



Hitachi Data Ingestor

Remote Server Management Conversion Guide

v6.1.1

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Preface

About this guide

If you have HDI remote servers that are centrally managed by Remote Site Management (RSM) of HCP Anywhere, the HDI release 6.1.1 allows you to convert some or all of HDI servers to be managed locally at branch offices. This guide provides step-by-step procedures for converting HDI remote servers from RSM-managed to locally-managed.

Who should use this guide

This guide is intended for Hitachi Data Systems representatives and authorized service partners who are performing management conversion for HDI remote servers. Hitachi Data Systems does not recommend customers to perform the conversion without guidance from trained personnel.

Related information and publications

- *Hitachi Data Ingestor Single Node Administrator's Guide*, MK-90HDI039
- *Hitachi Data Ingestor CLI Administrator's Guide*, MK-90HDI034
- *HDI Remote Server Administrator Guide (Locally Managed HDI RS)*, MK-90HDI054
- *HDI Remote Server Administrator Guide (Centrally Managed HDI RS)*, MK-90HDI053
- *HCP Anywhere Administrator Help*, MK-HCPAW000
- *HCP Administrator Help*, MK-95HCPH001

Getting help

The [Hitachi Data Systems Support Connect](https://support.hds.com/en_us/contact-us.html) is the destination for technical support of products and solutions sold by Hitachi Data Systems. To contact technical support, log on to Hitachi Data Systems Support Connect for contact information: https://support.hds.com/en_us/contact-us.html.

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Comments

Please send us your comments on this document: doc.comments@hds.com. Include the document title, number, and revision, and refer to specific section(s) and paragraph(s) whenever possible.

Thank you! (All comments become the property of Hitachi Data Systems Corporation.)

Introduction

HDI 6.1.0 or earlier requires centralized management of HDI remote servers through Remote Site Management (RSM) of Hitachi Content Platform Anywhere (HCP Anywhere). The HDI version 6.1.1 adds support for local management of HDI remote servers, giving more configuration options to fit customers' unique business environments. When managed locally, HDI offers features that are not available to users when HDI is managed by RSM. You can convert all HDI remote servers or just select remote servers.

Centrally managed remote servers refer to HDI remote servers that are managed centrally by HCP Anywhere. Files can be shared and synchronized between the centrally managed remote offices and all data is backed up in an HCP system. See *HDI Remote Server Administrator Guide (Centrally Managed HDI RS)*, MK-90HDI053-00 for the information about how to install, setup, and maintain centrally managed remote servers.

Locally managed remote servers refer to HDI remote servers that are managed locally at branch offices. Data on each locally managed remote server is backed up in an HCP system. See *HDI Remote Server Administrator Guide (Locally Managed HDI RS)*, MK-90HDI054-00 for the information about how to install, setup, and maintain locally managed remote servers.

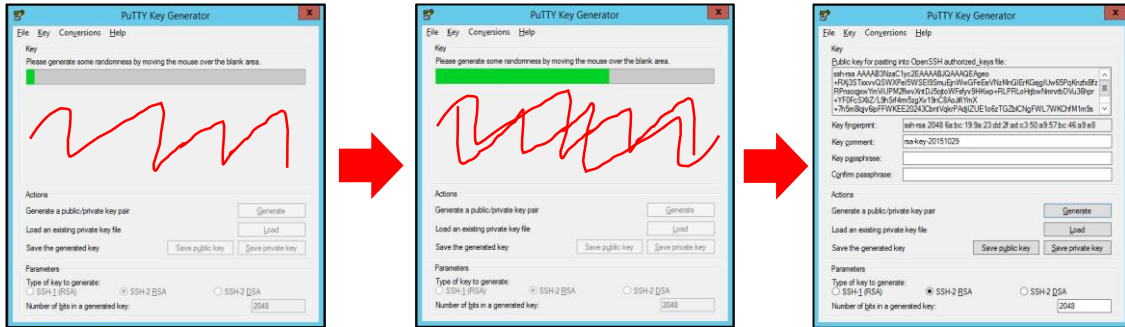
Converting remote server management

Connecting to HDI via SSH

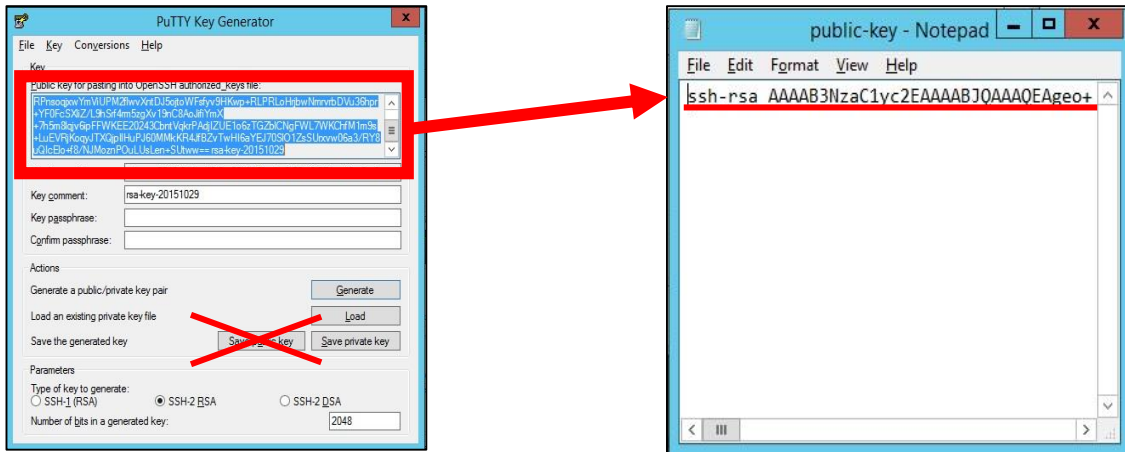
You need to connect to the HDI node via SSH. This topic provides procedures for generating a public and a private key to establish an SSH connection.

Procedure

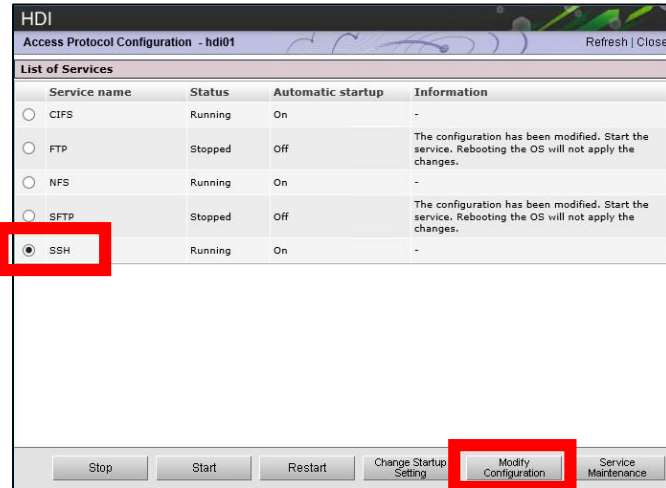
1. Open PuTTYgen.
2. Click **Generate**.
3. Follow the screen instruction and move the mouse over the blank area until the bar turns green.



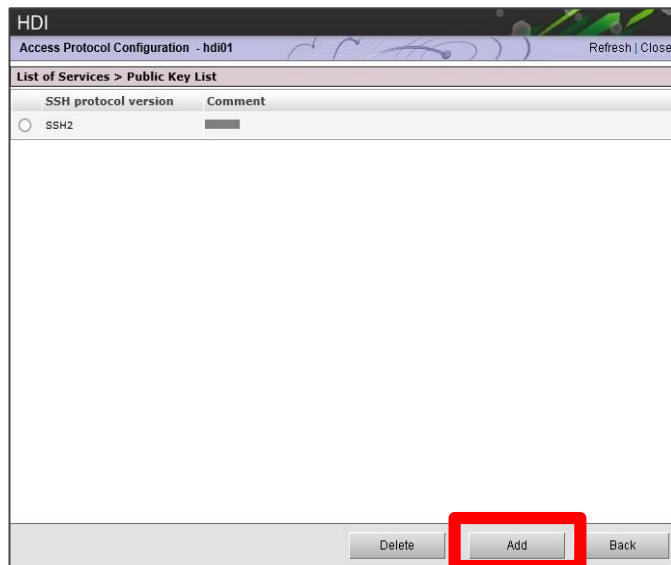
4. Open a text file and copy the public key from PuTTYgen to the file and save it. Do NOT select the Save public key button.



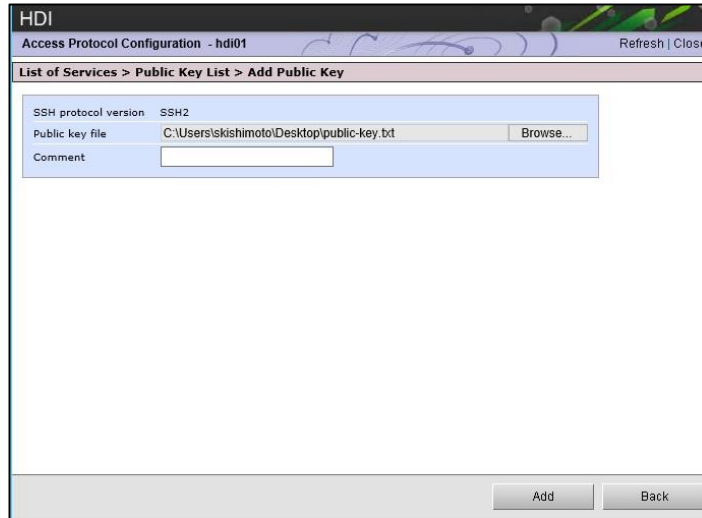
5. Optionally, type a passphrase in the **Key passphrase** field. You will be asked for the passphrase when logging into HDI via SSH.
6. Click the **Save private key** button.
7. Register the public SSH key with HDI.
 - a. Open a browser to access HDI GUI.
 - b. Select **Access Protocol Configuration**.
 - c. In the **List of Services** screen, select **SSH** and then click **Modify Configuration**.



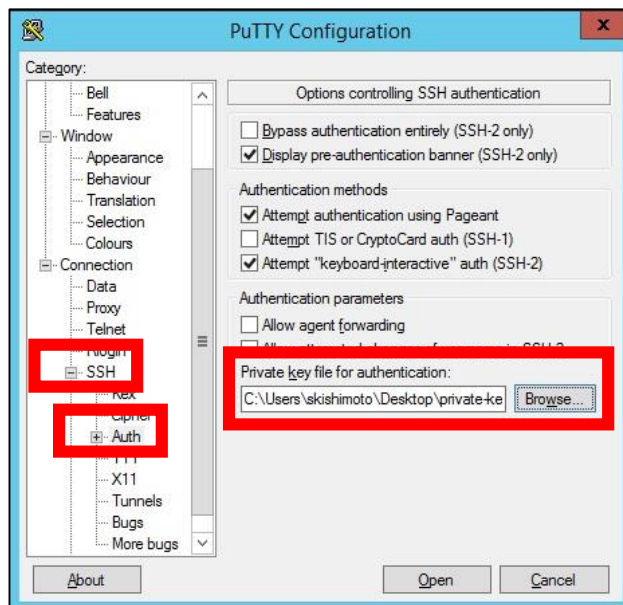
d. On the **List of Services > Public Key List** screen, select **Add**.



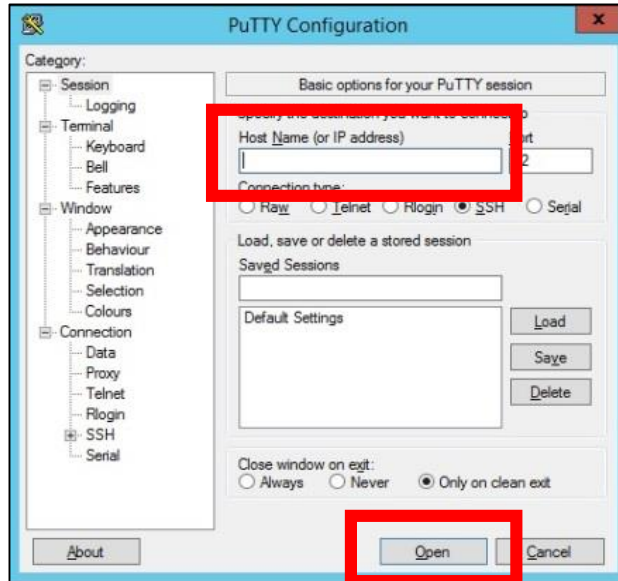
e. On the **List of Services > Public Key List > Add Public Key** screen, enter the public key file that you created and click **Add**.



- f. Confirm that the public key is registered.
- 8. Register the private SSH key with HDI.
 - a. Open PuTTY. The PuTTY Configuration screen opens.
 - b. Under **Category**, select **SSH** and then **Auth**.
 - c. Browse to enter the private key that you have saved.
 - d. Click **Open**.



- e. Type in the host name or the IP address of the remote server, and open the console.



- f. Type in `nasroot` for the use name. If you specified a passphrase during the key generation, enter the passphrase at the prompt.



- g. The warning message is shown at the login:

```
login as: nasroot
Authenticating with public key "rsa-key-20151029"
Warning Notice!

This is a {Company Name Here} computer system, which may be accessed and used o
nly for authorized {Company Name Here} business by authorized personnel. Unautho
rized access or use of this computer system may subject violators to criminal, c
ivil, and/or administrative action.

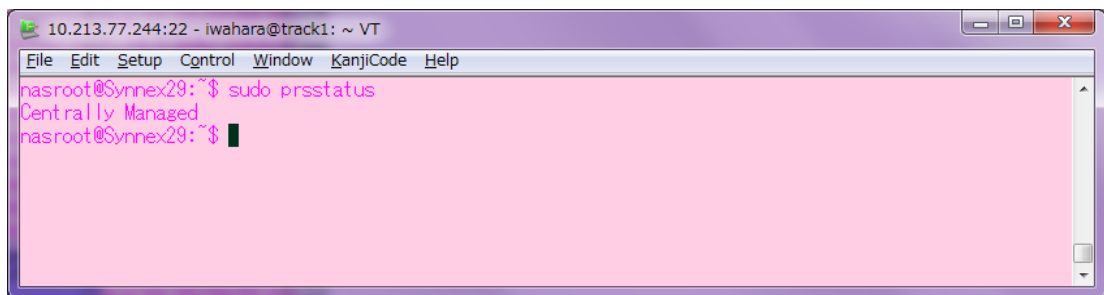
All information on this computer system may be intercepted, recorded, read, cop
ied, and disclosed by and to authorized personnel for official purposes, includi
ng criminal investigations. Such information includes sensitive data encrypted t
o comply with confidentiality and privacy requirements. Access or use of this co
mputer system by any person, whether authorized or unauthorized, constitutes con
sent to these terms. There is no right of privacy in this system.
Last login: Thu Oct 29 15:02:00 2015 from 10.0.100.1
nasroot@hdi01:~$ █
```

Converting remote server management

Converting remote servers involves several steps and requires coordinating tasks with HCP Anywhere and HCP administrators. This topic provides step-by-step procedures for changing a centrally-managed remote server to a locally-managed remote server.

Procedure

1. Verify the HDI version. It should be 6.1.1 or later or you must update the software before moving to the next step.
2. Confirm the management type.
 - a. Use the `prsstatus` command to show the management type.
 - b. Verify that the command returns Centrally Managed.



```
10.213.77.244:22 - iwahara@track1: ~ VT
File Edit Setup Control Window KanjiCode Help
nasroot@Synnex29:~$ sudo prsstatus
Centrally Managed
nasroot@Synnex29:~$ █
```

3. If there are exported or imported filesystems on the HDI remote server, cancel the filesystem import settings.



Step 3, 5, 6, 7 requires administration permission on HCP Anywhere. .



If you are converting multiple HDI devices and retaining the same access rights between imported and exported filesystems on the converted devices, you do not need to change the filesystem settings.

4. Inform the HCP Anywhere administrator that you are converting management for the HDI device. The HCP Anywhere administrator should not make any modifications to the HDI device configuration settings during conversion.
5. Confirm that the HDI device configuration settings reflect any recent changes you have made:
 - a. In the top-level menu of HCP Anywhere, mouse over the **HDI Devices** tab to display a secondary menu.
 - b. In the secondary menu, click **Devices**.
 - c. On the **Devices** page, click the **In Service** tab.
 - d. In the list of device records, click the record for the device you want.
 - e. Click the **HDI Filesystems** tab. The **HDI Filesystems** tab opens to the list of HDI filesystems for the device.
 - f. Click on the row for the filesystem you want.
 - g. The row expands to show the settings for the HDI filesystem you selected.

1 - 5 of 5 Devices

Show All 20 Items per page Page 1 of 1

Serial Number	Name	State	Last Reported	Alerts
HYV-00592		Active	08/31/2016 2:37 AM	

Overview Configuration **HDI Filesystems** Health Report Events

Updated: 08/31/2016 2:22 AM

► Add or Import HDI Filesystem

1 - 2 of 2 Filesystems

Name 20 Items per page Page 1 of 1

Name	Type	Cache Size
fs01	Exported	1.00 GB
rocs01	Imported	1.00 GB

Imported from device: STAR-VM-TEST06 Name on original device: fs01

Private Exported

Cache Size: 1.00 GB GB TB

855.00 GB of 857.00 GB available content

Private - other devices cannot import and view filesystem content

Filesystem Shares

Share Name	New Name	Type	
<input checked="" type="checkbox"/> sh01	rocs01	CIFS	\\%\$ynnex294r ocs01

Update Filesystem Cancel

6. Check the operation status of the HDI remote server by viewing report on the **Health Report** tab.

Hitachi Content Platform Anywhere User > admin **HITACHI**

System Access File Sync and Share **HDI Devices** Log Out / Password

▶ Add New Devices

Inventory **2** In Service **5** Out of Service **0** Manage Tags Serial Number

1 - 5 of 5 Devices

Show All 20 Items per page Page 1 of 1

Serial Number	Name	State	Last Reported	Alerts
▼ HYV-00592		Active	08/31/2016 2:37 AM	
<div style="display: flex; border-bottom: 1px solid #ccc;"> Overview Configuration HDI Filesystems Health Report Events </div> <p>Latest report Latest checkin: 08/31/2016 2:37 AM</p> <pre> { "specification": { "device": "HDI", "type": "STATUS", "version": "2.0.0" }, "details": { "encryption": { "enableEncryptionAtRest": false }, "version": 9, "device": { "type": "HDI", "model": "HDI-RS01", "firmware": "06-01-01-00-00-02", "serial": "HYV-00592", "license": "HGJJKLNMNOPEQRST43WXYZ0123456789ABCDEFGHIJKLNMNOPEQRSTUVFEGHJKLBN9DDDPQ60F" }, "component": { "totalMemoryInMB": 7680, "drivesInGB": [931, 931] } } } </pre>				
▶ STAR-VM-TEST06		Active	08/30/2016 10:02 PM	
▶ VMA111		Active	08/31/2016 1:32 AM	
▶ VMA90-TEST		Active	07/11/2016 9:37 PM	

- Make sure that there are no alerts reported on the HDI remote server in the Alerts section in the **Overview** tab.

The screenshot displays the management interface for a Hitachi Data Ingestor remote server. At the top, there are status indicators for 'Inventory 2', 'In Service 5', and 'Out of Service 0'. A search bar and 'Manage Tags' link are also visible. The main content area is titled '1 - 5 of 5 Devices' and shows a list of devices. The selected device, 'HYV-00592', is in an 'Active' state and was last reported on '08/31/2016 2:37 AM'. Below the device header, there are tabs for 'Overview', 'Configuration', 'HDI Filesystems', 'Health Report', and 'Events'. The 'Overview' tab is active, showing fields for 'Name', 'Cache Size' (set to 857.00 GB), and 'Description (optional)'. There is also a 'Tags' section with an 'Add Tag' button. At the bottom of the configuration area, there are 'Save Settings' and 'Cancel' buttons. Below the configuration area, there is an 'Alerts' section with a table showing a warning message: 'A problem was detected in a fan. (fan_1)' with code 'KAQX10014'. At the very bottom, there is a 'Major Events' section with a table showing the event details.

Code	Message	Filesystem
KAQX10014	A problem was detected in a fan. (fan_1)	

User	Severity	Date	Event
	WARNING	8/31/2016 2:37AM	Error received from HDI device
Event ID: 3841 Device 'HYV-00592' encountered error 'KAQX10014': 'A problem was detected in a fan. (fan_1)'			
	WARNING	8/31/2016 2:37AM	Error received from HDI device

- On the HDI remote server, obtain the HCP information and the namespace assigned to each filesystem using the `archcpget --migrate-info` command. Provide the information to the HCP administrator as it is required when creating a new user account in the step 11.

```

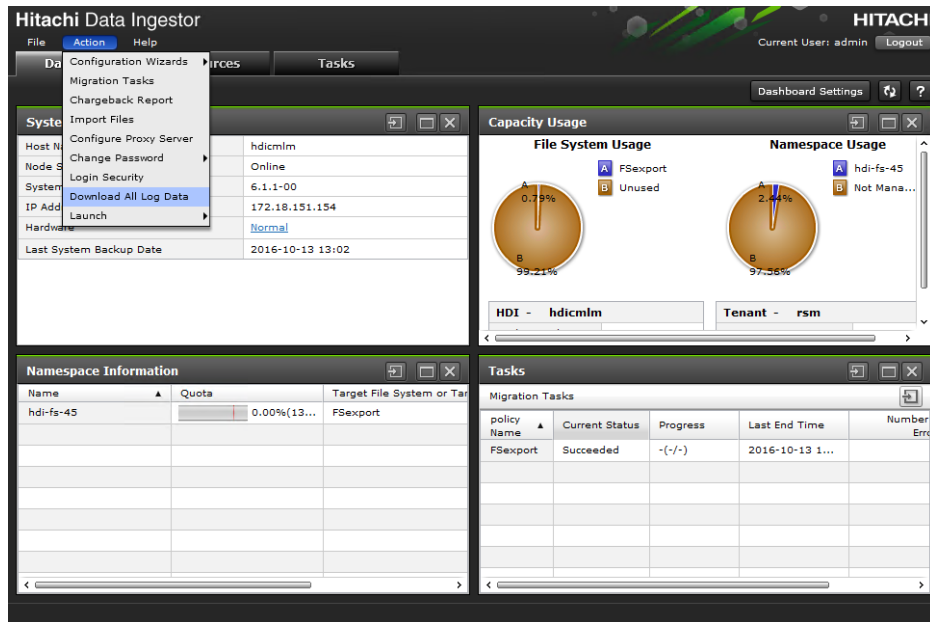
nasroot@Synnex29:~$ sudo archcpget --migrate-info
HCP host name      : hcp-rwcs-hisol.local.com
Replica HCP host name :
HCP tenant name    : prs01
HCP account user   : system-backup-data-user
External host      :
External replica host :
Namespace Information :
namespace          : hdi-fs-199
Filesystem          : fs01
Total disk capacity(GB) : 1.000
Versioning          : Use
Period to hold(day) : 7

namespace          : system-backup-data
Filesystem          : --
Total disk capacity(GB) : 1.000
Versioning          : Use
Period to hold(day) : 2
nasroot@Synnex29:~$ █
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$ sudo fslist -v -c
fs01:1.000:::0.940:0.004:0.936:45:1048531:25::rw:on:Advanced ACL::::--:--:--:--:--:--:--:deny:rw:hdi
-fs-199:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:vg0:on
rocs01:1.000:::0.940:0.004:0.936:45:1048531:25::rw:on:Advanced ACL::::--:--:--:--:--:--:--:allow:ro:
hdi-fs-197:hdi-fs-197.prs01.hcp-rwcs-hisol.local.com:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:vg0:on
-:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:--:vg0:on
nasroot@Synnex29:~$

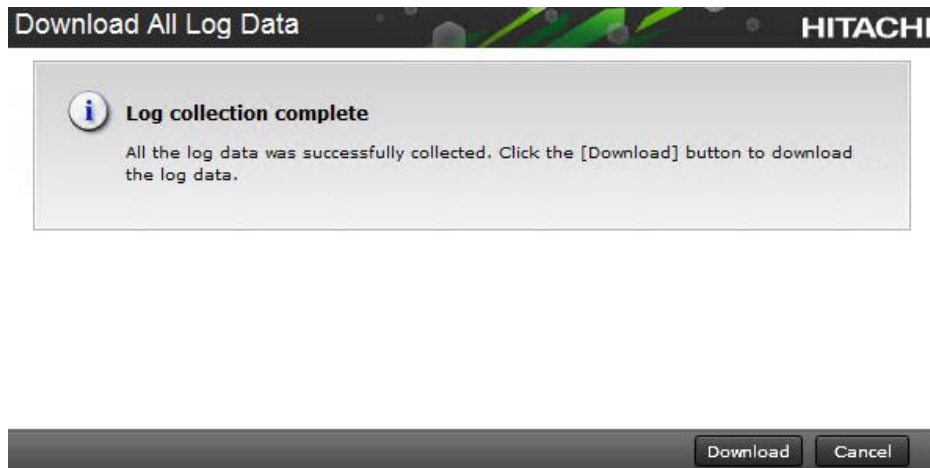
```

9. Obtain logs to keep a record of the HDI settings before starting conversion.
 - a. Open a browser to access the HDI device:

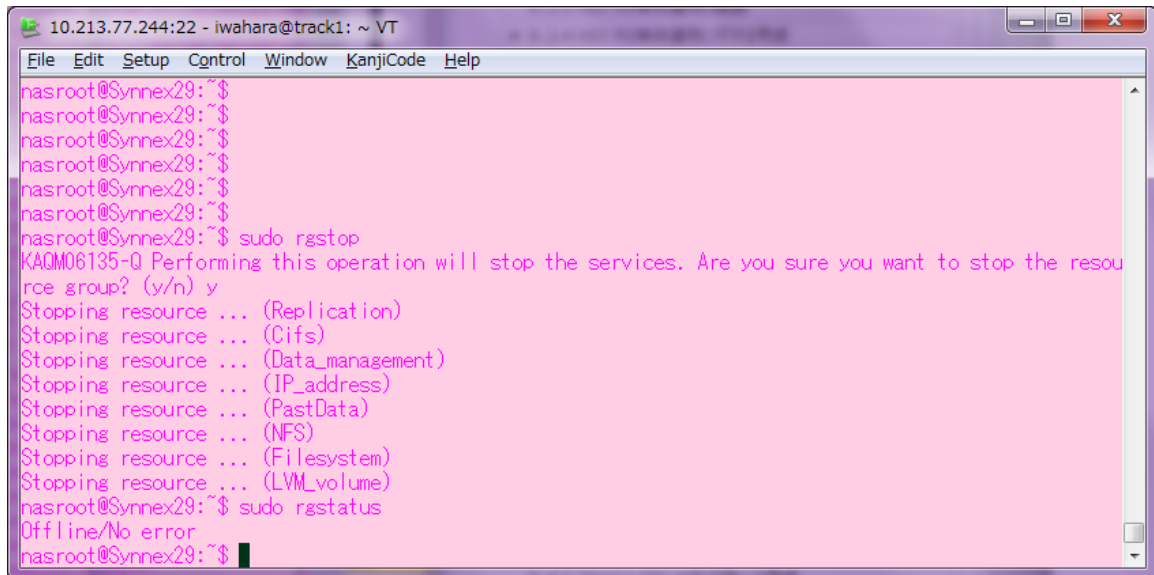
<https://HDI-IP-address-or-host-name/admin/>
 - b. Select **Download All Log Data** under **Action** on the main menu.



- c. HDI starts to collect logs. When a dialog appears with the Log collection complete message, select **Download** to download logs.



10. Stop the resource group using the `rgstop` command.



```
10.213.77.244:22 - iwahara@track1: ~ VT
File Edit Setup Control Window KanjiCode Help
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$ sudo rgstop
KAQM06135-Q Performing this operation will stop the services. Are you sure you want to stop the resource group? (y/n) y
Stopping resource ... (Replication)
Stopping resource ... (Cifs)
Stopping resource ... (Data_management)
Stopping resource ... (IP_address)
Stopping resource ... (PastData)
Stopping resource ... (NFS)
Stopping resource ... (Filesystem)
Stopping resource ... (LVM_volume)
nasroot@Synnex29:~$ sudo rgstatus
Offline/No error
nasroot@Synnex29:~$
```

11. Create a new tenant user account in HCP that will be used by the converted HDI remote server.



This task requires administrator permission on HCP.

- a. Access the HCP Management Console.
- b. Click on **Security**.
- c. Enter a user name and a password.
- d. Assign the same permission given to centrally-managed HDI remote servers.
- e. Assign data access permissions for the namespace used by the HDI remote servers and the namespace used for system backup.

Hitachi Content Platform
Tenant Management Console

HITACHI

Overview Namespaces Services **Security** Monitoring Configuration

User: hisol | Log Out | Password

Users

➤ Create User Account

1 - 13 of 13 Users

Username	Status	Full Name	Type
adminUser	Enabled	adminUser	LOCAL
dbReadUser	Enabled	dbReadUser	LOCAL
dbUser	Enabled	dbUser	LOCAL
hdi-864691128455135290-136-owner	Enabled	hdi-864691128455135290-136-owner	LOCAL
hdi-864691128455135345-194-owner	Enabled	hdi-864691128455135345-194-owner	LOCAL
hdi-864691128455135346-198-owner	Enabled	hdi-864691128455135346-198-owner	LOCAL
hdi-864691128455135348-200-owner	Enabled	hdi-864691128455135348-200-owner	LOCAL
hdi-fs-195-reader	Enabled	hdi-fs-195-reader	LOCAL
hdi-fs-196-reader	Enabled	hdi-fs-196-reader	LOCAL
hdi-fs-197-reader	Enabled	hdi-fs-197-reader	LOCAL
hdi-fs-199-reader	Enabled	hdi-fs-199-reader	LOCAL
hisol	Enabled	hisol	LOCAL

Enable account User ID: 034b57ec-f378-4490-a2d8-16d786b5e038

Username hisol	Password ••••••	<div style="border: 1px solid #ccc; padding: 5px;"> <p>Roles Description</p> <p><input checked="" type="checkbox"/> Monitor <input checked="" type="checkbox"/> Administrator <input checked="" type="checkbox"/> Security <input checked="" type="checkbox"/> Compliance</p> <p><i>Administrator role grants permission to view tenant and namespace status and configure the tenant and its namespaces.</i></p> </div>
Full Name hisol	Confirm Password <input type="text"/>	

Force change on next login

Allow namespace management

Assign Namespace Permissions

1 Find and Select Namespaces hdi-fs-199

hdi-fs-199

2 Assign Data Access Permissions for Selected Namespaces 1 Namespace Selected

Browse Read Write Delete Purge Privileged Search
 Read ACL Write ACL Change Owner

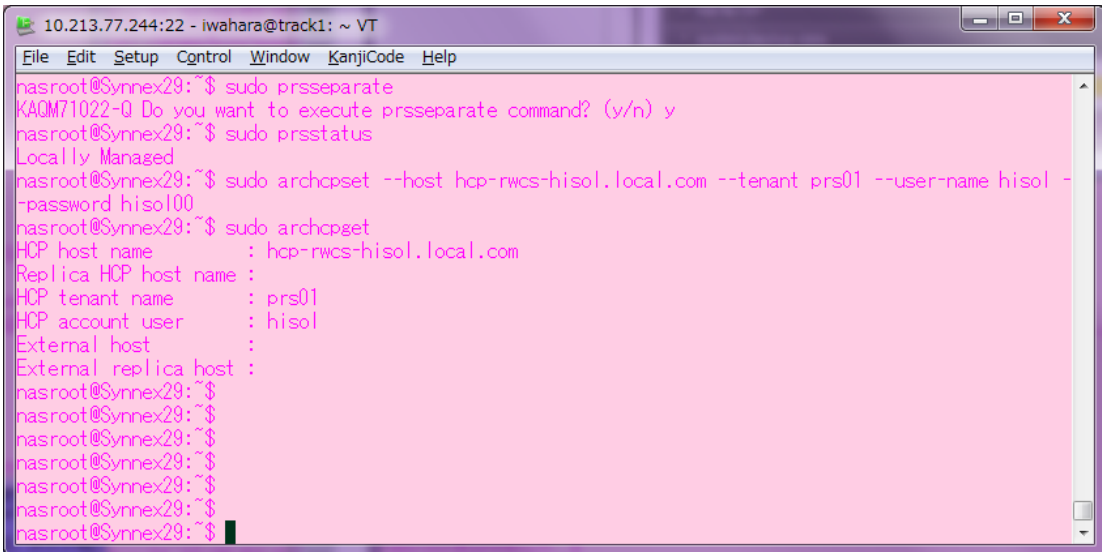
1 - 2 of 2 Namespaces

Name
hdi-fs-197
system-backup-data

12. Convert management of the HDI remote server.

- a. Start the conversion using the `prseparate` command.

- b. Enter the HCP account information (HCP host name, HCP tenant name, HCP tenant user name, and password) using the `archpset` command.



```
10.213.77.244:22 - iwahara@track1: ~ VT
File Edit Setup Control Window KanjiCode Help
nasroot@Synnex29:~$ sudo prsseparate
KAQM71022-Q Do you want to execute prsseparate command? (y/n) y
nasroot@Synnex29:~$ sudo prsstatus
Locally Managed
nasroot@Synnex29:~$ sudo archpset --host hcp-rwcs-hisol.local.com --tenant prs01 --user-name hisol --password hisol00
nasroot@Synnex29:~$ sudo archpget
HCP host name      : hcp-rwcs-hisol.local.com
Replica HCP host name :
HCP tenant name    : prs01
HCP account user   : hisol
External host      :
External replica host :
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
nasroot@Synnex29:~$
```

Post-conversion tasks


After completing the conversion steps, you will need to delete the HDI configuration from HCP Anywhere, restart the resource group, and save the system LU. This topic describes instructions for performing a few additional steps to complete the management conversion of HDI remote servers.

Procedure

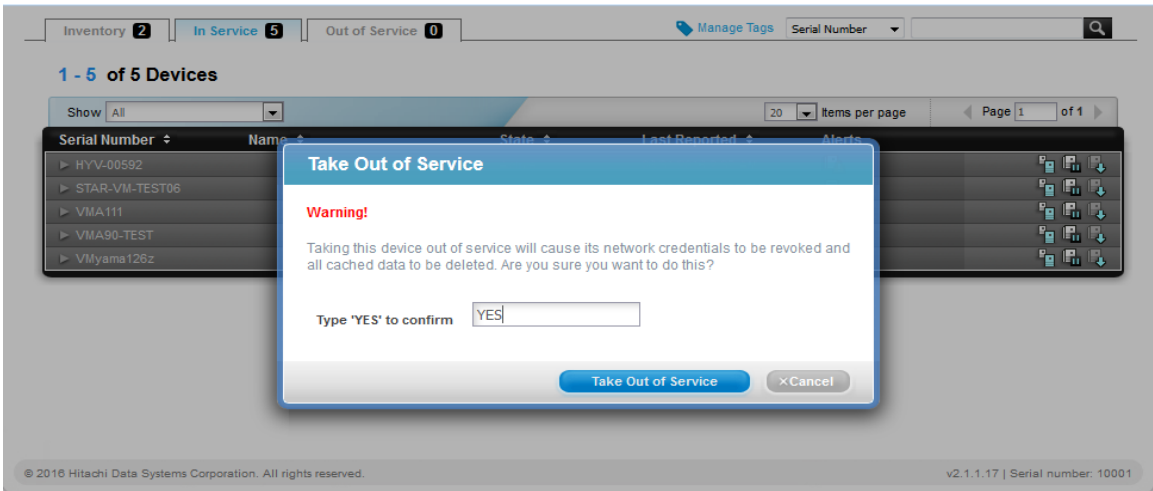
1. Delete HDI configuration in HCP Anywhere.




This task requires administrator permission on HCP Anywhere.

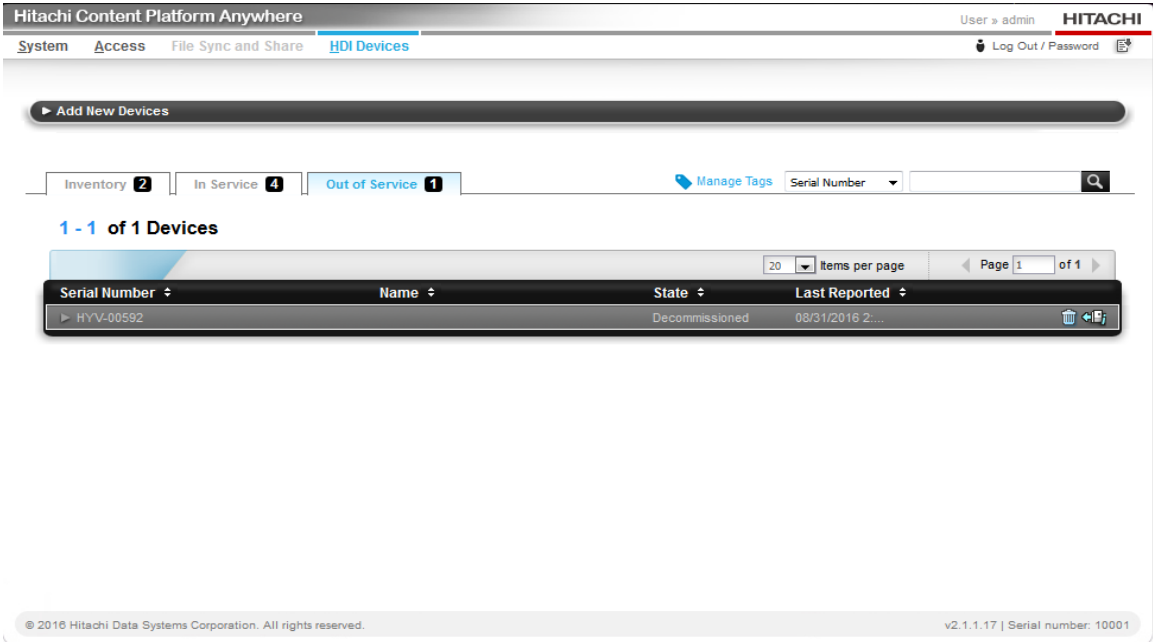
- a. Log in to HCP Anywhere with the administrator credential.
- b. In the top-level menu, mouse over the **HDI Devices** tab to display a secondary menu.
- c. In the secondary menu, click **Devices**.
- d. To decommission the HDI remote server, click on the In **Service** tab.
- e. Click the take out of service control () for the HDI device you want to take out of service.
- f. A warning message appears asking you to confirm the change you've made.
- g. In the field in the message window, type YES. This is case sensitive.

13. Click **Take Out of Service**.

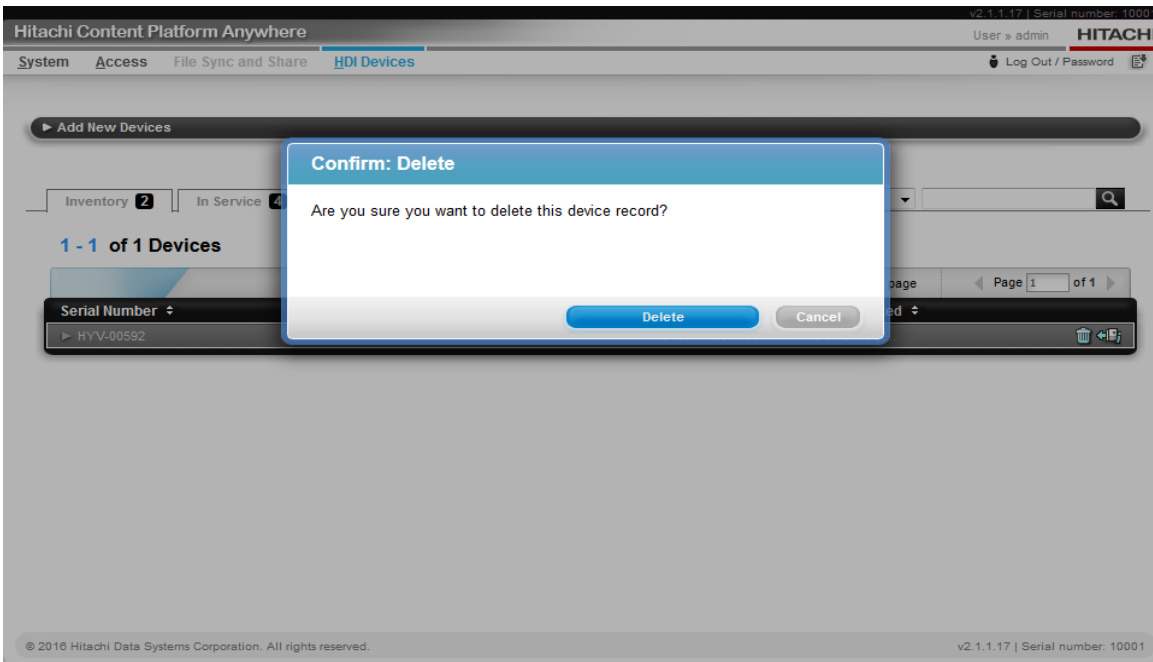


h. Click the **Out of Service** tab.

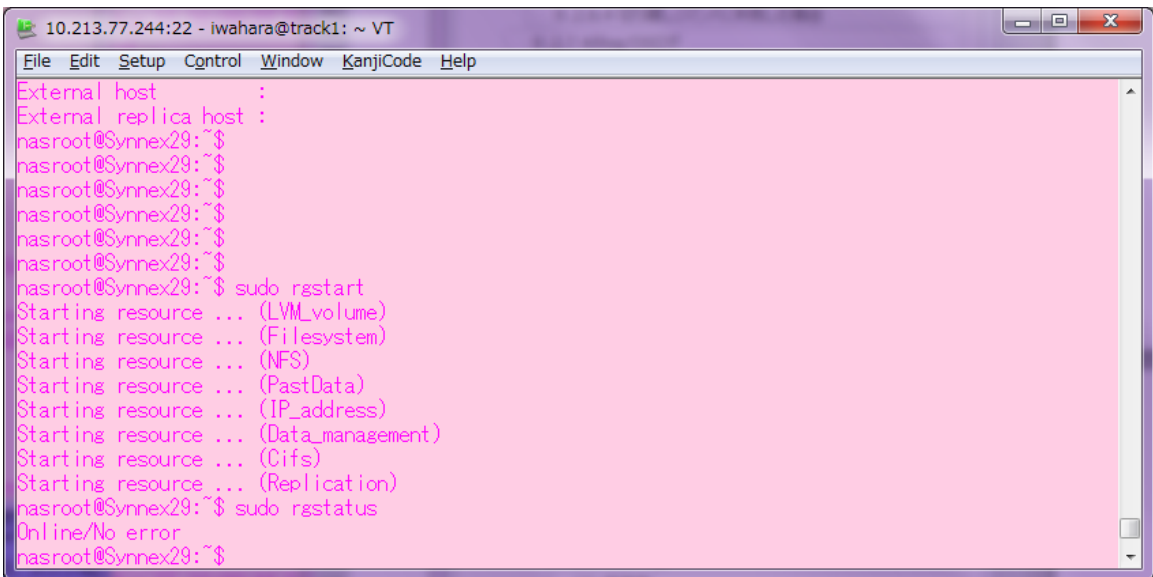
i. In the list of device records, click the delete control () for the HDI device record you want to delete.



j. In response to the confirming message, click **Delete**.



2. Restart the resource group using `rgstart` command. You can confirm the task using the `rgstatus` command. HDI returns Online/No error if the resource group was brought online successfully.



14. Save the system LU.
 - a. Confirm that the schedule setting for saving of all system settings (system LU) is turned on using the `sysluscheduleget` command. To change the schedule settings, use the `sysluscheduleset` command.

```
nasroot@hdicmlm:~$ sudo sysluscheduleget
Schedule settings for saving all system settings
Schedule setting status : On
Schedule interval       : Daily
Schedule time          : 00:07
Output setting         : Server transfer(HCP)
  FTP server           : -
  User name            : -
  directory            : -
```

- b. Save the system LU using the `syslusave` command.
- c. Use the `syslusavestatus` command to confirm the save status. The date on which the system LU was saved should be shown as the date on which all system settings was transferred.

```
nasroot@hdicmlm:~$ sudo syslusave -d trans
nasroot@hdicmlm:~$ date
Thu Oct 13 14:15:15 EDT 2016
nasroot@hdicmlm:~$ sudo syslusavestatus
Setting save status
Save status           : Normal
Transfer all system settings : 2016/10/13 14:15
Download all system settings : 2016/10/13 14:15
```