



ISDP System Release 2.7

Release Notes

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.

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Contents

| | |
|---|-----------|
| About This Guide | v |
| Chapter 1 ISDP 2.7 Highlights | 1 |
| Multi-Room DVR..... | 2 |
| EAS Improvements..... | 5 |
| New Documentation | 6 |
| Complete Documentation List..... | 7 |
| Chapter 2 Set-Tops Supported | 9 |
| IPN Series..... | 10 |
| CIS Series..... | 11 |
| Chapter 3 System Resources | 13 |
| Software Versions | 14 |
| System Software Elements and Delivery Media | 15 |
| Chapter 4 Fixed Issues | 17 |
| Fixed Change Requests | 18 |
| Chapter 5 Customer Information | 19 |
| Appendix A Implementing ISDP Features | 21 |
| Provisioning MR-DVR Service on the ISDS..... | 22 |
| Provisioning MR-DVR Service on Set-Tops..... | 34 |
| Verifying MR-DVR Service on Set-Tops..... | 38 |

About This Guide

Introduction

The ISDP System Release 2.7 (2.7) is designed to enhance support of the Cisco IPTV product line. These release notes contain the following information:

- Descriptions of the new standard and optional features introduced with this release
- Information you need to prepare your site for an upgrade to 2.7
- General information on contacting us
- A list of software versions installed with the base 2.7 system

Scope

These release notes provide an executive overview of 2.7. If you have questions about this release or require more detailed information, contact Cisco Services.

Audience

These release notes are written for system operators, sales and program managers, and field technicians.

Document Version

This is the second formal release of this document.

1

ISDP 2.7 Highlights

Introduction

This section describes the new features available with this release.

In This Chapter

| | |
|------------------------------------|---|
| ■ Multi-Room DVR..... | 2 |
| ■ EAS Improvements..... | 5 |
| ■ New Documentation | 6 |
| ■ Complete Documentation List..... | 7 |

Multi-Room DVR

Multi-room DVR (MR-DVR) provides DVR-like functionality to diskless (non-DVR) devices within the home network, allowing users to view all content from any DVRs in the home on any client devices in the home. The current MR-DVR capability allows users to view a unified list of all recordings on all devices within the home and stream a program from any DVR to any STB in the home. Users can perform trick-plays (for example, Fast Forward, Rewind, Skip, Back), pause or stop a program in one room and resume it in another, and browse their DVR list just as if they were sitting at one of the home DVRs.

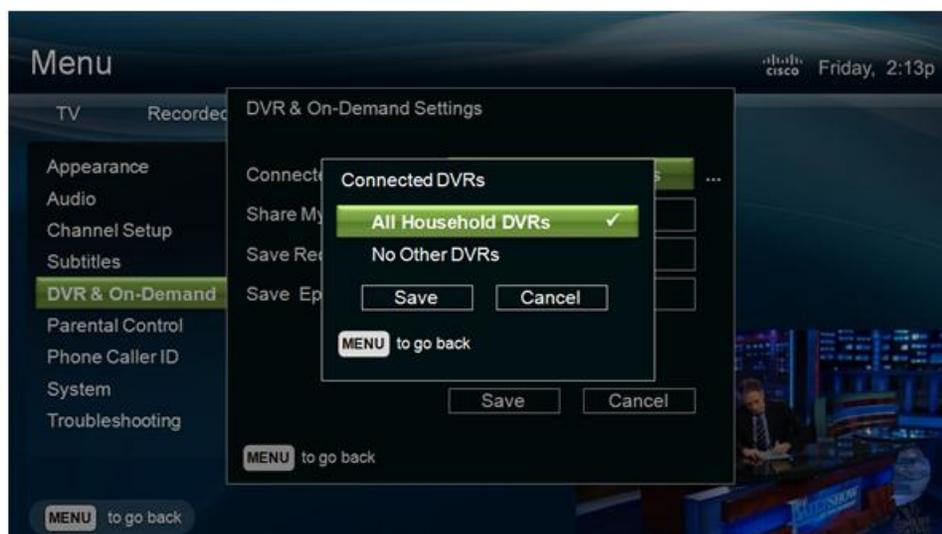
Subscribers can use the System settings menu to create friendly names for their set-tops:



The client device displays the name of the DVR where the program was recorded when the subscriber selects the program from the My Recordings list:



Subscribers can choose to turn MR-DVR on or off through the DVR & On Demand setting menu of a client device:



User Interface Improvements

ISDP 2.7 provides the following client user interface (UI) improvements to support MR-DVR:

- The main menu on DVR devices will show a "Recorded TV" menu that allows subscribers to access their recordings from all DVRs in the home, schedule recordings, or add new recordings, as usual (when authorized for DVR service).

- The main menu on non-DVR devices (client devices) will show a "Recorded TV" menu that allows subscribers to select "My Recordings" to view a unified list of all recordings from all DVRs in the home.
- Client devices that have MR-DVR enabled will allow subscribers to access a unified list of all recordings from all DVRs in the home.
- Client devices that do *not* have MR-DVR enabled, or client devices that have the "No Other DVRs" setting option selected, will not display the Recorded TV menu.
- Parental controls of the DVR content and list are enforced based on the settings of the client device.
- Subscribers can pause viewing in one room and resume viewing in another.
- Subscribers can simultaneously record two programs, watch one program, and stream another program.

Limitations

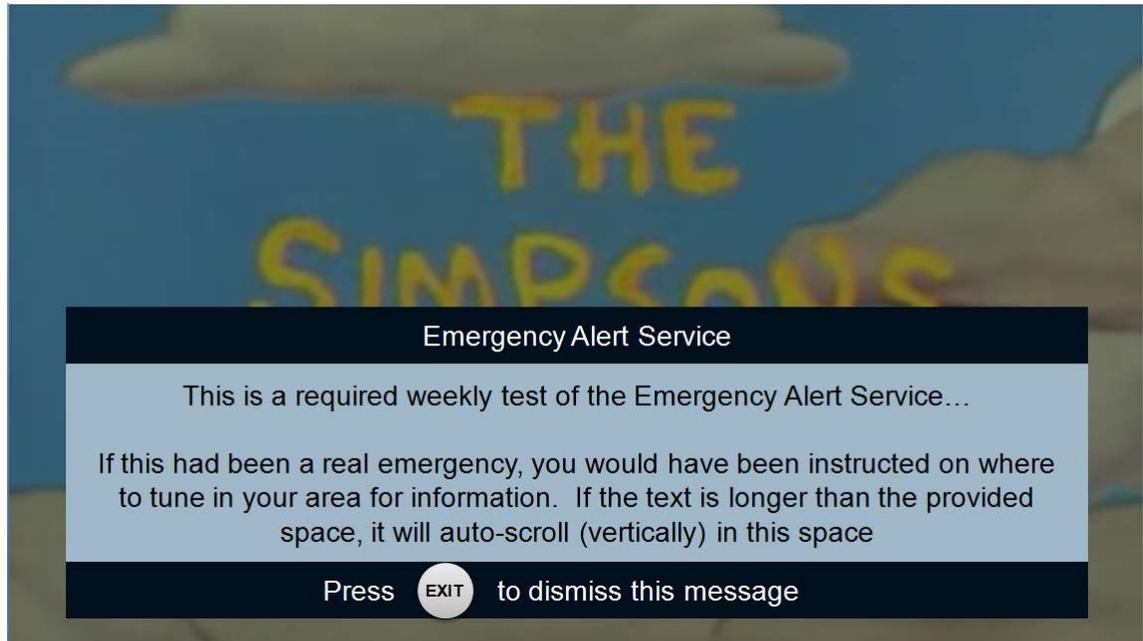
In ISDP 2.7, MR-DVR is affected by the following limitations:

- Trick modes are supported when streaming DVR content, but they are *not* supported on live TV on a client device.
- The ability to schedule and manage recordings from a client device is not supported at this time.

Refer to *Implementing ISDP Features* (on page 21) for guidelines on provisioning MR-DVR.

EAS Improvements

EAS has been improved to provide clearer user interaction and stability. Users now have the ability to acknowledge or dismiss the EAS message.



New Documentation

The following documentation is new or updated as part of ISDP 2.7:

- *EPG Search Configuration Instructions* (part number 4036090)
- *Initial Installation and Upgrade Instructions for the ISDS* (part number 4028676)
- *Instructions for Configuring IPPV in an ISDP Network* (part number 4034758)
- *ISDP 2.7 Release Notes* (part number 4022474)
- *ISDP Set-Top Tips, Configuration, and Troubleshooting Guide* (part number 4027691)
- *RTN Client User Interface User Guide* (part number 4017515)

Complete Documentation List

The complete list of documentation for ISDP 2.7 is as follows:

- *Configuring Downloadable Objects in an ISDP Network Application Guide* (part number 4036338)
- *Configuring ISDP Bandwidth Management Installation and Operation Guide* (part number 4029936)
- *Daylight Saving Time Configuration Guide for an IP Network* (part number 4018286)
- *Downloading Client Application Software to ISDP Set-Tops Installation Instructions* (part number 4021172)
- *EPG Search Configuration Instructions* (part number 4036090)
- *Getting Started with the ISDS Platform User Guide* (part number 4021199)
- *Initial Installation and Upgrade Instructions for the ISDS* (part number 4028676)
- *Instructions for Configuring IPPV in an ISDP Network* (part number 4034758)
- *ISDP 2.7 Release Notes* (part number 4022474)
- *ISDP Set-Top Staging Guide* (part number 4021173)
- *ISDP Set-Top Tips, Configuration, and Troubleshooting Guide* (part number 4027691)
- *ISDP System Overview with Focus on the ISDP Server and ISDP Client* (part number 4017607)
- *ISDS Online Help Version 2.7* (part number 4038462)
- *ISDS Security Enhancements Instructions* (part number 4027701)
- *Maintenance Recommendations for the ISDS System Guide* (part number 4030786)
- *PowerKEY CAS Gateway (PCG) for DBDS and ISDP Networks Installation, Upgrade, and Operation Guide* (part number 4017672)
- *PowerKEY Server for Encrypted VOD in an ISDP Network Installation, Upgrade, and Operation Guide* (part number 4034718)
- *RNCS Installation and Upgrade Instructions* (part number 4021167)
- *RTN Client User Interface User Guide* (part number 4017515)
- *Staging Area Quick Reference Sheet for ISDP Networks* (part number 4013133)

2

Set-Tops Supported

Introduction

ISDP 2.7 supports the set-top models described in this chapter.

If you have questions about a particular model, contact your account representative.

In This Chapter

- IPN Series..... 10
- CIS Series..... 11

IPN Series

Cisco Model IPN603 Series IPTV Set-Tops

The Cisco Model IPN603 IPTV Set-Tops support delivery of three concurrent video streams over IP networks.

- Installed with three system-on-a-chip integrated circuits (SOCs), the following scenarios are supported:
 - SOC1 - Supports decoding, viewing live programming, and using DVR capabilities for the TV connected directly to the set-top (primary TV). An IR remote control for the the primary TV controls SOC1 on the IPN603.
 - SOC2 and SOC3 - Support decoding and viewing live programming on in-home COAX connected TVs. RF remote controls for ancillary TVs allow remotes to control SOC2 or SOC3 on the IPN603.
- Advanced models allow your operation to choose the conditional access security and digital rights management source for renewable security. Optional home networking support is available utilizing Home Phoneline Networking Alliance 3.0 (HPNA™ 3.0) without the need for additional wiring.

Cisco Model IPN430 Series IPTV Set-Tops

The IPN430 Series IPTV Set-Tops enrich the entertainment experience with integrated DVR functionality. Customers can pause live TV; view and record multiple shows simultaneously; rewind, fast-forward, and pause recorded content.

The IPN430 presents a powerful, yet affordable, solution to enable network operators to deliver video and interactive services over IP networks.

Cisco Model IPN330 Series IPTV Set-Tops

The IPN330 Series IPTV Set-Top presents a powerful, yet affordable solution to enable network operators to deliver video and interactive services over IP networks. The IPN330 is a versatile platform allowing operators to deliver a wide range of content including MPEG 2 SD, MPEG 4 Part 10/H.264, and VC-1 video in high definition (HD) and standard definition (SD) formats.

The IPN330 offers a full graphics engine with a robust set of features needed for IPTV applications, including alpha blending and powerful hardware graphics acceleration.

CIS Series

Cisco Model CIS2000 Series IPTV Set-Tops

The Cisco Model CIS2000 Series IPTV Set-Tops support delivery of video and interactive services over IP networks.

- The CIS2000 series IPTV set-top is a versatile platform that allows service providers to deliver a wide range of content including MPEG-2 SD, MPEG-4 Part 10/H.264, and VC-1 video in standard-definition (SD) and high-definition (HD) formats.

The CIS2000 series features a fast, 300 MHz, 32-bit host processor (400 DMIPS) with the power needed to support a variety of operating systems, advanced middleware platforms, and compelling user applications. The CIS2000 series offers a full graphics engine with a robust set of features needed for IPTV applications. This set-top also offers alpha blending and powerful hardware graphics acceleration.

- The Cisco Model CIS2001 IPTV Set-Top includes one SCART interface port.

Cisco Model CIS430 Series IPTV Set-Tops

The Cisco Model CIS430 IPTV Set-Tops support delivery of video and interactive services over IP networks.

- Basic models have a versatile platform, which enables operators to deliver a wide range of content including MPEG-2 SD, MPEG 4 Part 10/H.264, and VC-1 video in high definition (HD) and standard definition (SD) formats.

Additionally, these models include integrated DVR functionality. Customers can pause live TV; view one show and record another show simultaneously; rewind, fast-forward, and pause recorded content.

- Advanced models allow your operation to choose the conditional access security and digital rights management source for renewable security. Optional home networking support is available utilizing Home Phoneline Networking Alliance 3.0 (HPNA 3.0) without the need for additional wiring.

Cisco Model CIS330 Series IPTV Set-Tops

The Cisco Model CIS330 IPTV Set-Tops support delivery of video and interactive services over IP networks.

- Basic models have a versatile platform, which enables operators to deliver a wide range of content including MPEG-2 SD, MPEG 4 Part 10/H.264, and VC-1 video in high definition (HD) and standard definition (SD) formats.

Chapter 2 Set-Tops Supported

- Advanced models allow your operation to choose the conditional access security and digital rights management source for renewable security. Optional home networking support is available utilizing Home Phoneline Networking Alliance 3.0 (HPNA 3.0) without the need for additional wiring.

3

System Resources

Introduction

This chapter provides the following software version information:

- Minimum software versions required prior to performing the upgrade for each component impacted by this system upgrade
- 2.7 software versions
- Lists the required software elements and delivery media.

In This Chapter

- Software Versions 14
- System Software Elements and Delivery Media 15

Software Versions

The following table provides the minimum version of software required prior to upgrading to 2.7. Post-installation/upgrade versions are also provided.

Note: Only sites implementing IPPV (Phase I) or MR-DVR need to upgrade to ISDS f2.2.1.1p1. Other sites may remain on code version f2.2.0.2p2ep2. The 2.7 client release requires ISDS f2.2.1.1p1. The 2.7 client is unsupported on the 2.6 System Releases (both 2.2.0.2.p2 and 2.2.0.2p6).

2.7 Software Version Matrix

| Product | Minimum Software Version Prior to Upgrade | ISDP 2.7 Software Version |
|---------------------|--|---------------------------|
| ISDS | f2.0.0.7 | f2.2.1.1p1 |
| RNCS | f2.0.0.7 | f2.2.1.1p1 |
| ISDS settop.res | Any previous version | xsettopip.v40016.res |
| PCG | Any previous version | 2.1.0.8 |
| TED | Any previous version operating on TED 3.0 hardware | 3.1.0.1 |
| PKES | Non-applicable | 1.1.0.7 |
| VQE-S | Any previous version | 3.4.3 |
| FCM | Any previous version | 1.4.2 |
| DCM | Any previous version | 07.05.75 |
| STB (IPN603) | Any previous version | 2.7 |
| STB (non-DVR) | Any previous version | 2.7 |
| STB (DVR) | Any previous version | 2.7 |
| CDS-TV | Any previous version | 2.1 |
| CDS-Navigator | Any previous version | 2.1 |
| Tandberg Openstream | Any previous version | 4.5.1.1 |

System Software Elements and Delivery Media

The table below lists all of the system software elements and delivery media required for an environment to function properly.

| Element | Package Name | Media | Part No. | Revision |
|--------------------|-------------------------------|-------|----------|-----------------|
| ISDS DVD | | DVD | 4038506 | 3.1.0.27 |
| UniPack Core | | | | 3.33.1 |
| Backup & Restore | | | | 6.0.29 |
| Solaris 10 | | | | 5/08 (Update 5) |
| Solaris 10 Patches | SAIpatch | | | 4.5.0.3 |
| Informix | | | | 11.10.FC2W2 |
| ISDS / AS Platform | SAIcomplat | | | 2.0.0.12 |
| ISDS | SAIdncs SAIgui SAIwebui | | | f2.2.1.1 |
| DBDS Utilities | SAIdbssutils | | | 6.3.0.12 |
| Report Writer | SAIrpwt | | | r1.0.0.3 |
| Command 2000 | SAIcmd2k | | | 1.0.0.3 |
| Tools | SAItools | | | 4.2.1.30 |
| Application Server | SAIapsrv | | | AS4.0.0.8 |
| ISDS Online Help | SAIhelp | | | 1.3.1.0 |
| PCG App | SAIpcg | | | v2.1.0.8 |
| TED Updater | | | | v3.1.0.3 |
| ISDS Patch | | CD | 4038575 | f2.2.1.1p1 |
| RNCS DVD | | DVD | | 3.1.0.22 |
| RNCS | SAllionn | | | f12.2.1.1 |
| RNCS Platform | SAllionp | | | 3.0.0.15 |
| Backup & Restore | | | | 6.0.29 |
| Solaris 10 | | | | 5/08 (Update 5) |
| Solaris 10 patches | SAIpatch | | | 4.5.0.3 |
| Tools | SAIrttools | | | 2.0.0.7 |
| | | | | |
| PCG Platform | | CD | 4033826 | 1.1.1 |

Chapter 3 System Resources

| Element | Package Name | Media | Part No. | Revision |
|-------------------------------------|--------------|-------|----------|----------|
| PCG Boot | | CD | 4031848 | 2.1.0.8 |
| PCG App | | CD | 4031849 | 2.1.0.8 |
| PKES Application (ISDP Networks) | | CD | 4032121 | 1.1.0.7 |
| PKES Platform (ISDP Networks) | | CD | 4031475 | 1.0.5 |

4

Fixed Issues

Introduction

This chapter provides a list of known issues that have been resolved with ISDP 2.7.

For More Information

The list in this chapter is not intended to be comprehensive. If you have questions about a particular change request (CR), contact your account representative.

Note: There are no Critical issues or warnings in this software release.

In This Chapter

- Fixed Change Requests 18

Fixed Change Requests

The following known issues have been resolved with ISDP 2.7:

| CR Number | Title |
|------------------|--|
| 93915 | Recording fails due to DVR conflict |
| 103284 | Cisco Blue: GUI Shift when Mode is Set to 480i |
| 105437 | Cisco Blue: Current Schedule Recording Program Does Not Display on EPG Search Result |
| 106541 | Set-Top Response Slows During an EAS Session |
| 107053 | BW Mgmt: Cancelled scheduled recording shows up in conflict barker |
| 108371 | Cannot Remove Application |
| 108745 | Search and Menu Buttons Overlap in the Catalog |
| 109248 | VOD List of Categories Are Incomplete |
| 109249 | VOD Short Information Does Not Display Full or Correct Data |
| 109328 | NR-Adult Rating Programs are Not Blocked from VOD |
| 109702 | Cisco Blue Slows Performance |
| 109818 | EAS Results in Reboot |
| 109904 | DVR Menu Incorrectly Indicates that Hard Drive is Full |
| 110010 | Restart Playback Results in Blue Screen |
| 110586 | My Rental section displaying incorrect asset information |
| 110971 | STB gets hung on Startup screen after reboot |
| 112157 | ISDP VOD Catalog not loading |

5

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

Implementing ISDP Features

Introduction

The 2.7 system release carries forward and enhances the features introduced with previous ISDP releases. This appendix provides instructions for implementing features from recent releases, as well as those introduced with this release.

In This Appendix

- Provisioning MR-DVR Service on the ISDS..... 22
- Provisioning MR-DVR Service on Set-Tops..... 34
- Verifying MR-DVR Service on Set-Tops..... 38

Provisioning MR-DVR Service on the ISDS

Introduction

Headend provisioning to support MR-DVR service is a four-step process:

- Create a package and record the EID value
- Create a SAM service
- Set up the DHCT
- Set up a home account

These procedures are described in order below.

Important: MR-DVR uses UPnP protocol to transfer data between set-top boxes. In order to make sure that UPnP traffic does not leave the home environment, you should configure the router to disallow UPnP traffic. UPnP protocol has a time-to-live (TTL) of 1 in our environment.

Notes:

- The steps to create a package and record the EID value are the same for MR-DVR service as they are for other services.
- When you create the SAM service, enter **_MRDV** in the SAM Short Description field and enter **eid=<EID value>**; in the Application URL field.

Example: Set Up SAM Service Window

The screenshot shows a window titled "Set Up SAM Service" with the following fields and values:

- Service ID: 221
- Service Name: MR-DVR service
- Short Description: **_MRDV**
- Long Description: **Multiroom DVR service**
- Application URL: **eid=101** (with a "Select..." button to the right)
- Logo: **0**
- Parameter: **Number: 24** (with a "String:" field to the right)

At the bottom of the window are three buttons: "Save", "Cancel", and "Help".

- You must set up MR-DVR service for each set-top that you want to receive the service.

Create a Package

Complete the following steps to create a new package for the services or applications that you want to provision. If you have already created the package you want to use for the service, skip to the section *Determine the EID Value* (on page 23).

- 1 On the ISDS Administrative Console, click **Package** from the System Provisioning tab. The Package List window opens.
- 2 Select **File > New** to open the Set Up Package window.
- 3 Enter a unique name for the package.
- 4 Click **Save**. The package is created.

Determine the EID Value

Complete the steps below to determine the EID value of the service you want to authorize.

- 1 Open the package you will use to authorize the service and record the EID value:

The screenshot shows the 'Set Up Package' dialog box with the following details:

- Package Name: DVR_srv
- EID: 11e (hex)
- Duration: Unlimited (selected)
- Start Date: 12/31/1969
- Start Time: 07:00:00 PM
- Length: [] days [] hours [] minutes
- Pay Per View
- Right To Copy: Allowed
- Impulse Pay Per View
- Preview window:
 - Start Date: [MM/DD/YYYY]
 - Start Time: [HH:MM:SS] AM
 - Duration: [0] hours [0] minutes
- Allow Event Extension
- Buttons: Save, Cancel, Help

- 2 Click **Cancel** to close the Set Up Package window.
- 3 In the Package List window, select **File > Close** to close the window.
- 4 Continue with Create a SAM Service.

Create a SAM Service

Complete the following steps to create a SAM service for the package you created.

- 1 From the ISDS Administrative Console, select the **Application Interface Modules** tab.
- 2 Click the **SAM Service** button. The SAM Service List window opens.
- 3 Click **File > New**. The Set Up SAM Service window opens.
- 4 Enter the SAM Service information per the following guidelines.

Guidelines:

The following variables are available to define a SAM Service:

- **Service Name** (required) - This name is only available and shown to users of the ISDS who have access to the SAM Services List. Make this descriptive enough to understand which service is being offered. End users will not see this field.
- **Short Description** (required) - The short description must match one of the values defined in this document; the set-top UI will use these short description values to determine if those services are being provisioned.

The following short description names are reserved for provisioning services. Each of these Short Descriptions must only be used once per system and must be used **exactly** as shown.

| SAM Short Description | Service |
|------------------------------|--------------------------------|
| _SADV | DVR |
| _MRDV | MR-DVR |
| _VOD | VOD |
| _EPGS | EPG Search |
| _WG00 | Walled Garden 0 |
| _WG01 | Walled Garden 1 |
| _WG02 | Walled Garden 2 |
| _WG03 | Walled Garden 3 |
| _WG04 | Walled Garden 4 |
| _WG05 | Walled Garden 5 |
| _WG06 | Walled Garden 6 |
| _WG07 | Walled Garden 7 |
| _WG08 | Walled Garden 8 |
| _WG09 | Walled Garden 9 |
| _WGMA | Walled Garden for "My Account" |
| _WGAP | Walled Garden for "App Store" |

- **Long Description** - The long description will be used for meaningful display to the user. The Long Description will appear in the Menu and/or in the grid cell of the electronic programming guide (EPG), as indicated by the options in the "Application URL", described below.

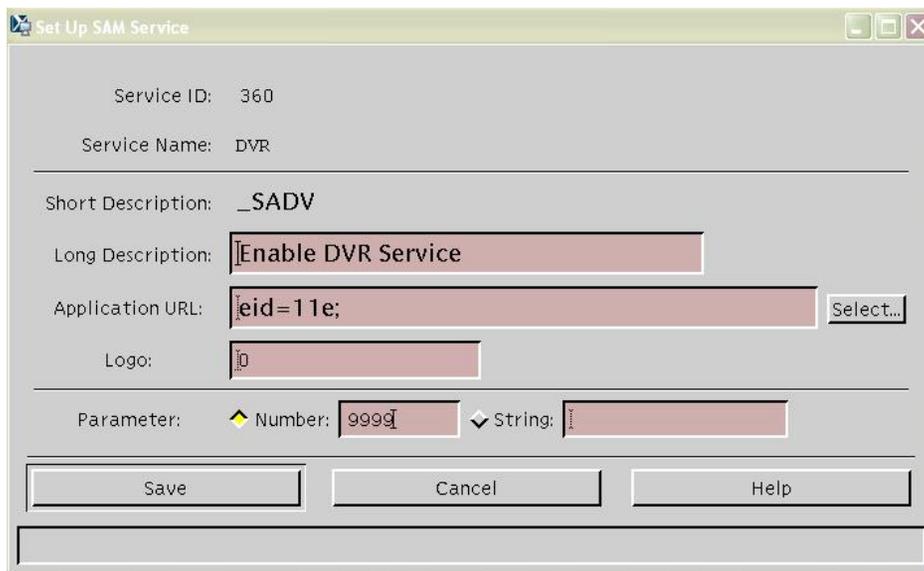
Application URL - The application URL provides additional information for how the service can be accessed.

Enter **eid=<EID value>**; using the the EID information you recorded in the *Determine the EID Value* (on page 23) procedure.

Note: One package can support multiple services by reusing the EID information for each associated service.

- **Parameter** - Select the bullet next to **Number** and type **0** in the field.

Example: Set Up SAM Service Window



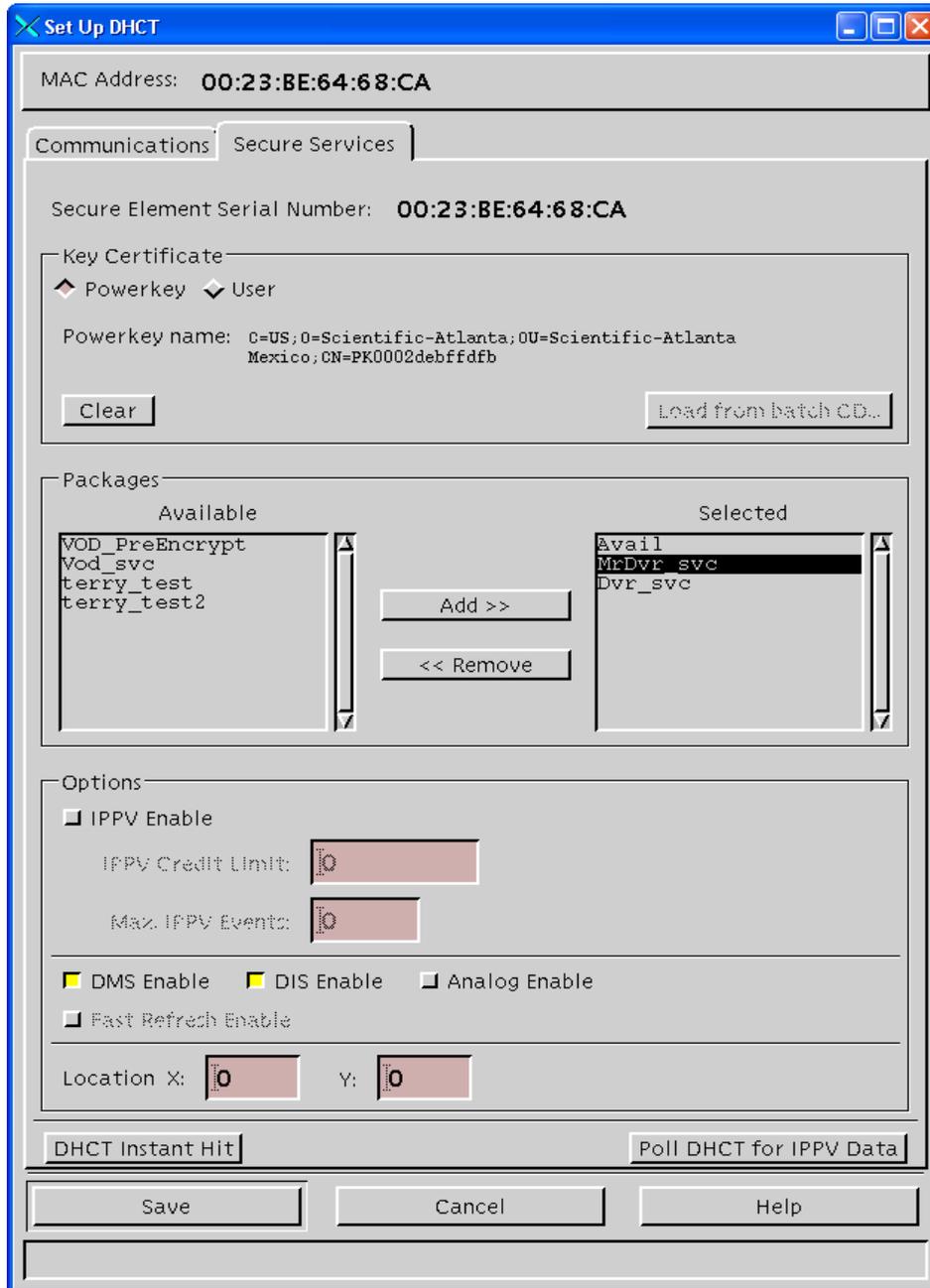
- 5 Click **Save**.

Set Up MR-DVR Service on a DHCT

Complete the following steps to set up MR-DVR service on a DHCT (also known as a set-top).

- 1 From the ISDS Administrative Console, select the **Home Element Provisioning** tab.
- 2 Click the **DHCT** button. The DHCT Provisioning window opens.
- 3 Click the **Open** button and enter the MAC Address, IP address or serial number of the target DHCT.
- 4 Click the **Continue** button. The Set Up DHCT window opens.
- 5 Click the **Secure Services** tab.
- 6 Click the MR-DVR service package name in the Available window and click the Add button to move the package to the Selected window.

- 7 Click the **Save** button.



Set Up a Home Account

A Home Account is required to identify a group of set-tops in a home and enable them to stream content from the DVR set-tops in the group (i.e., receive MR-DVR service).

Complete the following steps to set up a Home Account.

Note: Before you begin, be sure you have set up MR-DVR service for each set-top that will be added to the Home Account.

- 1 From the ISDS Administrative Console, click the **Home Element Provisioning** tab and the **Home Account** button. The Home Account page opens.

Note: For information about the Home Account page, see *Home Account Page Description* (on page 28).

- 2 Click the **Add** button. An empty Home Account ID field appears.

- 3 Enter an ID in the field and click **Save**. The Home Account is created.

Note: For ID character restrictions, see the "Add" description in *Home Account Page Description* (on page 28).

| <input type="checkbox"/> | ID | Created On | Status |
|--------------------------|---------------------------|-------------------|------------------------|
| <input type="checkbox"/> | DES Key 8 | 06/18/10 16:30:16 | Active |

- 4 The ID name is an active link. Click the link to open the Device List for Home Accounts page for this ID.

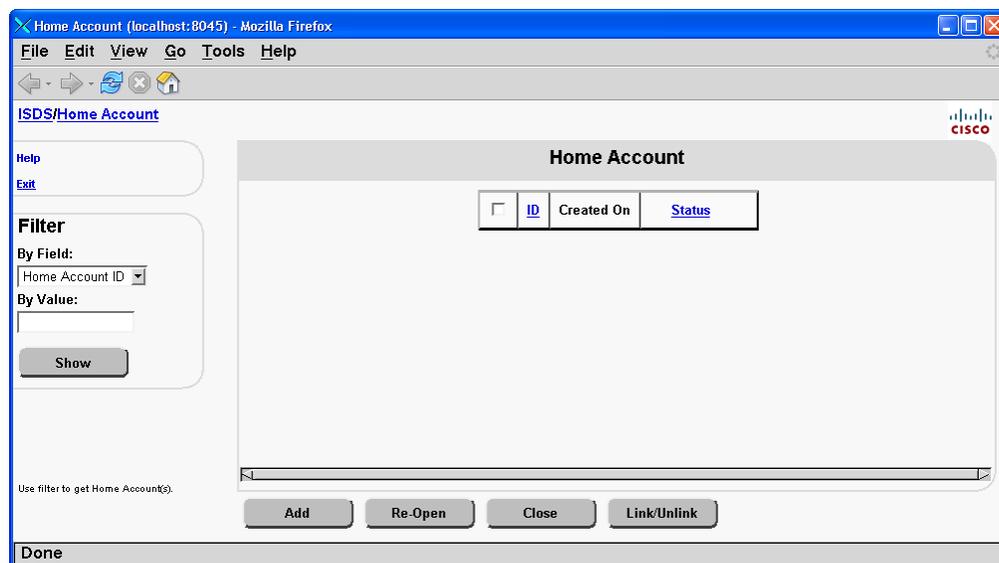
Note: For information about the Device List for Home Accounts page, see *Device List for Home Account Page Description* (on page 30).

- 5 Add the set-tops to the Home Account.

Home Account Page Description

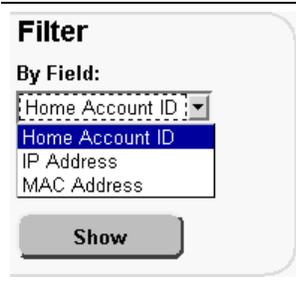
The Home Account page is used to configure Home Accounts.

To access the Home Account page, open the ISDS Administrative Console and click the **Home Provisioning** tab and the **Home Account** button. The Home Account page opens.



A description of each button, field, and link is in the table below.

Note: After a button is clicked, a message is displayed that provides the database impact status.

| Function | Description | | | | | | | | |
|--|--|--------------------------|------------------------|------------|------------------------|--|----------------------|--|--|
|  | <ul style="list-style-type: none"> ■ These links are for browser navigation. ■ Help opens the ISDS Online Help ■ Exit closes the browser window | | | | | | | | |
|  | <p>The Filter allows you to search the Home Accounts database by Home Account ID, IP Address, or MAC Address. First select the filter, then enter the ID or address in the By Value field. Then click the Show button to display the Home Account ID information.</p> <p>Note: If you search on an ID that shares a character string with other IDs in the database, all of them will appear when you click the Show button.</p> | | | | | | | | |
|  | <p>The Add button lets you add new Home Accounts to the database. When you click the button, an ID field opens on the page. Enter the ID in the field and click the Save button to save the ID to the database or click the Cancel button to clear the ID from the field.</p> <ul style="list-style-type: none"> ■ ID names are restricted to a string of 17 or fewer alpha-numeric characters and the underscore (_). IDs are case-sensitive and spaces are not allowed. ■ While wild cards are not supported, you can enter a series of IDs with a common string, i.e., DES_Key, DES_Key_2, DES_Key_3. Then when you search on the common character string, all IDs with the same string are returned. ■ The Created On date/time is the time-stamp for the database entry. ■ The default Status for a new ID is Active. <table border="1" data-bbox="636 1598 1274 1717"> <thead> <tr> <th data-bbox="636 1598 695 1654"><input type="checkbox"/></th> <th data-bbox="695 1598 961 1654">ID</th> <th data-bbox="961 1598 1096 1654">Created On</th> <th data-bbox="1096 1598 1274 1654">Status</th> </tr> </thead> <tbody> <tr> <td data-bbox="636 1654 695 1717"></td> <td data-bbox="695 1654 961 1717"><input type="text"/></td> <td data-bbox="961 1654 1096 1717"></td> <td data-bbox="1096 1654 1274 1717"></td> </tr> </tbody> </table> | <input type="checkbox"/> | ID | Created On | Status | | <input type="text"/> | | |
| <input type="checkbox"/> | ID | Created On | Status | | | | | | |
| | <input type="text"/> | | | | | | | | |

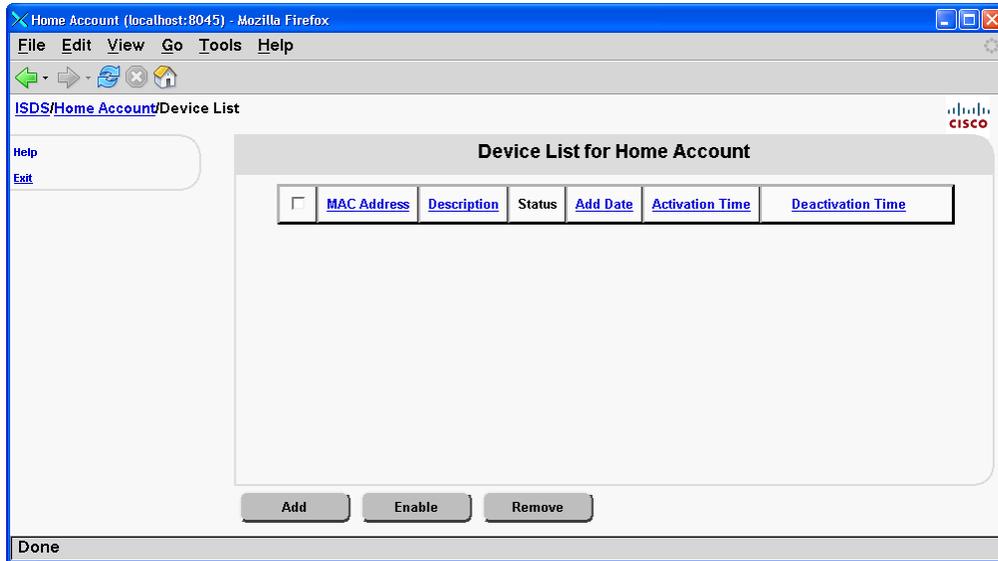
| Function | Description | | | | | | | | | | | | | | | | |
|---|--|--------------------------|------------------------|------------|------------------------|--------------------------|-------------------------|-------------------|--------|-------------------------------------|---------------------------|-------------------|--------|-------------------------------------|---------------------------|-------------------|--------|
|  | The Close button changes the selected Home Account status from Active to Closed. | | | | | | | | | | | | | | | | |
|  | <p>The Re-Open button changes the selected Home Account status from Closed to Active.</p> <p>To select an ID, click the checkbox in the row. You can select all IDs by clicking the checkbox in the top row.</p> <table border="1" data-bbox="638 543 1190 768"> <thead> <tr> <th><input type="checkbox"/></th> <th>ID</th> <th>Created On</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>DES Key</td> <td>06/17/10 18:10:28</td> <td>Active</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>DES Key 2</td> <td>06/18/10 10:21:11</td> <td>Closed</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>DES Key 3</td> <td>06/18/10 13:13:57</td> <td>Closed</td> </tr> </tbody> </table> | <input type="checkbox"/> | ID | Created On | Status | <input type="checkbox"/> | DES Key | 06/17/10 18:10:28 | Active | <input checked="" type="checkbox"/> | DES Key 2 | 06/18/10 10:21:11 | Closed | <input checked="" type="checkbox"/> | DES Key 3 | 06/18/10 13:13:57 | Closed |
| <input type="checkbox"/> | ID | Created On | Status | | | | | | | | | | | | | | |
| <input type="checkbox"/> | DES Key | 06/17/10 18:10:28 | Active | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | DES Key 2 | 06/18/10 10:21:11 | Closed | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | DES Key 3 | 06/18/10 13:13:57 | Closed | | | | | | | | | | | | | | |
|  | <p>The Link/Unlink button opens the window that allows you to move IDs back and forth between Selected Home Accounts and Available Home Accounts.</p> <ul style="list-style-type: none"> Click the ID and then Remove to move an ID to the Available Home Accounts. Click the ID and then Add to move an ID to the Selected Home Accounts. <p>Only a Selected Home Account ID can have set-tops associated with it. By default, a new ID is placed in the Selected Home Accounts list when the ID is added to the database.</p>  | | | | | | | | | | | | | | | | |
|  | The Save button saves text in the ID field to the database as a new Home Account ID. | | | | | | | | | | | | | | | | |
|  | The Cancel button clears text from the ID field and reopens the Home Account page. | | | | | | | | | | | | | | | | |

Device List for Home Account Page Description

The Device List for Home Account page is used to manage set-tops in a Home Account.

To access this page, open the Home Account Page, display a Home Account ID, and click the ID. The Device List for Home Account page will open.

Note: If there are set-tops in the account, they will listed on the page. If there are no set-tops in the account, the page will look like the example below.



A description of each button, field and link is in the table below.

Note: After a button is clicked, a message is displayed that provides the database impact status.

| Function | Description |
|---|---|
| ISDS/Home Account/Device List | <ul style="list-style-type: none"> These links are for browser navigation. |
| Help | <ul style="list-style-type: none"> Help opens the ISDS Online Help |
| Exit | <ul style="list-style-type: none"> Exit closes the browser window |

| Function | Description |
|----------|-------------|
|----------|-------------|



The **Add** button lets you add set-tops to the currently displayed Home Account. When you click the **Add** button, an empty MAC address field opens on the page. Enter the MAC address in the field and click **Save** to save the MAC address to the Device List, or click **Cancel** to clear the MAC address from the field.

| <input type="checkbox"/> | MAC Address | Description | Status | Add Date |
|--------------------------|-----------------------------|-----------------------------|------------------------|--------------------------|
| | <input type="text"/> | | | |

To be eligible for the Home Account, a set-top must satisfy the following criteria:

- It must be set up for Multi-Room DVR service on the ISDS
- It must not have been previously added to another Home Account
- The ISDS must be able to communicate with the device in the home, i.e., the set-top is turned on, connected to a residential gateway, and has an IP address

The following information is displayed for each device entry in the Home Account:

- **MAC Address** – the MAC address for the device
- **Description** – the code version on the device
- **Status** – Active (enabled for MR-DVR service) or Removed (disabled for MR-DVR service)
- **Add Date** – the date and time that the device was entered
- **Activation Time** – the last time the device was activated (device was added or status changed from Removed to Active)
- **Deactivation Time** – the last time the device was deactivated (status changed from Active to Removed)

| Function | Description | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|-----------------------------|-----------------------------|-----------------------------|--------|--------------------------|-------------------------------------|-------------------|------------|---------|----------------------|-------------------------------------|-------------------|------------|---------|----------------------|--------------------------|-------------------|------------|--------|----------------------|--------------------------|-------------------|------------|--------|----------------------|
| <p data-bbox="341 294 503 346">Enable</p> <p data-bbox="341 409 503 462">Remove</p> | <p data-bbox="641 294 1356 430">When a set-top is added to the Device List, it is Active by default, (i.e., enabled for MR-DVR service as a content server (DVR set-tops only) or as a client (both DVR and non-DVR set-tops).</p> <p data-bbox="641 441 1323 546">The Remove button changes the status for the selected set-top(s) to Removed, which deactivates Multi-Room DVR service on the device(s).</p> <p data-bbox="641 556 1307 661">The Enable button changes the status for the selected set-top(s) to Active, which activates MR-DVR service on the device(s).</p> <p data-bbox="641 672 1307 745">To select a device, click the checkbox in the row. You can select all IDs by clicking the checkbox in the top row.</p> <table border="1" data-bbox="641 745 1274 1144"> <thead> <tr> <th data-bbox="641 745 690 829"><input type="checkbox"/></th> <th data-bbox="690 745 885 829">MAC Address</th> <th data-bbox="885 745 1023 829">Description</th> <th data-bbox="1023 745 1128 829">Status</th> <th data-bbox="1128 745 1274 829">Add Date</th> </tr> </thead> <tbody> <tr> <td data-bbox="641 829 690 913"><input checked="" type="checkbox"/></td> <td data-bbox="690 829 885 913">00:18:68:ED:99:28</td> <td data-bbox="885 829 1023 913">CIS430v2.0</td> <td data-bbox="1023 829 1128 913">Removed</td> <td data-bbox="1128 829 1274 913">05/20/10 16:23:19</td> </tr> <tr> <td data-bbox="641 913 690 987"><input checked="" type="checkbox"/></td> <td data-bbox="690 913 885 987">00:23:BE:64:88:DD</td> <td data-bbox="885 913 1023 987">CIS330v2.9</td> <td data-bbox="1023 913 1128 987">Removed</td> <td data-bbox="1128 913 1274 987">05/20/10 16:23:45</td> </tr> <tr> <td data-bbox="641 987 690 1060"><input type="checkbox"/></td> <td data-bbox="690 987 885 1060">00:23:BE:64:88:E9</td> <td data-bbox="885 987 1023 1060">CIS330v2.9</td> <td data-bbox="1023 987 1128 1060">Active</td> <td data-bbox="1128 987 1274 1060">05/20/10 16:24:10</td> </tr> <tr> <td data-bbox="641 1060 690 1144"><input type="checkbox"/></td> <td data-bbox="690 1060 885 1144">00:23:BE:64:68:CA</td> <td data-bbox="885 1060 1023 1144">CIS430v2.9</td> <td data-bbox="1023 1060 1128 1144">Active</td> <td data-bbox="1128 1060 1274 1144">05/20/10 16:24:32</td> </tr> </tbody> </table> | <input type="checkbox"/> | MAC Address | Description | Status | Add Date | <input checked="" type="checkbox"/> | 00:18:68:ED:99:28 | CIS430v2.0 | Removed | 05/20/10 16:23:19 | <input checked="" type="checkbox"/> | 00:23:BE:64:88:DD | CIS330v2.9 | Removed | 05/20/10 16:23:45 | <input type="checkbox"/> | 00:23:BE:64:88:E9 | CIS330v2.9 | Active | 05/20/10 16:24:10 | <input type="checkbox"/> | 00:23:BE:64:68:CA | CIS430v2.9 | Active | 05/20/10 16:24:32 |
| <input type="checkbox"/> | MAC Address | Description | Status | Add Date | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | 00:18:68:ED:99:28 | CIS430v2.0 | Removed | 05/20/10 16:23:19 | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | 00:23:BE:64:88:DD | CIS330v2.9 | Removed | 05/20/10 16:23:45 | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | 00:23:BE:64:88:E9 | CIS330v2.9 | Active | 05/20/10 16:24:10 | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | 00:23:BE:64:68:CA | CIS430v2.9 | Active | 05/20/10 16:24:32 | | | | | | | | | | | | | | | | | | | | | | |
| <p data-bbox="341 1155 503 1207">Save</p> | <p data-bbox="641 1155 1356 1260">The Save button saves the character string in the MAC Address field to the database and adds the device to the Home Account.</p> | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p data-bbox="341 1270 503 1323">Cancel</p> | <p data-bbox="641 1270 1356 1377">The Cancel button clears the character string from the MAC Address field and reopens the Device List for Home Account page.</p> | | | | | | | | | | | | | | | | | | | | | | | | | |

Provisioning MR-DVR Service on Set-Tops

Provisioning MR-DVR service is a matter of naming each DVR set-top on the home network (if desired) and confirming that the home router is properly configured.

Before You Begin

- Verify MR-DVR service provisioning on the ISDS
- Verify each set-top is on the home network
- Verify there is video service on each set-top
- Proceed with provisioning MR-DVR service

Important: MR-DVR uses UPnP protocol to transfer data between set-top boxes. In order to make sure that UPnP traffic does not leave the home environment, you should configure the router to disallow UPnP traffic. UPnP protocol has a time-to-live (TTL) of 1 in our environment.

Note: The procedures below use the Reference TV Navigator (RTN), an on-screen interface for configuring features and services on your IPTV set-top. For more information, see the *RTN Client User Interface User Guide* (part number 4017515).

Name the DVR Set-Top(s)

To provide MR-DVR service, a DVR set-top must be distinguishable by name from other DVR set-tops on the home network. To name your devices, go to each DVR set-top and complete the procedure below, if desired. By default, each DVR in the home is assigned a unique name.

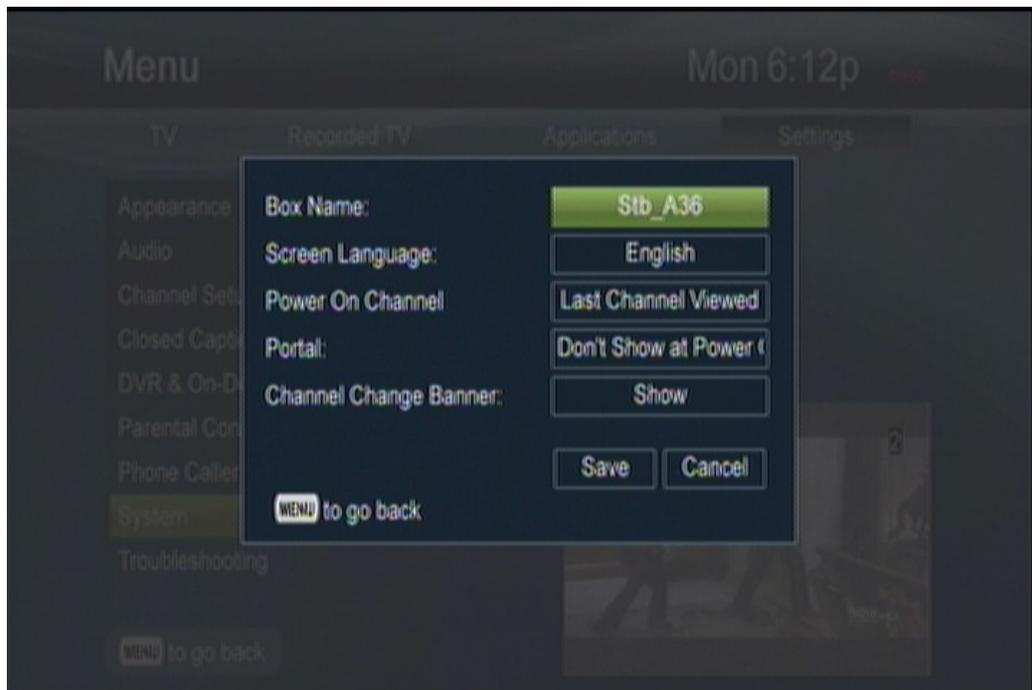
Note: You can use the controls on the set-top front panel or on your set-top remote to complete this procedure.

- 1 Press **Menu** to load the Reference TV Navigator Menu.

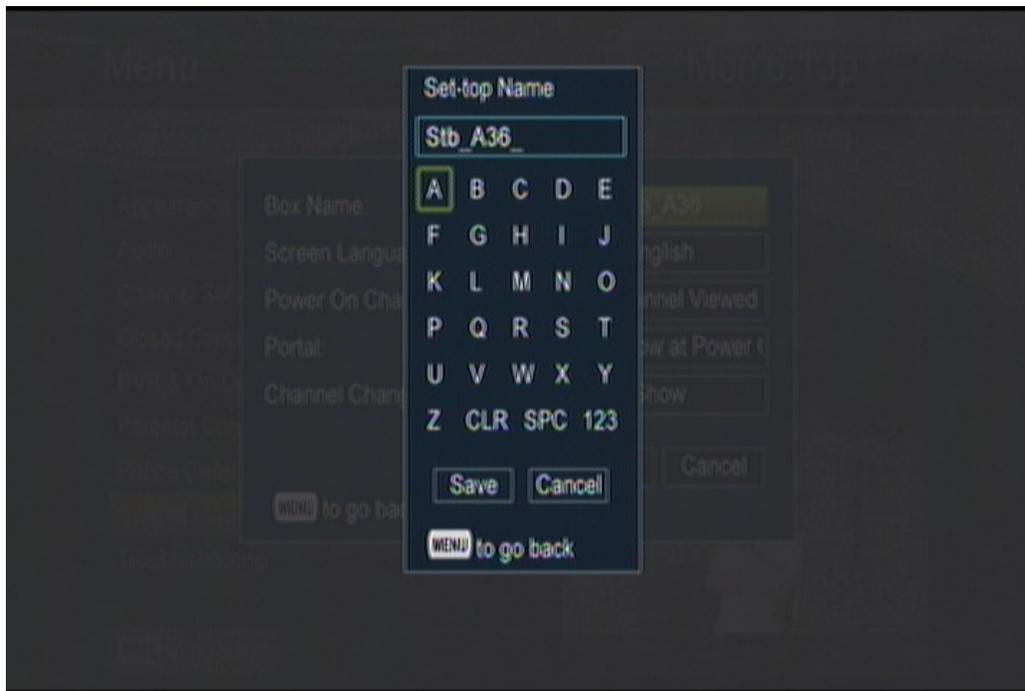
- 2 With the arrow keys, scroll right to **Settings**, then scroll down to **System**.



- 3 Press the **OK** button. The Set-Top Preferences Menu appears.



- 4 Scroll to the **Box Name** field and press the **OK** button. The Alpha Keypad appears.



- 5 Enter a name in the text field:
 - The user interface supplies a default name that you can keep or replace. If you decide to replace it, use the arrow keys to navigate to CLR, then press **OK** multiple times to clear the default name field. The character will appear at the cursor in the text field. Do this for each character in the name you have chosen.
 - To enter numeric characters, press **123**. The Numeric Keypad appears. For an explanation of the function keys on both keypads, see *Keypad Function Keys* (on page 36).
 - Naming restrictions: 16 or fewer characters.
- 6 When you have finished entering the name, press **Save**. The Set-Top Preferences Menu will appear.
- 7 Press **Save** or **Cancel** to close the Set-Top Preferences Menu and return to the Settings Menu.

Note: If you press **Cancel**, any unsaved changes you might have made to the other options on the Set-Top Preferences Menu will be lost.

Keypad Function Keys

The user interface provides on-screen keypads for entering text without a keyboard. To enter characters in a text field, use the arrow keys to position the green box over a character, then press the **OK** button. The character will appear at the cursor in the text field.

The alpha/numeric keys behave as you would expect. The tables below give descriptions for how the function keys behave.

Alpha Keypad

| Key | Description |
|--------|---|
| CLR | Backspaces and deletes characters |
| SPC | Enters a space character |
| 123 | Closes this keypad and opens the Numeric Keypad |
| Save | Saves changes and returns to the Settings Menu |
| Cancel | Cancel unsaved changes and returns to the Settings Menu |



Numeric Keypad

| Key | Description |
|--------|--|
| CLR | Backspaces and deletes characters |
| SPC | Enters a space character |
| ABC | Closes this keypad and opens the Alpha Keypad |
| Save | Saves changes and returns to the Alpha Keypad |
| Cancel | Cancel unsaved changes and returns to the Alpha Keypad |



Verifying MR-DVR Service on Set-Tops

To verify MR-DVR provisioning, you must play back content on one set-top that was recorded on another set-top.

Play the Recording in Another Room

Before You Begin:

- Make sure you know the name of the DVR set-top with the recorded content
- Then go to a different set-top on the home network to play the recorded content

Note: You can use the controls on the set-top front panel or on your set-top remote to complete this procedure.

- 1 Press **Menu** to load the Reference TV Navigator menu.
- 2 With the arrow keys, scroll right to **Recorded TV**, then scroll down to **My Recordings**.



- 3 Press the **OK** button. The **My Recordings** menu appears, showing a list of available recordings. This verifies MR-DVR service for DVR set-top and verifies that the DVR is streaming the selected program.



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