



Inventory - Microsoft Office 365

Inventorying Microsoft Office 365

TITEL	Inventory - Microsoft Office 365
AUTOR	Docusnap Consulting
DATUM	08/23/2019
VERSION	1.1 valid from August 19, 2019

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1. Introduction

In September Release 2018, Docusnap was enhanced with the Office 365 Inventory feature. The new added inventory collects data (users, groups and licenses) regarding Microsoft Office 365. In this document we describe which steps are necessary to map information of your Microsoft Office 365 environment in Docusnap.

The last revision of this HowTo and screenshots took place on August 19th, 2019. Please note that it can be that some information on the screenshots do no longer exist. However, the basic steps are still valid.

2. Preparing Microsoft Azure

The following chapters describe how to prepare the Microsoft Azure environment for inventorying Microsoft Office 365. Alternatively, a PowerShell script can be used for setup, as described in [Chapter 3](#).

Before you begin, make sure that your used Azure user is authorized as a **Global Administrator**.

2.1 Creating the New Azure Application

The Docusnap Office 365 Inventory requires mandatory a registered application, that is authorized to read and access the Microsoft Office 365 information. In this chapter, we describe how to create this application.

For example, the application is called **Docusnap Office 365**. The name is freely selectable.

2.1.1 App Registration

Create / register the app as follows:

- Select the **Azure Active Directory** in the resource overview or the search.
- In the **Manage** area, select **App registrations**.
- Click on the menu item **New registration**

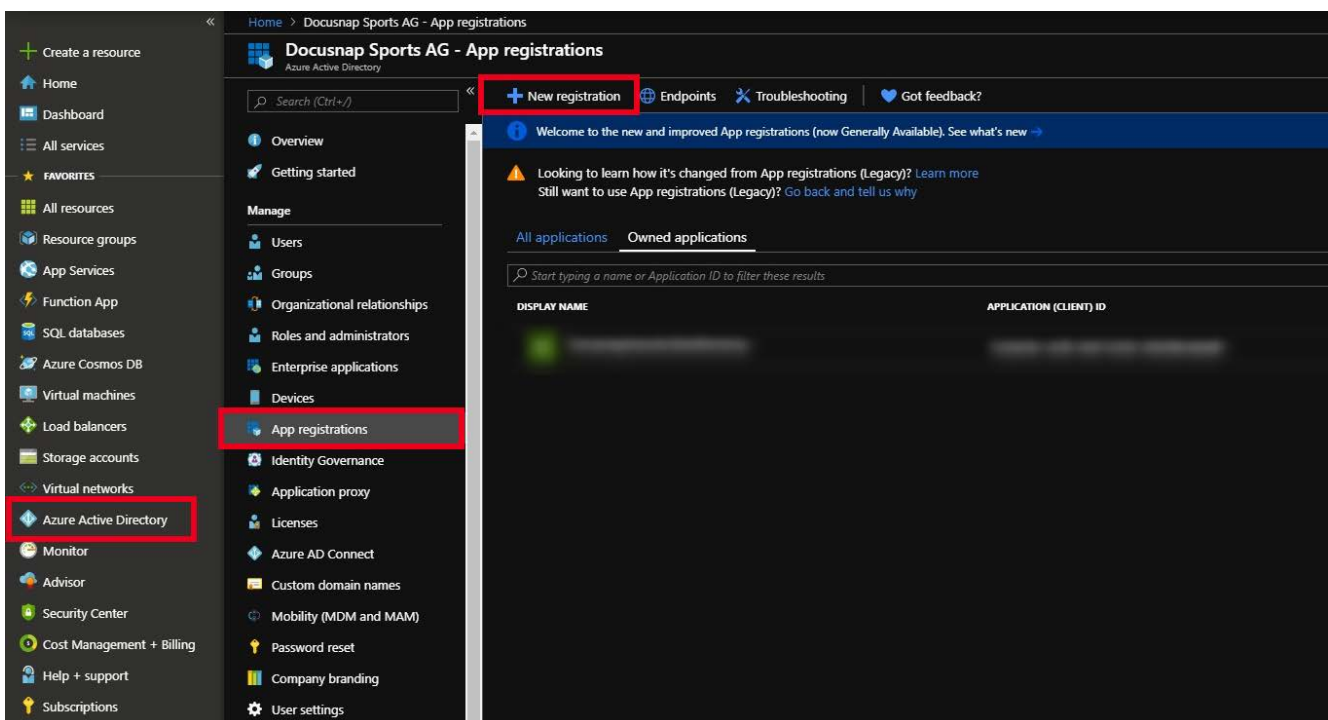


Fig. 1 - App registration

2.1.2 Register the application

The following information is required to register the application:

- **Name:** Enter the application name **Docusnap Office 365**.
- **Supported account types:** Here you can select who can use the application - select **Accounts in this organizational directory only**

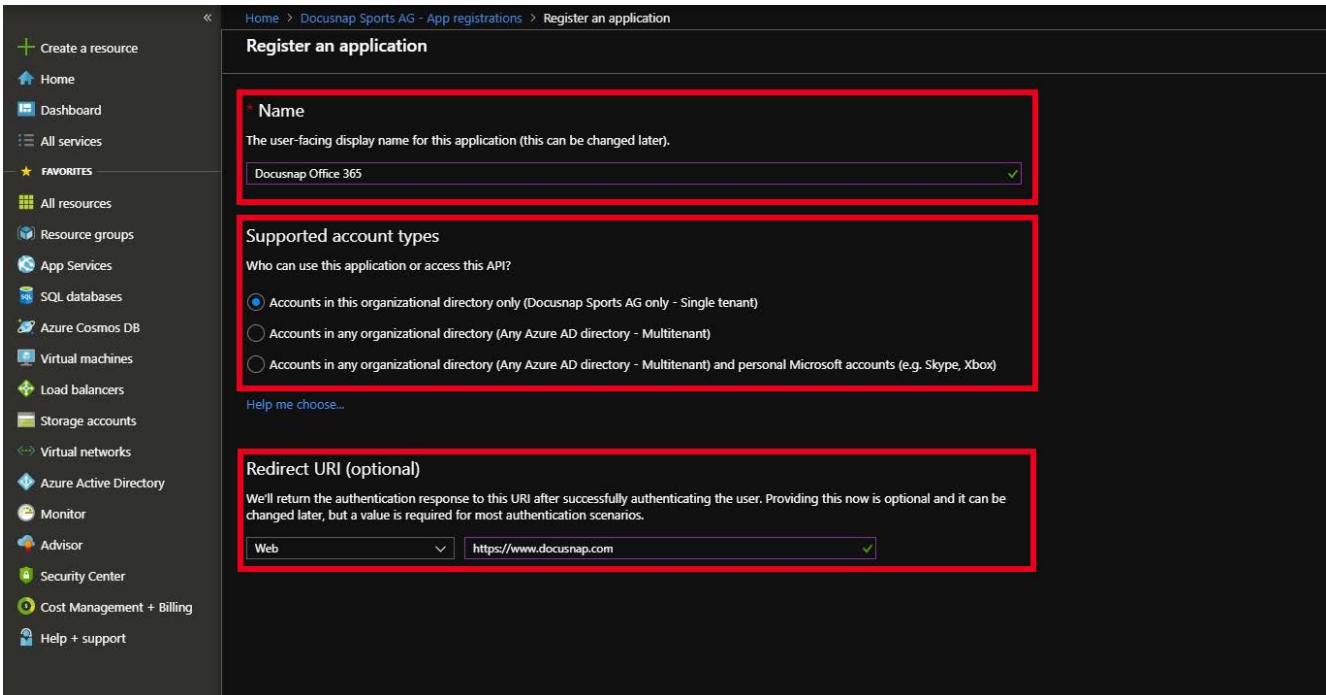


Fig. 2 – Register the application

2.1.3 Determine Application and Directory ID

After the creation is completed, the overview dialog of the application is displayed. Now note / copy the application and directory ID.

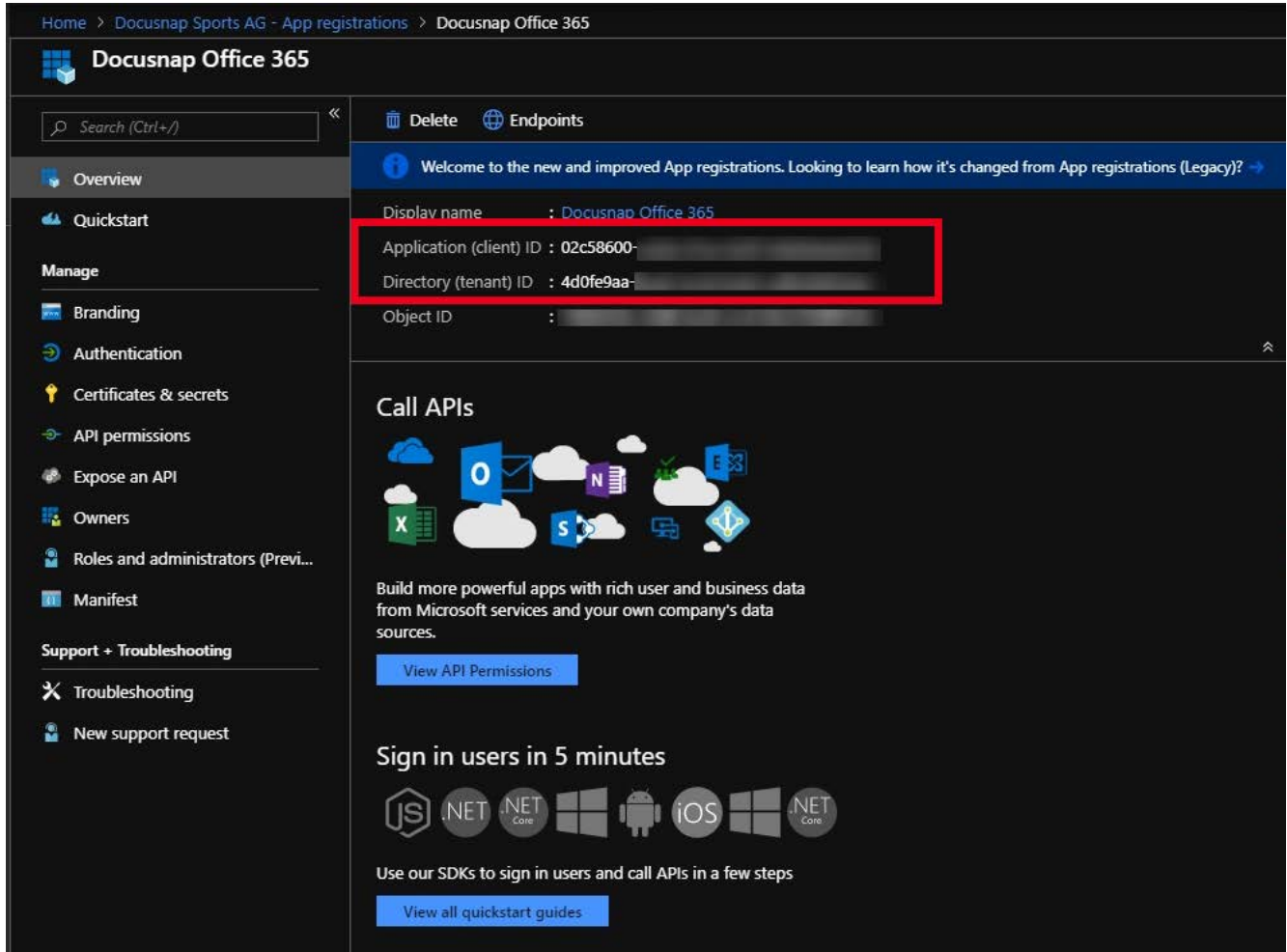


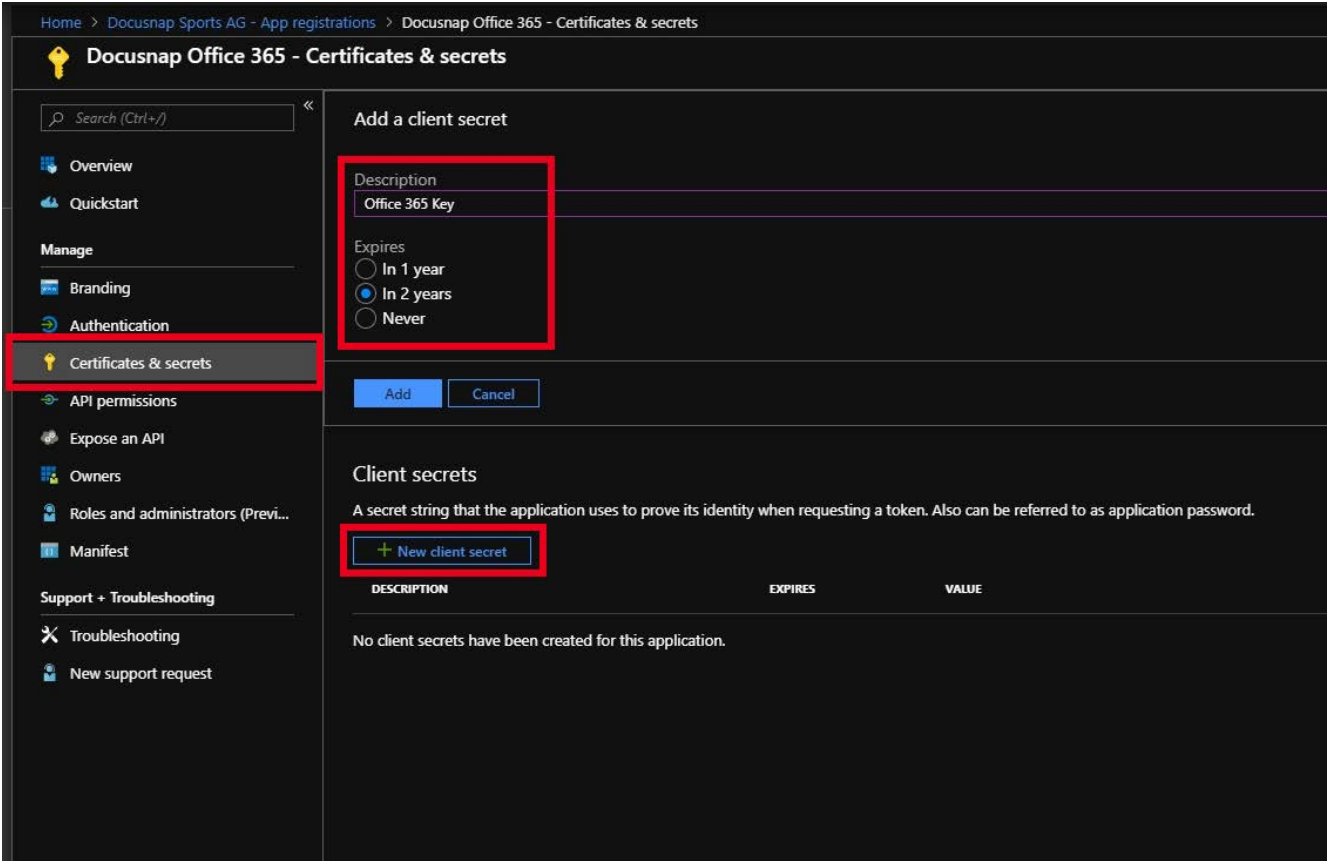
Fig. 3 - Determine Application and Directory ID

2.1.4 Create a client secret

Now create a client secret. In the **Manage** area, select the item

- Certificates & secrets
- New client secret
- Enter a **Description** and
- the validity of the secret

Note: The key can only be viewed directly after creation. If the key is lost or becomes invalid, it must be recreated.



Home > Docusnap Sports AG - App registrations > Docusnap Office 365 - Certificates & secrets

Docusnap Office 365 - Certificates & secrets

Search (Ctrl+J)

Overview
Quickstart

Manage

Branding
Authentication
Certificates & secrets
API permissions
Expose an API
Owners
Roles and administrators (Previ...
Manifest

Support + Troubleshooting

Troubleshooting
New support request

Add a client secret

Description
Office 365 Key

Expires
☐ In 1 year
☒ In 2 years
☐ Never

Add Cancel

Client secrets

A secret string that the application uses to prove its identity when requesting a token. Also can be referred to as application password.

[+ New client secret](#)

DESCRIPTION	EXPIRES	VALUE
No client secrets have been created for this application.		

Fig. 4 - Create a secret client key

2.1.5 Authorizing the application – API permissions

Now the application must be authorized for the Windows Azure Service Management API.

- In the Manage pane, select API Permissions
- Add a permission
- Microsoft Graph

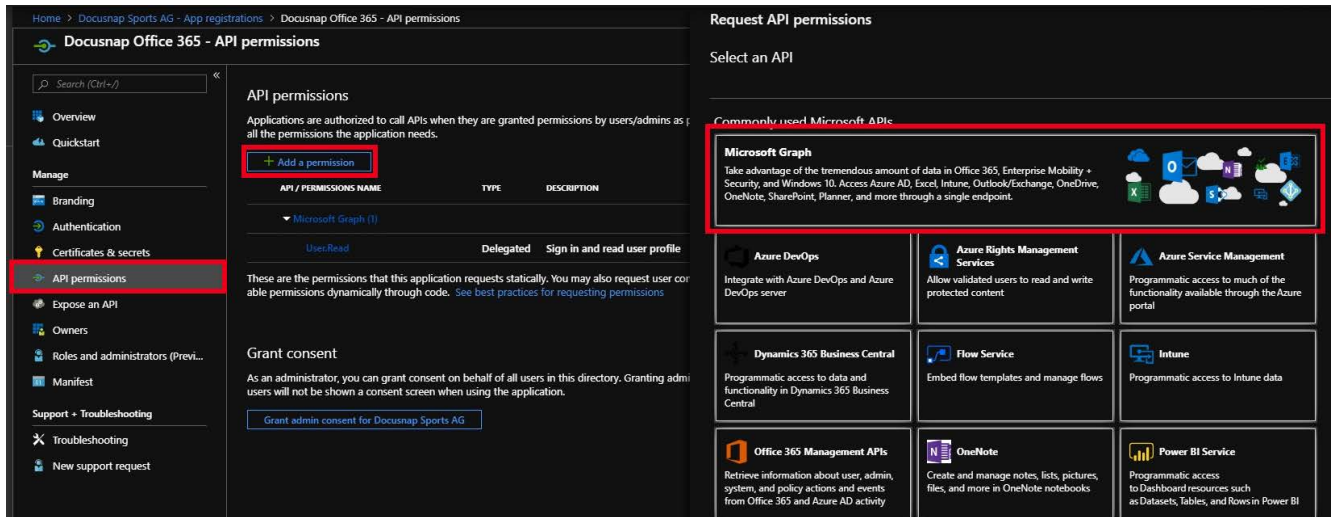


Fig 5 – Authorize Application

Choose Application permissions as the type of permission to be granted.

Use the keyword Directory to find the Directory.Read.All permission and add this permission.

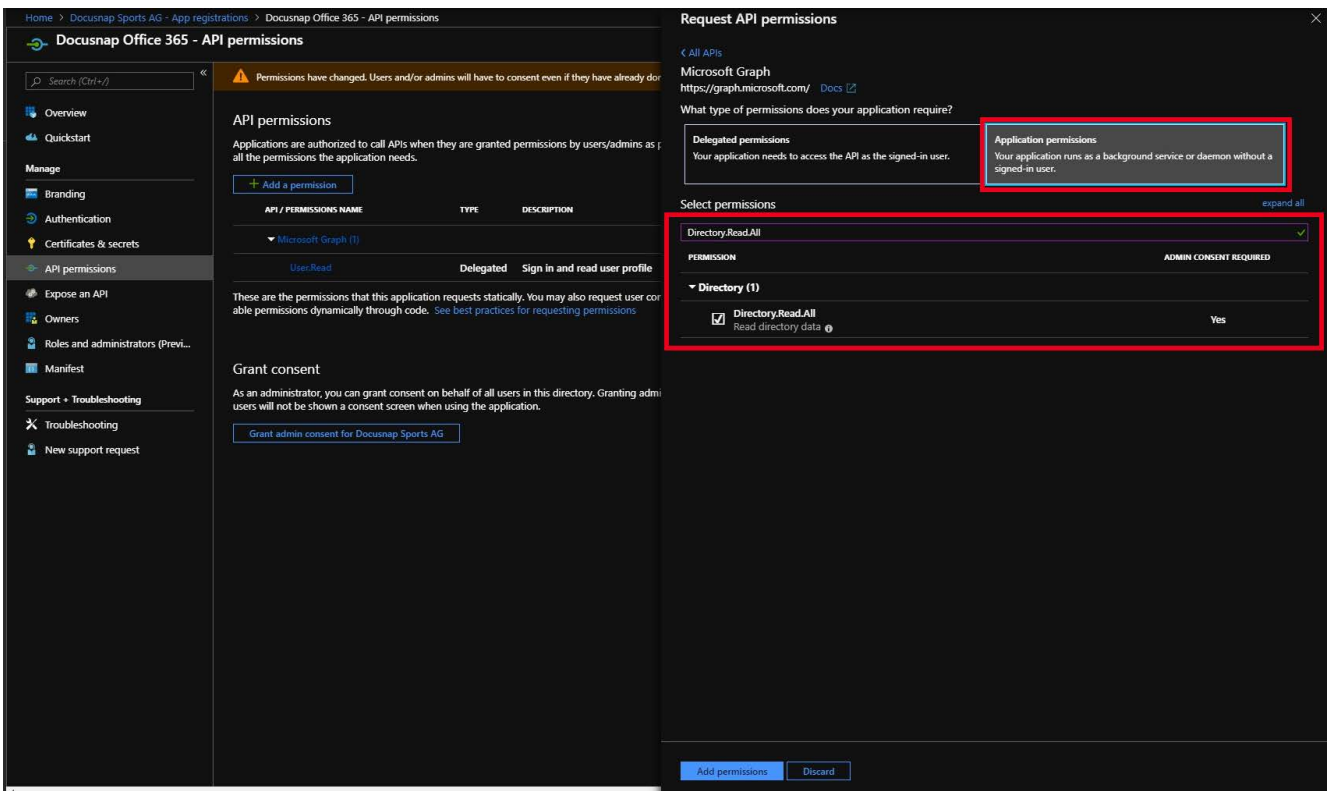
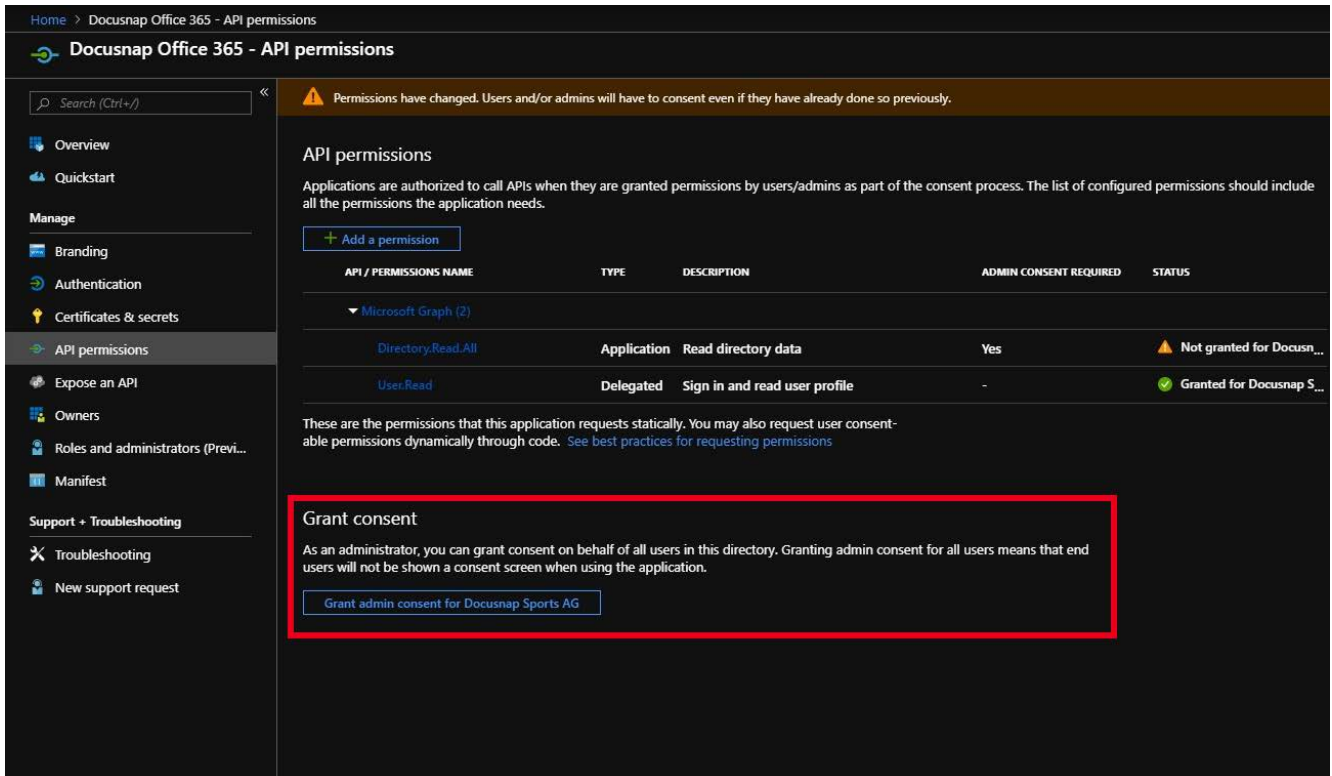


Fig 6 - Authorize Application II

Now you have to give your consent for the previously set permissions. To do this, select the control Grant admin consent for "Your subscription".



Home > Docusnap Office 365 - API permissions

Docusnap Office 365 - API permissions

Search (Ctrl+J)

Permissions have changed. Users and/or admins will have to consent even if they have already done so previously.

API permissions

Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of configured permissions should include all the permissions the application needs.

[+ Add a permission](#)

API / PERMISSIONS NAME	TYPE	DESCRIPTION	ADMIN CONSENT REQUIRED	STATUS
▼ Microsoft Graph (2)				
Directory.Read.All	Application	Read directory data	Yes	⚠ Not granted for Docusnap Sports AG
User.Read	Delegated	Sign in and read user profile	-	✅ Granted for Docusnap Sports AG

These are the permissions that this application requests statically. You may also request user consent-able permissions dynamically through code. [See best practices for requesting permissions](#)

Grant consent

As an administrator, you can grant consent on behalf of all users in this directory. Granting admin consent for all users means that end users will not be shown a consent screen when using the application.

[Grant admin consent for Docusnap Sports AG](#)

Fig 7 – Grant Consent

3. Alternative: PowerShell Script

Alternatively, a PowerShell script can be used to perform the steps described above.

The script is located in the installation directory of Docusnap

C:\Program Files\Docusnap X\Tools\scripts\ o365.key.creation.ps1

Important: The PowerShell script must be run as an administrator!

- Start PowerShell Script as an administrator
- Reload libraries if necessary and confirm execution dialogs
- Log in in the appearing window

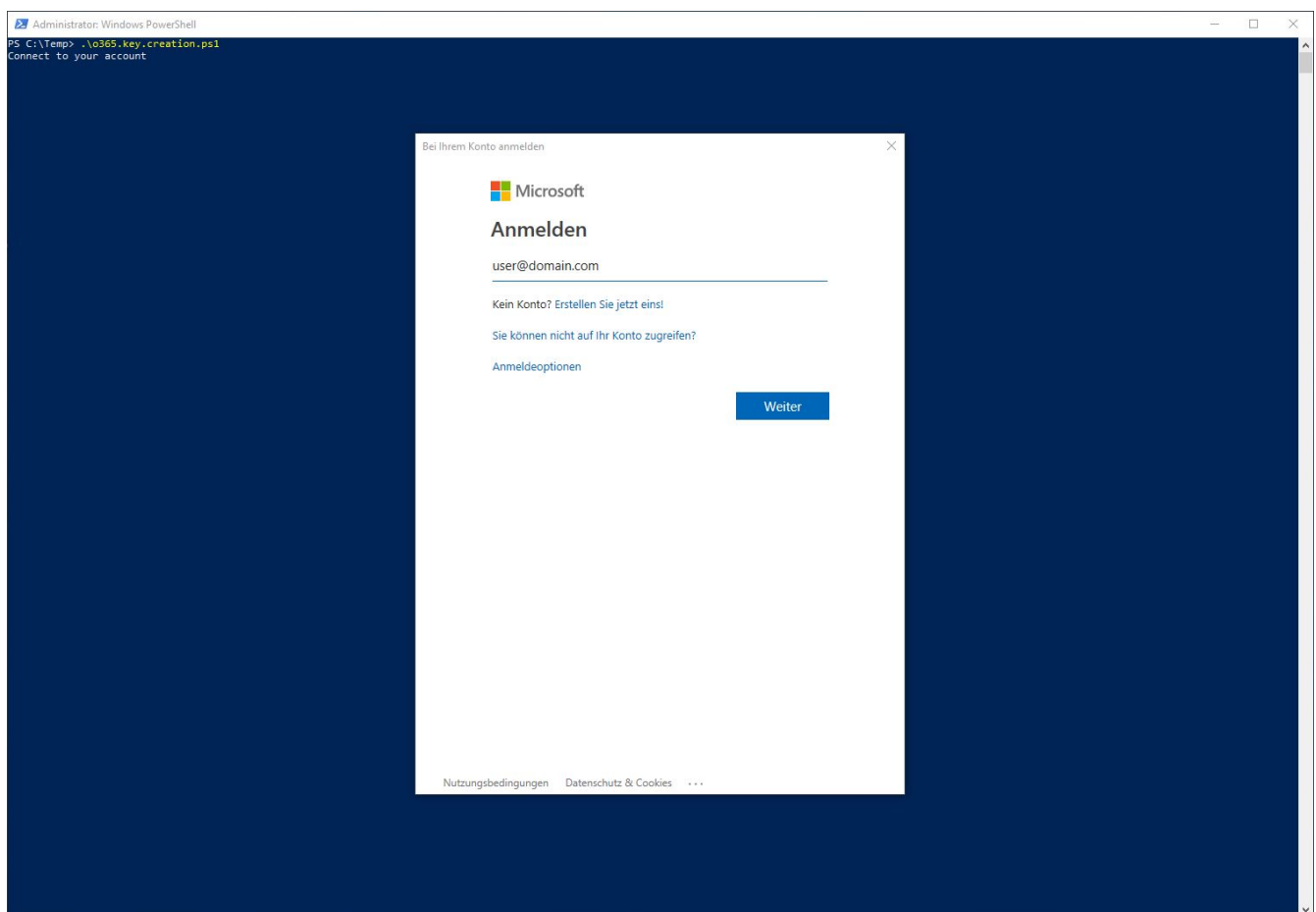
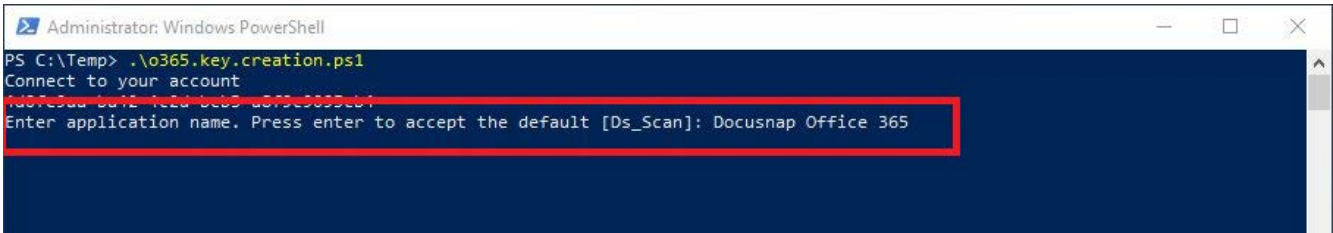


Fig 8 - PowerShell - login

- Assign a name for the application: Docusnap Office 365

A screenshot of a Windows PowerShell window titled "Administrator: Windows PowerShell". The command prompt shows the execution of a script:

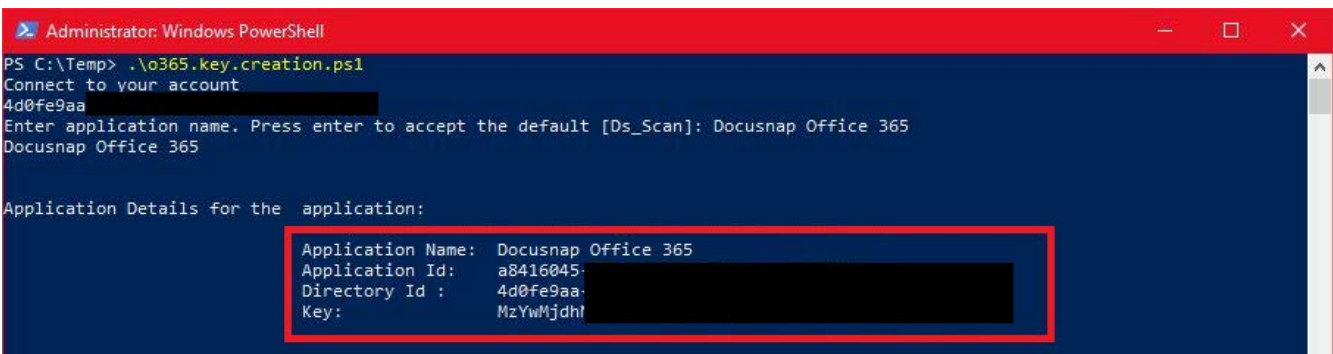
```
PS C:\Temp> .\o365.key.creation.ps1
```

 It then prompts to connect to an account, which is done. The next prompt is "Enter application name. Press enter to accept the default [Ds_Scan]: Docusnap Office 365". The user has entered "Docusnap Office 365".

```
Connect to your account
4d0fe9aa-8416-4045-a841-6045a8416045
Enter application name. Press enter to accept the default [Ds_Scan]: Docusnap Office 365
```

Fig. 9 - PowerShell - application name

- All required information (Application ID, Directory ID and Key) is displayed afterwards
- **Important** - copy the displayed IDs - the key can no longer be found afterwards

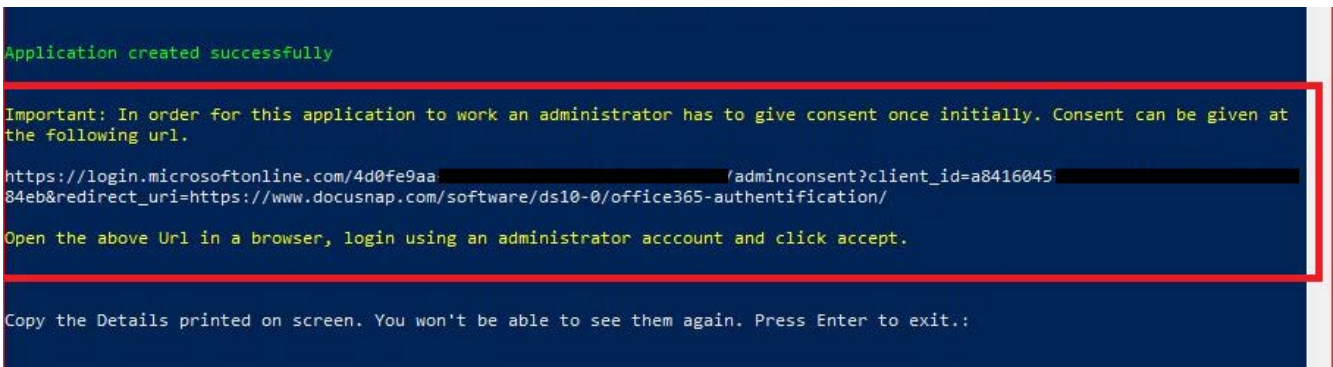
A screenshot of a Windows PowerShell window titled "Administrator: Windows PowerShell". It shows the output of the script after the application name was entered. It displays the Application ID, Directory ID, and Key. The key is masked with a black box.

```
PS C:\Temp> .\o365.key.creation.ps1
Connect to your account
4d0fe9aa-8416-4045-a841-6045a8416045
Enter application name. Press enter to accept the default [Ds_Scan]: Docusnap Office 365
Docusnap Office 365

Application Details for the application:
Application Name: Docusnap Office 365
Application Id: a8416045-8416-4045-a841-6045a8416045
Directory Id : 4d0fe9aa-8416-4045-a841-6045a8416045
Key: MzYwMjdhdHl
```

Fig. 10 - PowerShell – inventory credentials

- You have to open the displayed URL in the browser - log in and confirm the access

A screenshot of a Windows PowerShell window titled "Administrator: Windows PowerShell". It shows the output of the script after the application details were displayed. It displays a URL for consent and instructions to open it in a browser. The URL is masked with a black box.

```
Application created successfully

Important: In order for this application to work an administrator has to give consent once initially. Consent can be given at
the following url.

https://login.microsoftonline.com/4d0fe9aa-8416-4045-a841-6045a8416045/adminconsent?client_id=a8416045-8416-4045-a841-6045a8416045&redirect_uri=https://www.docusnap.com/software/ds10-0/office365-authentication/

Open the above Url in a browser, login using an administrator account and click accept.

Copy the Details printed on screen. You won't be able to see them again. Press Enter to exit.:
```

Fig. 11 - PowerShell - confirm access

4. Inventorying Office 365 with Docusnap

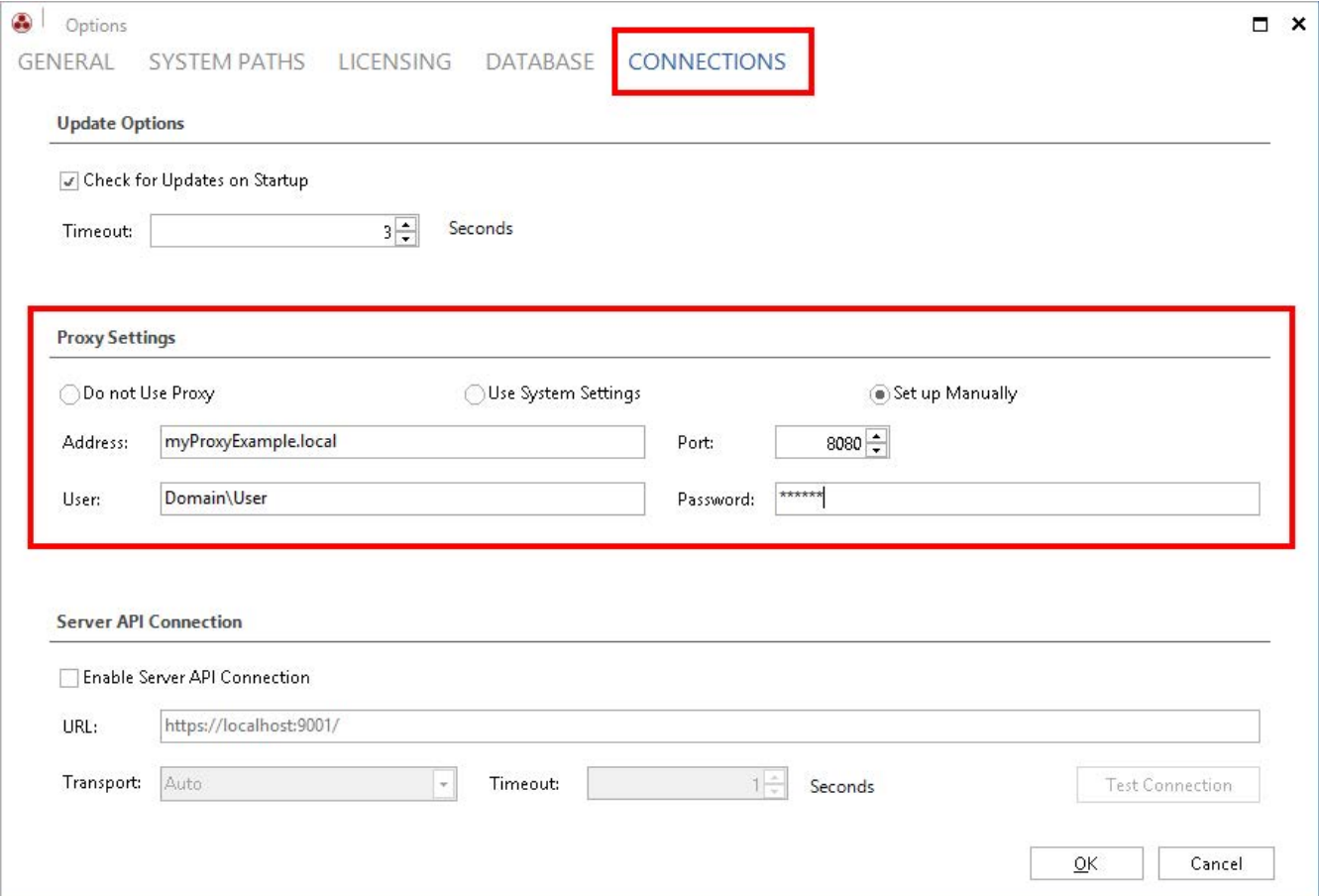
4.1 Docusnap Office 365 Inventory Wizard

4.1.1 Prerequisite: proxy configuration

If your network uses a proxy, you must specify the proxy parameters in the connection settings. It is possible that you normally do not need these settings when using the other scan modules. Basically, the proxy settings must be suitable for the respective DDS (Docusnap Discovery Service). The settings shown in the exemplary screenshot are suitable for interactive Azure inventory scans. If you selected the Discovery Service of another location as the DDS, you would have to adjust the proxy settings for this DDS installation.

Adjusting the proxy settings:

- Click **Docusnap** in the upper left corner to open the **Options** panel
- Select the **General Options** item from the list of options
- In the Options dialog, click **Connections**.
- Under **Proxy Settings**:
 - select **Set up manually**
 - Under **Address**, enter your proxy **URL** including the **Port** number
 - Enter suitable values in the **User** and **Password** fields
- Click **OK** to confirm your changes



The screenshot shows the 'Options' dialog box with the 'CONNECTIONS' tab selected. The 'Proxy Settings' section is highlighted with a red box. It contains three radio buttons: 'Do not Use Proxy', 'Use System Settings', and 'Set up Manually' (which is selected). Below these are four text fields: 'Address' (containing 'myProxyExample.local'), 'Port' (containing '8080'), 'User' (containing 'Domain\User'), and 'Password' (containing '*****'). Below the 'Proxy Settings' section is the 'Server API Connection' section, which includes a checkbox for 'Enable Server API Connection' (unchecked), a 'URL' field (containing 'https://localhost:9001/'), a 'Transport' dropdown (set to 'Auto'), a 'Timeout' spinner (set to '1'), and a 'Test Connection' button. At the bottom right are 'OK' and 'Cancel' buttons.

Fig. 12 - Docusnap Proxy Settings

4.1.2 Inventorying Office 365

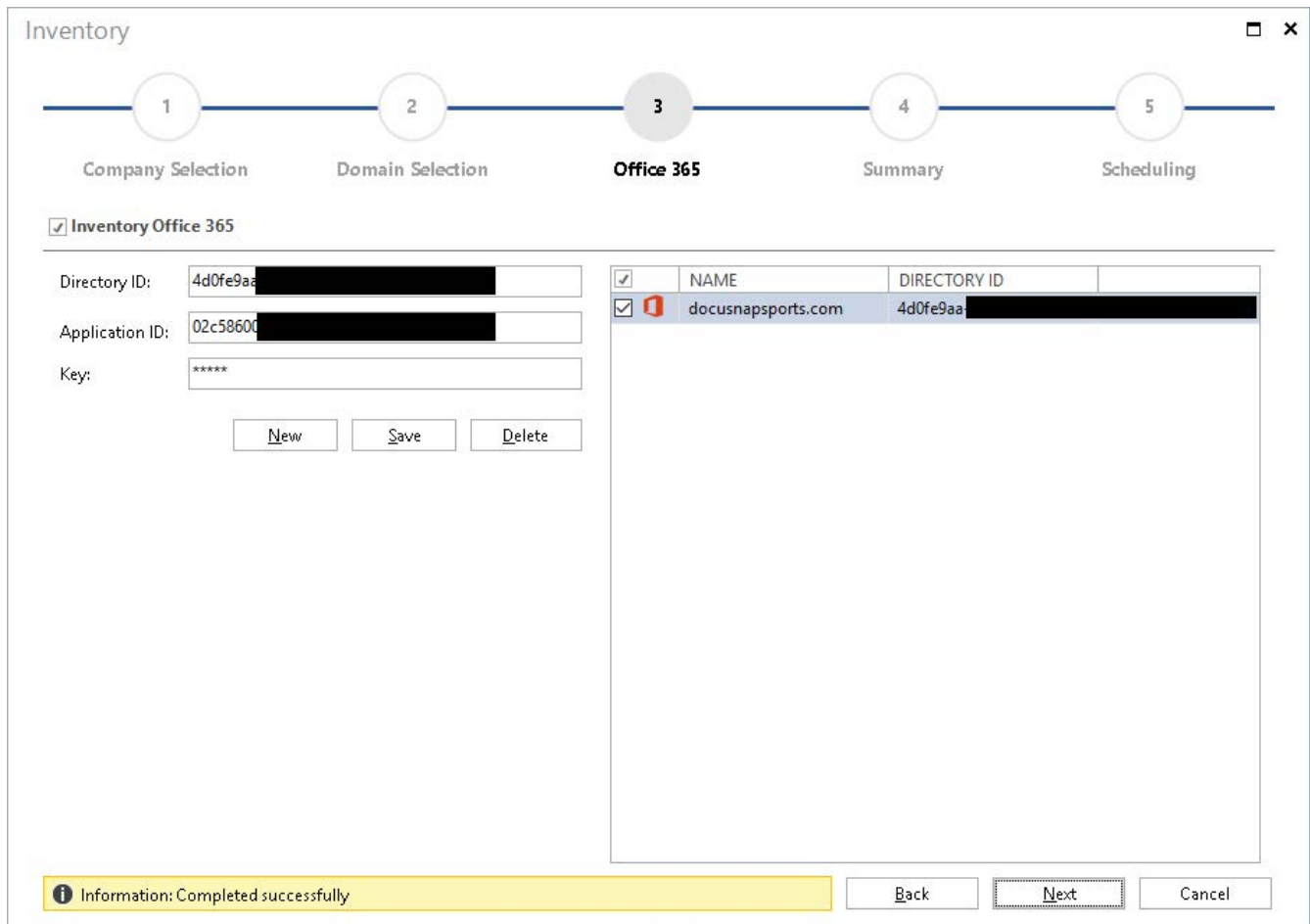
Launch the Office 365 Inventory Wizard from the button in the Cloud Services section.

Select the desired company and domain.

Now you need the IDs and key information previously collected in Azure:

- **Directory ID** corresponds to the ID of your Azure Active Directory
- The ID of the previously created application is entered as the **Application ID**
- In the **Key** field, insert the value of the previously created key.

Then click Save. If you receive a proxy error, refer to the [Proxy Configuration](#) section of this chapter.



Inventory

1 2 3 4 5
Company Selection Domain Selection **Office 365** Summary Scheduling

☒ Inventory Office 365

Directory ID: 4d0fe9aa...
Application ID: 02c58600...
Key: *****

New Save Delete

<input checked="" type="checkbox"/>	NAME	DIRECTORY ID
<input checked="" type="checkbox"/>	docusnapsports.com	4d0fe9aa...

Information: Completed successfully

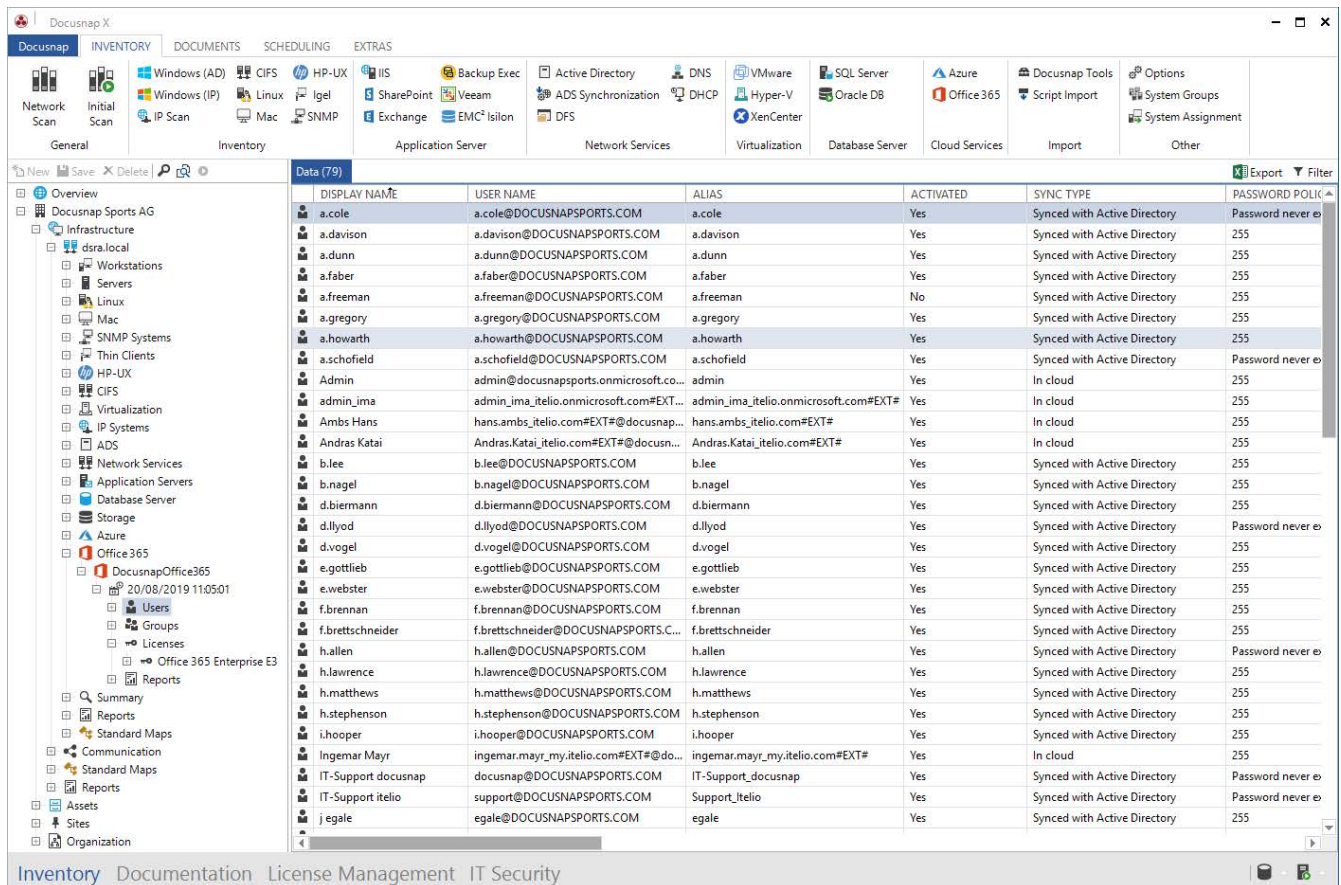
Back Next Cancel

Fig. 13 – Add IDs for inventory

4.2 Office 365 scan result in Docusnap

The scan result can be found in the Inventory module as a separate node called Office 365 below the previously selected domain, within the infrastructure of your client.

The screenshot below shows the top level of an Office 365 inventory:



DISPLAY NAME	USER NAME	ALIAS	ACTIVATED	SYNC TYPE	PASSWORD POLICY
a.cole	a.cole@DOCUSNAPSPORTS.COM	a.cole	Yes	Synced with Active Directory	Password never expires
a.davison	a.davison@DOCUSNAPSPORTS.COM	a.davison	Yes	Synced with Active Directory	255
a.dunn	a.dunn@DOCUSNAPSPORTS.COM	a.dunn	Yes	Synced with Active Directory	255
a.faber	a.faber@DOCUSNAPSPORTS.COM	a.faber	Yes	Synced with Active Directory	255
a.freeman	a.freeman@DOCUSNAPSPORTS.COM	a.freeman	No	Synced with Active Directory	255
a.gregory	a.gregory@DOCUSNAPSPORTS.COM	a.gregory	Yes	Synced with Active Directory	255
a.howarth	a.howarth@DOCUSNAPSPORTS.COM	a.howarth	Yes	Synced with Active Directory	255
a.schofield	a.schofield@DOCUSNAPSPORTS.COM	a.schofield	Yes	Synced with Active Directory	Password never expires
Admin	admin@docusnapsports.onmicrosoft.com	admin	Yes	In cloud	255
admin_ima	admin_ima_itelio.onmicrosoft.com#EXT#	admin_ima_itelio.onmicrosoft.com#EXT#	Yes	In cloud	255
Ambs Hans	hans.ambs_itelio.com#EXT#@docusnap...	hans.ambs_itelio.com#EXT#	Yes	In cloud	255
Andras Katai	Andras.Katai_itelio.com#EXT#@docusnap...	Andras.Katai_itelio.com#EXT#	Yes	In cloud	255
b.lee	b.lee@DOCUSNAPSPORTS.COM	b.lee	Yes	Synced with Active Directory	255
b.nagel	b.nagel@DOCUSNAPSPORTS.COM	b.nagel	Yes	Synced with Active Directory	255
d.biermann	d.biermann@DOCUSNAPSPORTS.COM	d.biermann	Yes	Synced with Active Directory	255
d.llyod	d.llyod@DOCUSNAPSPORTS.COM	d.llyod	Yes	Synced with Active Directory	Password never expires
d.vogel	d.vogel@DOCUSNAPSPORTS.COM	d.vogel	Yes	Synced with Active Directory	255
e.gottlieb	e.gottlieb@DOCUSNAPSPORTS.COM	e.gottlieb	Yes	Synced with Active Directory	255
e.webster	e.webster@DOCUSNAPSPORTS.COM	e.webster	Yes	Synced with Active Directory	255
f.brennan	f.brennan@DOCUSNAPSPORTS.COM	f.brennan	Yes	Synced with Active Directory	255
f.brettschneider	f.brettschneider@DOCUSNAPSPORTS.COM	f.brettschneider	Yes	Synced with Active Directory	255
h.allen	h.allen@DOCUSNAPSPORTS.COM	h.allen	Yes	Synced with Active Directory	Password never expires
h.lawrence	h.lawrence@DOCUSNAPSPORTS.COM	h.lawrence	Yes	Synced with Active Directory	255
h.matthews	h.matthews@DOCUSNAPSPORTS.COM	h.matthews	Yes	Synced with Active Directory	255
h.stephenson	h.stephenson@DOCUSNAPSPORTS.COM	h.stephenson	Yes	Synced with Active Directory	255
i.hooper	i.hooper@DOCUSNAPSPORTS.COM	i.hooper	Yes	Synced with Active Directory	255
Ingemar Mayr	ingemar.mayr_my_itelio.com#EXT#@docusnap...	ingemar.mayr_my_itelio.com#EXT#	Yes	In cloud	255
IT-Support docusnap	docusnap@DOCUSNAPSPORTS.COM	IT-Support_docusnap	Yes	Synced with Active Directory	Password never expires
IT-Support itelio	support@DOCUSNAPSPORTS.COM	Support_Itelio	Yes	Synced with Active Directory	Password never expires
j.egale	egale@DOCUSNAPSPORTS.COM	egale	Yes	Synced with Active Directory	255

Fig. 14 - Scan result

ABBILDUNGSVERZEICHNIS

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VERSION HISTORY

Date	Description
September 20, 2018	Document created
August 20, 2019	Changed Screenshots



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