



DNS Inventory

Inventory Domain Name Services

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1. Introduction

Docusnap can inventory your DNS servers and the DNS information they contain. This way you have your DNS zones available in Docusnap as well as the corresponding records.

The DNS inventory requires a WMI connection. The actual information is then queried via PowerShell. The ports used and the permissions required are listed in detail in the white paper for inventories, which can be found in the [Knowledge Base](#).

In addition to the actual inventory of the DNS service ([Chapter 2](#)), this HowTo also describes the possibility of a script-based inventory ([Chapter 3](#)).

In [Chapter 4](#) you will find reporting options on topics related to DNS inventory.

2. DNS Inventory

For the network inventory of DNS service start the corresponding wizard:

- Discovery - All Wizards – DNS Server
- Inventory - All Wizards - DNS Server
- All Jobs - All Wizards - DNS Server

In **step 1**, select your company or your customer's company.

In **step 2**, select the Discovery Service through which you want to perform the inventory.

For a scheduled inventory, select Docusnap Server Discovery or a Discovery Service you have configured here.

Furthermore, select or enter the domain and an appropriately authorized user with their password. Use the NetBios notation for the user (domain\user).

In **step 3** you can now search for available DNS servers or enter them manually.

In the automatic search, all DNS servers of the selected domain are found, including DNS servers that are located in a subdomain. The option **Consider only DNS servers of the current domain** limits the search to the selected domain in step two.

3. Script-based DNS inventory

3.1 Performing a Script-based Inventory

Docusnap offers the possibility to capture the DNS information also locally, the DNS server, using a script-based inventory.

The script file can be found in the Docusnap installation directory:

- %Docusnap-InstallationDirectory%\Discovery-DNS.exe.

You can copy the Scan-DNS.exe to the DNS servers and run it.

3.2 Import inventory

After the inventory is finished, you will find two files:

- dns-DNS-Server.domain.local-TimestampExecution.finished
- dns-DNS-Server.domain.local-TimestampExecution.dsi

You can import this data to Docusnap using the Script Import wizard:

- Discovery - All Wizards - File Import
- Inventory - All Wizards - File Import
- All Orders - All Wizards - File Import

In **step 1**, select your company or your client's company.

In **step 2**, select the discovery service through which you want to perform the inventory.

For a scheduled inventory, select Docusnap Server Discovery or a discovery service you have configured here.

Note here that the user running one of the services must have read and write access to the path selected in the next step.

Local system = storage directory can only be local

In **step 3**, select the directory where you have stored the generated DSI file.

This directory can also be a network drive. Note the share permissions.

In **step 4**, you can now search for valid script files.

If there are files from other script inventories (Active Directory, DHCP, Windows, etc.) in the folder you selected, these will also be considered.

3.3 Automate script execution

The big advantage of Docusnap is that data is regularly and automatically inventoried and therefore up to date. This can also be achieved with script inventories.

The first step is to automate the execution of the script. Among other things, this can be done with a software distribution, as well as with Windows on-board means - task scheduling.

Switch to the Task Scheduler of your DNS server and create a new task.

In the **General** tab, enter a name and select the security options:

Use the following user account: User with DNS permission / local system

Run regardless of user logon

Run with highest privileges

Configure for: Select the appropriate operating system

In the **Trigger** tab, you can configure the script execution schedule - for example:

Start Task: On a schedule

Weekly, repeat every 1 week on: Sunday

In the **Actions** tab you define the execution of the Discovery-DNS.exe

We recommend creating a hidden share on the Docusnap server / system that runs the Docusnap Discovery Service.

Two folders are required in this share:

To store the Discovery-DNS.exe - read permissions are required here.

z. B. `\\SRV-Docu\DocusnapScript$\Scripts`

To store the result files - change authorisations are required here.

z. B. `\\SRV-Docu\DocusnapScript$\Company#Domain.FQDN`

We recommend the Microsoft Best Practice for the use of permissions, so that the **Everyone** group receives **full access** and only the **Domain Computers** and **Domain Controllers** groups receive **Change** permissions via NTFS permissions. Additional hardening measures must be taken on a customer-specific basis.

Action: Start program

Program / script: `\\SRV-Docu\DocusnapScript$\Scripts\Discovery-DNS.exe`

Arguments: `-O "\\SRV-Docu\DocusnapScript$\Company#Domain.FQDN"`

The -O parameter redirects the result files to the specified path. The user performing the inventory must have write permissions on this path.

If you use different languages on the domain controller, you must use the SID of the local system account -> to do this, edit the group policy after creating it under the following path:

`\\YourDomain\SYSTEM\YourDomain\Policies\{YourGPOGUID}\Machine\Preferences\ScheduledTasks\ScheduledTasks.xml`

Search for the string `runAs="NT AUTHORITY\SYSTEM"` in all places in the XML file and replace `NT AUTHORITY\SYSTEM` with the SID `S-1-8-15`.

The newly created task ensures that the inventory is run regularly and automatically.

It should always be ensured that the current version of the script file is used! This means that after an update of Docusnap you also exchange the script files! A best practice approach for this can be found in the chapter - [Keeping used script files up to date](#).

The next step is to set up the import of the inventory as a job. Note that during an import job, you can also automatically import the results of the other script-based inventories.

Open the Script Import Wizard:

- Discovery - All Wizards - File Import
- Inventory - All Wizards - File Import
- All Orders - All Wizards - File Import

In **step 1**, select your company or your customer's company.

In **step 2**, select the Docusnap Server service or a discovery service you created.

In **step 3**, select the directory where the generated DSI file will be stored:

In the recommended configuration, this folder is located locally on the Docusnap Server or on the system that provides the discovery service

Additional directories can also be added for the remaining script executions

In **step 6**, you configure the scheduling.

Besides the simple file import, you can also use the Multi-company import. This allows you to import files for multiple companies and/or domains at the same time. You can find a HowTo in the Docusnap Knowledge Base.

3.4 Keeping used script files up to date

We generally recommend installing a Docusnap Discovery Service (DDS) at least on the system where the Docusnap Server has been configured when using one / the script variants. Additional DDSs can be placed in the decentralized networks (sites, VLANs, etc.).

In the DDS settings, you can specify an additional directory for storing the inventory modules (script files). This causes the script files to be automatically replaced when Docusnap is updated, so they are always up-to-date.

Install and configure the DDS - a HowTo can be found in our Knowledge Base.

After configuration, go to the Settings tab and set the storage directory:

- C:\DocusnapScript\Scripts.

Then share the folder over the network: \\SRV-Docu\DocusnapScript\$.

You can use this share again to call the script file (read permission)

- \\SRV-Docu\DocusnapScript\$\Scripts\Discovery-DNS.exe

and to store the result files (write permission):

- \\SRV-Docu\DocusnapScript\$\Company#Domain.FQDN

4. Analysis options

DNS inventory information can be found in the tree structure as follows:

- Your Company - Infrastructure - Your Domain – Network Services – DNS Server

Here you can now navigate through the inventoried information.

In addition to general information, you also get an overview of your configured DNS zones including their entries.

Furthermore, you will find a query that lists all IP addresses that exist more than one DNS entry.

You will also find this query as a report:

- Your Company - Infrastructure - Your Domain - Network Services - DNS Servers - DNS Server - Reports

You could, for example, send this report by mail at regular intervals, on a scheduled basis and automatically. This way, the DNS officers could clean up the entries accordingly.

VERSION HISTORY

Date	Description
09/29/2022	HowTo created
12/21/2022	Version 2.0 – Revision of the HowTo for Docusnap 12
11/27/2023	Version 3.0 - Revision of the HowTo for Docusnap 13
11/11/2024	Version 3.1 - Revision of the HowTo for script storage
11/20/2024	Version 4.0 - Revision of the HowTo for Docusnap 14
03/13/2025	Version 4.1 - Best practice recommendation for NTFS permissions