



Staging Area Quick Reference Sheet for SSC DHCTs

Audience

This quick reference sheet is for staging area personnel who stage new, RMA, or field-return Cisco® SSC (Separable Security Host with CableCARD™ module) Explorer® DHCTs.

Scope

This document contains procedures to stage SSC Explorer DHCTs.

Note: This document only addresses staging for SSC DHCTs. For information on staging non-SSC DHCTs, refer to the *Explorer Digital Home Communications Terminal Staging Guide*.

Document Version

This is the second revision of this document.

Permission to Copy

You may photocopy this page for use in your staging area.

Additional Documentation

For more detailed information about staging and other concepts discussed in this sheet, read the following publications:

- *DBDS Utilities Version 5.1 Installation Instructions and DNCS Utilities User's Guide* (part number 740020)
- *DBDS Utilities Version 6.1 Installation Instructions and DNCS Utilities User Guide* (part number 4020695)
Note: If you do not have the DBDS Utilities software (5.1 or later) installed on your system, contact Cisco Services.
- *Downloading New Client Application Platform Installation Instructions* (part number 4003052)
- *Explorer Digital Home Communications Terminal Staging Guide* (part number 734375)
- *M-Card and S-Card Diagnostic Screens on a TV Host: A Reference Guide* (part number 4015203)
- *Separable Security Host Staging Guide* (part number 736107)
- *Understanding Diagnostic Screens for the Explorer DHCTs Application Guide* (part number 749244)

Staging New and RMA SSC DHCTs

Complete these steps to stage new or RMA DHCTs.

1. Check with your DNCS operator and billing system operator to verify that EMM data (for the SSC DHCTs you are preparing to stage) has been properly installed. Refer to the *Explorer Digital Home Communications Terminal Staging Guide* for more information.
2. Scan the DHCTs into the billing system using the appropriate procedures authorized by your billing system provider.
Important: Ensure that the billing system operator does not send transactions to the DNCS at this time.
3. Unpack the DHCTs and place them onto the staging rack.
4. Connect the CABLE IN port to the RF signal.
5. Connect the DHCTs to AC power. The DHCT downloads the OS and ResApp software from the DNCS and reboots. The DHCT displays either the clock or **CCCC**.
6. Connect the CABLE OUT port on the DHCT to a TV monitor so that you can monitor the staging of the CableCARD module (necessary only if you are using software prior to **0802** [4250] or **0902** [8300]).
7. After a few minutes, the paired CableCARD module begins to download the software from the DNCS.
8. Wait for the DHCTs to reboot and to indicate that the CableCARD module download is complete (DHCT ready indicator).
9. From the billing system, send a "hit" to the DNCS to place the DHCTs in service with at least one package, and, if applicable, authorize DVR capability. Wait for the DHCTs to show the clock.

10. At this time, binding* should occur. Are you using manual binding?
 - If **yes**, follow the procedures in **Manual Binding** in the *Separable Security Host Staging Guide*.
 - If **no**, you are using either combo binding or autobinding. The binding process should occur without intervention.
11. Verify authorized and high-value copy-protected channels.
12. Verify DVR functionality (if applicable) by pressing either the **LIST** button or the **MY DVR** button (based on the type of remote control you are using).
13. Does your business process require inventory DHCTs to be authorized for service?
 - If **yes**, go to step 14.
 - If **no**, downgrade (disable) the DHCTs in accordance with your site process, wait for the Brick mode indicator or loss of secure services, and then go to step 14.
14. Disconnect the DHCTs and prepare them for shipment by placing them back into the original shipping container.

Note: Some sites reverse steps 13 and 14 to let installers see services during installation before having the DHCT receive a hit with the subscriber's contracted services. If your site does this, the DHCT will only display services if it is installed within the EMM timeout period. After the timeout period, the DHCT will need to receive a hit before it can display secure services.

Activating the Staging Toolkit and Viewing Status Indicators and Diagnostic Screens on the SSC DHCTs (SARA Only)

Complete these steps to activate the Staging Toolkit and diagnostic screens.

Important: The information displayed on the DHCT LED as a result of activating the Staging Toolkit is information about the DHCT only, not information for the paired CableCARD module. To view information about the CableCARD module, you must view the diagnostic screens.

1. Based on the type of remote control you are using, do one of the following procedures:
 - Set the VCR/VOD switch to **VOD**.
 - Press **CBL**.
 2. Press **PAUSE** and wait until the message indicator (mail light) flashes.
 3. To activate the Staging Toolkit, press **PAGE -** or **PREV -**, based on the type of remote control you are using.
 4. After the Staging Toolkit activates, you can do the following:
 - To view status indicators, go to step 5.
 - To view the diagnostic screens, go to step 6.
 - If you are using Brick mode, you can clear customer preferences and format the hard drive by pressing either the **SETTINGS** button or the **MENU** button (based on the type of remote control you are using) and then entering the **728469** PIN. All user settings and stored DVR recordings are cleared.
- Notes:**
- If the DHCT does not accept the PIN, press the **EXIT** button and start this procedure over from step 1.
 - To format the hard drive without clearing customer preferences, press either the **LIST** button or the **MY DVR** button three times (based on the type of remote control you are using). The hard drive formats and the DHCT reboots.
5. To view status indicators, press one of the following numbers (this information is not valid for the CableCARD module, it is DHCT information only):
 - 1** – Not valid for SSC DHCTs
 - 2** – Displays DHCT Boot Status (SI: TIME: SAM)
 - 3** – Displays Connection Indicator
 - **D-0** – Indicates no connection between the DHCT and the DNCS
 - **D-1** – Indicates the DHCT is in one-way (broadcast) mode
 - **D-2** – Indicates the DHCT is in two-way (interactive) mode
 - 4** – Not valid for SSC DHCTs
 6. To view diagnostic screens, press **PAGE +** or **NEXT +**, based on the type of remote control you are using.

7. To page up or page down within the diagnostic screens, press **PAGE +/NEXT +** or **PAGE -/PREV -**, based on the type of remote control you are using.
8. To exit, press the **EXIT** button.

Staging Field-Returned SSC DHCTs

Complete these steps when staging DHCTs that have been returned from the field.

1. Connect the DHCTs to the plant; then, wait for them to either boot into DHCT ready mode or into Brick mode.
2. Scan the DHCTs into the billing system and take them out of service. The DHCTs will display the Brick mode indicator.
3. Power on the DHCT.
4. Check the IPPV Information page of the CableCARD diagnostic screens for stranded impulse pay-per-view (IPPV) events. If the EID field is greater than 0 (zero), you have stranded IPPV events. Select one of the following options:
 - If the EID field shows 0, go to step 5.
 - If the EID field shows any number other than 0, complete the following actions:
 - a) Tag the SSC DHCT.
 - b) When ready, complete the procedure "Clearing Stranded IPPV Events from SSC DHCTs" for all DHCTs you have tagged.
5. Are you using Brick mode?
 - If **yes**, go to step 6.
 - If **no**, go to step 7.
6. If you are using Brick mode, do the following:
 - a) Activate the Staging Toolkit.
 - b) Clear the SARA menu settings by pressing either the **MENU** button or the **SETTINGS** button (based on the type of remote control you are using) and entering the **728469** PIN.

Note: If the DHCT does not accept the PIN, press the EXIT button and start this procedure over from step 6a.
 - c) Wait for the LED to display **C---**.
 - d) Exit the Staging Toolkit, and go to step 8.
7. If you are *not* using Brick mode, clear the SARA menu settings using the billing system or the DNCS. This method will clear all stored content on DVR DHCTs.

Note: If you are using the DNCS method, complete the following:

 - a) Click the **Server Applications** tab and select **DHCT Config**.
 - b) Select **Addressable** and click **Continue**.
 - c) Enter the Media Access Control (MAC) address of the DHCT; then, click **Reset User Settings**.
8. Move the DHCTs into an authorized status in accordance with your site process. Wait for the DHCTs to show the correct indication (DHCT ready or Brick mode).
9. Connect the CABLE OUT port on the DHCT to a TV and verify authorized channels.
10. Do authorized channels appear?
 - If **yes**, go to step 11.
 - If **no**, send a *ModifyDhctConfiguration (modDhctConfig -s)* hit using your billing system. The EMM ISE column increments by 4 or more, and authorized channels appear.
11. Place the DHCTs into the warehouse inventory according to your site process.

Clearing Stranded IPPV Events from SSC DHCTs

Complete these steps to clear stranded IPPV events.

1. Check the billing system to make sure that this DHCT has an account status that corresponds to **in service, two-way**.
2. Press the **POWER** button on the DHCT and check for an IP address.

Note: Do not go to step 3 without verifying the IP address. An IPPV poll will not work if the DHCT does not have an IP address.
3. Send an IPPV poll in accordance with your site process.
4. Use the IPPV Information screen to determine if you have any remaining stranded IPPV events. If the EID field is greater than 0, then you still have stranded IPPV events. Repeat this procedure from step 1. Do not proceed to step 5 until you have verified that you do not have any remaining stranded IPPV events.
5. Place the DHCTs out-of-service, disconnect them, and return them to the original group of field-return DHCTs. Go back to the **Staging Field Returned SSC DHCTs** section and repeat the procedure from step 5.

Verifying EMMs for SSC DHCTs That Failed to Stage

Complete these steps if you have DHCTs that did not stage.

1. Verify the PowerKEY® provisioning by displaying the first CA screen of the CableCARD module. Verify the number of EMM messages received and validated by the CableCARD module and that those numbers match your site's standard numbers. If the number of EMMs process is zero, the CableCARD module has yet to receive the EMM messages.

Note: If DHCTs do not authorize after receiving the *ModifyDhctConfiguration (modDhctConfig -s)* transaction, verify that the FDC signal on the Status Summary diagnostic screen is between +10 dBmV and -10 dBmV. If the FDC signal is OK, send an "instant hit" from either the billing system (if possible) or from the DNCS.
2. Check the status of the conditional access for the CableCARD module. The CA status (Status) will be in one of the following states:
 - **Ready**—Desired value; PowerKEY CA launched successfully
 - **Not Ready-No CA Strm**—CA stream is not available
 - **Not Ready-No Time GBAM**—CA stream is available, but waiting for Time GBAMs
 - **Not Staged**—CableCARD module is not provisioned in the headend
 - **N/A**—Initialization error or an internal problem while attempting to receive the status
3. Verify that you can receive high-value copy-protected services (those services with copy-protection settings of *copy once* or *copy never*).

Brick Mode and SSC DHCT Ready Indications

When the SSC DHCT (including the CableCARD module) has booted and finished downloading software, it will exhibit one of the following indications:

- Brick Mode indicator [----].
- DHCT ready indicator [the time of day (clock)].

***Note:** Binding is a DNCS function that matches the CableCARD module's ID to its host's ID to ensure that the host device conforms to the copy-protection rules defined by the Copy Control Information (CCI). You must bind a CableCARD module to its host before the host can receive high-value copy-protected services (those copy-protected services with copy protection settings of *copy once* or *copy never*).



Cisco Systems, Inc.
5030 Sugarloaf Parkway, Box 465447
Lawrenceville, GA 30042

678 277-1120
800 722-2009
www.cisco.com

Cisco, Cisco logo, Explorer, and PowerKEY are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco's trademarks, go to this URL: www.cisco.com/go/trademarks.

CableCARD and M-Card are trademarks of Cable Television Laboratories, Inc.

Other third party trademarks mentioned are the property of their respective owners.

Product and service availability are subject to change without notice.

The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

© 2007, 2009, 2012 Cisco Systems, Inc. All rights reserved.

October 2012

Printed in United States of America

Part Number 78-4019477-01 Rev C