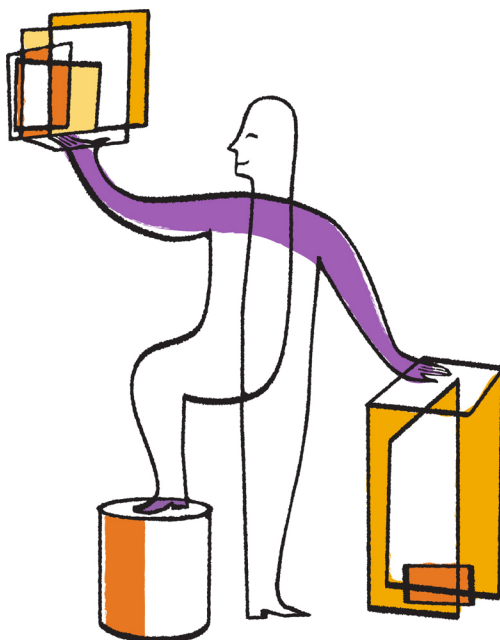




Inventory Collect Tool 2.0

Host and Storage Information Collection Guide

For Transition Assessment



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Collecting storage and host inventory information

Inventory Collect Tool enables you to collect information about 7-Mode storage systems, hosts attached to storage systems, and the applications running on these hosts and to create an inventory report. You can then import the inventory report to the 7-Mode Transition Tool for transition assessment.

The tool generates an inventory report workbook and an inventory report XML file that contain configuration details of the storage and host systems.

The Inventory Collect Tool uses TLS or SSL protocols for communicating with the 7-Mode storage systems and SSH or WMI for communicating with hosts. The tool communicates with the storage system using the TLS protocol if TLS is enabled on the storage system. If TLS is disabled and SSLv3 is enabled on a storage system, the tool uses SSLv3 to communicate with the storage system. It is a best practice to enable TLS and disable SSLv3 on the storage system in order to avoid SSLv3 security vulnerabilities.

If you cannot install the 7-Mode Transition Tool in your environment due to security reasons, then you can import the inventory report XML file generated by the Inventory Collect Tool to 7-Mode Transition Tool (installed outside your data center) for generating an assessment report. You can use the assessment report for assessing the features and functionalities of your systems and identify how these features and functionalities work in the clustered Data ONTAP version selected for transition.

Inventory Collect Tool is a stand-alone utility that does not require any installation.

Related information

[Documentation on the NetApp Support Site: mysupport.netapp.com](https://mysupport.netapp.com)

System requirements for running Inventory Collect Tool

You can download and run Inventory Collect Tool on a Windows system. The Windows system must have the required configuration to run Inventory Collect Tool.

- The Windows system must be one of the following:
 - 64-bit Windows 7 Enterprise
 - Windows Server 2008 R2 Enterprise with SP1 onwards
 - Windows Server 2012 R2 Standard
- Dual-core x64 processor (1.0 GHz or more)
- 4-GB RAM
- 40-GB HDD

Storage and host version requirements for inventory collection

You must be aware of the versions of Data ONTAP operating in 7-Mode and the hosts from which you can collect inventory information.

For the list of 7-Mode versions and hosts supported for assessment by the Inventory Collect Tool, see the Interoperability Matrix.

Related information

Interoperability Matrix Tool: mysupport.netapp.com/matrix

Preparing the 7-Mode systems and hosts for inventory collection

You must ensure that the 7-Mode systems and hosts meet certain network and protocol requirements for successfully generating an inventory report.

Steps

1. Enable HTTP on the 7-Mode system by using the following command:

```
options httpd.enable on
```

2. Optional: Enable TLS on the 7-Mode system by using the following command:

```
options tls.enable on
```

It is a best practice to enable TLS because SSLv3 is impacted by vulnerabilities.

3. Enable SSH on the 7-Mode system:

- a. Set up SSH on the 7-Mode system by entering the following command:

```
secureadmin setup -f ssh
```

The -f option forces the setup to run even if the SSH server is already configured.

- b. Enable SSH by entering the following command:

```
secureadmin enable ssh2
```

- c. Enable password authentication on the SSH server by entering the following command:

```
options ssh.passwd_auth.enable
```

- d. Enable SSH access to the host by entering the following command:

options ssh.access

For more information about all the 7-Mode commands, see the man pages.

4. Prepare your Windows host systems for the following:

- Enable WMI access.
For more information about enabling WMI access, see the host documentation.
- Verify that you have installed the Microsoft Fibre Channel Information Tool (fcinfo) package and run the tool once on your Windows host system.
This tool enables you to collect the HBA configuration information of the host.

5. Enable SSH on the Linux or ESXi host.

For more information about enabling SSH, see the host documentation.

6. Verify that you have installed the latest NetApp Host Utilities software for each host.

For information about downloading and installing the NetApp Host Utilities software, see the NetApp Support Site.

7. Verify that all the hosts and storage systems are reachable from the Windows system from which the Inventory Collect Tool is run.

Related information

[Documentation on the NetApp Support Site: mysupport.netapp.com](http://mysupport.netapp.com)

Creating inventory reports with host and storage information for transition assessment

You can create an inventory report that contains configuration information about the 7-Mode systems, hosts, and host applications. You can then use the report with the 7-Mode Transition Tool to assess the features and functionalities of these systems, and to identify how they work in the clustered Data ONTAP version selected for transition.

Before you begin

- You must have downloaded the `ict.zip` file from the NetApp Support Site and unzipped the file.
The zip file contains the `.exe` and `readme` files.
- You must have the user name, password, and IP addresses of the storage systems and hosts for which the inventory report is required.
- The user name for the storage system and hosts must have sufficient privileges to execute the commands listed in the `readme` file.

- If you are adding multiple systems for inventory collection, you must have created a text file that is encoded in ASCII format and contains the system details, one system per line. Each system detail must be in the following format:

```
(ontap|windows|vmware|linux)://[(<user>|<domain_user>)]:((<password>|*])@](<host_name>|<ip>)
```

If you provide * as the password, you are prompted to enter the password at the command line.

- All features must be configured and their licenses must be enabled so that the workbook can contain the inventory information about the features.
- All storage system configurations, such as CIFS share names, user names, and group names, must be in the UTF-8 format.

About this task

The Inventory Collect Tool can collect configuration information from a maximum of four controllers and 20 hosts simultaneously. However, for scaled configurations with quotas, qtrees, exports, or UNIX users and groups, it might take a significantly longer time for the inventory report to be generated.

Note: You should avoid performing inventory collection operations on active storage controllers during peak hours.

Steps

1. In the Windows command prompt, navigate to the path where the Inventory Collect Tool is downloaded.
2. Generate the inventory report by running the `ict` command with the system IP address and credentials:

If you want to provide information...	Enter the following command...
For each system by using the command-line interface	<pre>ict --cmd collect --output <i>filename</i> (ontap windows vmware linux)://[(<i>user</i> <i>domain_user</i>)[:(<i>password</i> *)]@[<i>hostname</i>] ...</pre> • <i>filename</i> is the name you want to provide for the inventory report. • ontap windows vmware linux is the system type. For example, for a 7-Mode storage system, the system type is ontap and for a Linux host, the system type is linux. • <i>user domain_user</i> and <i>password</i> are the system credentials. If the controller has no password, you can enter the characters "\" as the password. • <i>hostname</i> is the IP address or host name of the controller or host.
For multiple systems in a text file	<pre>ict --cmd collect --output <i>filename</i> --input <i>credentials_file.txt</i></pre> <i>credentials_file.txt</i> is the text file that contains the system details and credentials for multiple systems: • Only text files encoded in ASCII format are supported. • If you provide * as the password, you are prompted to enter the password at the command line. • If the controller has no password, then you can enter "" as the password.

Note: If your storage system is running Windows 7 or later and you have restricted privileges to the folder where the output XML file for the inventory report will be stored, the output files are automatically stored in the VirtualStore directory and the application runs as usual.

Example

The inventory report is created for a storage system and a Linux host. The reports generated are collected_data.xml and collected_data_InventoryWorkbook.xml:

```
ict --cmd collect --output collected_data ontap://
root:test123@hostname1 linux://root@hostname2
```

The estimated time required for collecting inventory information per controller is displayed.
The inventory workbook and inventory report are generated in XML format.

3. View the inventory workbook in Microsoft Excel by using Microsoft Office 2007 or later versions.

After you finish

You are ready to import the inventory report XML to the 7-Mode Transition Tool to assess the features and functionalities of the 7-Mode controller and hosts, and to identify how the features and functionalities work in the clustered Data ONTAP version selected for transition.

Where to find information about transition assessment

You can find information about assessing storage systems, hosts, and host applications to verify if they are ready for transition in the *7-Mode Transition Tool Data and Configuration Transition Guide*.

The guide provides details about how to import the inventory report you created for controllers and hosts and how to assess these controllers and hosts to verify if they are ready for transition.

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