



**DocuSnap - Discovery Service**  
Installation and Configuration

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## 1. Docusnap Discovery Service

The Docusnap Discovery Service is a Docusnap component which allows you to automate inventory scans such that they are performed in a decentralized network (for example in a decentralized location), including the transfer of the results to a central Docusnap server.

After successfully connecting the Docusnap Discovery Service to the central Docusnap Server, you can manage and start inventory jobs from the central location.

### 1.1 Connection

The connection from the Docusnap Discovery Services to the central Docusnap Server is made via the http or https protocol and is initiated by the Docusnap Discovery Service. All data and information are transmitted in encrypted form.

### 1.2 Data Transmission

For the transmission of data and information, the http or https protocol is used as well. The results of each job are temporarily stored in files on the computer running the Docusnap Discovery Service and forwarded to the central Docusnap Server.

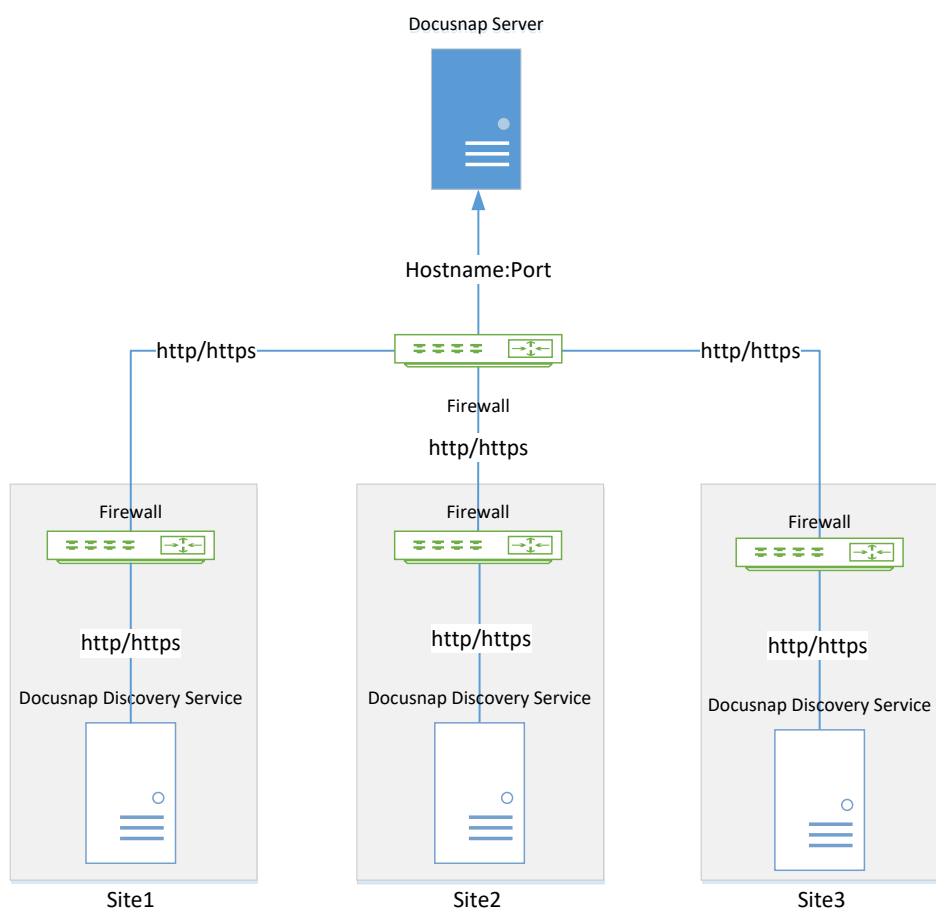


Fig. 1 – Docusnap Discovery Service – Overview of the working principle

## 2. Prerequisites for Using the Docusnap Discovery Service

Using the Docusnap Discovery Services requires that a Docusnap Server for the respective Docusnap database has been configured and is up and running at the central location. The Docusnap Discovery Service must be installed on any computer at the location to be inventoried.

### 2.1 System Requirements

- Recommended is at least Windows 10 / Windows Server 2016
- At least 2GB RAM
- At least 2 CPU cores
- .NET Framework 4.6.1 or higher

### 2.2 Verifying the Prerequisites

To make sure that you will be able to successfully configure the Docusnap Discovery Service, you should verify the Docusnap Server configuration.

1. The Docusnap Server configuration must have been completed successfully. This includes enabling the Docusnap Server API. To do so, run the configuration wizard. To verify the correct configuration, check the settings.

The procedures are described in a separate HowTo document called **Docusnap Installation and Configuration** that is available for download in the Knowledge Base-area of our website.

It must be ensured that communication between the Docusnap Server API and the Docusnap Discovery Service is possible in both directions. The connection is initiated by the Docusnap Discovery Service. If necessary, firewall exceptions or port forwarding must be configured.

You can check from the Docusnap Discovery Service system whether the Docusnap Server API is accessible by specifying the URL of the Docusnap Servers API in the browser and appending `/info`.

Example: <https://DocusnapServer:9001/info>

When available, the Docusnap Server version number is displayed in the browser (exception: Microsoft Internet Explorer - this offers an info.json for download).

#### Note:

The Server API is used for Docusnap Web in addition to the connection and communication between DDS and Docusnap Server. If the Server API is accessible from outside, it is also Docusnap Web. For this reason, you must ensure that **Basic and/or Integrated Windows Authentication and User Management** is enabled as the authentication scheme. If this is not the case, anonymous authentication applies, and everyone can access Docusnap Web.

2. The Docusnap Server service must have been started and must be accessible from the network.
3. For inventories using the Docusnap Discovery Service, make sure that the central Firewall forwards requests to the respective Docusnap Server.
4. The Docusnap Server and the Discovery Service Host must have the same server time. A discrepancy of only a few minutes will result in denial of registration, even though the server API is accessible. For systems from different time zones, the time zones must be observed.

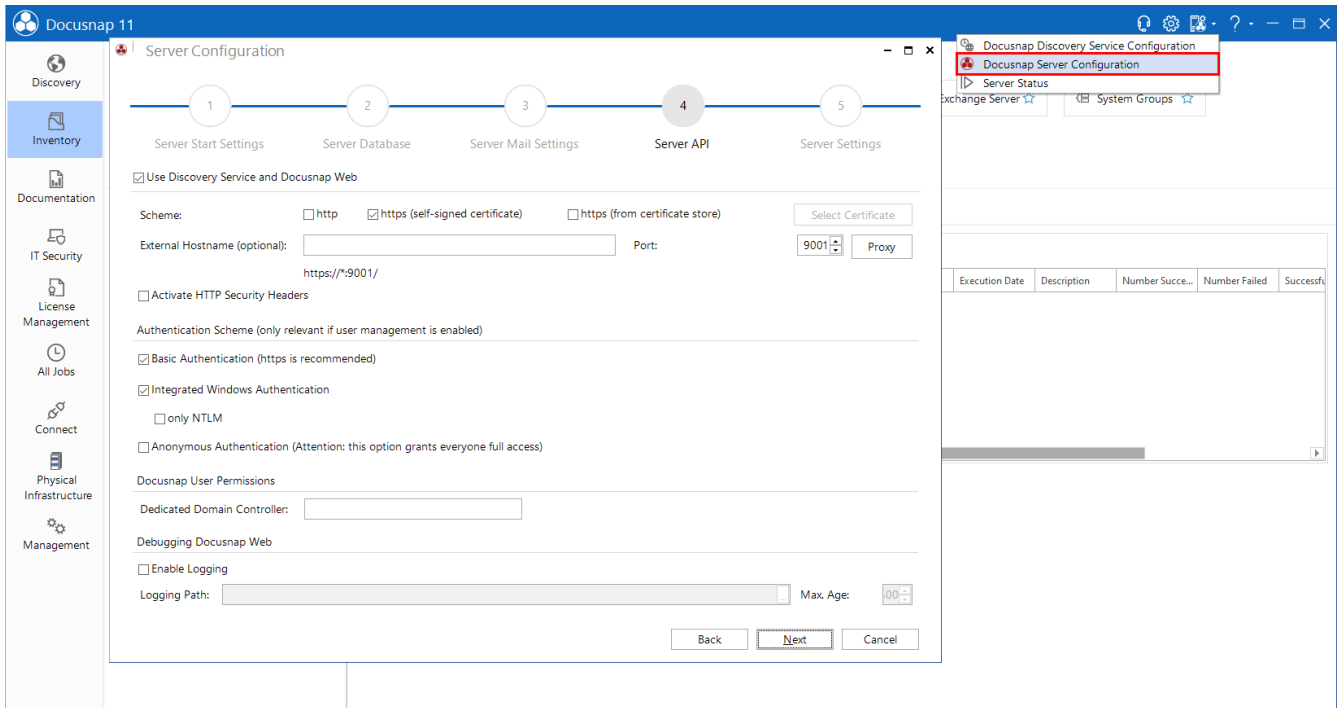


Fig. 2 – Prerequisites for using the Docusnap Discovery Service – Docusnap Server configuration

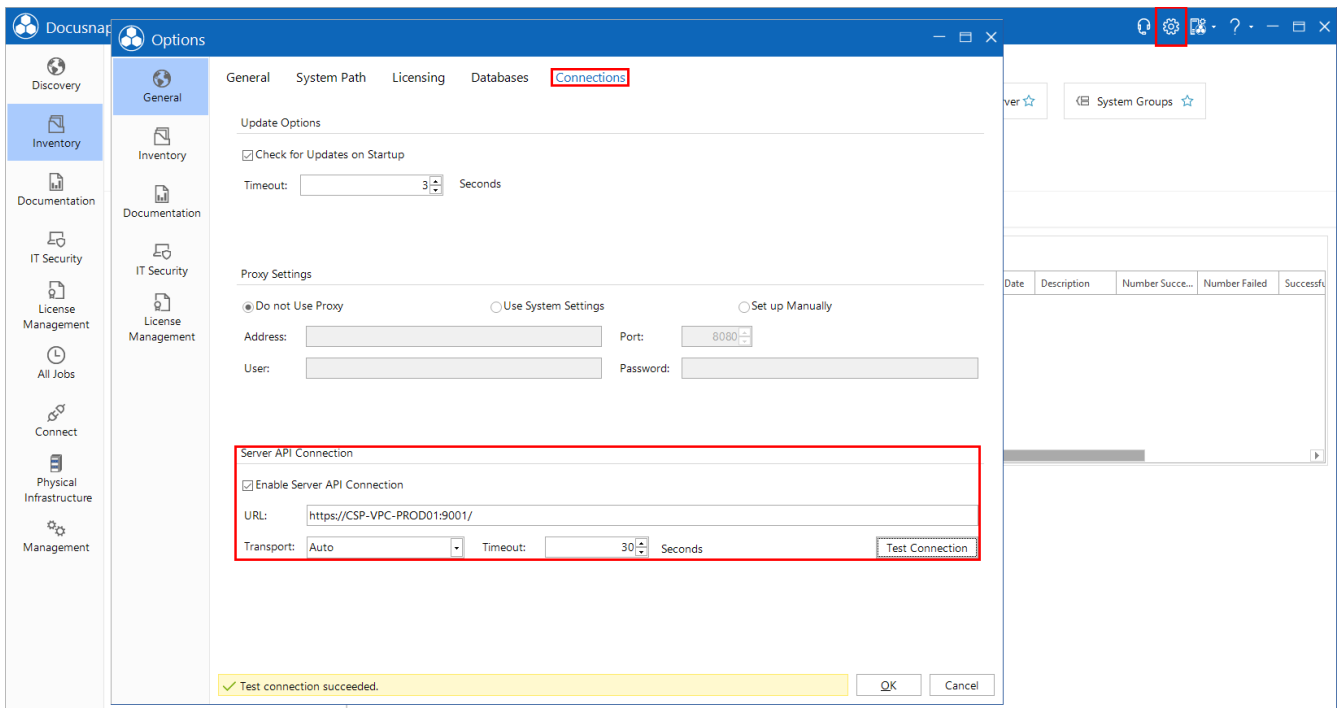


Fig. 3 - Prerequisites for using the Docusnap Discovery Services – Checking the Server API

### 3. Preparing the Docusnap Discovery Service

In Docusnap, the Docusnap Discovery Service is paired with a company (tenant). This is necessary to enable the assignment of the inventoried data to the respective company (tenant). During the pairing process, a separate encryption for the data exchange is defined.

Start the configuration process for the Docusnap Discovery Service from the Docusnap Client. In the title bar **Discovery Services - Docusnap Discovery Service Configuration**

#### 3.1 Configuring the Docusnap Discovery Service

Click the **New** button to create a new service. Enter a name for the Docusnap Discovery Service and select the desired company (tenant) and site (location) to be paired with the Docusnap Discovery Service.

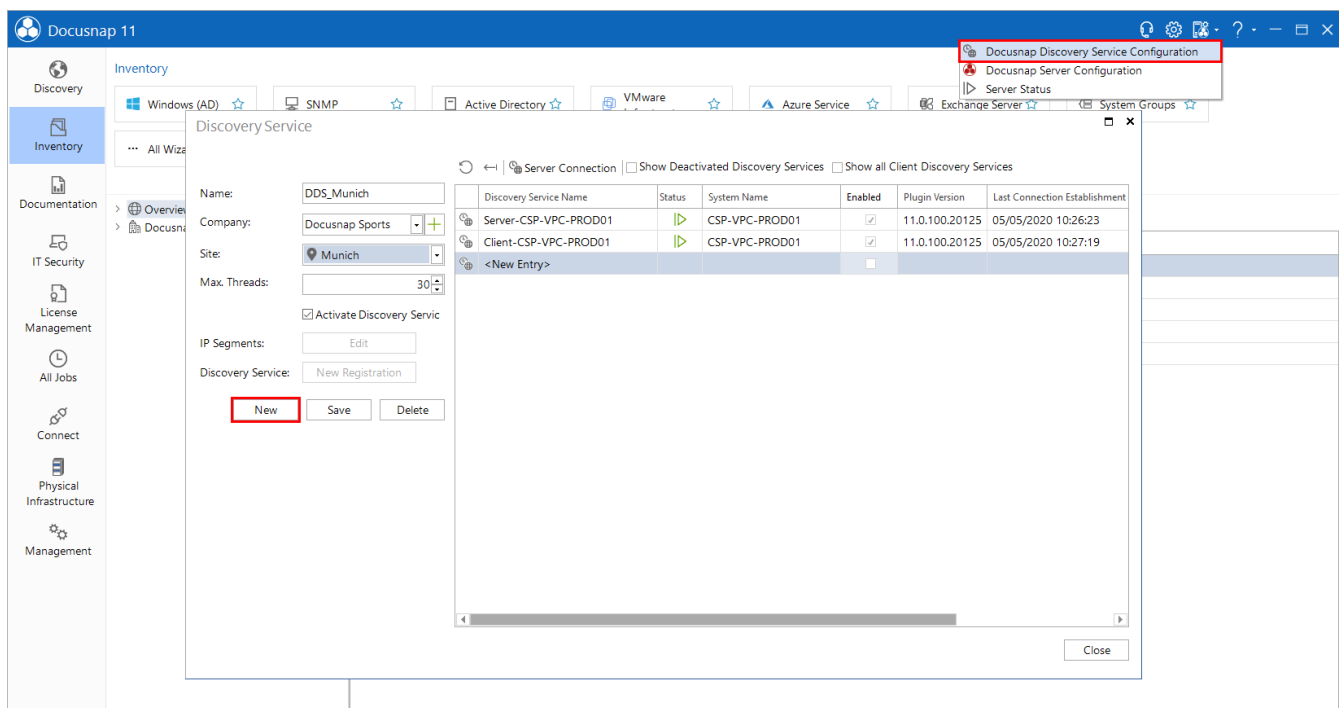


Fig. 4 – Configuring the Docusnap Discovery Service – Creating a new Discovery Service

When you save the newly created Docusnap Discovery Service, a dialog opens where you can create a complete installation package as a ZIP file. This ZIP file can then be used to install the service on a computer at the location to be inventoried. For more, information, please refer to [section 3.2](#).

**IMPORTANT!**

In the final configuration step, you need to enter the IP segment for each Discovery Service. To access this dialog, click the Edit button under IP Segments.

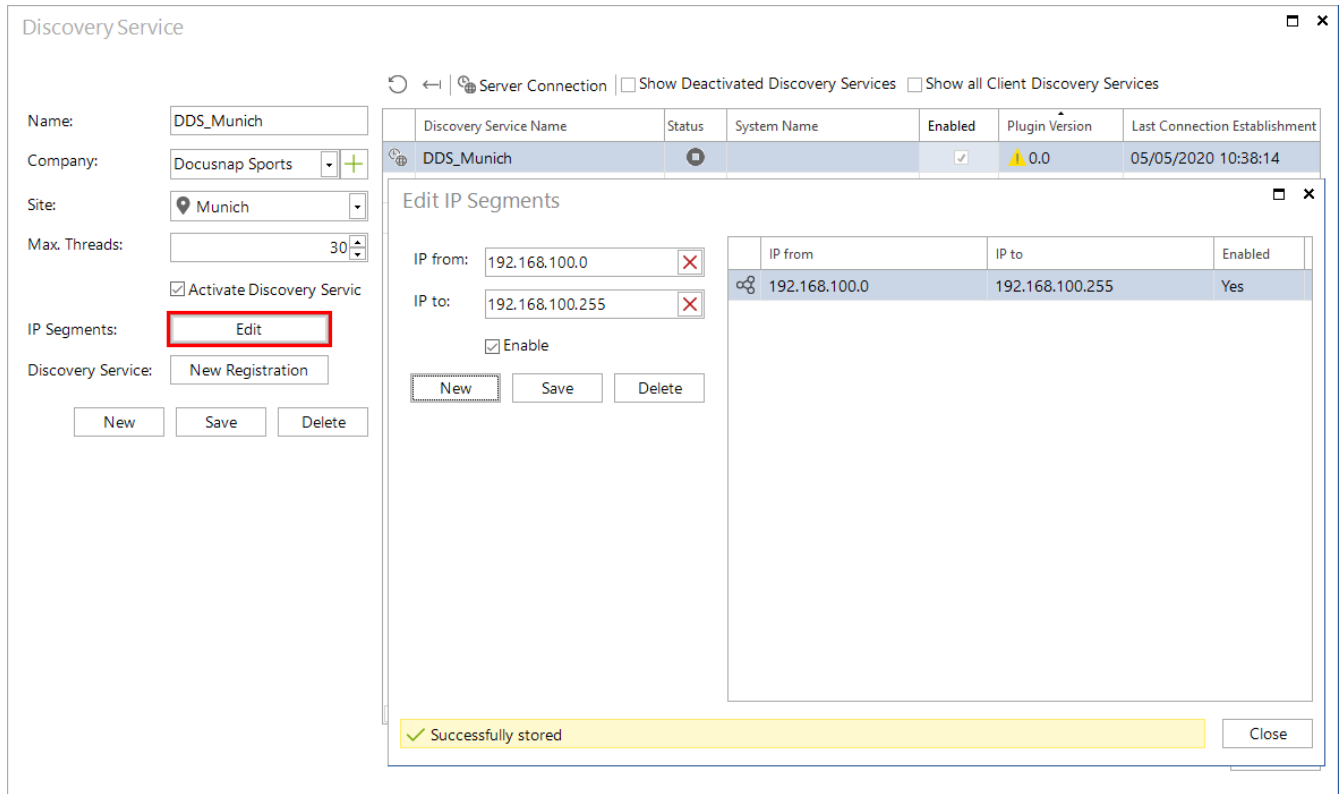


Fig. 5 – Configuring the Docusnap Discovery Service – Adding an IP Segment



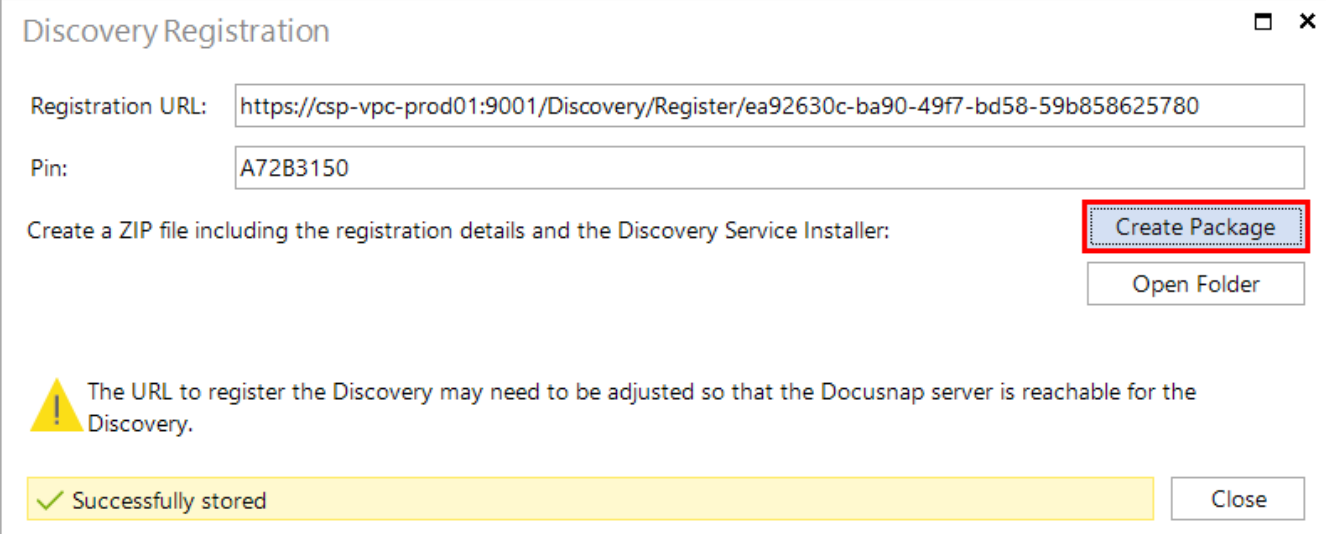
## 3.2 Creating the Installation Package

### Registration URL

**Important:** If you intend to install the Docusnap Discovery Service at a decentralized location, you need to adapt the URL accordingly. This can also be done later when you configure the Docusnap Discovery Service.

### Creating a package

Click the *Create Package* button to save the Docusnap Discovery Service setup including the pairing data in a ZIP file.




Discovery Registration

Registration URL:

Pin:

Create a ZIP file including the registration details and the Discovery Service Installer:

 The URL to register the Discovery may need to be adjusted so that the Docusnap server is reachable for the Discovery.

Successfully stored

Fig. 6 – Docusnap Discovery Service – Creating an installation package

### 3.3 Creating Docusnap Discovery Services via CSV file

In customer environments with many distributed networks, you can create Discovery Services via a CSV file in Docusnap.

The CSV file must still be built according to the following example:

Discovery Service Name	Company	Site	Max Thread
DDS_Munich	1	19	30
DDS_London	1	2	30
DDS_NewYork	1	37	30

Fig. 7 - CSV file for Discovery Service creation

The following statement can be used to identify the AccountID of the Company column:

```
SELECT AccountID, AccountName FROM tAccounts WHERE AccountName = 'Docusnap Sports'
```

The following statement can be used to identify the SiteID of the Location column:

```
SELECT SiteID, Name FROM tSites WHERE Name = 'Munich'
```

Note: The name must be adapted to the required one.

To import the finished CSV file, click on Import in the Discovery Service window in Docusnap, select the CSV file and click on Import to load the data.

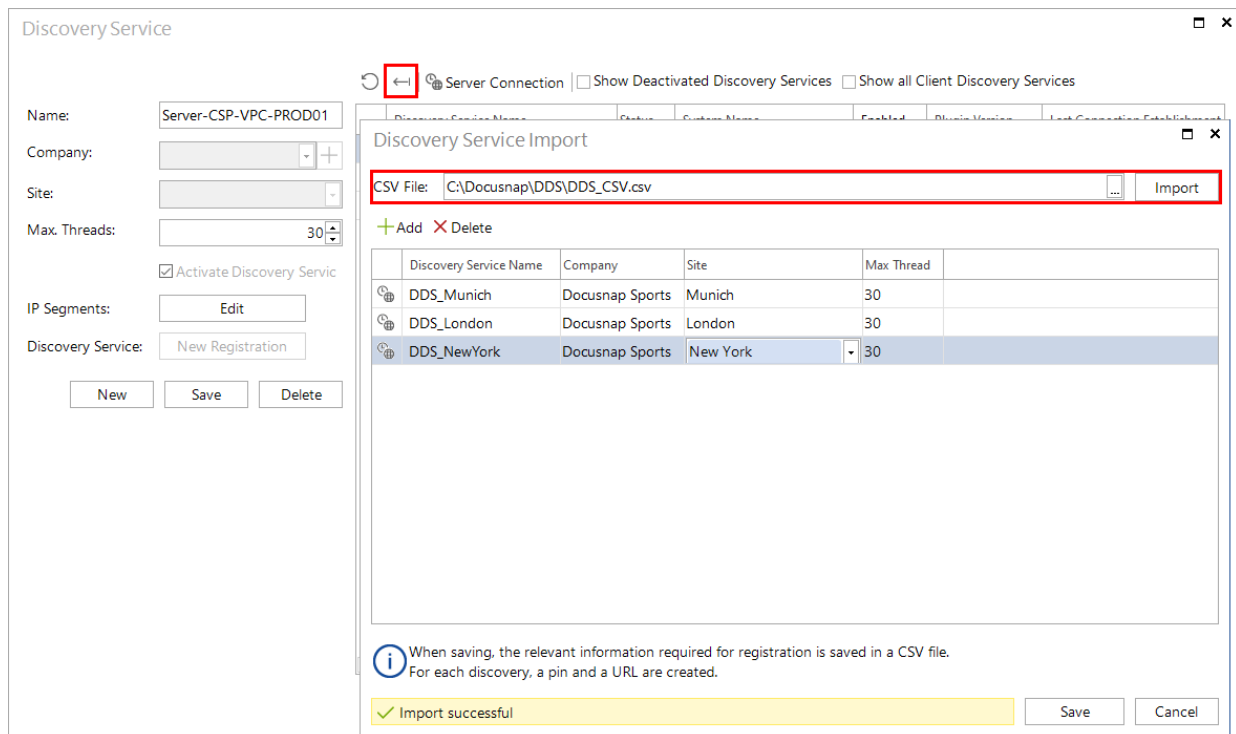


Fig. 8 - CSV import and Discovery Service configuration

If you save, the Discovery Services are created in Docusnap. Furthermore, a CSV file is created which contains the connection data for the Discovery Services creation. This data is required for the registration of the Discovery Services. This can then be carried out script-based. See [Chapter 5 - Docusnap Discovery Service CLI](#).

## 4. Installing and Configuring the Docusnap Discovery Service

To use the Docusnap Discovery Service at a remote location, you need to install this service on a system at this location. The service will then transmit the inventoried data to the central Docusnap installation.

### 4.1 Installation

The installation zip-package created in [section 3.2](#) includes two files:

1. DocusnapDiscoverySetup.exe
2. RegistrationData.xml

Double-click the **DocusnapDiscoverySetup.exe** file to start the installation of the Discovery Service.

Please read the End-User License Agreement. Accept it to proceed with the installation.

In the step **IP Scanner / recommended drivers** you can install the NPCAP driver. This is a prerequisite for the extended IP scan. You can also install the NPCAP driver manually, the setup is located at `%ProgramFiles%\Docusnap Discovery Service\MSI\npcap-oem.exe`

In the Destination Folder screen, specify the path for your Docusnap installation.

Click **Next** to start the installation process.

## 4.2 Configuring the Connection

Once the installation is complete, the Docusnap Discovery Service configuration dialog opens. Based on the RegistrationData.xml file, which is part of the installation package, the registration URL and the 8-digit PIN are stored automatically.

Click the Register button to register the Discovery Service with the central Docusnap installation.

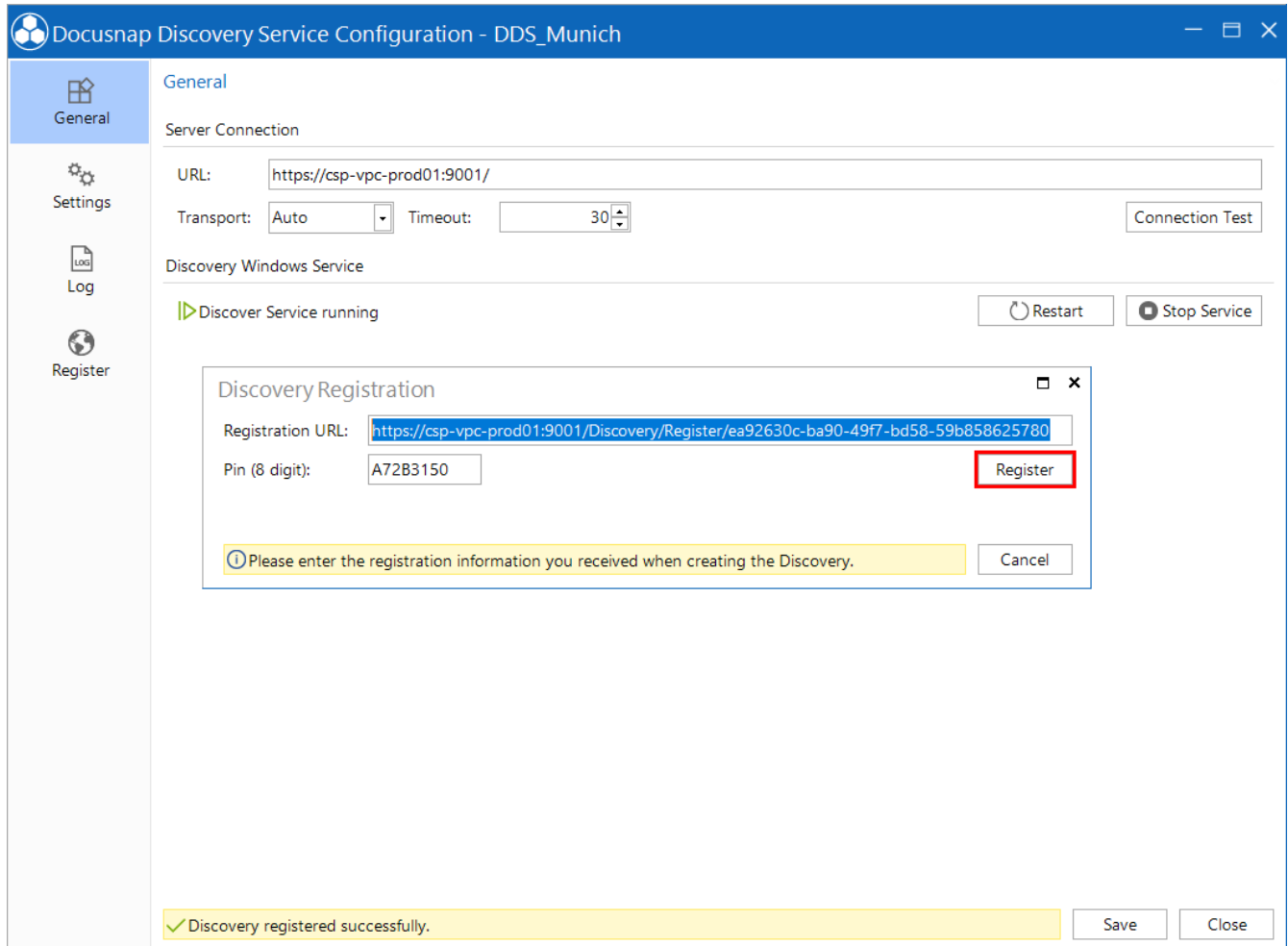


Fig. 9 – Docusnap Discovery Service – Configuration – Successful registration

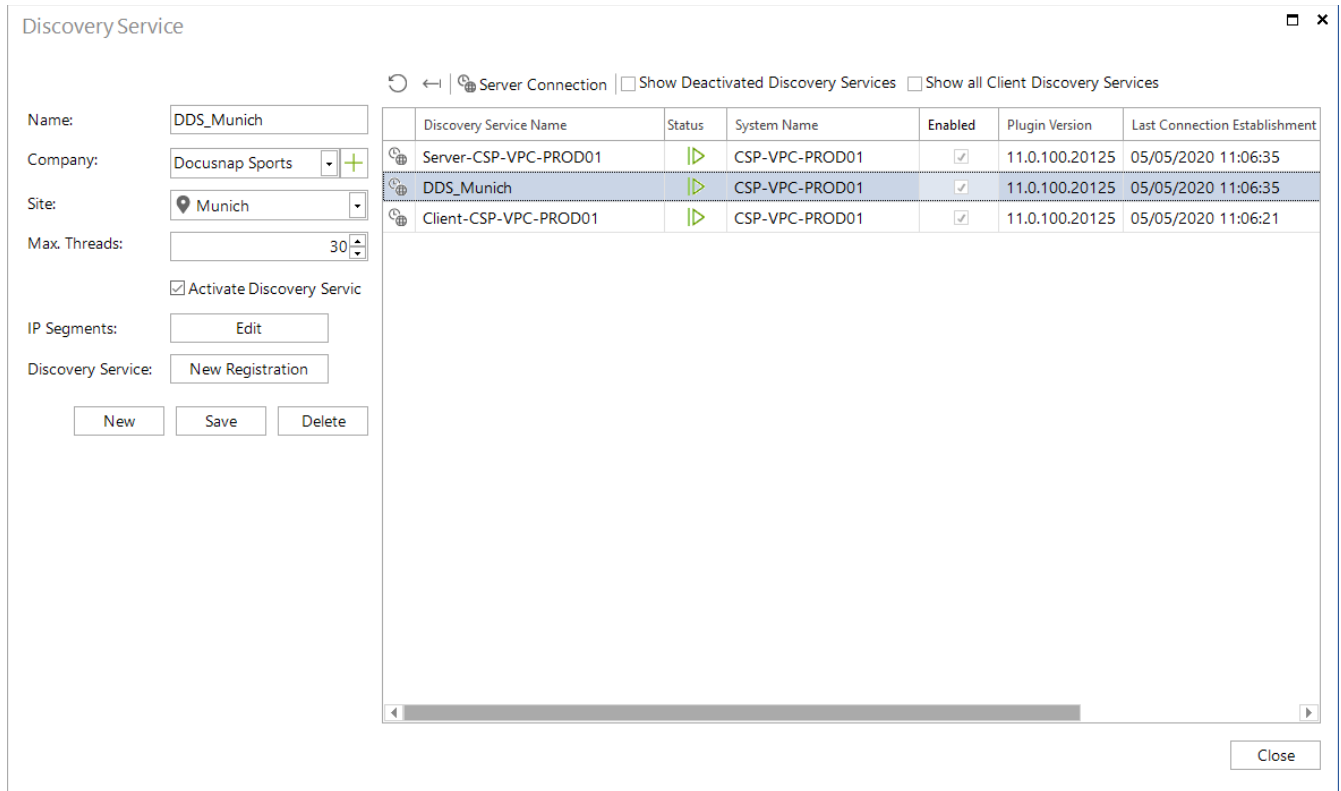


Fig. 10 – Docusnap Discovery Service – Completion

The Discovery Service has been set up successfully. Now, you can use the Discovery Service for your inventory jobs.

### 4.3 Docusnap Discovery Services Updates

The Docusnap Discovery Service will be updated automatically during an update of Docusnap X, the files required for the Discovery Service will be replaced automatically.

### 4.4 Install Docusnap Discovery Service unattended

The Docusnap Discovery Service can also be installed unattended. The /Q parameter is available for this purpose.

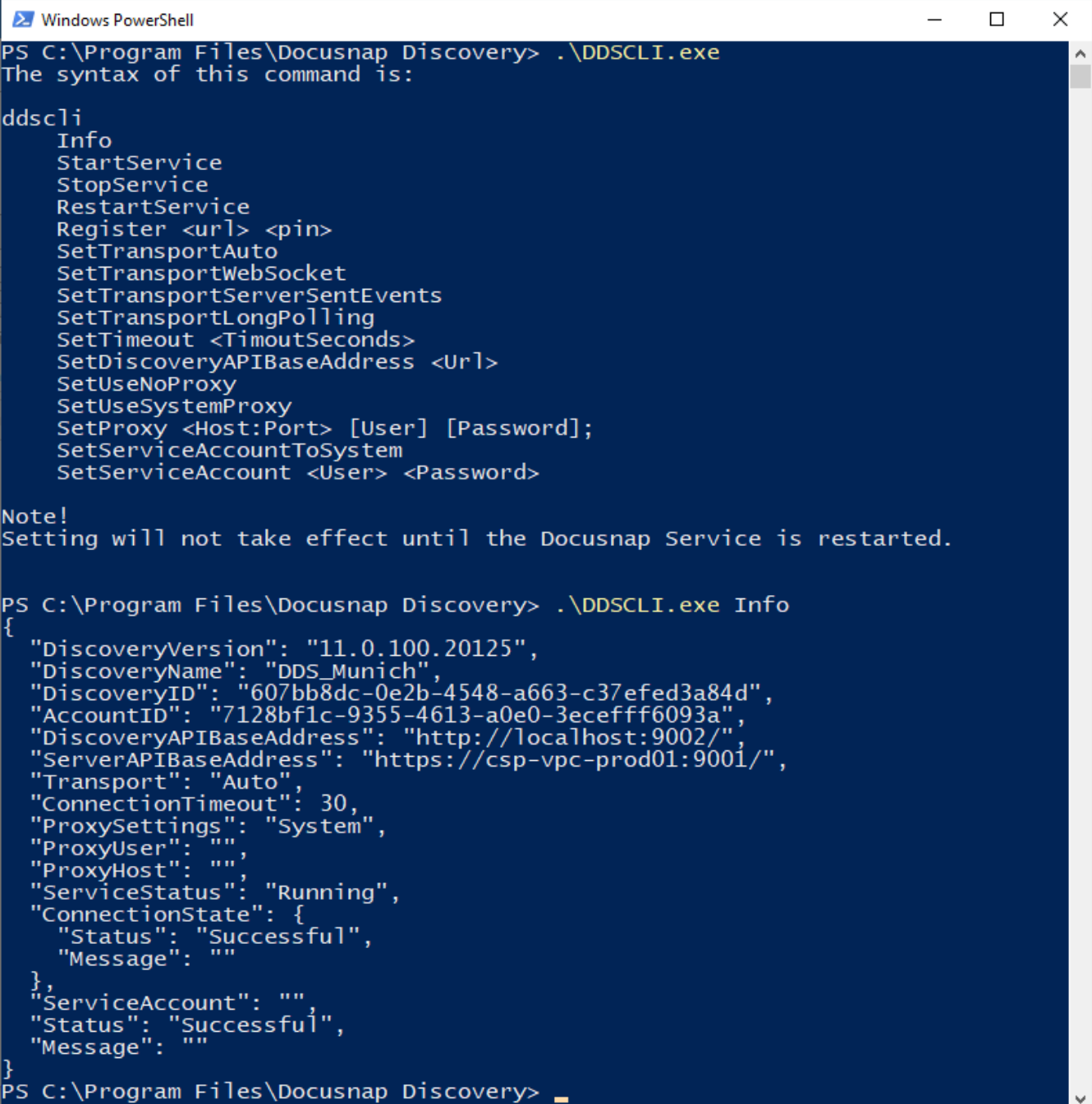
The installation call could look like this:

```
%ProgramFiles%\Docusnap 11\Setup\DocusnapDiscoverySetup.exe /Q
```

## 5. Docusnap Discovery Service CLI

The Docusnap Discovery Service provides a command line interface (CLI) that you can use to perform various actions and obtain information.

For example, you can start, stop, and restart the service. Information regarding the status can be requested. The configuration can also be done via the CLI.



```
Windows PowerShell
PS C:\Program Files\Docusnap Discovery> .\DDSCLI.exe
The syntax of this command is:

ddscli
  Info
  StartService
  StopService
  RestartService
  Register <url> <pin>
  SetTransportAuto
  SetTransportWebSocket
  SetTransportServerSentEvents
  SetTransportLongPolling
  SetTimeout <TimeoutSeconds>
  SetDiscoveryAPIBaseAddress <Url>
  SetUseNoProxy
  SetUseSystemProxy
  SetProxy <Host:Port> [User] [Password];
  SetServiceAccountToSystem
  SetServiceAccount <User> <Password>

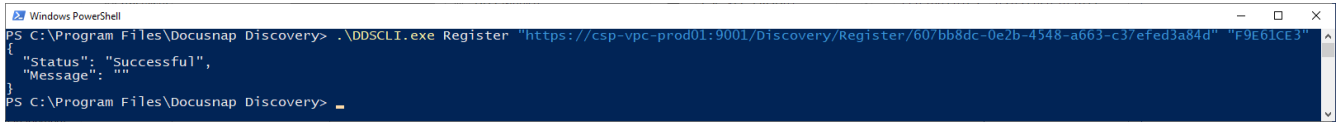
Note!
Setting will not take effect until the Docusnap Service is restarted.

PS C:\Program Files\Docusnap Discovery> .\DDSCLI.exe Info
{
  "DiscoveryVersion": "11.0.100.20125",
  "DiscoveryName": "DDS_Munich",
  "DiscoveryID": "607bb8dc-0e2b-4548-a663-c37efed3a84d",
  "AccountID": "7128bf1c-9355-4613-a0e0-3ecefff6093a",
  "DiscoveryAPIBaseAddress": "http://localhost:9002/",
  "ServerAPIBaseAddress": "https://csp-vpc-prod01:9001/",
  "Transport": "Auto",
  "ConnectionTimeout": 30,
  "ProxySettings": "System",
  "ProxyUser": "",
  "ProxyHost": "",
  "ServiceStatus": "Running",
  "ConnectionState": {
    "Status": "Successful",
    "Message": ""
  },
  "ServiceAccount": "",
  "Status": "Successful",
  "Message": ""
}
PS C:\Program Files\Docusnap Discovery> _
```

Fig. 11 - Docusnap Discovery Service CLI

The following example shows how you can register the Discovery Service using the CLI:

```
DDCLI.exe Register "https://csp-vpc-prod01:9001/Discovery/Register/607bb8dc-0e2b-4548-a663-c37efed3a84d" "F9E61CE3"
```



```
Windows PowerShell
PS C:\Program Files\DocuSnap Discovery> .\DDCLI.exe Register "https://csp-vpc-prod01:9001/Discovery/Register/607bb8dc-0e2b-4548-a663-c37efed3a84d" "F9E61CE3"
{
  "Status": "Successful",
  "Message": ""
}
PS C:\Program Files\DocuSnap Discovery>
```

Fig. 12 - DocuSnap Discovery Services CLI registration

This allows you to install and register Discovery Services through your software distribution or scripts.

## 6. Checklist – Error Analysis

### 6.1 Discovery Service connection test failed

- Docusnap Server is running?
  - Yes: Continue with next step
  - No: Start Docusnap Server service
- Server API locally available on Docusnap Server? <http://localhost:9001/info>
  - Yes: Continue with next step
  - Nein: Check your Docusnap server configuration
- Server API reachable on discovery service host system? <http://DocusnapServerAPI:9001/info>
  - Yes: Continue with next step
  - No: Check Windows firewall from Docusnap Server system or other relevant firewalls.
- Connection test in Discovery Service console successful?
  - Yes: Continue with next step
  - No: If SChannel errors occur in Windows Event Viewer contact Docusnap Support. Event ID 36874 and Event ID 36888
- Register Discovery Service
  - Yes: Successful
  - No: Continue with next chapter

### 6.2 Discovery Service registration failed

The following checklist describes the error analysis in case of a successful connection test. However, Discovery Service registration is not possible.

- Is Docusnap underlicensed?
  - Yes: Fix underlicensing
  - No: Continue with next step
- Docusnap Discovery Service user is local Administrator
  - Yes: Continue with next step
  - No: Add user to local administrators group
- Docusnap Discovery Service account has the right to log on as a service / replace a token at process level
  - Yes: Continue with next step
  - No: Grant permission in local security policy
- Time mismatch between Docusnap Server and Discovery Service
  - Yes: Correct time mismatch. If time zones are different, set the appropriate time zone and time.
  - No: Continue with next step
- Does the registration fail only if the Docusnap Server API uses https?
  - Yes: Is the used service account or local system account allowed to communicate via https?
  - No: Continue with next step
- Create new package for registration
  - Yes: Successful
  - No: Contact Docusnap Support



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## VERSION HISTORY

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<b>Date</b>	<b>Description</b>
September 02, 2016	Document created
September 20, 2018	Document revised New chapter <i>Docusnap Discovery Service CLI</i> added
October 24, 2018	Broken Link near 2.1 deleted
January 27, 2020	Screenshots updated; Prerequisites extended by further information
May 05, 2020	Version 2.0 - Revision of the HowTos for Docusnap 11
February 08, 2021	Version 2.1 – Time settings and new chapter <i>checklist</i> added

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