Inventorying - Microsoft Azure

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AUTHOR	Docusnap Consulting
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1. About this document

Docusnap now also inventories cloud environments. In January 2018, we added the Docusnap **Azure Inventory** feature to Docusnap. This document describes the steps required to collect and map information from your Microsoft Azure infrastructure in Docusnap.

Chapter 2 – How to prepare your Azure environment for the inventory with Docusnap

Chapter 3 – How to schedule and perform an Azure inventory with 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.

1.1 Licensing requirements

The **Docusnap Azure Inventory** feature requires the installation of the **Docusnap X Basic** edition or a higher version. To be entitled to use this feature, a valid Service Agreement must be in effect at the time of release of this module (i.e. January 31, 2018).

For any questions regarding the licensing requirements, please contact our Sales or Support team.

2. How to prepare your Azure environment for Docusnap

This chapter describes the preparation steps to be carried out in Microsoft Azure to perform an inventory with Docusnap. The **Docusnap Azure Inventory** dialog prompts you for multiple IDs. These IDs are assigned during the preparation in Azure. We recommend that you save the values in a text editor to have them at hand when you are prompted to enter them in the **Azure Inventory Wizard**.

2.1 Overview of the preparations in Azure

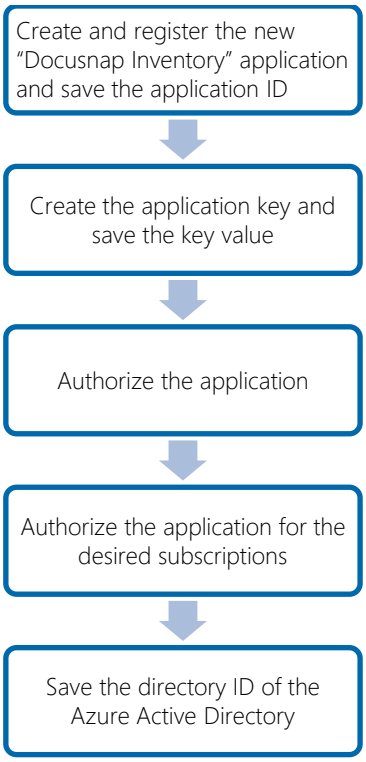

Fig. 1 – Azure preparations for Docusnap X

2.2 Azure preparations – required permission

Before you start, make sure that you can log on as an Azure user who has **global administrator** rights.

2.3 Creating the new application

For the Docusnap Azure Inventory feature, a registered application is required. This application must have read access to the Microsoft Azure data. This section describes how to create such an application. In our example, the application is called **Docusnap-Inventory**. You can choose any name you like.

2.3.1 Starting App registration

- Select the **Azure Active Directory** item from the resource list or search
- In the Azure Active Directory view, select the **App Registrations** item under **Manage**
- Choose **New Registration**

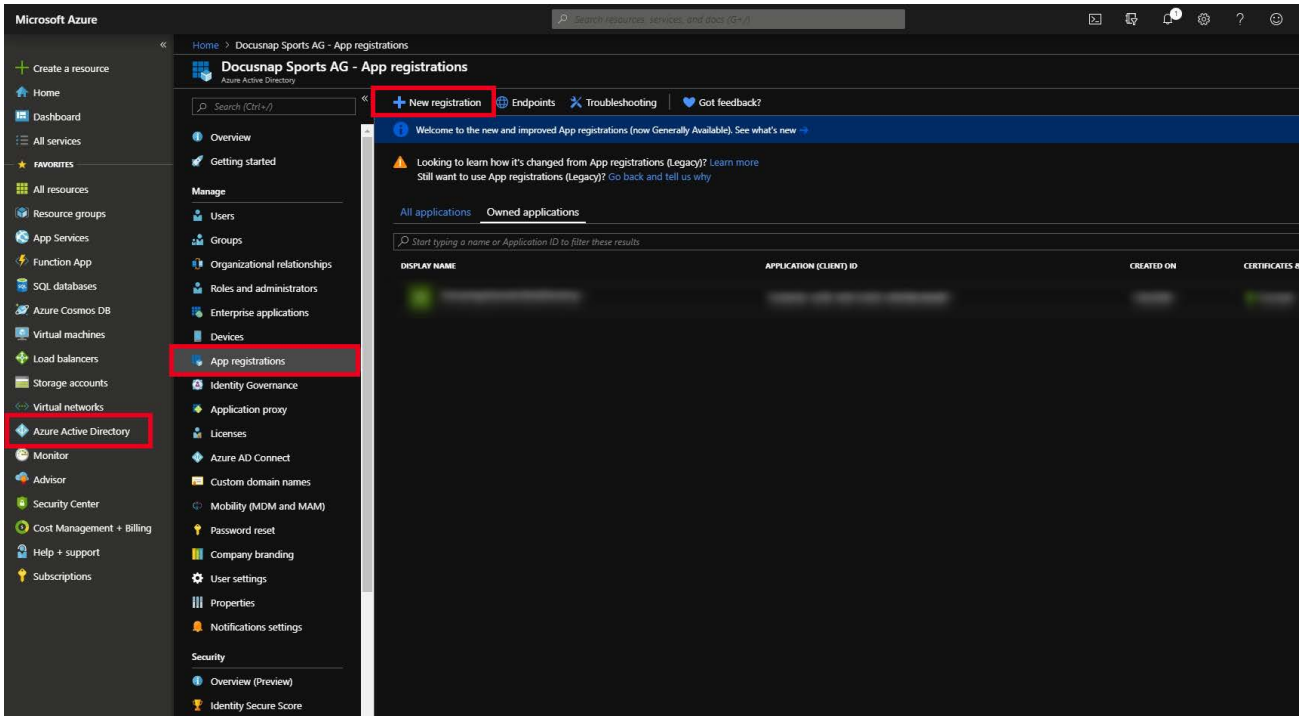

Fig. 2 – New App registration

2.3.2 Register the application

The following information is required to register the application:

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

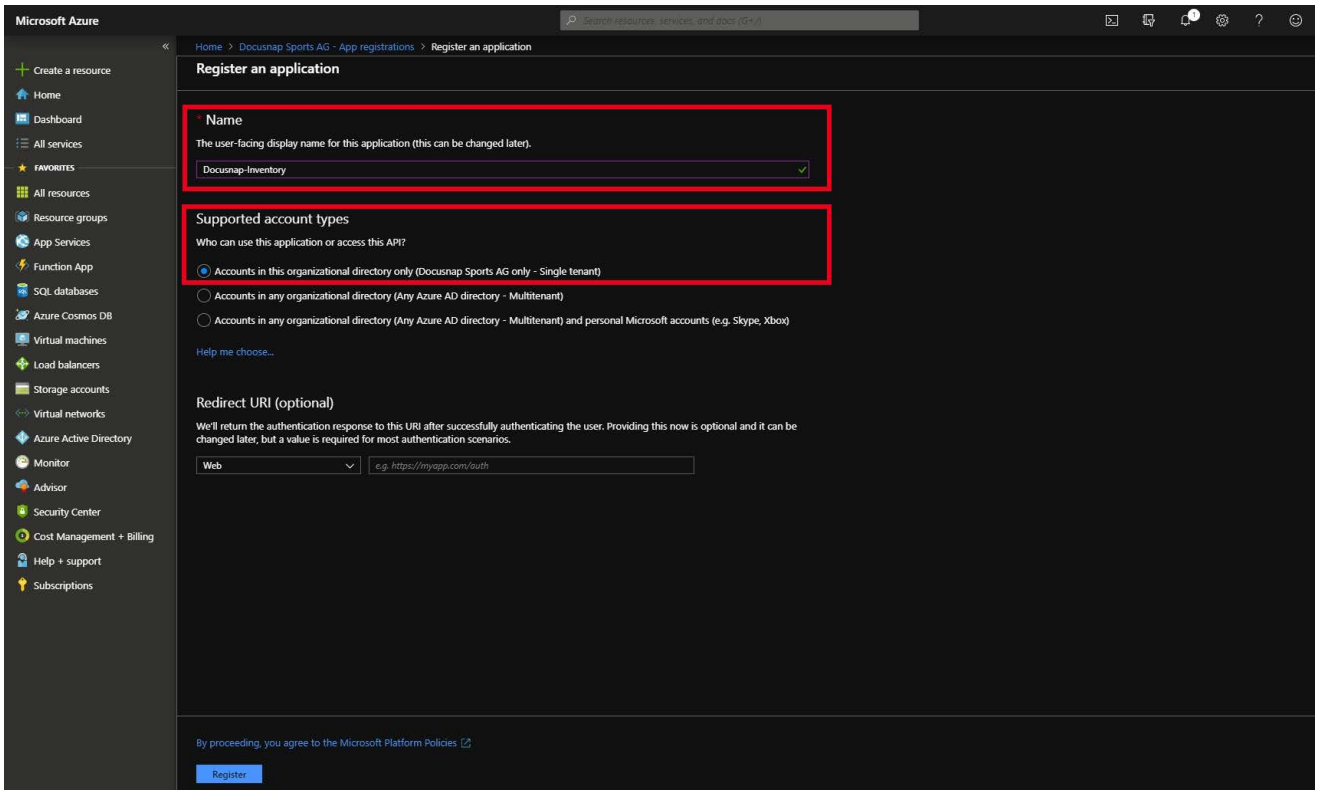

Fig. 3 – Register the application

2.3.3 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.

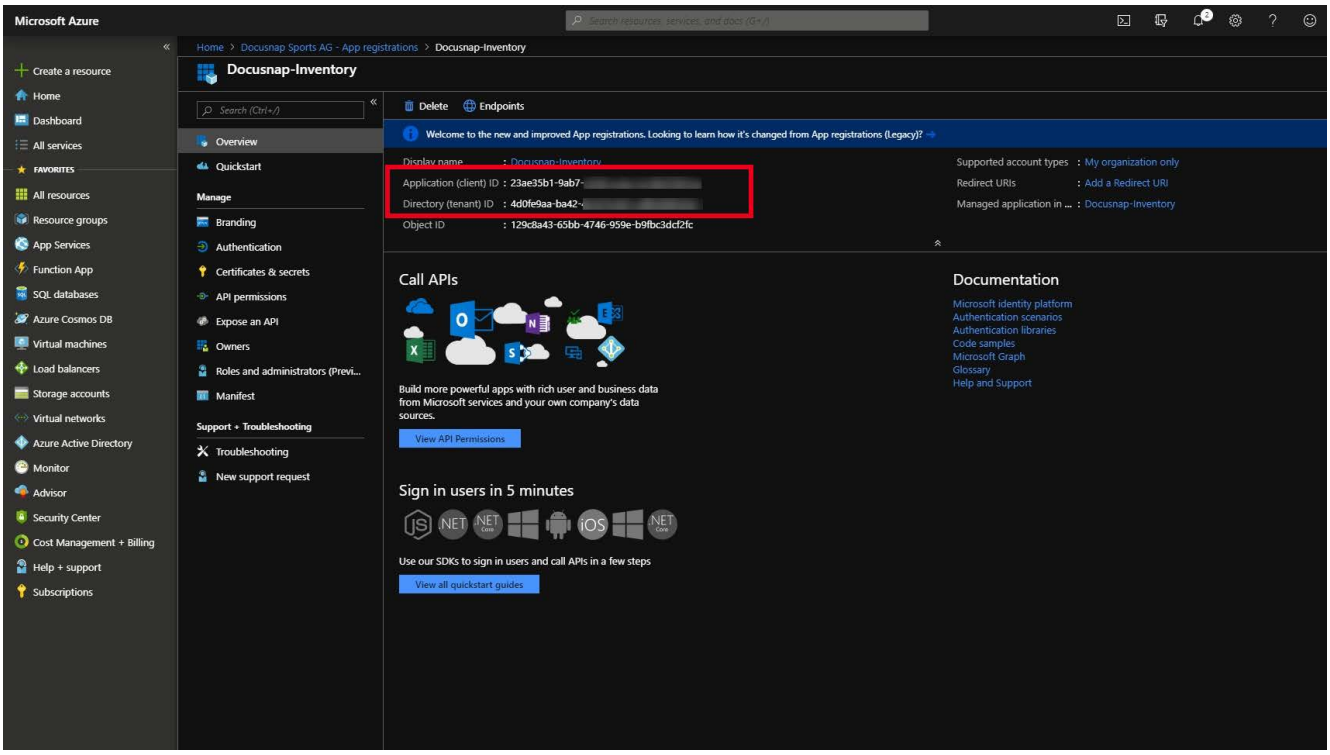

Fig. 4 – Determine Application and Directory ID

2.3.4 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.

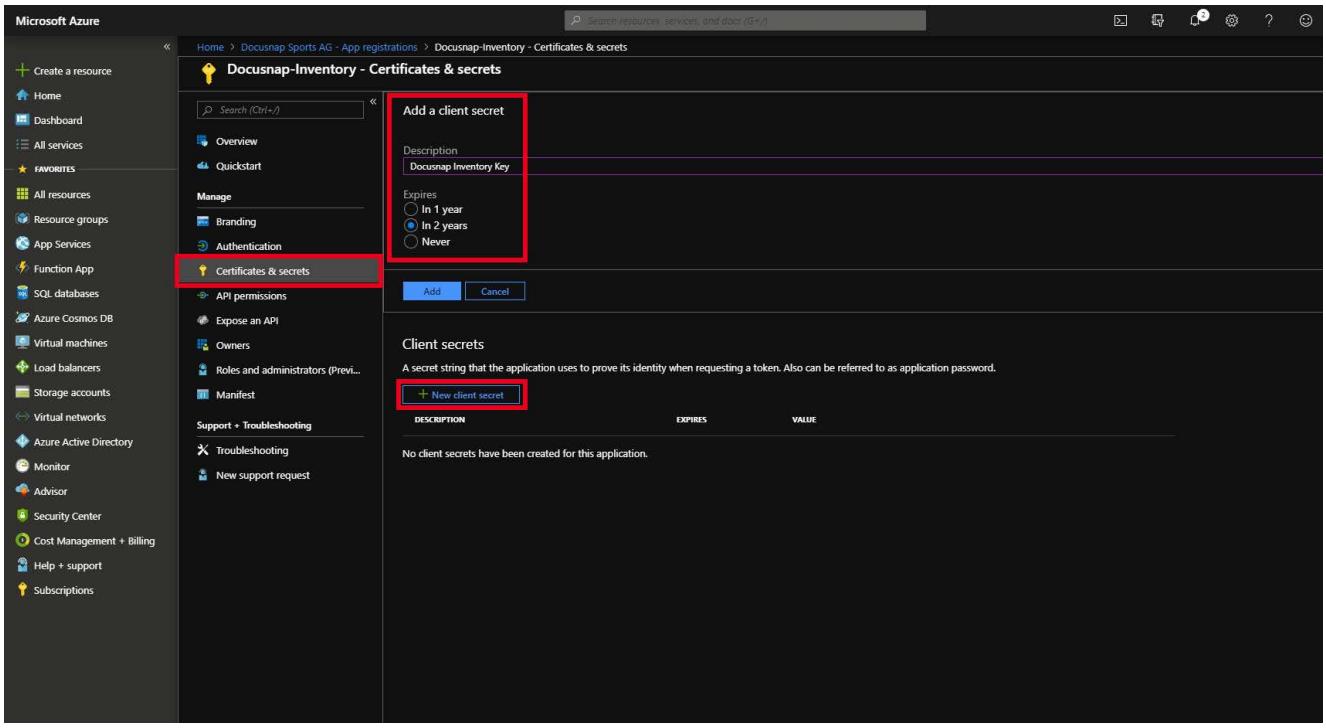

Fig. 5 – Create a secret client key

2.3.5 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
- Azure Service Management
- Now select the authorization **user_impersonation (Access Azure Service Management as organization users)** and add this authorization.

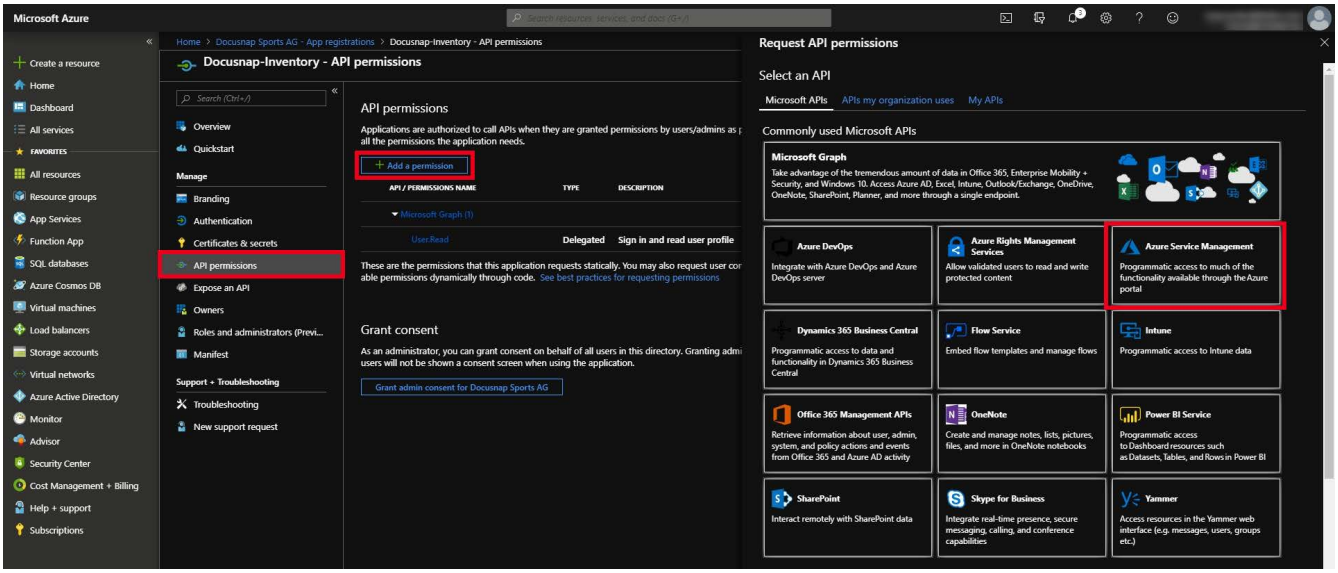

Fig. 6 – Authorize application

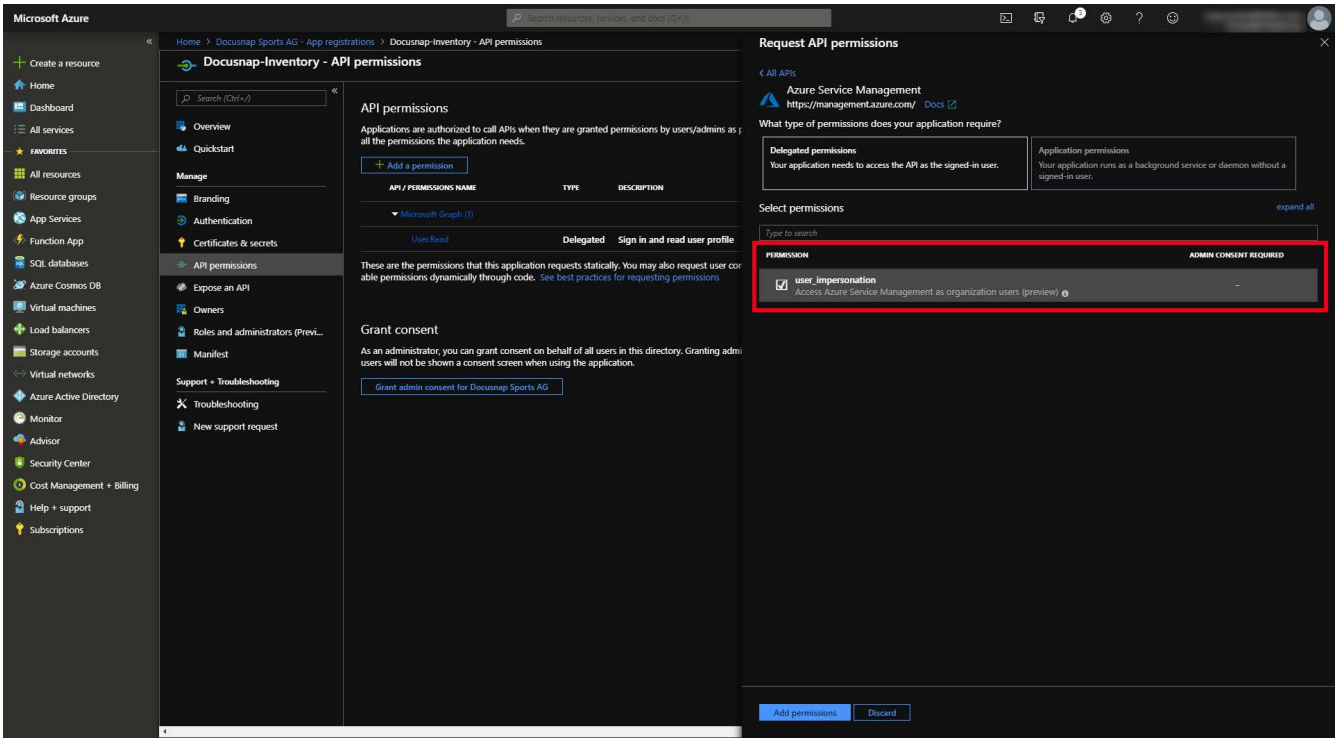

Fig. 7 – Authorize application II

2.3.6 Authorizing the application for all desired subscriptions

Now the application is granted read access to the required subscriptions in Azure.

- From the resource overview or search, select **Subscriptions**
- Select the desired subscription
- In the subscription selection, choose **Access Control (IAM)**
- **Add – Add Role Assignment**
- In the role selection, select the **Reader** role.
- In the Select field, enter the name of your application
- Select your application. It will now be listed under Selected Members
- Confirm the assignment with a click on Save

Note: The steps listed must be repeated for each subscription you wish to inventory with Docusnap.

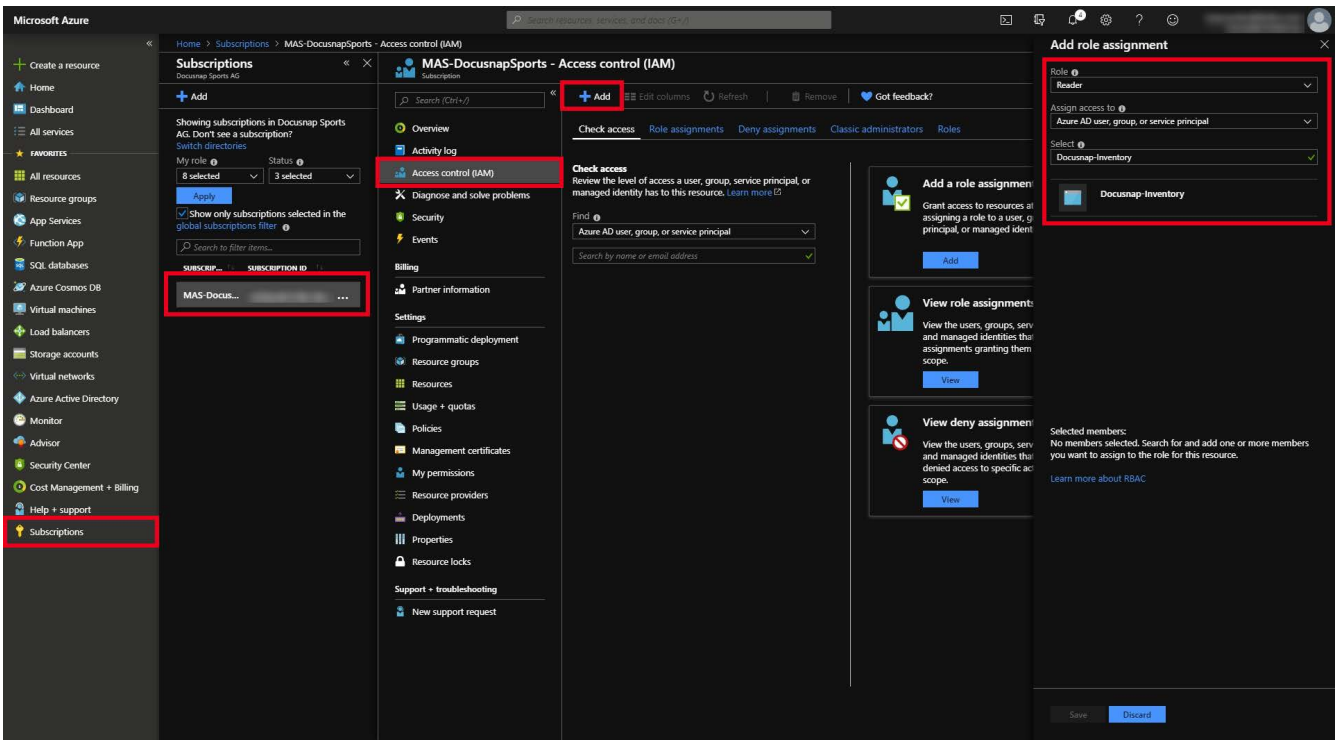

Fig. 8 – Assigning Authorization for the Subscription (Access Control (IAM))

3. Inventorying the Azure Cloud with Docusnap

3.1 Docusnap Azure inventory wizard

3.1.1 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

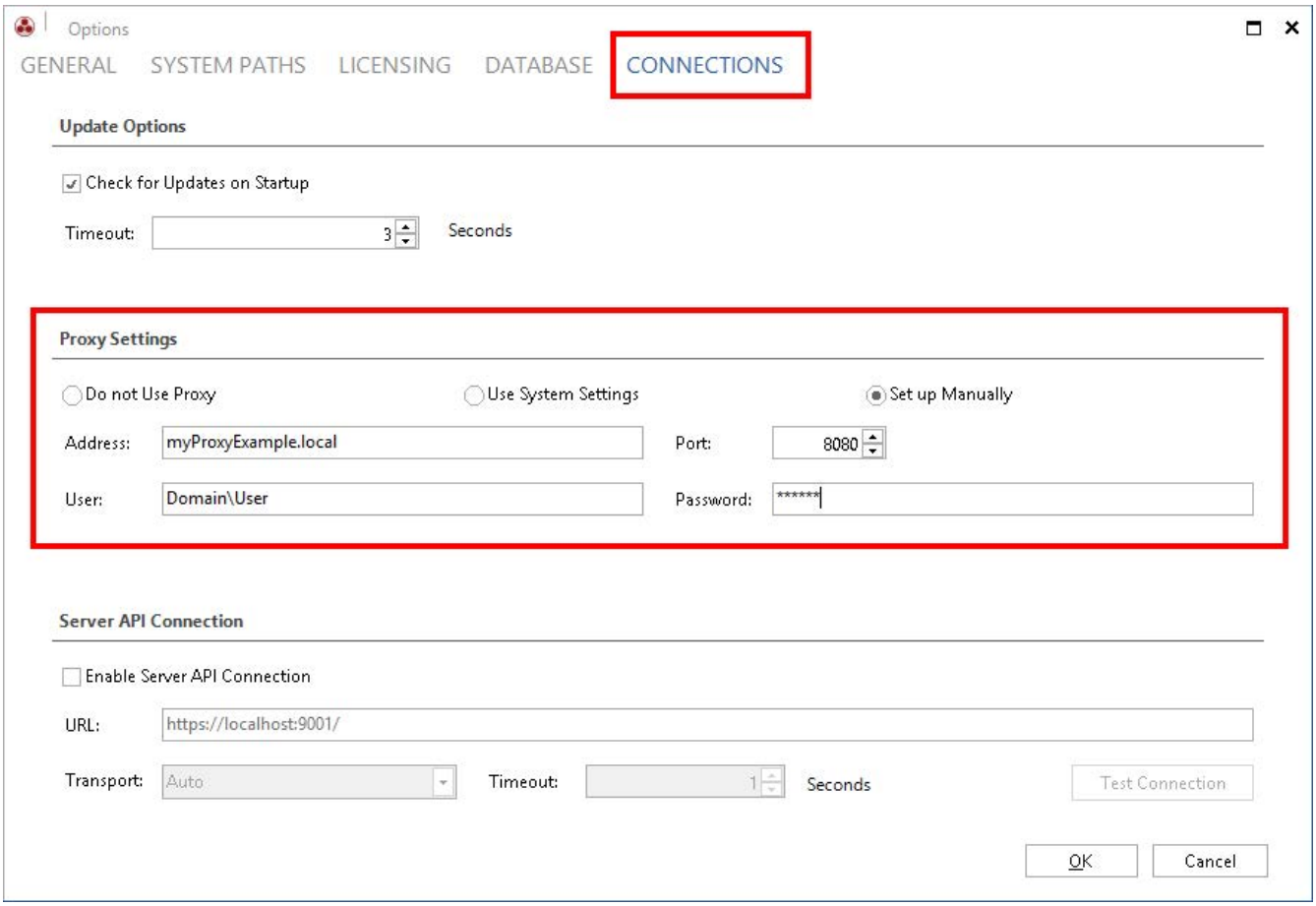

Fig. 9 – Manually entering proxy settings in the Docusnap option dialog

3.1.2 Inventorying Microsoft Azure

Launch the Azure 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:

- **Display Name** is only a placeholder and can be freely selected
- **Directory ID** corresponds to the ID of your Azure Active Directory
- The ID of the previously created application is entered as the A**pplication ID**
- In the **Key** field, insert the value of the previously created key.

In the Subscriptions area, all existing subscriptions are displayed and selected by default. These can be deselected if required. Note that your Azure application must be authorized for all selected subscriptions.

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

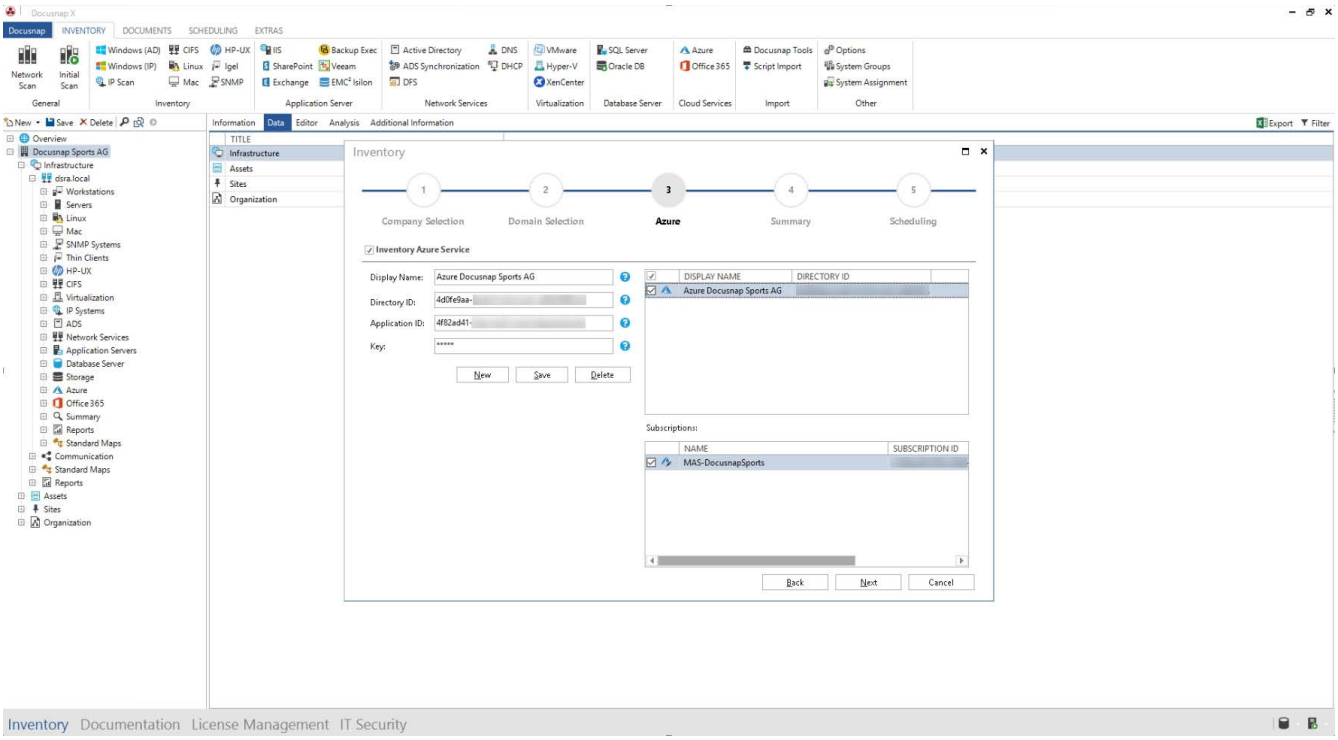

Fig. 10 – Azure Inventory Wizard

3.2 Azure scan result in Docusnap

The scan result will be displayed as a separate node called Azure in the Inventory module, below the previously selected domain within the infrastructure of the respective company.

The screenshot shows the top levels of an Azure test environment:

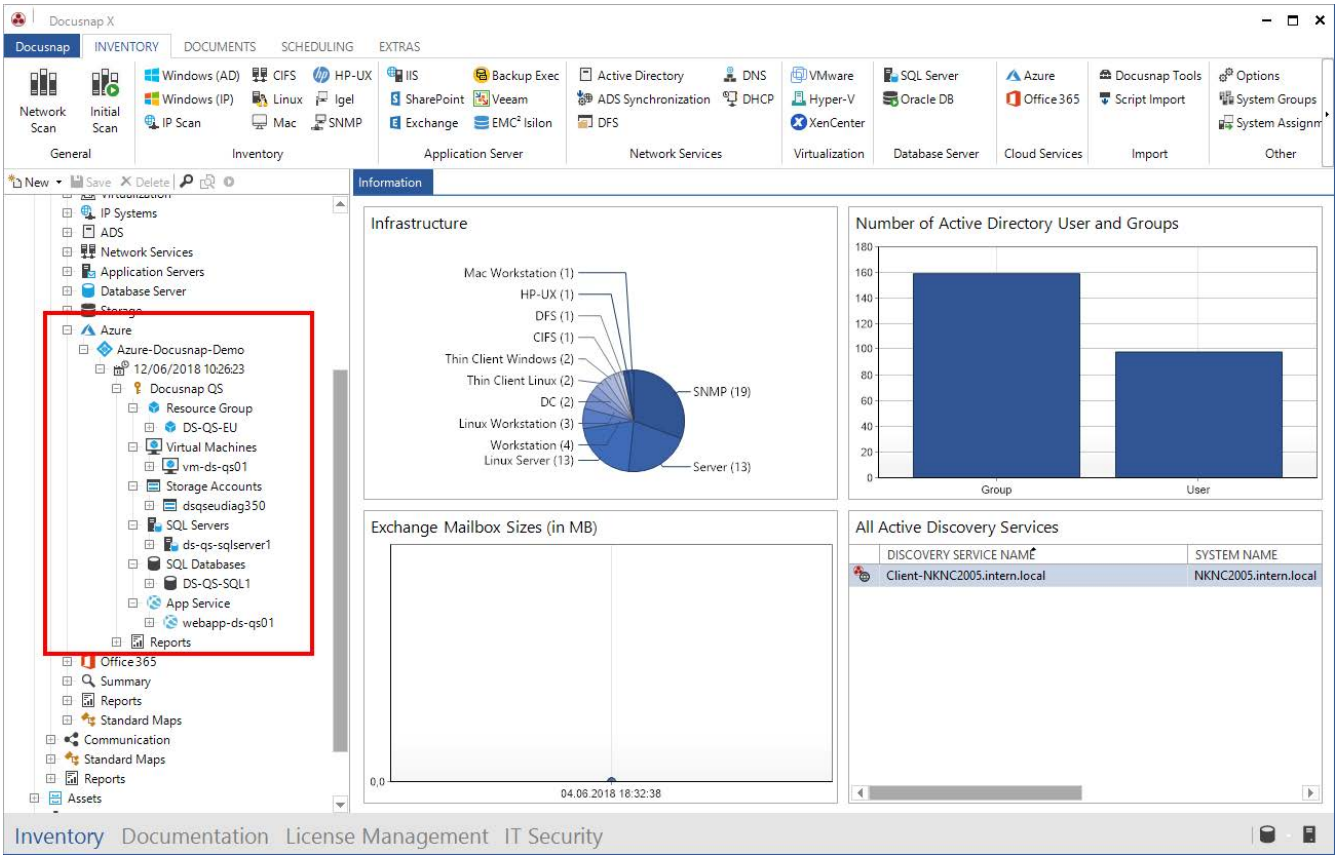

Fig. 11 – Display of the Azure Cloud in Docusnap

3.3 Azure report

You can display an overview report of your Azure Cloud by clicking **Azure Overview** below the Azure data (see Fig. 12). Before Docusnap generates the report, a dialog appears where you can optionally select the following Azure resources:

- Virtual computers
- Store accounts
- Computers with an SQL Server
- SQL databases

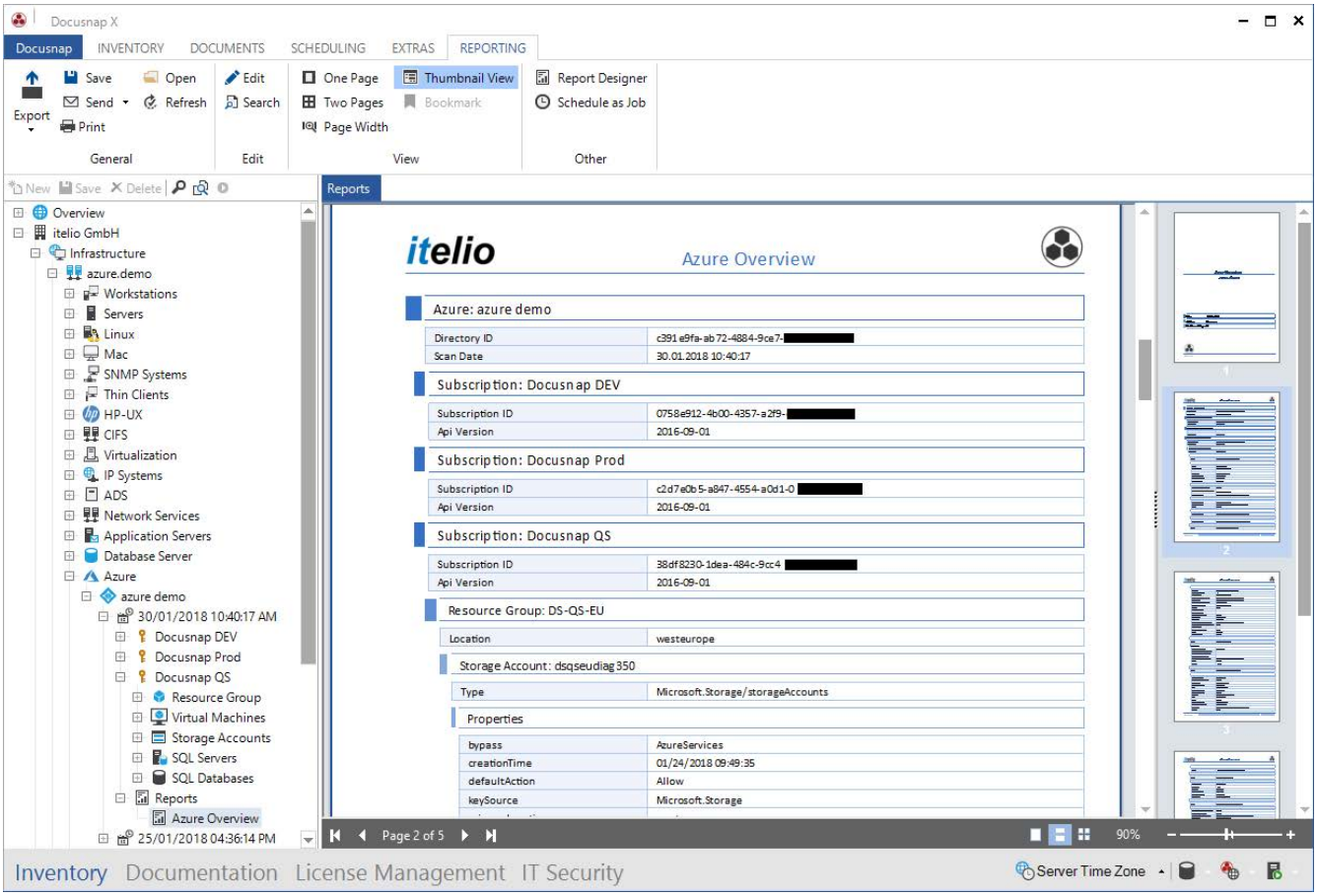

Fig. 12 – Azure Overview report

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VERSION HISTORY

Date	Description
January 25, 2018	Version 1.0 completed
October 24, 2018	Changed Screenshots
August 19, 2019	Changed Screenshots

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