvs**, and **\**.

The cursor changes to **>**.

- 6 Type the following and press **Enter**:

```
/dvs/ServicesPortal/ISPSysConfig.info \
```

**Note:** In the above command, a space precedes **\**.

- 7 Type the following and press **Enter**:

**/dvs/ServicesPortal/PortalServiceTable.tbl**

The command combines all of the Services Portal data files, along with the ISPSysConfig.info file and the PortalServiceTable.tbl file into a single tape archive (tar) file. An output similar to the following example shows which files have been copied to the disk.

```
a /dvs/appFiles/ServicesPortal/data/config.dat 6K
a /dvs/appFiles/ServicesPortal/data/fullaqua.jpg 12K
a /dvs/appFiles/ServicesPortal/data/fullball.jpg 7K
a /dvs/appFiles/ServicesPortal/data/fullbord.jpg 6K
a /dvs/appFiles/ServicesPortal/data/fullcamp.jpg 25K
a /dvs/appFiles/ServicesPortal/data/fullgolf.jpg 7K
a /dvs/appFiles/ServicesPortal/data/fullroll.jpg 7K
a /dvs/appFiles/ServicesPortal/data/fulltown.jpg 7K
a /dvs/appFiles/ServicesPortal/data/icons.res 56K
a /dvs/appFiles/ServicesPortal/data/toolaqua.jpg 5K
a /dvs/appFiles/ServicesPortal/data/toolball.jpg 5K
a /dvs/appFiles/ServicesPortal/data/toolbord.jpg 4K
a /dvs/appFiles/ServicesPortal/data/toolcamp.jpg 4K
a /dvs/appFiles/ServicesPortal/data/toolgolf.jpg 5K
a /dvs/appFiles/ServicesPortal/data/toolroll.jpg 4K
a /dvs/appFiles/ServicesPortal/data/tooltown.jpg 5K
a /dvs/ServicesPortal/ISPSysConfig.info 7K
a /dvs/ServicesPortal/PortalServiceTable.tbl 9K
```

- 8 Type the following and press **Enter**:

**floppy0/; eject**

A message stating the disk can be manually ejected appears.

- 9 Click **OK** in the message box, and eject the disk.
- 10 Go to *Place Copied Configuration Files on a Different Headend* (on page 138).

## Place Copied Configuration Files on a Different Headend

After you copy your Services Portal configuration files, place the configuration files on the AppServer for a different headend.

### Placing Copied Files on a Different Headend

- 1 Insert a disk into the floppy drive on the AppServer for the headend to which you are copying the configuration.
- 2 Open an xterm window on the AppServer.
- 3 Type the following and press **Enter**:

**volcheck -v**

A message stating the media was found appears. This message confirms that the system can read from and copy to the floppy disk.

- 4 Type the following and press **Enter**:

**tar xvf/floppy/floppy0/spData.tar**

**Important:** In the command above, a space precedes xvf.

The files from the disk are copied to the AppServer. An output similar to the following shows that the files were copied.

```
x /dvs/appFiles/ServicesPortal/data/config.dat, 6058 bytes, 12 tape blocks
x /dvs/appFiles/ServicesPortal/data/fullaqua.jpg, 11675 bytes, 23 tape blocks
x /dvs/appFiles/ServicesPortal/data/fullball.jpg, 6232 bytes, 13 tape blocks
x /dvs/appFiles/ServicesPortal/data/fullbord.jpg, 6074 bytes, 12 tape blocks
x /dvs/appFiles/ServicesPortal/data/fullcamp.jpg, 24954 bytes, 49 tape blocks
x /dvs/appFiles/ServicesPortal/data/fullgolf.jpg, 6318 bytes, 13 tape blocks
x /dvs/appFiles/ServicesPortal/data/fullroll.jpg, 6272 bytes, 13 tape blocks
x /dvs/appFiles/ServicesPortal/data/fulltown.jpg, 6350 bytes, 13 tape blocks
x /dvs/appFiles/ServicesPortal/data/icons.res, 56954 bytes, 112 tape blocks
x /dvs/appFiles/ServicesPortal/data/toolaqua.jpg, 4182 bytes, 9 tape blocks
x /dvs/appFiles/ServicesPortal/data/toolball.jpg, 4280 bytes, 9 tape blocks
x /dvs/appFiles/ServicesPortal/data/toolbord.jpg, 4047 bytes, 8 tape blocks
x /dvs/appFiles/ServicesPortal/data/toolcamp.jpg, 4091 bytes, 8 tape blocks
x /dvs/appFiles/ServicesPortal/data/toolgolf.jpg, 4269 bytes, 9 tape blocks
x /dvs/appFiles/ServicesPortal/data/toolroll.jpg, 4085 bytes, 8 tape blocks
x /dvs/appFiles/ServicesPortal/data/tooltown.jpg, 4306 bytes, 9 tape blocks
x /dvs/ServicesPortal/ISPSysConfig.info, 6227 bytes, 13 tape blocks
x /dvs/ServicesPortal/PortalServiceTable.tbl, 9161 bytes, 18 tape blocks
```

- 5 Type the following and press **Enter**:

**floppy0;/eject**

A message stating that the disk can be manually ejected appears.

- 6 Click **OK** and eject the floppy disk.

# 14

## Customer Information

### If You Have Questions

If you have technical questions, call Cisco Services for assistance. Follow the menu options to speak with a service engineer.

Access your company's extranet site to view or order additional technical publications. For accessing instructions, contact the representative who handles your account. Check your extranet site often as the information is updated frequently.



# A

## Rolling Back to a Previous Version

### Introduction

This appendix contains procedures to roll back the installation to a previous version of Services Portal.

### In This Appendix

■ Before You Begin.....	142
■ Rolling Back the Services Portal .....	143

## Before You Begin

Before you begin the roll back process, you need the following:

- The upgrade process reads the configuration of the current installation and uses those settings to configure the upgrade.
- However, you should gather some configuration information of your DBDS. See *Recording Configuration Information* (on page 32) for more information on gathering this information.
- You will need the original installation CDs of the Client and Server for the version you are rolling back to. If you do not have the installation CD, contact Cisco Services.
- You will need the name of the original configuration file (config.dat) that you renamed before you upgraded to the current version. Refer to *Restore the Configuration* (on page 143) and *Preserving Your Previous Configuration* (on page 57) for more information.

**Important:** If your application server is running Solaris 10 or later, you cannot use the swmtool installation tool to roll back your Services Portal. Contact Cisco Services if you need to roll back the version on a Solaris 10 (or later) application server.



# Rolling Back the Services Portal

**Important:** The filenames and UNIX syntax in these procedures are case-sensitive. Type filenames and paths exactly as they appear in the procedures.

## Installing the Services Portal Server

To install the Services Portal server for a roll back installation:

- 1 Follow the procedures detailed in *Upgrading the Services Portal Server* (on page 61).
- 2 Go to **Restore the Configuration**, next in this document.

## Restore the Configuration

Follow these instructions to restore your configuration.

### Restoring the Configuration

- 1 Open an xterm window on the DNCS.
- 2 Type `cd /dvs/appFiles/ServicesPortal/data` and press **Enter**. The `/dvs/appFiles/ServicesPortal/data` directory becomes the working directory.
- 3 Type `mv config.vXX config.dat` (where `vXX` is the version number you are rolling back to) and press **Enter**. This renames the configuration file so that the roll back process preserves your configuration.

**Example:** If you are rolling back to Services Portal 2.0, the configuration file is listed as `config.v20`. Type the following command and press **Enter**:

`mv config.v20 config.dat`

- 4 Continue with the roll back procedures.

## Installing the Services Portal Client

To install the Services Portal server for a roll back installation:

- Follow the procedures in *Upgrading the Services Portal Client* (on page 64) using the previous software version.



# B

## Remove the Services Portal From Your System

### Introduction

This appendix provides procedures for removing the Services Portal Server and Client on the application server and removing Services Portal from the DNCS.

### In This Appendix

■ Overview .....	146
■ Deleting the Services Portal SAM Service .....	147
■ Deleting the Inband and Out-of-Band Client BFS Servers .....	148
■ De-authorizing the Inband and Out-of-Band Servers .....	149
■ Deleting the Inband and Out-of-Band BFS Carousels .....	150
■ Removing the Services Portal from the Source List .....	151
■ Deleting the Services Portal Package .....	152
■ Deleting Custom Background Images and the Configuration File .....	153
■ Remove the Inband Carousel From the PAT Table .....	154
■ Uninstall the Services Portal .....	163
■ Add OSM Back to the PAT Table .....	164

## Overview

Removing the Services Portal from your system is a process with the following steps:

- 1 Deleting the Services Portal SAM service.
- 2 Deleting the inband and out-of-band client BFS servers.
- 3 De-authorizing the inband and out-of-band servers.
- 4 Deleting the inband and out-of-band BFS carousels.
- 5 Removing the Services Portal from the source list.
- 6 Deleting the Services Portal package.
- 7 Deleting custom background images and configuration files.
- 8 Removing the inband carousel from the BIG PAT table.
- 9 Uninstalling the Services Portal.
- 10 Adding OSM back to the BIG PAT table.

Each of these steps is discussed in detail in this appendix.

## Deleting the Services Portal SAM Service

- 1 From the DNCS Administrative Console, click the **Application Interface Modules** tab.
- 2 Click **SAM Service**. The SAM Service List window opens.
- 3 Click the **Short Description** column header to sort the list of services by short description. All services beginning with an underscore (such as \_KEYA) display at the top of the list. The Services Portal SAM service has one of the following short descriptions: \_KEYA, \_GUID, or \_MENU. Look for the service with **ispguide.ptv** in the SAM URL.
- 4 Highlight the Services Portal SAM service.
- 5 On the **File** menu, click **Delete**. A confirmation prompt asks if you are sure you want to delete this item.
- 6 Click **Yes**.
- 7 Close the **SAM Service List** window from the **File** menu.
- 8 Go to *Deleting the Inband and Out-of-Band Client BFS Servers* (on page 148).

## Deleting the Inband and Out-of-Band Client BFS Servers

- 1 On the DNCS Administrative Console, click the **Application Interface Modules** tab.
- 2 Click **BFS Client**. The Broadcast File Server List window opens.
- 3 Select the inband server for Services Portal. If you used the suggested name from the installation instructions, this server is named **sp\_ib**.
- 4 On the **File** menu, click **Delete**. A confirmation prompts appears.
- 5 Click **Yes** to confirm the deletion.
- 6 Select the out-of-band server for Services Portal. If you used the suggested name from the installation instructions, this server is named **sp\_oob**.
- 7 On the **File** menu, click **Delete**. A confirmation prompt asks if you are sure you want to delete this item.
- 8 Click **Yes** to confirm the deletion.
- 9 Close the **BFS Client** window from the **File** menu.
- 10 Go to *De-authorizing the Inband and Out-of-Band Servers* (on page 149).

## De-authorizing the Inband and Out-of-Band Servers

- 1 From the DNCS Administrative Console, click the **Application Interface Modules** tab.
- 2 Click **BFS Admin**. The BFS Administration window opens.
- 3 Click the **Servers** tab.
- 4 Select the inband server for Services Portal. If you used the suggested name from the installation instructions, this server is named **sp\_ib**.
- 5 On the **File** menu, click **Delete**. A confirmation prompt asks if you are sure you want to delete this item.
- 6 Click **Yes** to confirm the deletion.
- 7 Select the out-of-band server for Services Portal. If you used the suggested name from the installation instructions, this server is named **sp\_oob**.
- 8 On the **File** menu, click **Delete**. A confirmation prompt asks if you are sure you want to delete this item.
- 9 Click **Yes** to confirm the deletion.
- 10 Leave the BFS Administration window open and go to *Deleting the Inband and Out-of-Band BFS Carousels* (on page 150).

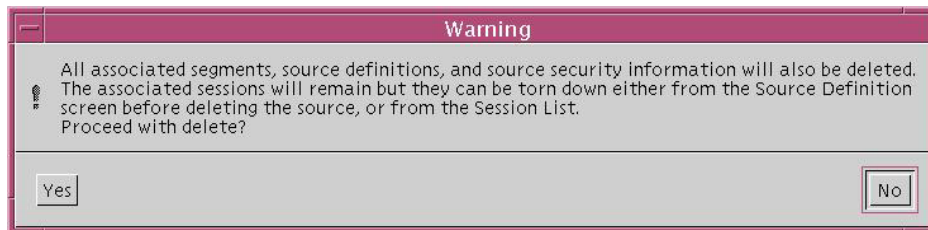
## Deleting the Inband and Out-of-Band BFS Carousels

- 1 From the BFS Administration window, click the **Sources** tab.
- 2 Select the inband carousel for Services Portal. If you used the suggested name from the installation instructions, this server is named **SP\_ib\_source**.
- 3 Record the source ID for the inband source: \_\_\_\_\_  
**Note:** You will need to know the inband source when you remove Services Portal from the BIG PAT table.
- 4 On the **File** menu, click **Delete**. A confirmation prompt asks if you are sure you want to delete this item.
- 5 Click **Yes** to confirm the deletion.
- 6 Select the out-of-band carousel for Services Portal. If you used the suggested name from the installation instructions, this server is named **SP\_oob\_source**.
- 7 Record the source ID for the out-of-band source: \_\_\_\_\_  
**Note:** You will need to know the out-of-band source when you remove Services Portal from the BIG PAT table.
- 8 On the **File** menu, click **Delete**. A confirmation prompt asks if you are sure you want to delete this item.
- 9 Click **Yes** to confirm the deletion.
- 10 Close the **BFS Admin** window from the **File** menu.
- 11 Go to *Removing the Services Portal from the Source List* (on page 151).



## Removing the Services Portal from the Source List

- 1 From the DNCS Administrative Console, click the **DNCS** tab, and then click the **System Provisioning** tab.
- 2 Click **Source** in the Service Provisioning group. The Source List window opens.
- 3 Select the inband source for Services Portal. If you used the suggested name from the installation instructions, this server is named **SP\_ib\_source**.
- 4 On the **File** menu, click **Delete**. A confirmation prompt asks if you are sure you want to delete this item.
- 5 Click **Yes** to confirm the deletion. The following warning appears.

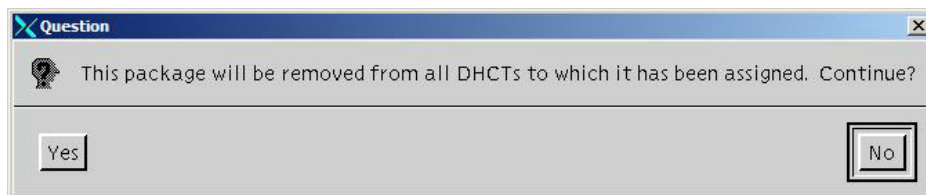


- 6 Click **Yes**.
- 7 Close the **Source List** window from the **File** menu.
- 8 Go to *Deleting the Services Portal Package* (on page 152).

## Deleting the Services Portal Package

**Important:** If you used an existing package when you installed the Services Portal, do not delete this package if it is used for other active services. If you created a new package dedicated to Services Portal, you can complete these steps to delete the entire package.

- 1 From the DNCS Administrative Console, click the **DNCS** tab.
- 2 Click the **System Provisioning** tab.
- 3 Click **Package** in the Service Provisioning area. The Package List window opens.
- 4 In the **Package List** window, select the Services Portal package.
- 5 From the **File** menu, click **Delete**. The following message appears.



- 6 Click **Yes**.
- 7 Go to *Deleting Custom Background Images and the Configuration File* (on page 153).

## Deleting Custom Background Images and the Configuration File

**Note:** Background images packaged with the Services Portal are automatically deleted during the uninstall process.

- 1 Delete the background files (.jpg files) and the config.dat file from the following directory on the DNCS:  
**/dvs/appFiles/ServicesPortal/data**
- 2 After deleting the config.dat file and custom background images, go to *Remove the Inband Carousel From the PAT Table* (on page 154).

## Remove the Inband Carousel From the PAT Table

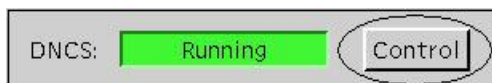
### Process Overview

To remove the inband carousel from the BIG PAT table, you must complete the following procedures.

- 1 Stop the OSM process on the DNCS.
- 2 Delete the Services Portal and OSM session from the PAT table.
- 3 Tear down the BFS sessions.

### Stopping the OSM Process

- 1 If the DNCS Control window is not already open, click the **Control** button in the DNCS area of the DNCS Administrative Console Status window.



**Result:** The DNCS Control window opens.

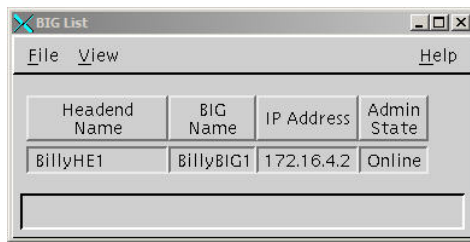
- 2 From the list of processes, click **osm**.
- 3 Click **Process > Stop Process**. A confirmation message appears.
- 4 Click **Yes** to stop the OSM process. This causes the indicator next to OSM to turn red.
- 5 Are you using a BIG or ASI?
  - If you are using a BIG, go to **Deleting Services Portal and OSM From the BIG PAT Table**.
  - If you are using ASI, go to *Deleting Services Portal and OSM From the ASI PAT Table* (on page 159).

### Deleting Services Portal and OSM From the BIG PAT Table

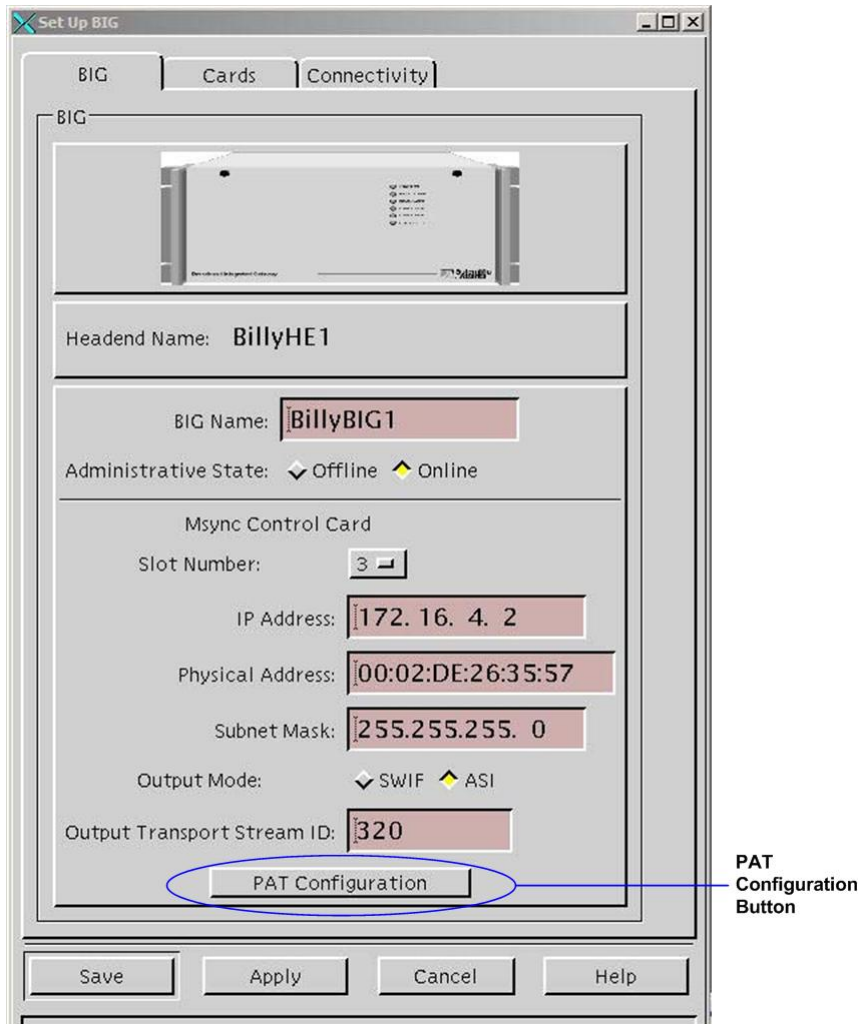
**Important:**

- Before you begin this procedure, make sure you know the source ID for the inband Services Portal source. You recorded this ID in step 3 of *Deleting the Inband and Out-of-Band BFS Carousels* (on page 150).
  - If you use ASI in your system, follow the procedure in *Deleting Services Portal and OSM From the ASI PAT Table* (on page 159).
- 1 On the DNCS Administrative Console, click the **DNCS** tab if it is not already active.
  - 2 Click the **Element Provisioning** tab.

- 3 Click **BIG**. The BIG List window opens.



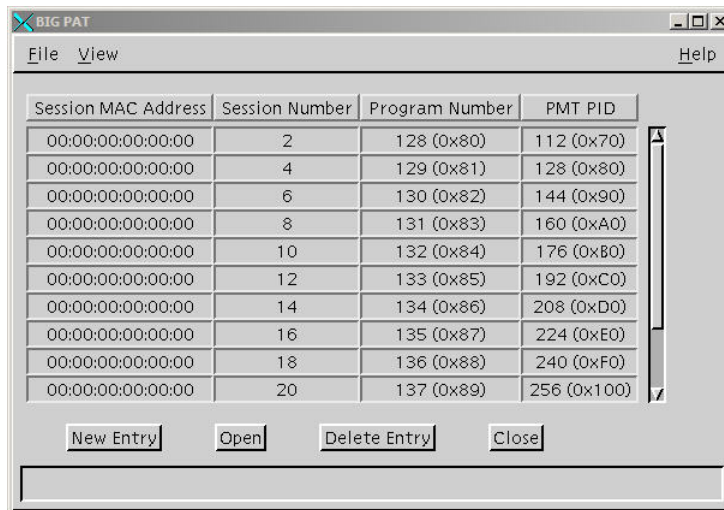
- 4 Double-click the **BFS BIG**. The Set Up BIG window opens.



## Appendix B

### Remove the Services Portal From Your System

- 5 Click **PAT Configuration**. The BIG PAT window opens.



- 6 Verify that the following requirements are met before you continue this procedure:

- The session numbers and program numbers are in sequential order.
- The OSM session is the last entry in the table.

#### Notes:

- During normal operation, the OSM session should always be the last session in the BIG PAT table. Most sites use 199 as the session number for the OSM session.
- The MAC Address for the OSM session should be 77:77:77:77:77:77.

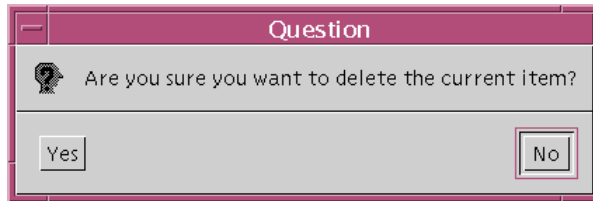
#### Does your BIG PAT table meet these requirements?

- If **yes**, go to step 7.
- If **no**, stop this procedure and call Cisco Services.

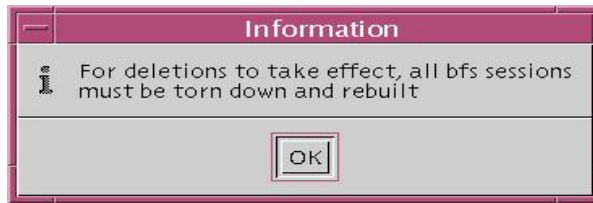
- 7 Record the session number of the OSM session. You will need this when you add the OSM session back to the BIG PAT table later in this appendix.

**OSM Session Number:** \_\_\_\_\_

- 8 Select the OSM entry and click **Delete Entry**. The following message appears.



- 9 Click **Yes**. The following message appears.



- 10 Click **OK**.
- 11 Scroll to the Services Portal session. The **Session Number** is the same as the source ID for the Services Portal inband source.
- 12 Record the **MAC Address** and **Session Numbers** for all sessions listed underneath the Services Portal session. Use a separate piece of paper if necessary.

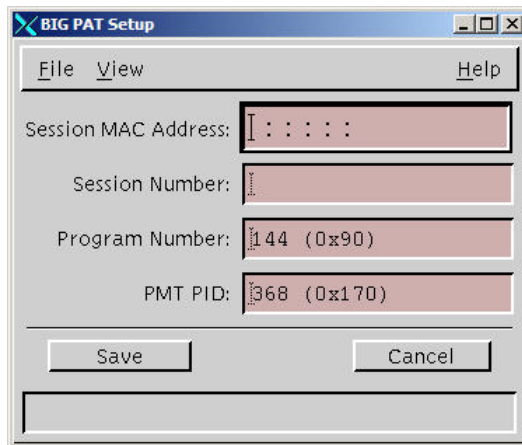
**Important:** List the sessions in the order they appear in the list. Later in this procedure, you will add these sessions back to the BIG PAT table in the same order.

- a Session Number: \_\_\_\_\_  
MAC Address: \_\_\_\_\_
- b Session Number: \_\_\_\_\_  
MAC Address: \_\_\_\_\_
- c Session Number: \_\_\_\_\_  
MAC Address: \_\_\_\_\_
- d Session Number: \_\_\_\_\_  
MAC Address: \_\_\_\_\_

- 13 Select the Services Portal session and click **Delete Entry**. A message appears, asking if you want to delete the item.
- 14 Click **Yes**.

Appendix B  
Remove the Services Portal From Your System

- 15 Click **New Entry** on the BIG PAT window. The BIG PAT Setup window opens.



The screenshot shows the 'BIG PAT Setup' dialog box. It has a standard Windows-style title bar and menu bar. The main area contains four labeled text input fields, each with a red background. The first field is 'Session MAC Address' with the text 'I : : : : '. The second is 'Session Number' with the text 'I'. The third is 'Program Number' with the text '144 (0x90)'. The fourth is 'PMT PID' with the text '368 (0x170)'. At the bottom of the dialog are two buttons: 'Save' and 'Cancel'.

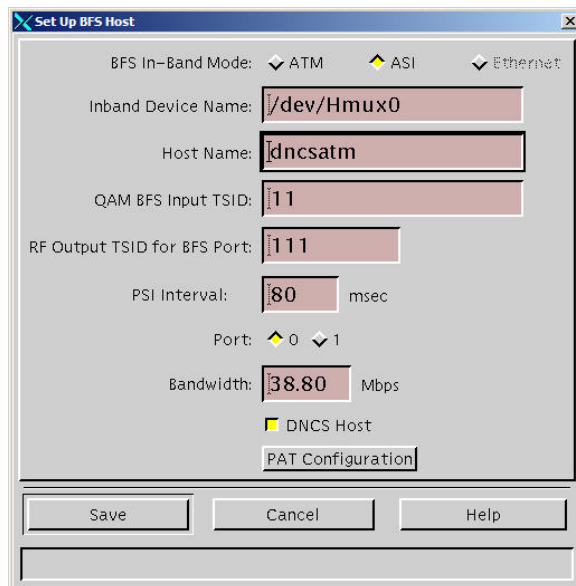
- 16 Enter the **Session MAC Address** and **Session Number** for the first session you recorded in step 12.
- 17 Click **Save**.
- 18 Click **OK**.
- 19 Repeat steps 16 through 18 for each entry you recorded in step 12. Make sure you add these entries in the order you recorded them.
- 20 In the BIG PAT window, click **Close**.
- 21 In the Set Up BIG window, click **Apply** and then click **Cancel**.
- 22 Go to *Tearing Down the BFS Sessions* (on page 162).



## Deleting Services Portal and OSM From the ASI PAT Table

### Important:

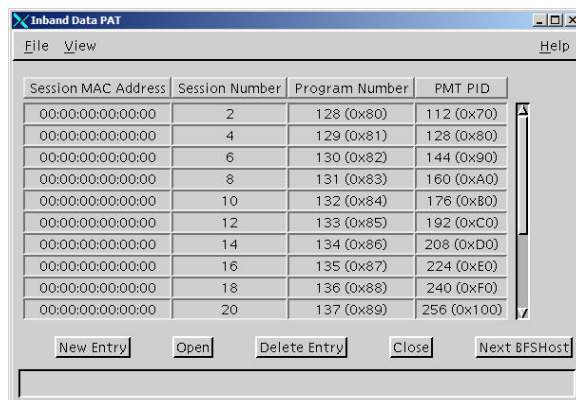
- Before you begin this procedure, make sure you know the source ID for the inband Services Portal source. You recorded this ID in step 3 of *Deleting the Inband and Out-of-Band BFS Carousels* (on page 150).
  - If you use a BFS BIG in your system, follow the procedure in *Deleting Services Portal and OSM From the BIG PAT Table* (on page 154).
- 1 On the DNCS Administrative Console, click the **Application Interface Modules** tab.
  - 2 Click the **BFS Admin** tab. The Site BFS Administration window opens.
  - 3 Click the **Hosts** tab.
  - 4 Double-click **dncsatm**. The Set Up BFS Host window opens.



The 'Set Up BFS Host' window displays the following configuration:

- BFS In-Band Mode: ☒ ATM ☒ ASI ☐ Ethernet
- Inband Device Name:
- Host Name:
- QAM BFS Input TSID:
- RF Output TSID for BFS Port:
- PSI Interval:  msec
- Port: ☒ 0 ☐ 1
- Bandwidth:  Mbps
- ☐ DNCS Host
- 
- 

- 5 Click **PAT Configuration**. The Inband Data PAT window opens.



The 'Inband Data PAT' window displays a table with the following data:

Session MAC Address	Session Number	Program Number	PMT PID
00:00:00:00:00:00	2	128 (0x80)	112 (0x70)
00:00:00:00:00:00	4	129 (0x81)	128 (0x80)
00:00:00:00:00:00	6	130 (0x82)	144 (0x90)
00:00:00:00:00:00	8	131 (0x83)	160 (0xA0)
00:00:00:00:00:00	10	132 (0x84)	176 (0xB0)
00:00:00:00:00:00	12	133 (0x85)	192 (0xC0)
00:00:00:00:00:00	14	134 (0x86)	208 (0xD0)
00:00:00:00:00:00	16	135 (0x87)	224 (0xE0)
00:00:00:00:00:00	18	136 (0x88)	240 (0xF0)
00:00:00:00:00:00	20	137 (0x89)	256 (0x100)

Buttons at the bottom:

## Appendix B

### Remove the Services Portal From Your System

- 6 Verify that the following requirements are met before you continue this procedure:

- The session numbers and program numbers are in sequential order.
- The OSM session is the last entry in the table.

#### Notes:

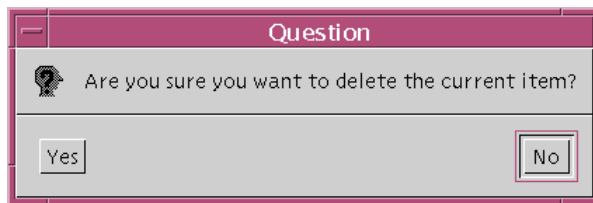
- During normal operation, the OSM session should always be the last session in the PAT table. Most sites use 199 as the session number for the OSM session.
- The MAC Address for the OSM session should be 00:00:00:00:00:00.

#### Does your PAT table meet these requirements?

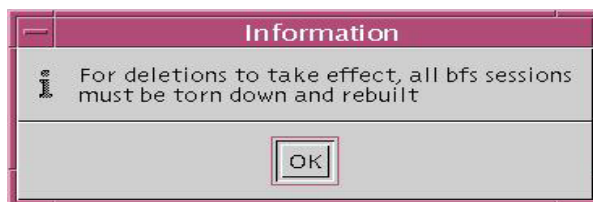
- If **yes**, go to step 7.
  - If **no**, stop this procedure and call Cisco Services.
- 7 Record the session number of the OSM session. You will need this when you add the OSM session back to the PAT table later in this appendix.

**OSM Session Number:** \_\_\_\_\_

- 8 Select the OSM entry and click **Delete Entry**. The following message appears.



- 9 Click **Yes**. The following message appears.



- 10 Click **OK**.
- 11 Scroll to the Services Portal session. The **Session Number** is the same as the source ID for the Services Portal inband source.

- 12 Record the **Session MAC Address** and **Session Numbers** for all sessions listed underneath the Services Portal session. Use a separate piece of paper if necessary.

**Important:** List the sessions in the order they appear in the list. Later in this procedure, you will add these sessions back to the BIG PAT table in the same order.

- a Session MAC Address: \_\_\_\_\_  
Session Number: \_\_\_\_\_
- b Session MAC Address: \_\_\_\_\_  
Session Number: \_\_\_\_\_
- c Session MAC Address: \_\_\_\_\_  
Session Number: \_\_\_\_\_
- d Session MAC Address: \_\_\_\_\_  
Session Number: \_\_\_\_\_

- 13 Select the Services Portal session and click **Delete Entry**. A message appears, asking if you want to delete the item.

- 14 Click **Yes**.

- 15 Click **New Entry**. The BIG PAT Setup window opens.

The screenshot shows the 'BIG PAT Setup' dialog box. It has a standard Windows-style title bar and menu bar. The 'Session MAC Address' field contains 'I : : : :'. The 'Session Number' field contains 'I'. The 'Program Number' field contains '144 (0x90)'. The 'PMT PID' field contains '368 (0x170)'. There are 'Save' and 'Cancel' buttons at the bottom.

- 16 Enter the **Session MAC Address** and **Session Number** for the first session you recorded in step 12.

- 17 Click **Save**.

- 18 Click **OK**.

- 19 Repeat steps 16 through 18 for each entry you recorded in step 12. Make sure you add these entries in the order in which you recorded them.

- 20 Close the BIG PAT window.

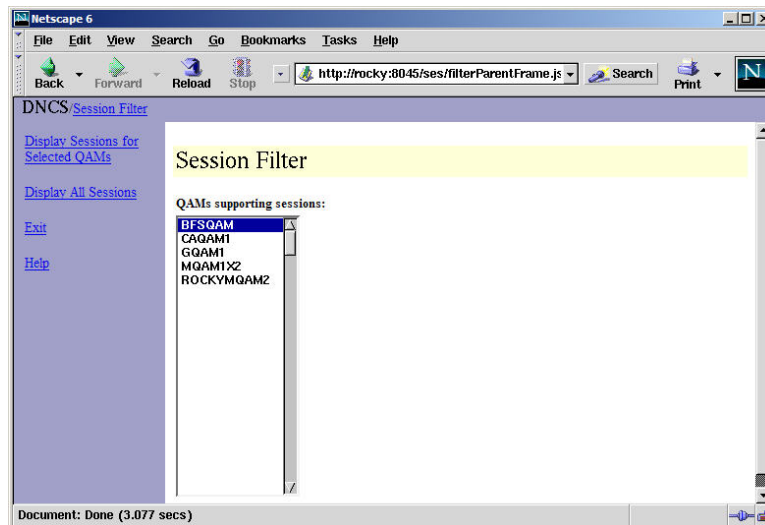
- 21 Close the Inband Data PAT window.

- 22 In the Set Up BFS Host window, click **Save** and then click **Cancel**.

- 23 Go to **Tearing Down the BFS Sessions**, next in this section.

## Tearing Down the BFS Sessions

- 1 From the DNCS tab, click the **Utilities** tab, and then click **Session List**. The Session Filter window opens.



- 2 Select the **BFS QAM** and click **Display Sessions for Selected QAM**. The session data for the BFS QAM appears.
- 3 Click the **Select** box adjacent to the lowest numbered session. A checkmark appears in the Select box to the left of that session.
- 4 Click **Teardown Selected Sessions**. BFS will tear down all sessions and will then rebuild each session.  
**Note:** It may take a few minutes for all of the sessions to rebuild.
- 5 When all sessions have been rebuilt (the session IDs are green in color), click **Exit all Session screens**.
- 6 Go to *Uninstall the Services Portal*, next in this document.

# Uninstall the Services Portal

## Uninstalling the Services Portal Server

Complete these steps to uninstall the Services Portal Server.

- 1 Open an xterm window on the Application Server.
- 2 Complete the following steps to log on to the xterm window as **root** user.
  - a Type **su -** and press **Enter**. The password prompt appears.
  - b Type the root password and press **Enter**.
- 3 Type the following command and press **Enter**:  
**pkgrm SAIisp**  
**Note:** The I in the command is an uppercase "i".  
**Result:** A confirmation window appears.
- 4 When asked if you want to remove this package, type **y** and press **Enter**. The following warning appears:  
**This package contains scripts which will be executed with super-user permissions during the process of removing this package. Do you want to continue with the removal of this package?**
- 5 Type **y** and press **Enter**. This command deletes the Services Portal Server. The deletion is complete when the following message appears:
- 6 **Removal of <SAIisp> was successful**

## Uninstalling the Services Portal Client

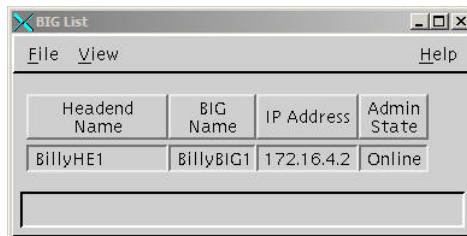
- 1 In the Application Server xterm window where you are logged in as root user, type the following command and press **Enter**:  
**pkgrm SAISPC**  
**Note:** The I in the command is an uppercase "i".  
**Result:** A confirmation window appears.
- 2 Type **y** and press **Enter**. The deletion is complete when the following message appears:  
**Removal of <SAIspc> was successful**
- 3 Press **Enter**.
- 4 Go to *Upgrading the Services Portal Server* (on page 61).

## Add OSM Back to the PAT Table

Earlier in this chapter, you removed OSM from the PAT table. This section describes how to add OSM back to the BIG PAT table and restart the OSM process.

### Adding OSM Back to the BIG PAT Table

- 1 From the DNCS Administrative Console, click the **Element Provisioning** tab.
- 2 Click **BIG**. The BIG List window opens.



Headend Name	BIG Name	IP Address	Admin State
BillyHE1	BillyBIG1	172.16.4.2	Online

- 3 On the BIG List window, double-click the **BFS BIG**. The Set Up BIG window opens.

Set Up BIG

BIG Cards Connectivity

BIG

Headend Name: BillyHE1

BIG Name: BillyBIG1

Administrative State: ☒ Offline ☐ Online

Msync Control Card

Slot Number: 3

IP Address: 172.16.4.2

Physical Address: 00:02:DE:26:35:57

Subnet Mask: 255.255.255.0

Output Mode: ☒ SWIF ☐ ASI

Output Transport Stream ID: 320

PAT Configuration

Save Apply Cancel Help

PAT Configuration Button

- 4 Click **PAT Configuration**. The BIG PAT window opens.

BIG PAT

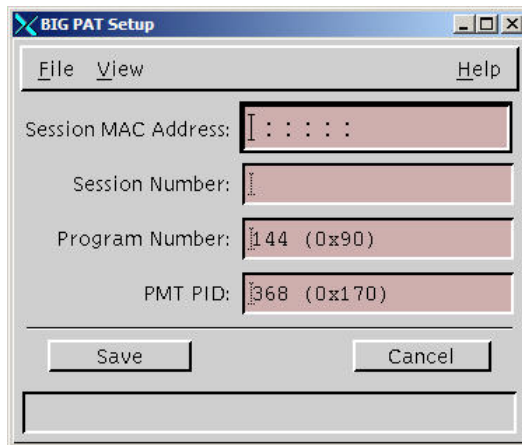
File View Help

Session MAC Address	Session Number	Program Number	PMT PID
00:00:00:00:00:00	2	128 (0x80)	112 (0x70)
00:00:00:00:00:00	4	129 (0x81)	128 (0x80)
00:00:00:00:00:00	6	130 (0x82)	144 (0x90)
00:00:00:00:00:00	8	131 (0x83)	160 (0xA0)
00:00:00:00:00:00	10	132 (0x84)	176 (0xB0)
00:00:00:00:00:00	12	133 (0x85)	192 (0xC0)
00:00:00:00:00:00	14	134 (0x86)	208 (0xD0)
00:00:00:00:00:00	16	135 (0x87)	224 (0xE0)
00:00:00:00:00:00	18	136 (0x88)	240 (0xF0)
00:00:00:00:00:00	20	137 (0x89)	256 (0x100)

New Entry Open Delete Entry Close

Appendix B  
Remove the Services Portal From Your System

- 5 Click **New Entry** on the BIG PAT window. The BIG PAT Setup window opens.



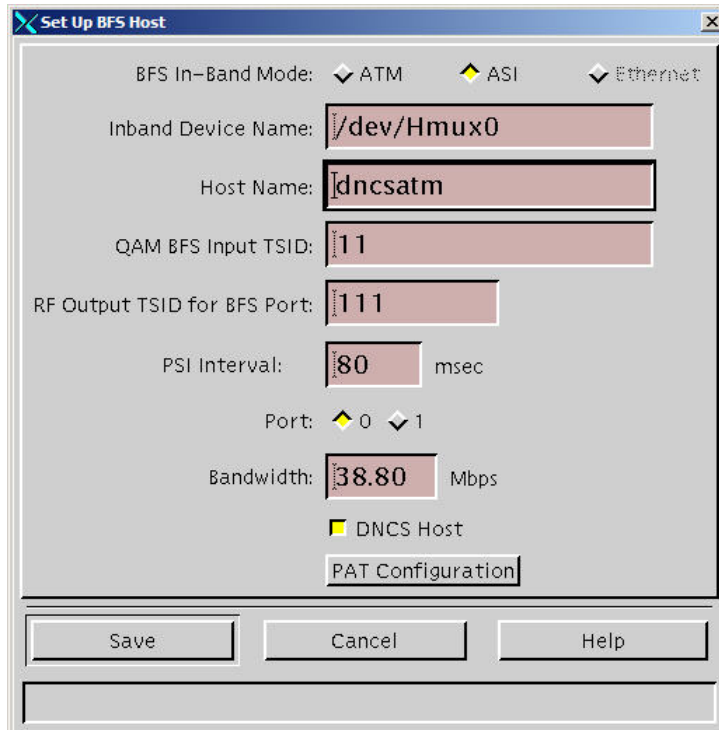
- 6 In the **Session MAC Address** box, type twelve zeros (00:00:00:00:00:00), and press **Tab**.  
**Note:** Do not type the colons in this box.
- 7 In the **Session Number** box, type the session number for the OSM session. You recorded this number *Deleting Services Portal and OSM From the BIG PAT Table* (on page 154), earlier in this appendix.  
**Note:** Most sites use a session number of 199 for OSM.
- 8 Click **Save**.
- 9 Click **Close** in the **BIG PAT** window.
- 10 In the Set Up BIG window, click **Apply** and then click **Cancel**.
- 11 Go to **Restarting the OSM Process**, next in this section.



## Adding OSM Back to the ASI PAT Table

**Note:** For step 8, type the session number for the OSM session that you recorded in the number in *Add the Inband Carousel to the PAT Table* (on page 15).

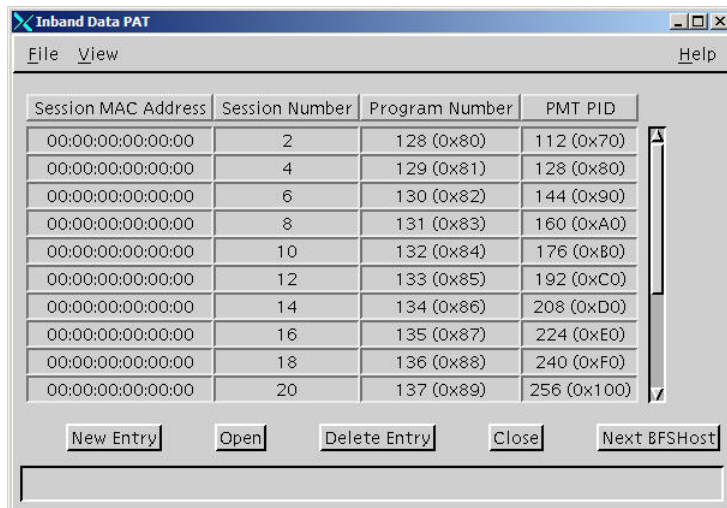
- 1 On the DNCS Administrative Console, click the **Application Interface Modules** tab.
- 2 Click the **BFS Admin** tab. The Site BFS Administration window opens.
- 3 Click the **Hosts** tab.
- 4 Double-click **dncsatm**. The Set Up BFS Host window opens.



The 'Set Up BFS Host' dialog box contains the following fields and options:

- BFS In-Band Mode:** Radio buttons for ATM, **ASI** (selected), and Ethernet.
- Inband Device Name:** Text field containing `/dev/Hmux0`.
- Host Name:** Text field containing `dncsatm`.
- QAM BFS Input TSID:** Text field containing `11`.
- RF Output TSID for BFS Port:** Text field containing `111`.
- PSI Interval:** Text field containing `80` msec.
- Port:** Radio buttons for **0** (selected) and 1.
- Bandwidth:** Text field containing `38.80` Mbps.
- DNCS Host:** A checked checkbox.
- PAT Configuration:** A button at the bottom right of the configuration area.
- Buttons:** Save, Cancel, and Help buttons at the bottom.

- 5 Click **PAT Configuration**. The Inband Data PAT window opens.

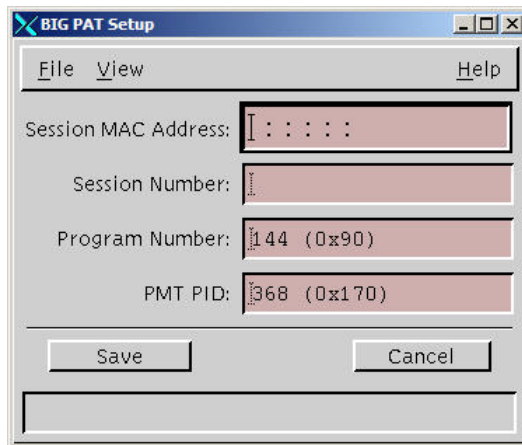


The 'Inband Data PAT' window displays a table with the following data:

Session MAC Address	Session Number	Program Number	PMT PID
00:00:00:00:00:00	2	128 (0x80)	112 (0x70)
00:00:00:00:00:00	4	129 (0x81)	128 (0x80)
00:00:00:00:00:00	6	130 (0x82)	144 (0x90)
00:00:00:00:00:00	8	131 (0x83)	160 (0xA0)
00:00:00:00:00:00	10	132 (0x84)	176 (0xB0)
00:00:00:00:00:00	12	133 (0x85)	192 (0xC0)
00:00:00:00:00:00	14	134 (0x86)	208 (0xD0)
00:00:00:00:00:00	16	135 (0x87)	224 (0xE0)
00:00:00:00:00:00	18	136 (0x88)	240 (0xF0)
00:00:00:00:00:00	20	137 (0x89)	256 (0x100)

At the bottom of the window are buttons: New Entry, Open, Delete Entry, Close, and Next BFSHost.

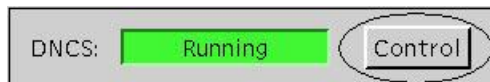
- 6 Click **New Entry**. The BIG PAT Setup window opens.



- 7 For **Session MAC Address**, type twelve zeros (00:00:00:00:00:00), and press **Tab**.  
**Note:** Do not type the colons.
- 8 For **Session Number**, type the session number for the OSM session.  
**Note:** Most sites use a session number of 199 for OSM.
- 9 Click **Save**.
- 10 Close the BIG PAT window.
- 11 In the Inband Data PAT window, click **Close**.
- 12 In the Set Up BFS Host window, click **Save** then **Cancel**.
- 13 Close the Site BFS Administration window.
- 14 Go to *Restarting the OSM Process*, next in this document.

## Restarting the OSM Process

- 1 If the DNCS Control window is not already open, click the **Control** button in the DNCS area of the DNCS Administrative Console Status.



**Result:** The DNCS Control window opens.

- 2 From the list of processes, click **osm**.
- 3 From the Process menu, click **Start Process**. The indicator next to osm turns green when the osm has successfully restarted.



# Services Portal 3.0 Release Notes

## Introduction

This appendix contains the release notes for Services Portal release 3.0.

## In This Appendix

■ Introducing Services Portal 3.0 .....	170
■ Why Choose This Release? .....	171
■ What Are the Site Requirements?.....	172
■ What's Fixed?.....	173
■ Known Issues .....	174
■ Upgrading the Software.....	175

## Introducing Services Portal 3.0

This chapter lists the requirements for upgrading to Services Portal 3.0, while also describing several performance improvements over previous releases of Services Portal software. For additional details, see *What's Fixed?* (on page 173).

## Why Choose This Release?

Services Portal 3.0 was designed to install on the Application Server associated with the DNCS. After the software is installed and active, it provides additional support and flexibility for sites that use analog set-tops in their subscriber base.

This section includes the features supported in Services Portal software version 3.0.

## What Are the Site Requirements?

### Services Portal 3.0 Compatibility

Services Portal 3.0 is compatible with System Releases 4.0 SP2 and later.

### When to Perform the Upgrade

We recommend that you upgrade Services Portal during a maintenance window. This ensures that the fewest number of subscribers are affected by the upgrade.

As you upgrade Services Portal, subscribers can still view the programs to which they are currently tuned. However, they will not be able to change channels until the upgrade is complete.

If you have already upgraded your DNCS System Release, you must follow the directions in *Installing the Services Portal Package Information* (on page 58) before you can successfully upgrade Services Portal.

## What's Fixed?

This section provides a description of the CRs implemented in Services Portal 3.0.

### CR 16423: Parental Control One-Time Bypass Remained Unblocked

With Parental Control on, if a subscriber selected a blocked service from Services Portal for one-time viewing, the services remained unblocked after the set-top was powered off or rebooted. **CR 16423** fixes this problem.

### CR 17374: Services Portal Did Not Respond to Exit Key

With Services Portal launched, if a subscriber pressed the Exit key on the front panel of the set-top, Services Portal did not exit. **CR 17374** fixes this problem.

### CR 17528: Changing Icon Offset for Fullscreen Mode Changed Toolbar Mode

With Services Portal in fullscreen mode, if the icon offset on the Display Frame tab was changed, the service icons did not change. The icons change in toolbar mode, even though the change was made to the fullscreen mode. **CR 17528** fixes this problem.

### CR 42094: Space in SAM List Prevented Channel Display

If the Short Description in the SAM Service List contained spaces, Services Portal did not display the channel. **CR 42094** fixes this problem.

### CR 47063: Services Portal Did Not Launch Using the DNCS GUI

Because of a Java incompatibility, you could not launch Services Portal using the DNCS GUI. **CR 47063** fixes this problem.

### CR 54400: Set-Top Rebooted When A Key Pressed During CD Playback

On an Explorer® 8300 set-top, if a subscriber was playing an audio CD and pressed the A key, sometimes the Services Portal would launch and the set-top would reboot. **CR 54400** fixes this problem so that pressing the A key has no impact on the set-top.

## Known Issues

### Upgrading the DNCS SR Removes the Services Portal Package Information

The DNCS System Release upgrade process removes the Services Portal package information. This prevents you from being able to remove (uninstall) the previous version of Services Portal during the Services Portal upgrade process. If you have already upgraded your DNCS System Release, you must follow the directions in *Installing the Services Portal Package Information* (on page 58) before you can successfully upgrade Services Portal.



## Upgrading the Software

The upgrade process consists of the following tasks:

- Recording server configuration information
- Preserving your previous configuration
- Installing the Services Portal package information (only if you have already upgraded your DNCS System Release)
- Uninstalling the previous version of Services Portal
- Upgrading the Services Portal Server
- Saving the Services Portal Server configuration
- Upgrading the Services Portal client

See *Upgrade the Services Portal* (on page 53) for complete instructions on upgrading your Services Portal software.

If you feel you might need to roll back to the previous version of Services Portal for any reason, make sure you follow these recommendations:

- Keep your installation CDs of the previous version of Services Portal Client and Server.
- Make sure to follow the procedures in *Preserving Your Previous Configuration* (on page 57) as a precaution.

**Note:** The upgrade process overwrites the existing config.dat file, but it preserves the configuration from the previous version (except for button colors).



# Glossary

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## action safe area

Defined by the Society of Motion Picture and Television Engineers (SMPTE) as an area inside a rectangle that is placed 12 pixels vertically and 16 pixels horizontally and measures 287 x 215 (in low-resolution systems). Most televisions display text and graphics inside the Action Safe area. *See also* Title Safe area.

## Application Server

A computer workstation and server used to execute the application programs, which provide an interface for downloading application data to the DHCTs. The AppServer works in conjunction with the DNCS and the two computers share a common database.

## AppServer

*See* Application Server.

## BFS

Broadcast File System. The primary interface (means of communication) between the AppServer and the DHCTs that are connected to the network.

## BFS BIG

Broadcast File System Broadband Integrated Gateway. A device that processes the data it receives and sends it to the data QAM modulator.

## BIG

Broadband Integrated Gateway. A device that provides a data pipeline from the DNCS to the DHCTs.

## carousel

Transports data modules and application server processes from the BFS server to the DHCT. For each new application server process that registers with the BFS, a new data carousel is created and the ID information is updated in the BFS directory structure. *Also known as* Data Carousel or Data Pump.

## Channel Map

A set of channels that specific subscribers are authorized to receive through their DHCTs.

## Glossary

### data carousel

*See carousel.*

### data pump

*See carousel.*

### DBDS

Digital Broadband Delivery System. The entire network architecture of our digital system that ultimately provides signal to and from a subscriber's DHCT. The DBDS consists of five areas: sources, headend, transport network, hub, and access network.

### demodulator

Receives information such as billing and performance monitoring data in a reverse path from the DHCT and returns it to the DNCS for processing.

### DHCT

Digital Home Communications Terminal. Our digital set-top that is two-way capable for interactive services. *See also Explorer.*

### DNCS

Digital Network Control System. A computer server that monitors and controls the DBDS network elements; located at the DBDS headend or at a remote site.

### DTV

Digital Television. A telecommunication system for broadcasting and receiving video and audio by means of digital signals.

### Explorer®

Our registered trademark name for the Digital Home Communications Terminal (DHCT). Also known as a set-top box.

### FAT Channel

*See BFS.*

### FDC

Forward Data Channel. Carries digital data (tuning, management, Internet, and at least two days of IPG data) in ATM cells on RF signals from the ATM switch to a router, which then forwards the data to the correct network. *Also known as out-of-band data channel.*

## FTP

File Transfer Protocol. A method used to exchange files between computers on a network or the Internet using the TCP/IP protocol.

## GOAM

gigabit quadrature amplitude modulation. A QAM that provides up to sixteen 6 MHz outputs while occupying only one unit of rack space. *See also* QAM, MQAM.

## HDTV

high-definition television. The high-resolution subset of the DTV system.

## headend

The location of the network elements that processes the signal by receiving and preparing the source signals and making them ready for the transport network. *See also* network elements.

## hub

Physical locations designed to serve a specific number of subscribers, usually 50 to 15,000. May be co-located with the headend or miles away from the headend. Hubs receive, modulate, and boost the signal prior to sending it to the network of HFC nodes for distribution to the subscriber. Hubs usually contain QPSK modulators/demodulators that establish the two-way communications with the DHCTs.

## Internet Protocol

The standard protocol within TCP/IP that defines the basic unit of information passed across an Internet connection by breaking down data messages into packets, routing and transporting the packets over network connections, then reassembling the packets at their destination.

## IP

*See* Internet Protocol.

## IP address

A 32-bit sequence of numbers used for routing IP data. Each IP address identifies a specific component on a specific network. The address contains a network address identifier and a host identifier.

## IPG

Interactive Program Guide. Our name for the on-screen program guide provided by the Explorer DHCT.

## Glossary

### MAC address

Media Access Control address. A unique physical address embedded into a network device. Similar to a serial number.

### modulator

A device that sends control and authorization information from the DNCS to the DHCT.

### MPEG

Moving Picture Experts Group. An international video compression standards-setting group working under the supervision of the International Standards Organization (ISO) and the International Electrotechnical Commission (IEC). MPEG's mission is to develop standards for compressed full-motion video, still image, audio and other associated information.

### MQAM

Multiple Quadrature Amplitude Modulation. A QAM that provides up to four 6 MHz outputs while occupying only one unit of rack space. *See also* QAM, GQAM.

### network elements

Devices typically located at the headend, which include satellite receivers (IRT, IRD), Real-Time Encoder (RTE), BIG, QAM modulator, DNCS, and the application server. *Also known as* system components.

### OOB

Out-Of-Band. *See* FDC.

### PAT

program association table. A second table in the transport stream which contains a list of all MPEG programs on the transport stream along with their associated program numbers.

### PID

packet/program identifier. A number assigned to MPEG transport packets to identify the contents of the data and the information stream to which they belong. The 13-bit PID number is assigned in the MPEG-2 transport packet headers. All packets from the same stream have the same PID number.

### PIN

personal identification number. A password used for identification.

## provision

The process of preparing a device or service so that the DNCS recognizes the device, which allows the device to operate properly.

## QAM

quadrature amplitude modulation. A frequency modulation technique primarily used for program audio and video. QAM supports data rates from 27 Mbps to 36 Mbps.

## QAM modulator

A device that uses QAM techniques to modulate a digital signal onto an HFC network to deliver voice, video, and data to a DHCT.

## QPSK

Quadrature Phase-Shift Keying. Digital modulation scheme that send data by modulating the phase of a reference signal (the carrier wave).

## QPSK modulator/demodulator

The QPSK modulator works with the QPSK demodulator and the DHCT to provide forward signaling and a reverse communications path for interactive video and data services. The QPSK modulator and demodulator convert digital bit streams to RF format and RF signals to digital bits, respectively.

## SAM

Service Application Manager. Associates a specific service with an application that defines the medium to be used for that service, such as the World Wide Web. The SAM maintains the application in a specific directory to be used when needed by the DHCTs.

## SARA

SA Resident Application. The set of operating programs that is “permanently” loaded into the DHCT. These programs are immediately available to the subscriber upon activation of the DHCT.

## source

In the DBDS, a source is the actual program or data that is made available to the DHCT as a service to the subscriber. Sources can include: MPEG-2 digital broadcast services that are non-secure, non-encrypted, audio/video programs; Internet connections from an Internet service provider (ISP); Digital PPVs that are secure, encrypted, digital MPEG-2 programs; Digital music services; Analog programs that are modulated in the traditional format or converted into MPEG-2 format.

SR

System Release. Our software release package for components of the DBDS.

tar

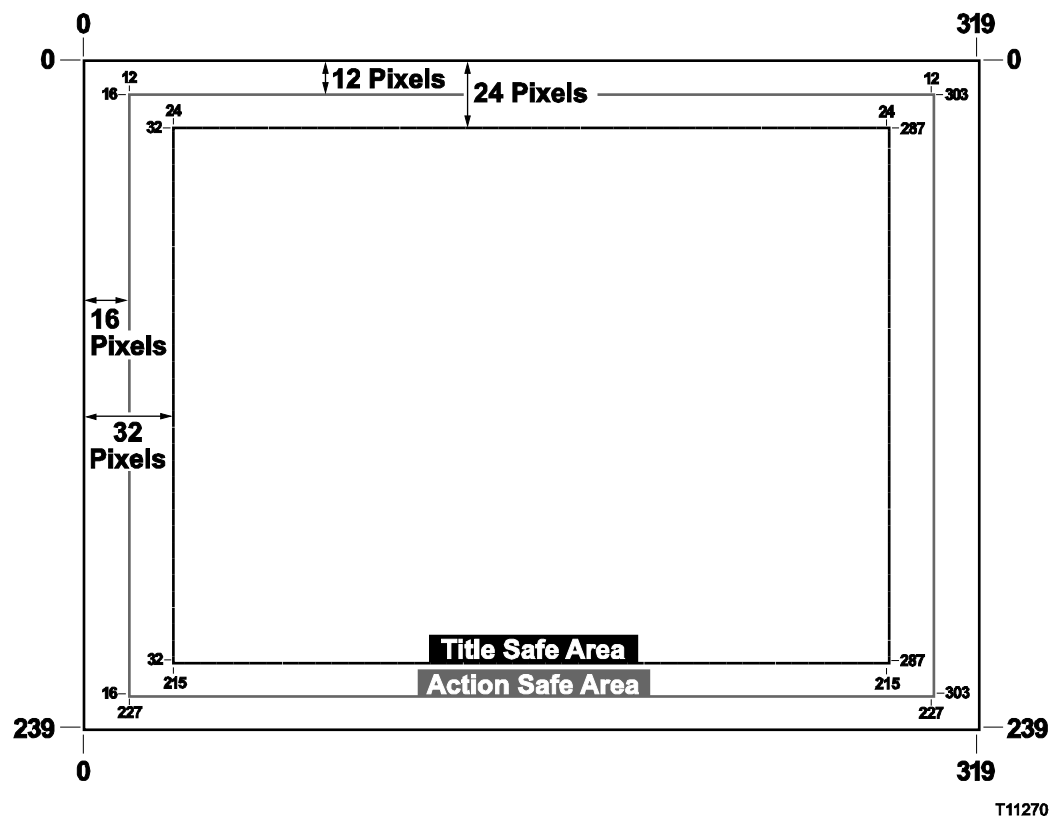
Short for *tape archive*, a UNIX utility that combines a group of files into a single file with a *.tar* extension.

TCP/IP

Transmission Control Protocol/Internet Protocol. An Internet working protocol that provides reliable data transport using connection-oriented techniques.

title safe area

Defined by the Society of Motion Picture and Television Engineers (SMPTE) as an area inside a rectangle that is placed 24 pixels vertically and 32 pixels horizontally and measures 255 x 191 (in low-resolution systems). All television sets display text and graphics inside the Title Safe area.





**transport stream**

A data communications signal that is formatted in accordance with the protocol defined in the MPEG-2 specification ISO IEC 13818. An MPEG transport stream can carry voice, video, or data information. The MPEG data transmission protocol transports real-time data.

**UNIX**

An operating system that is less computer/server-specific than other operating systems. UNIX is widely used in the telecommunications industry and by the Internet.

**VOD**

video-on-demand. The ability of a subscriber to select a program event and watch it within moments of selection. VOD allows pausing and rewinding of the event.



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