



## **License Management**

Software and License Management in DocuSnap

<b>TITLE</b>	License Management
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<b>DATE</b>	1/11/2023
<b>VERSION</b>	3.0   valid from January 10, 2023

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## 1. INTRODUCTION

The topic of software and license management can be an arduous task in daily work. In many environments, software management is performed by using Excel lists. In these environments, it is virtually impossible to make reliable statements about actual software usage.

With the license management module in Docusnap you can dynamically manage your software products. You can perform analyses on which systems and which software products are installed (actual state). You can also define how many licenses were procured for the software products used (target state). The supplied reports inform you regularly and time-controlled by e-mail about the current license usage (variance comparison).

The data basis for license management is the network inventory (Windows, Linux, Mac and Active Directory). In doing so, care must be taken to ensure appropriate data quality. The inventory of the systems must be complete and up to date!

This HowTo describes the implementation of the license management in Docusnap with all its functions and possibilities as well as application examples.

- [Chapter 3](#) contains everything you need to know about creating license definitions.
- [Chapter 4](#) describes the creation of extended / more specific license definitions.
- [Chapter 5](#) explains how to use the information stored in Docusnap for the analysis.
- [Chapter 6](#) describes how to use the Assignment Wizard - it provides advanced features related to license management.
- [Chapter 7](#) contains further topics, such as
  - the export and import of license definitions
  - the exclusion of systems during license counting
  - and creating message definitions to notify you when a license or software maintenance contract expires
- [Chapter 8](#) provides some examples of applications.

## 2. INVENTORIES AND DATA QUALITY

As already mentioned in the introduction, the data basis in license management consists of the network inventory. For this reason, you must attach importance to the completeness and timeliness of your network inventory. If, for example, only 50% of your Windows systems are inventoried, you can also map only 50% of your license usage.

You can find more information about the inventory on our website in the Knowledge Base as well as in the Video Tutorials:

- [Inventory - Windows](#)
- [Docusnap Script Windows](#)
- [White Paper Docusnap Inventory](#)
- [Docusnap Script Linux](#)

### 3. CREATE LICENSE DEFINITIONS

In the area of license management, so-called license definitions are created. These license definitions can be described as a kind of container containing all relevant information regarding the software and license.

You can create and manage license definitions in two ways:

- License Management Wizard
  - License Management - New
- Assignment Wizards
  - License Management - Assignment

The actual steps that are carried out during the creation of the license definition are largely the same. A distinction exists regarding the entry to creation and regarding product-/software recognition.

This chapter covers the variant of the **License Management Wizard**. [Chapter 6](#) describes the creation via the Assignment Wizard and the further possibilities for defining software products that exist beyond this (subject to licensing, not subject to licensing, unwanted, etc.).

Start the License Management Wizard as follows. First navigate to **License Management** via the main navigation bar. You will then find the **New** control in the ribbon.

If you want to edit an existing license definition, you can do this using the **Edit** control in the action's menu. You can also use the **Edit License** control to jump directly to this step.

### 3.1 COMPANIES AND LOCATION SELECTION

The first step consists of the selection of the company and a possible mapping of licenses to a specific [location](#) - [this topic will be dealt with in the following chapter](#).

### 3.2 CREATION AND SELECTION OF SOFTWARE GROUPS

Step number 2 - **Group** - allows you to further categorize the license definitions. This way you can sort the licenses by different categories. During the license analysis, you can perform evaluations for individual software products, software groups, locations, and the entire company.

Examples of software groups:

- Microsoft Office
- Microsoft Client Operating Systems
- Microsoft Server Operating Systems
- Microsoft SQL Server
- Adobe

### 3.3 SOFTWARE PRODUCT - PROPERTIES OF A LICENSE DEFINITION

In step 3 - **Software product** - properties regarding the license definition are stored. The properties of a license definition include the following:

- **Software Product:** Name of the software product for which the definition is created.
- **Publisher:** Name of publisher
- **Version:** Version of the software product
- **With Detection of Use**

Used licenses are recorded based on inventoried software products. An inventoried software product is assigned to the license definition. Based on the found installations, the consumption can be determined automatically and dynamically.

- **Upgrade / Downgrade**

Authorized upgrade or downgrade installations. For example, Windows 7 -> Windows 10

- **Metric:** According to which criteria is the license usage counted?



### 3.3.1 METRICS

A metric forms the calculation basis. The following calculation bases and metrics are available:

**No matches:** The calculation is based on the installations found. No assignment means that no devices or users are assigned to the licenses.

Available metrics: Standard license

**Devices:** The calculation is based on the installations found. In addition, device assignments can be defined in the step on which devices the software is to be installed. This assignment is then considered in the tree when evaluating desired and unwanted installations.

Available metrics: Device license, Qualified Devices, Server

**Users:** In the User Assignment Wizard step, the users and groups that use this software are assigned. When the license balance is calculated, the number of assigned users and the number of users in the assigned groups are used.

Available metrics: User license, Qualified Users, Named Users, Concurrent User

**Processors:** The number of processors of the systems on which the software was found is used for the calculation. In addition, the Assistant Step Device Assignment can be used to define on which devices the software should be installed.

Available metrics: Processor license

**Processor cores:** The number of processor cores of the systems on which the software was found is used for the calculation. In addition, the Assistant Step Device Assignment can be used to define on which devices the software should be installed.

Available Metrics: Processor Core License

**Devices and Users:** With Device and User Assignment, licenses can be created for devices and users. Device licenses are used to calculate the license balance, the user licenses are also listed. This metric can only be used without a user ID.

### 3.4 EXCLUDE SYSTEMS

In the Exclude Systems step, you can select systems that are not to be included in the count. For example, you can exclude installations on a test system in this way.

### 3.5 PRODUCT RECOGNITION

If you have not disabled, the **With Detection of Use** feature in step 3 - **Software Product** - you will find the **Product Recognition** step.

In this step, you can first restrict to servers, workstations, Linux systems, or Mac systems. The license definition then only counts the installations on the selected system types.

You also make the assignment to an inventoried software. Three filter modes are available for this assignment, which are described below.

### 3.5.1 PRODUCT RECOGNITION - KEYWORDS

You use the search words to build up a suitable string comparison, which is used to assign the software product. Use \* as a wildcard. After you have only the desired software product(s) listed, copy the search word into the field **Product name** and **Save** it.

**Including** and **excluding** search words are available. You can define search terms for the **Product Name**, **Publisher**, and **Version** fields. The fact that you can ignore the version with this filter mode results in less maintenance effort.

You can also combine several search words with each other using a **logical OR**. Here a condition of the search words must apply for a license usage to exist. The following figure shows, for example, the search terms

- \*Microsoft Windows 10 Enterprise\*
- OR \*Microsoft Windows 8.1 Enterprise\*

A license usage exists if \*Microsoft Windows 10 Enterprise\* OR \*Microsoft Windows 8.1 Enterprise\* is installed on a system.

### 3.5.2 PRODUCT RECOGNITION - EXTENDED FILTER MODE

The extended filter mode also uses search words for the assignment to a software product. The difference to the search words is that, in addition to a logical OR, you can also link the search words with a logical AND and other operators are available.

Here you can also apply the search words to the fields Product Name, Publisher, and Version. Here, too, you can ignore the version, which leads to less maintenance effort.

As operators, you have the choice between

- Contains
- Does not contain
- Starts with
- Ends with
- = (equal)
- <> (unequal)

The checkboxes that you can activate in the third column offer a grouping of the search conditions. For example, two search conditions can be linked with OR and a further condition can be added with AND.

The following figure shows a search condition with AND and OR - without grouping:

Define Filter
☐ ×

Define including and excluding Keywords

		☐	AND/OR	FIELD	OPERATOR	VALUE
+	×	<input type="checkbox"/>		Product Name	Contains	Microsoft Windows 7
+	×	<input type="checkbox"/>	Or	Product Name	Contains	Microsoft Windows 8.1
+	×	<input type="checkbox"/>	Or	Product Name	Contains	Microsoft Windows 10
+	×	<input type="checkbox"/>	And	Product Name	Contains	Microsoft Office Professional Plus 2016

Name	Operating System	Platform	Processor Name	Count	Cores
DOSPWS01	Microsoft Windows 7 Enterp...	Genuineln...	Intel(R) Xeon(...	2	2
DOSPWS02	Microsoft Windows 8.1 Enter...	Genuineln...	Intel(R) Xeon(...	2	2
DOSPWS03	Microsoft Windows 10 Enter...	Genuineln...	Intel(R) Xeon(...	2	2

Preview
Finish
Cancel

Fig. 1 - AND / OR Search Condition without Grouping

The first figure, without grouping the search condition, returns an incorrect result! If you want to combine several OR links with one AND link, you should always group the search condition.

### Define Filter □ ×

Define including and excluding Keywords

			AND/OR	FIELD	OPERATOR	VALUE
+	×	<input type="checkbox"/>		Product Name	Contains	Microsoft Windows 7
+	×	<input type="checkbox"/>	Or	Product Name	Contains	Microsoft Windows 8.1
+	×	<input type="checkbox"/>	Or	Product Name	Contains	Microsoft Windows 10
+	×	<input type="checkbox"/>	And	Product Name	Contains	Microsoft Office Professional Plus 2016

Name	Operating System	Platform	Processor Name	Count	Cores
DOSPWS03	Microsoft Windows 10 Enter...	Genuineln...	Intel(R) Xeon(...	2	2

Preview
Finish
Cancel

Fig. 2 - AND / OR Search Condition with Grouping

### 3.5.3 PRODUCT RECOGNITION - SOFTWARE LIST

When you select the software list, each inventoried software product is listed. Use the **Search** function to narrow down the software products displayed. Select the required software products using the **Add** control.

As you can see from the following figure, the different versions of the software products are listed. As a result, in future you will have to enter new versions of the software product when using the software list, and the license usage will be adjusted.

Furthermore, when using the software list, the software product is defined as subject to license and linked to the created license definition. Further information on this topic can be found in the chapter [Software List / Assignment Wizard](#).

## 3.6 LICENSES

In the Licenses step, you can now enter the number of licenses you have purchased for the software product.

Specify a description, a type, and the number of licenses.

You can also define a license validity and a maintenance contract with a corresponding validity. In [Chapter 7.3 - Message Definitions](#) - you will find a description of how to be informed about the expiration of the validity.

In Docusnap Administration - License Management you can extend the license and maintenance types.

## 3.7 ADDITIONAL INFORMATION - CONTRACTS

The step - Contracts - gives you the possibility to create additional information of the type Contract for the previously created licenses - or you can also create an existing contract.

This contract may, for example, reflect the license agreement. Within additional information, you can also store attachments - for example, the license document, the invoice, etc.

Further information regarding the additional information can be found in the [HowTo Additional Information](#).

## 3.8 ADDITIONAL INFORMATION - COMMENTS

In addition to contracts, you can also store additional information of the type Comment of a license definition. Here you can, for example, store a user manual, installation instructions or other information concerning the software product.

## 4. CREATE EXTENDED LICENSE DEFINITIONS

### 4.1 LOCATION EVALUATIONS

By using the locations in license management, it is possible to carry out evaluations at location level.

When using this function, only systems from the assigned locations are considered in the further steps in the wizard.

If the Create License Definition Wizard has opened, you can perform an assignment of locations in step 1 - **Company**.

The result of such an assignment, can be seen in the license management-tree, under the node **Locations**.

If now an evaluation of the respective location is to be accomplished, the sum of the used licenses can be determined in the **Variance Analysis**.

### 4.2 BLOCKED SOFTWARE PRODUCTS

In License Management, you can define software products as unwanted and use them to run evaluations.

To do this, start the wizard to create a license definition. In step 3 - **Software Product** - enter the appropriate information and select the metric **Blocked software products**.

The blocked software products are evaluated via the point **Undesired software products** in the data tree.

The software product marked as blocked and the associated systems, if the software is installed on it, can be viewed here.

### 4.3 EDIT UPGRADE / DOWNGRADE PATHS

Using an upgrade / downgrade path will help you mapping the following situation:

- You have several licenses of a product with version X (e.g. Windows 7)
- With these licenses, you are also entitled to use version Y (e.g. Windows 10).

Create the appropriate license definitions for both software products. Define the upgrade or downgrade path in the license definition for the software product Version X (Windows 7).

If you now perform a license analysis for the software product with version Y (Windows 10), you will recognize correction values from Upgrade / Downgrade.

## 5. CARRY OUT LICENSE ANALYSES

After the data has been entered in License Management, a corresponding evaluation should take place. There are various options available to do this.

- Evaluation at company level
- Evaluation at group level
- Evaluation at software product level
- Evaluation at site level

The evaluation of the data at company level considers all groups, locations, and software products. The corresponding reports can be found in the inventory tree below the **Reports** node.

In terms of content, these reports describe a license analysis as a variance analysis. For example, the sum of the used licenses can be determined, and a corresponding evaluation can be provided automatically. Here the representation differs in different form.

In the following example, an evaluation was carried out for the product **Microsoft Windows Server 2019**. There you can see that 9 of 20 existing licenses is in use. Thus, a sum can be determined in tabular form and an additional representation in the form of a bar chart.

You can also output results for individual groups. To do this, select the respective group and select the **Reports** node again.

Below each group three standard reports are available. Here, too, a license analysis is to be output as the result as a variance analysis.

In the following example, an evaluation was performed for the **Microsoft OS - Server** group created. You can see that licenses for the different Windows Server editions are evaluated in this group. The total number of licenses used was formed. To make the display clearer, a bar chart is also displayed which shows the excess licenses (green bar) and the missing licenses (red bar).

### 5.1 CREATE AND SEND REPORTS ON A SCHEDULED BASIS

Every report in Docusnap can be scheduled and sent as an e-mail. In this way, you can have the license analyses from Docusnap sent to you regularly by e-mail.

When you create a report, another tab called **Reporting** appears in the action's menu, providing actions related to the report. The **Schedule as Job** function opens the Scheduled Report Wizard.

A desired path can be stored to store this document. Furthermore, in step 2 - **Report** - e-mail data can be stored for automated sending.

**Attention:** Please note that this requires the e-mail configurations of the Docusnap Server service.



## 6. ASSIGNMENT WIZARD / SOFTWARE LIST

The Assignment Wizard provides you with additional functions for software and license management. If you can use the License Management Wizard to map only license definitions and thus software that is subject to license, you can use the Assignment Wizard to also define software that is not subject to license and unwanted software.

When you open the Assignment Wizard, all software products ever inventoried that are unprocessed/undefined are listed first. The intention now is for you to go through this entire list and define the software products accordingly - as not subject to licensing, subject to licensing and unwanted. The definition as requiring a license takes place by creating a license definition. If a software product has been defined, it is hidden from the list. If all software products have been defined, the list is empty.

As you can see from the previous illustration, you will find software products with different icons there. Depending on how the software product was defined, it receives a different icon. Defined software products are displayed again via the deactivated option **Show only relevant for licensing**.

### 6.1 CREATE LICENSE DEFINITION

To create a new license definition from the Assignment Wizard, first search for the corresponding product(s) in the search field and then select them.

Within the Assignment Wizard, all software products are also differentiated according to their version. For this reason, you must select all available versions. The license definition is then created using the **Create License** control.

Please note that after installing a new version, an already edited software product will be listed again in the higher version - e.g. Windows 10 - Version 10.0.19000.

The Create License Definition Wizard opens after you select the **Create License** button. The individual steps have already been described in the chapter - [Creating License Definitions](#).

Please note the step - **Product Recognition**. A selection via the software list has already been made here. This step was done at the beginning, with the search and selection of the software product.

After the license definition has been created, you will see the name of the previously created license definition in the License column.

Please note that this assignment is only carried out if the software list has been selected in the product recognition step!

### 6.2 ADD TO EXISTING LICENSE

In the previous section it was described that after installing a new version of an already defined software product, this new version will be found again in the list of unedited software products. The following figure shows this using Microsoft Windows 10 Enterprise Version 10.0.18362 as an example.

You can now define this entry using the **Add to Existing License** control. After selecting the control, a new window opens with a preselected keyword. If necessary, adjust the search word, select the corresponding license and confirm with OK. The software product is then defined.

### 6.3 UNLICENSED SOFTWARE / IN PROCESSING / UNWANTED

As mentioned earlier, you can also use the Assignment Wizard to define software that is not relevant for licensing.

To perform this action, find the software product(s) again, select them, and click the **pen control** (Edit):

A new window will open. You can now perform the following actions in this window:

- Store **Product Description** - serves as information
- Define as **Undesired Software Product**
- Mark as **In Process** to keep colleagues informed
- **Hosted by Terminal Server** - serves as information
- **Not relevant for licensing** - the reason is a mandatory field

## 7. FURTHER TOPICS

### 7.1 IMPORT / EXPORT

You can use the import/export function to export your existing license definitions to an external file. This enables all selected definitions to be available in another database. In this way, you can also make the license definitions available to third parties, such as customers. You will find the **Import / Export** function in the License Management ribbon.

#### 7.1.1 EXPORT

**Export** opens the assistant for the export. Within this dialog it is possible to select the license definitions to be exported.

After specifying the file name and the storage location, the export scope is determined. Here you can specify which license definitions are to be exported. You can also export software products that are not relevant for licensing or are undesired.

Please note that no additional information is exported if the **Additional Information** checkbox is active. These must be exported separately. Only an assignment of the additional information is exported. However, these must first be available in the import database.

#### 7.1.2 IMPORT

You can use the **Import** function to import the previously exported data.

By selecting the target company, you can transfer license definitions that have already been created from an existing client to other clients.

You use the import scope to define which information is to be transferred from the import file. You can deselect or select individual license definitions using the checkboxes within the data grid.

### 7.2 EXCLUDE SYSTEMS / EXCLUDE FROM LICENSE MANAGEMENT

Docusnap offers you the possibility to specifically exclude systems from license management. As soon as a system is excluded, it is not considered when calculating the actual state.

A distinction is made between exclusion from a single license definition and complete exclusion.

The complete exclusion from the license management can be done via the editor of a system. Select the desired system in the inventory data tree and open the editor. If the **Exclude from License Management** checkbox is selected, the system is no longer considered in license management.

It is also possible to exclude systems via the license management options. Within the license management you will find the button **Exclude Systems** in the menu bar. In this window you can select several systems and thus exclude them from license management.

## 7.3 DEFINE NOTIFICATIONS

Within a license it is possible to store a validity as well as information about software maintenance. Provided these date fields are maintained, Docusnap can use a message definition to send notifications in the form of emails with, for example, expiring licenses.

Predefined message definitions for license and maintenance contract validities can be found within the administration in the message definitions.

## 8. APPLICATION EXAMPLES

The following application examples describe three scenarios, which are frequently requested from Docusnap Support. On the one hand, it is the creation of user licenses, especially CALs. A further application example is to map datacenter licenses - on the one hand the host licenses, on the other hand the VMs that can be operated by them.

### 8.1 USER LICENSES – E.G. TERMINAL SERVER USER CALS

For example, a user license can map access to a terminal server through a selection of users. Let's start by creating the license definition by launching the License Management Wizard from the **New** control.

Select your company and possibly locations as well as an already existing group or create a new one.

In step 3 - **Software Product** - enter the name, deactivate the checkbox at **With Detection of Use** and select the **User license** as metric.

You deactivate the usage detection, because at this moment not the number of installations is relevant, but the number of users.

In step 6 - **Licenses** - you now deposit the purchased User Cals.

In step 7 - User Assignments - you can now assign groups and/or AD users to the license. For the assignment, select the users/groups, then the license, and finally the Add control.

If you add groups, you will be asked for the type of resolution. To create a dynamic license definition, select the option: Resolve group recursively when creating the report.

If you perform a license analysis in the future, the selected group will be recursively resolved at the time the report is created - based on the last ADS inventory.

The direct resolving of groups, or adding of individual users, leads to a static list, which must be adjusted regularly.

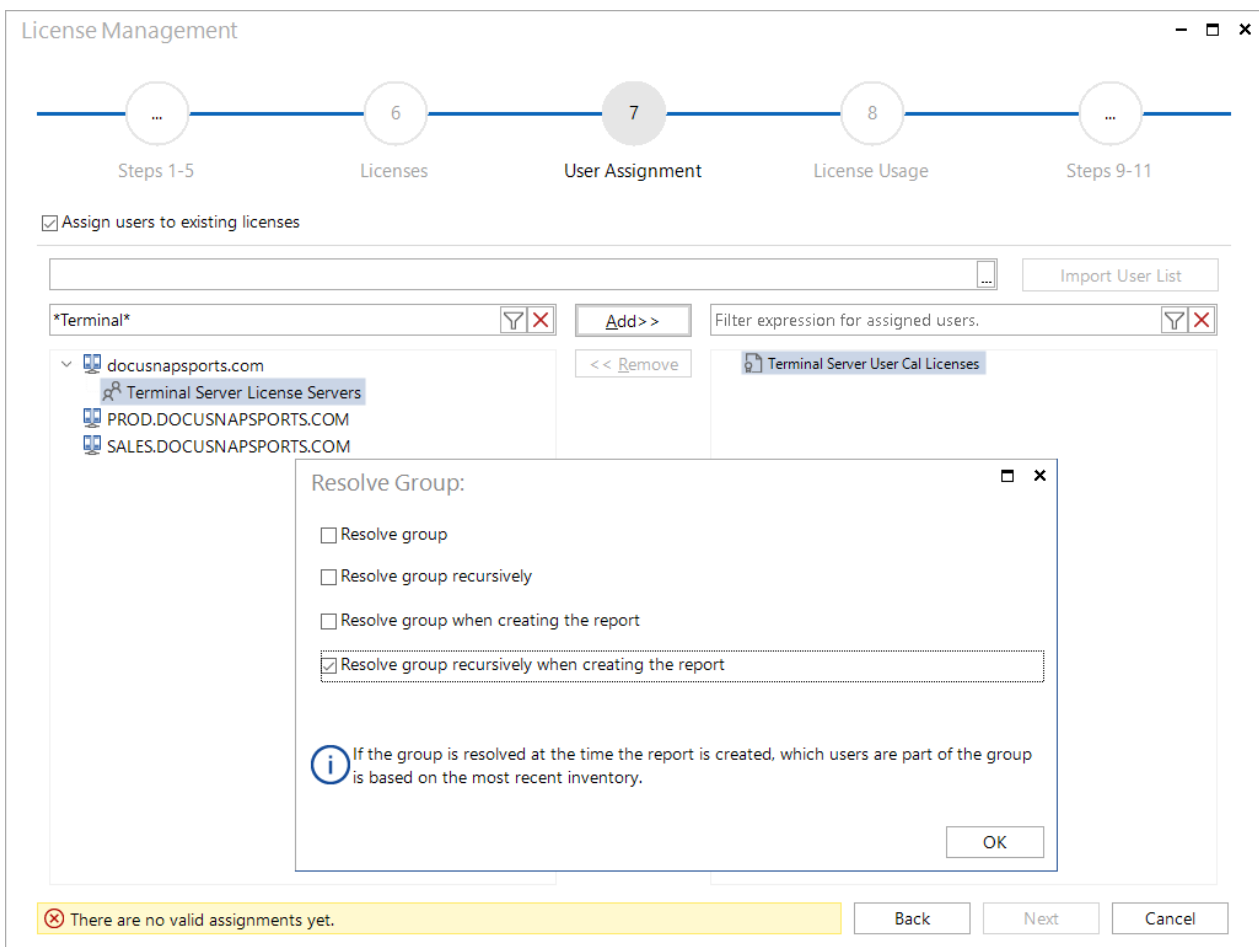


Fig. 3 - Step 7 - Terminal Server User Cals - User Assignment

## 8.2 DATACENTER LICENSES

A datacenter license is divided into the mapping of the host licenses and the VMs running on the hosts. First the creation of the **Datacenter Host** license is described. You can use it to map the purchased datacenter licenses.

Start the license management wizard, select your company and possibly locations as well as an already existing group or create a new one.

In step 3 - **Software Product** - enter the name, deactivate the checkbox at **With Detection of Use** and select the **Device** license as metric.

In step 6 - **Licenses** - you now deposit the purchased Datacenter licenses.

In step 7 - **Device Assignments** - you can now add the virtual host systems to the license(s).

This device mapping is a static mapping that you should repeat when new virtual hosts are deployed.

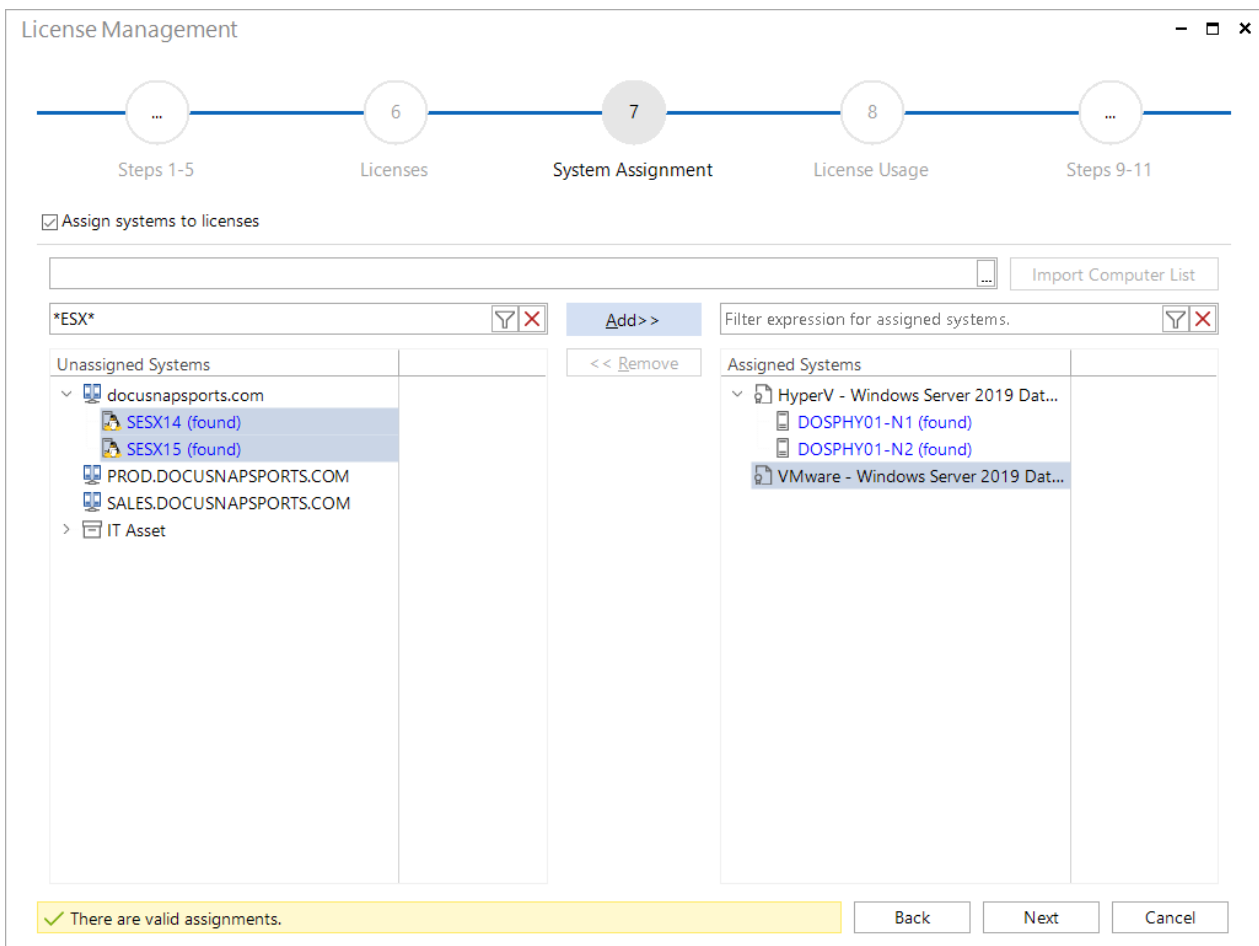


Fig. 4 - Step 7 - Datacenter - Virtual Host Assignment

To map the virtual systems that are running on the virtual host systems and therefore fall under the Datacenter License, also start the License Management Wizard.

Here you can also select your company and possibly locations as well as an already existing group or create a new one.

In step 3 - **Software Product** - you deposit the name and otherwise do no further adjustment. The detection of use remains active and the metric remains on the standard license.

In step 4 - **Exclude Systems** - now exclude all **physical server systems** from the analysis within the license definition. Within this license definition only the virtual systems should be considered.

In step 6 - **Product Detection** - select the filter mode you are using, Software list or Keywords / Advanced filter mode. Within the mode you filter to the corresponding Microsoft Server operating systems.

In step 7 - **Licenses** - create a license whose purchased licenses you do not limit.



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## VERSION HISTORY

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<b>Date</b>	<b>Description</b>
07/24/2019	Document created
04/21/2020	Revision of the HowTo for Docusnap 11
01/10/2023	Revision of the HowTo for Docusnap 12

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