

Installation and Usage Guide

The Backbone TOPdesk Connector

Product Information	
Name	The Backbone TOPdesk Connector
Version	2.1.2.0
Release date	April 2017
Supported platforms	<ul style="list-style-type: none"> Windows 2008 R2 or newer Microsoft System Center Operations Manager 2012 SP1, 2012 R2 and 2016 TOPdesk 4.4 until 5.7
Prerequisites	<ul style="list-style-type: none"> .Net version 4.0 or newer TOPdesk custom part <i>incidentnumber.jsp</i> (via TOPdesk: call +31 15 2700911 or support@topdesk.nl with reference to 'KI 0401 Incident Number Only TOPdesk')

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Table of Contents

Document convention	3
Revision history.....	4
1. Introduction.....	6
2. Architecture	7
3. Installation	8
3.1 Preparations.....	8
3.2 Installation of The Backbone TOPdesk Connector.....	9
3.3 Placing the license file.....	11
3.4 Importing the SCOM Management Pack.....	11
3.5 Configuring the SCOM Management Pack	12
4. Upgrade.....	13
4.1 Configuration backup	13
4.2 The Backbone TOPdesk Connector upgrade.....	13
5. Configuration example.....	14
5.1 General	14
5.2 Example scenario.....	14
5.3 Configuration of the example scenario	15
5.3.1 Configuration of Windows Service The Backbone TOPdesk Connector	15
5.3.2 The Backbone TOPdesk Connector configuration	15
5.3.3 The Backbone TOPdesk Connector mapping file	16
5.3.4 Creating the SCOM Product Connector Subscription.....	19
5.4 Verifying the operation of The Backbone TOPdesk Connector	24
6. Configuration documentation.....	26
6.1 TOPdeskConnector.exe.config	26
6.2 Mappings.xml.....	30
6.2.1 Templates	30
6.2.2 Lists.....	32
6.2.3 Mappings.....	33
7. SCOM Management Pack documentation	35
7.1 General	35
7.2 Health Rollup.....	35
7.3 Discoveries.....	35
7.4 Rules.....	36
7.5 Monitors	37
7.6 Views	38
7.7 Tasks	38
Scenario 1 – Incident card requester based on SCOM alert resolution state.....	40
Scenario 2 – TOPdesk incident card lead time of 2 days.....	41
Scenario 3 – TOPdesk incident card impact based on SCOM Alert severity	41
Scenario 4 – Filling the TOPdesk incident card request field based on multiple SCOM alert properties.....	42

Document convention

Font	Definition	Example
<i>Italic</i>	Emphasize Name of a Window File and directory names Process names Values	Action below <i>have to be</i> carried out The <i>configuration window</i> appears <i>Mappings.xml</i> Restart <i>HealtService.exe</i> Set value to <i>True</i>
Bold	Menu items and buttons, dialog screens, menu and icon names	In the menu, choose File , followed by Open
Courier New (10pt)	Content of files. Commands	Use the <code>net start</code> command

Revision history

Revision	Changes
2.1.2.0	<ul style="list-style-type: none"> • Changed documentation about using a non-standard http port for TOPdesk • Default mapping.xml file missed a regular expression on the short description mapping
2.1.1.0	<ul style="list-style-type: none"> • Added SCOM 2016 support • Changed Microsoft .Net system requirements
2.1.0.0	<ul style="list-style-type: none"> • Installer improvements <ul style="list-style-type: none"> ○ Upgrade support, uninstalling the old version is not needed anymore ○ Ability to import the management pack automatically during installation ○ Ability to remove the SCOM Product Connector automatically during removal ○ Removal of the service and event log is now working correctly ○ Custom installation folder is automatically changed in the configuration file • Licensing has been added • SCOM reconnection will be attempted when SCOM is not available during service start • Service discovery interval is now overridable • SCOM Console Task added to open the TOPdesk incident card directly from SCOM • Closed SCOM Alerts are untagged by the connector • Improved error handling
2.0.1.0	<ul style="list-style-type: none"> • SCOM Alert properties are now allowed to contain NULL values • Special characters (vb. %, (, \, \$, etc.) are preserved
2.0.0.0	<ul style="list-style-type: none"> • Stability improvements: <ul style="list-style-type: none"> ○ SCOM Alerts that failed to generate a TOPdesk incident card in TOPdesk will be retried by The Backbone TOPdesk Connector ○ Dropped SCOM connection will now be restored ○ The SCOM Alert resolution state will only change when a TOPdesk incident card has been created • Improved error handling: <ul style="list-style-type: none"> ○ New SCOM Management Pack for insight into connector status, processing of SCOM Alerts and potential connector errors ○ Added verbose logging function ○ Logging level is now configurable • All SCOM Alert properties are available for filling the TOPdesk incident card fields • The installation folder is now configurable during the installation
1.2	<ul style="list-style-type: none"> • Possibility to define multiple resolution state and severity conversion tables • Filling date/time fields in the TOPdesk incident card based on creation date/time, relative or absolute
1.1	<ul style="list-style-type: none"> • Changing the SCOM Alert resolution state based on a resolution value

	<ul style="list-style-type: none">• Filtering SCOM Alert property values based on regular expressions• Converting SCOM Alert severity based on a conversion table
1.0	<p>Initial version with basic functionality:</p> <ul style="list-style-type: none">• Creating an TOPdesk incident card in TOPdesk• Feedback of TOPdesk incident number towards the Ticket ID field in the SCOM Alert• Static data for filling fields in the TOPdesk incident card• SCOM Alert property for filling a field in the TOPdesk incident card• Polling interval configurable• Username and password configurable

1. Introduction

This document describes the installation and configuration of The Backbone TOPdesk Connector, explains the structure of the configuration files, explains the SCOM Management Pack and some common example configurations.

Why The Backbone TOPdesk Connector

For many organizations, it is preferable to add System Center Operations Manager (SCOM) Alerts to the incident workflow, for the correct processing of incidents. This prevents an employee of having two 'worklists', one in SCOM and one in the service management tooling. With The Backbone TOPdesk Connector, manual actions in the process are automated and SCOM Alerts will automatically be added as an incident card in TOPdesk. The employee now has his worklist exclusively in TOPdesk.

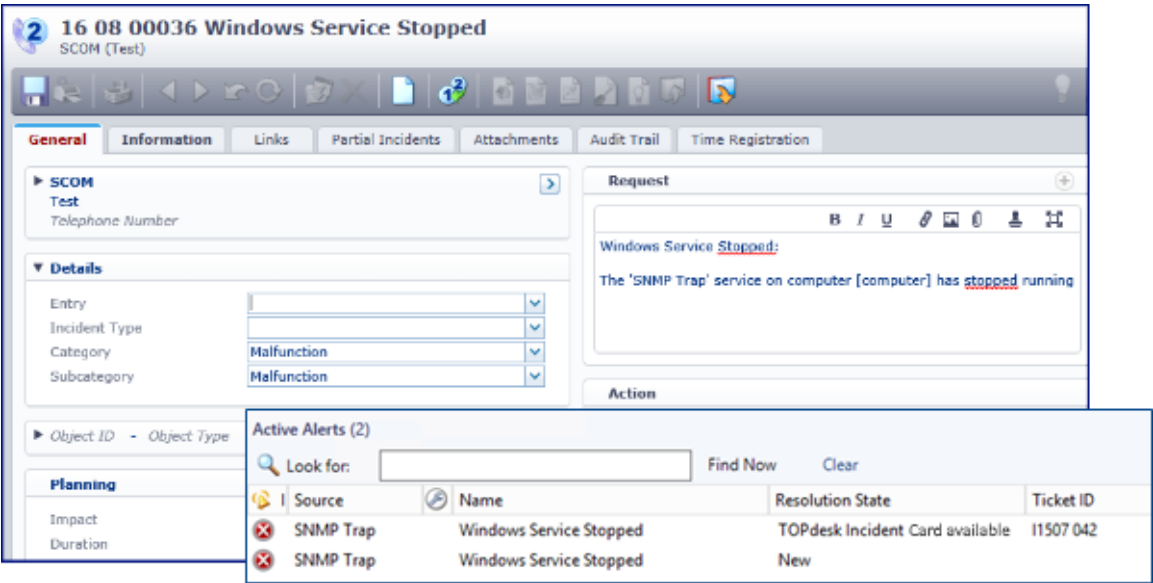


Figure 1: TOPdesk incident card and the corresponding SCOM alert with TOPdesk incident number

2. Architecture

The Backbone TOPdesk Connector consists of a Windows Service that communicates with both SCOM and TOPdesk. The picture shown below visualizes the architecture of The Backbone TOPdesk Connector.

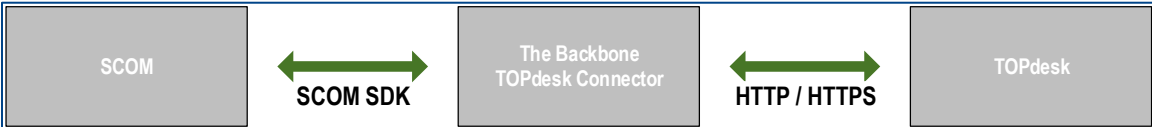


Figure 2: The Backbone TOPdesk Connector architecture

The Windows Service retrieves, with a configurable interval, SCOM Alerts that are forwarded to The Backbone TOPdesk Connector. For every SCOM Alert a URL is built for creating a TOPdesk incident card, using a template URL with parameters that are filled by The Backbone TOPdesk Connector. After the creation of the TOPdesk incident card, the TOPdesk incident number is retrieved from the webpage response body. The TOPdesk incident number is added to the Ticket ID field of the SCOM Alert.

When an error occurs while creating the TOPdesk incident card, the processing of the SCOM Alert will be stopped. During the next iteration, the SCOM Alert will again be forwarded by SCOM and a new attempt will be made to create the incident card in TOPdesk.

Note: not being able to retrieve the incident number after creating the incident card will not be seen as an error but will result in modifying the resolution state.

The picture below shows the SCOM Alert processing steps.

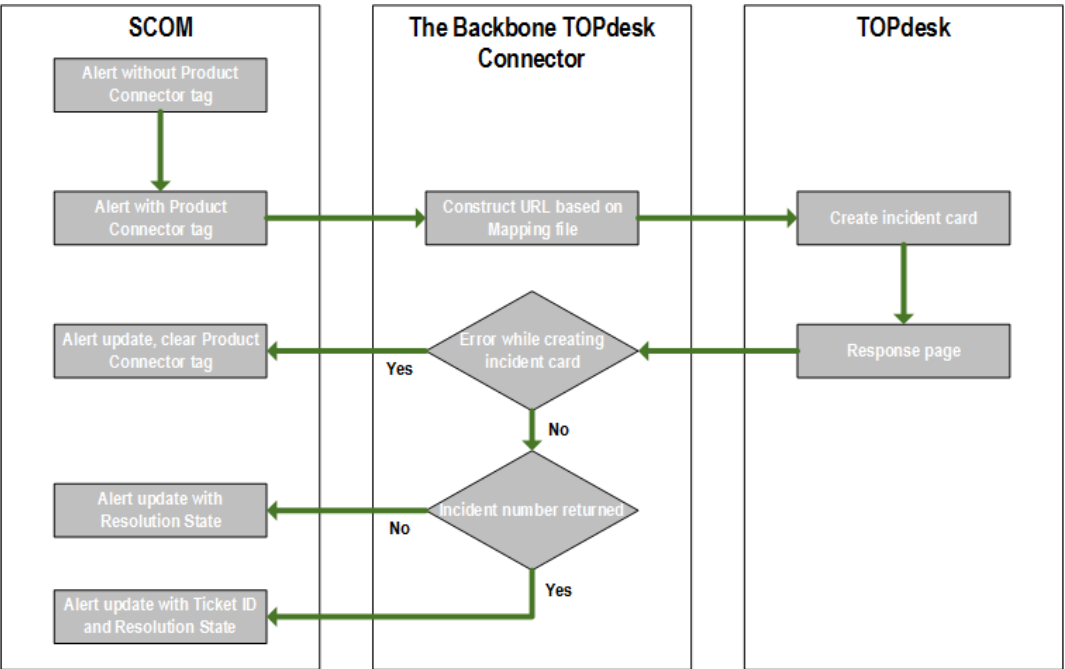


Figure 3: The Backbone TOPdesk Connector process flow

3. Installation

This chapter describes the basic installation of The Backbone TOPdesk Connector.

The installation consists of two parts:

1. Installation of The Backbone TOPdesk Connector
2. Importing the SCOM Management Pack

3.1 Preparations

The prerequisites below *must* be met:

- An account for the communication between The Backbone TOPdesk Connector and SCOM. The account *must* have *Administrator* permissions in SCOM.
- Optionally, an account that can be used as *service account* for The Backbone TOPdesk Connector, this account must be a member of the *Local Administrator* group on the server.
- An account in TOPdesk for the creation of incident cards, with the following permissions:
 - Log in as an operator
 - Creating incident cards
- One or more SCOM Alert resolution states depending on the preferred behavior for marking SCOM Alerts for The Backbone TOPdesk Connector and forwarding SCOM Alerts after creating the TOPdesk incident card. For example:
 - One resolution state for marking SCOM Alerts, *Create TOPdesk Incident Card*;
 - One resolution state for forwarding SCOM Alerts after creating the incident card, *TOPdesk Incident Card created*
- TOPdesk custom part *incidentnumber.jsp* must be installed. It can be requested at TOPdesk and is dependent on the installed TOPdesk version. Contact TOPdesk on +31 15 2700911 or support@topdesk.nl referencing knowledge base article 'KI 0401 Incident Number Only TOPdesk'.

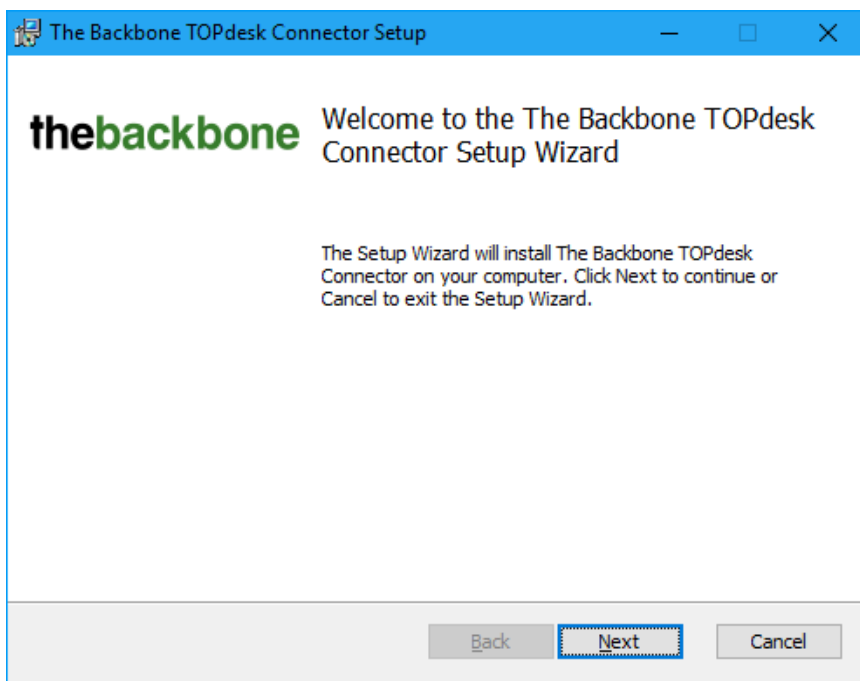
Note: The account for SCOM access and the optional service account can be combined.

Note: If the Local Administrator Group is subscribed to the Administrator profile in SCOM (default configuration), it is possible to run the Windows Service under the Local System account and no additional account is needed for access to SCOM.

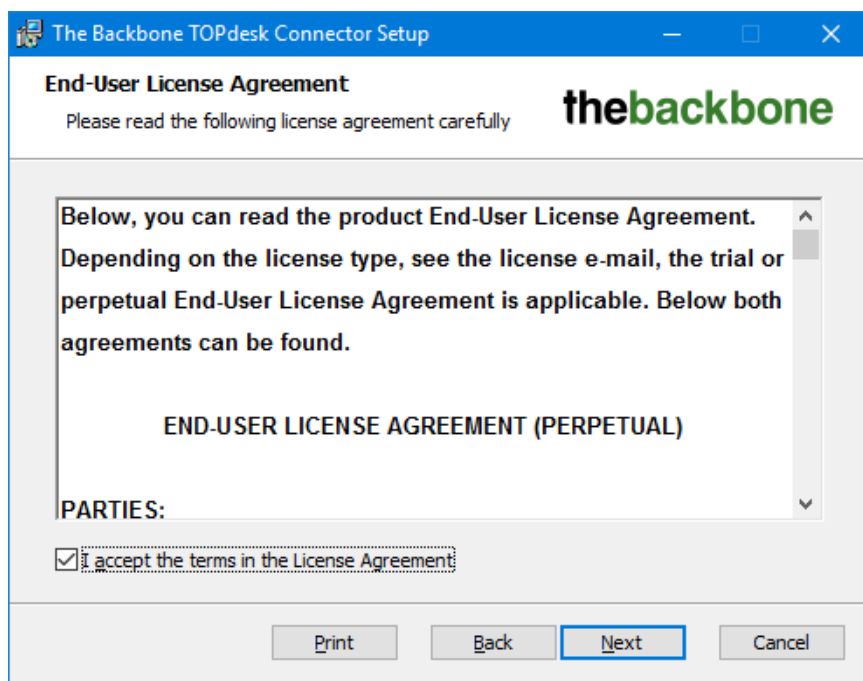
3.2 Installation of The Backbone TOPdesk Connector

Follow the steps below for installing The Backbone TOPdesk Connector:

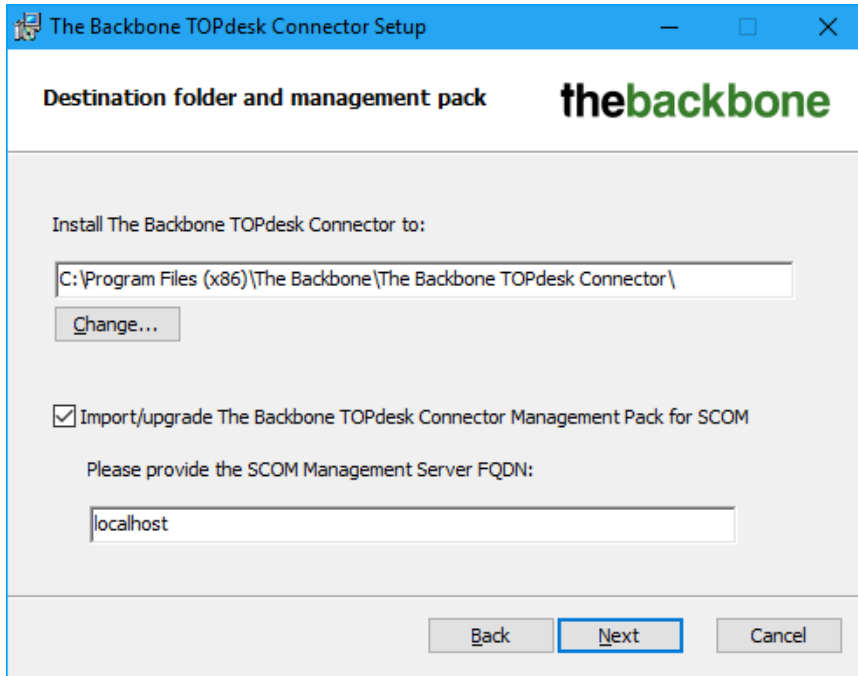
- Log in to the server with an account with *Local Administrator* permissions
- Start the installation *TheBackboneTOPdeskConnector.msi* and click **Next**



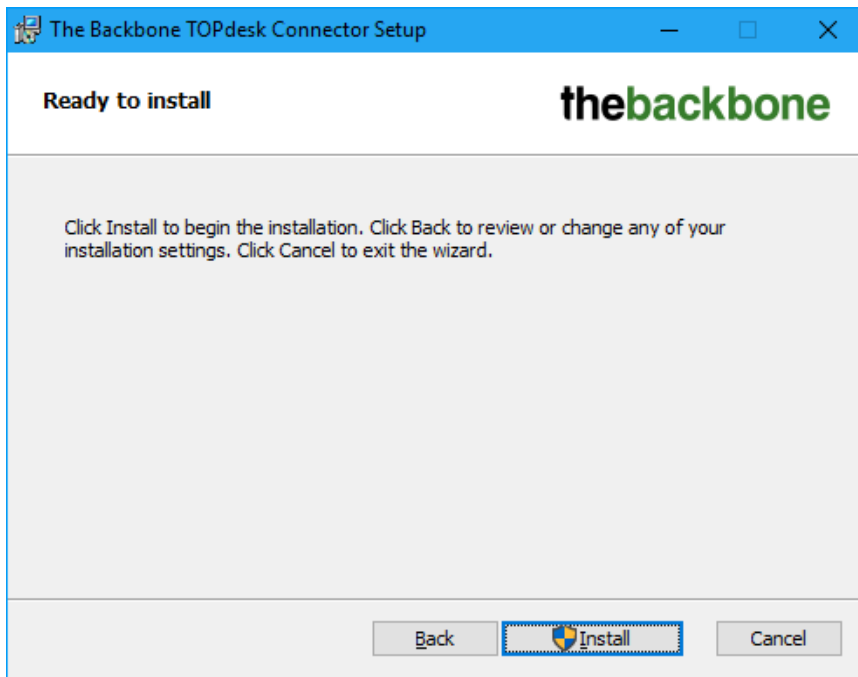
- Accept the license agreement and click **Next**



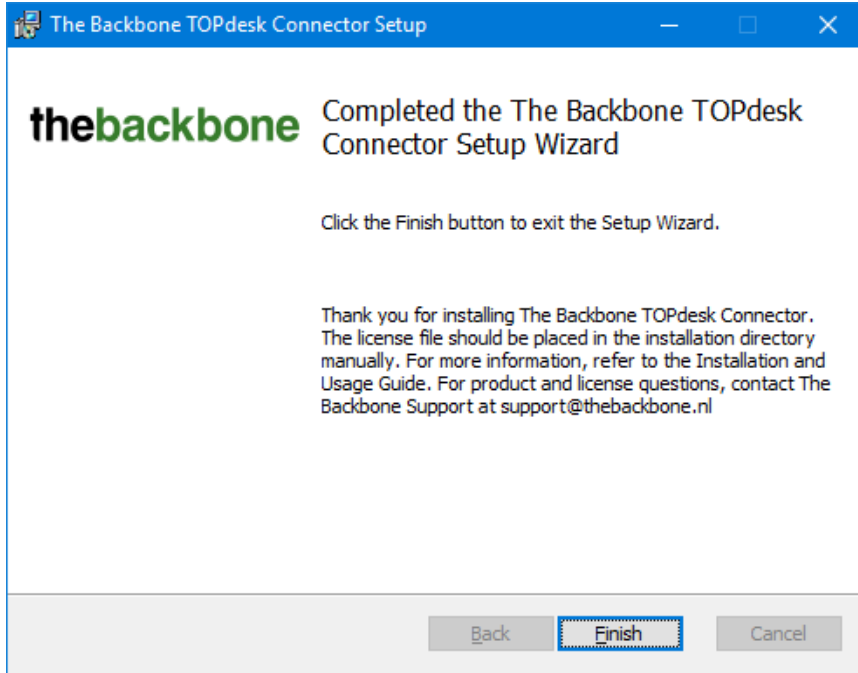
- If desired, change the installation folder
- Indicate whether automatic management pack import is used by checking the box. If checked, fill in the FQDN of the SCOM server
- Click **Next**



- Click **Install** to start the installation



- Close the installer by clicking **Finish**



3.3 Placing the license file

The Backbone TOPdesk Connector needs a valid license file, this license file is delivered by The Backbone through e-mail. The license file (*License.lic*) must be placed in the installation folder (the default installation folder is *C:\Program Files (x86)\The Backbone\The Backbone TOPdesk Connector*).

- Open a **Windows Explorer** window and navigate to the installation folder
- Paste the license file (*License.lic*) in the folder

3.4 Importing the SCOM Management Pack

After the installation, a SCOM Management Pack is available in the installation folder of The Backbone TOPdesk Connector. Follow the steps below to import the SCOM management pack manually:

- Open the SCOM Console
- Go to the **Administration** pane and select **Management Packs**
- Select **Import management packs**
- Navigate to the installation folder and select *TheBackbone.TOPdesk.Connector.monitoring*
- Click **Install** to import the SCOM Management Pack

Note: This step is only necessary when automatic management pack import hasn't been used during the installation, or when automatic import failed

3.5 Configuring the SCOM Management Pack

The discovery in the SCOM Management Pack is disabled by default. Follow the steps below to enable the discovery:

- Open the SCOM Console
- Go to the **Authoring** pane and choose **Object Discoveries**
- Search for the discovery rule *The Backbone TOPdesk Connector Service Discovery*
- Choose **Overrides -> Override the Object Discovery -> For a specific object of class: Windows Computer**
- In the **Select Object** wizard, choose the computer object on which The Backbone TOPdesk Connector is installed and click **OK**
- Mark the override property **Enabled** and change the **Override Value** to **True**
- Choose a destination Management Pack and click **OK**

If The Backbone TOPdesk Connector is not installed in the default installation folder, an override has to be created for the license file discovery. Follow the steps below to create the override:

- Open the SCOM Console
- Go to the **Authoring** pane and choose **Object Discoveries**
- Search for the discovery rule *The Backbone TOPdesk Connector License File Discovery*
- Choose **Overrides -> Override the Object Discovery -> For a specific object of class: The Backbone TOPdesk Connector**
- In the **Select Object** wizard, choose the target for which the override should be created
- Mark the override property **License File Path** and change the **Override Value** to installation folder
- Choose a destination Management Pack and click **OK**

4. Upgrade

This chapter describes the upgrade process of The Backbone TOPdesk Connector.

The upgrade consists of two parts:

1. Configuration backup
2. The Backbone TOPdesk Connector upgrade

4.1 Configuration backup

Follow the steps below to create a backup of the existing configuration. This is only a *preventive action* as the upgrade is designed to keep the configuration intact:

- Create a copy of the configuration and mapping files, *TOPdeskConnector.exe.config* and *Mappings.xml* respectively. Both files are in the installation folder, the default installation folder is: *C:\Program Files (x86)\The Backbone\The Backbone TOPdesk Connector*
- Export the management packs below:
 - Notifications Internal Library
 - The management pack in which the overrides created in paragraph 3.5 are saved

Follow the steps below to export the management pack:

- Open the SCOM Console
- Go to the **Administration** pane and choose **Management Packs**
- Select the relevant management pack
- Choose **Export Management Pack...**
- Select a location for the management pack to be saved at and click **OK**
- Repeat these steps for all given management packs

4.2 The Backbone TOPdesk Connector upgrade

Follow the steps below to upgrade an existing installation of The Backbone TOPdesk Connector to a newer version:

- Log in to the server with an account with *Local Administrator* and *SCOM Administrator* permissions
- Install Microsoft .Net 4.0 or higher if not installed yet
- Start the installer *TheBackboneTOPdeskConnector.msi*
- Follow the process as described in paragraph 3.2. For the installation folder, pick the folder where the existing installation is located. Choosing for automatic management import will result in an upgrade of the Management Pack.

Note: Do not forget to place the license file, as described in paragraph 3.3

5. Configuration example

5.1 General

The configuration of The Backbone TOPdesk Connector depends on the requirements of the organization. How quick should a SCOM Alert be picked up? Which values have to be added to the TOPdesk incident card? What is the Alert Life Cycle Policy in SCOM? This chapter describes the configuration of The Backbone TOPdesk Connector based on an example scenario.

5.2 Example scenario

The list below specifies the example scenario using the default configuration as much as possible:

- The Backbone TOPdesk Connector is installed at *C:\Program Files (x86)\The Backbone\The Backbone TOPdesk Connector* on the SCOM Management Server *scomsrv01*
- New SCOM Alerts will be retrieved every *30 seconds*
- The account *Monitoring* is used for logging in to TOPdesk
- The Windows Service is running under the account *svr_scom_topdesk*, this account has *Administrator* permissions in SCOM
- TOPdesk incident number layout is */<YY><MM> <1234>*
- TOPdesk is reachable at *http://topdesksrv01*
- TOPdesk incidents cards have to be picked up *every day before 17:00*
- SCOM resolution state *Create TOPdesk Incident Card*, resolution state id *10*, is used to mark a SCOM Alert for The Backbone TOPdesk Connector
- SCOM resolution state *TOPdesk Incident Card Created*, resolution state id *20*, is used for SCOM Alerts that have an existing TOPdesk incident card
- The fields in the TOPdesk incident card are filled using the table below:

TOPdesk Incident card field	Type	Value
Name (caller)	STATIC	Caller1
Entry	STATIC	MonitoringTool
Short description	SCOM	<Name (max. 30 characters)>
Incident Type	STATIC	Malfunction
Category	STATIC	IT
Subcategory	STATIC	Monitoring
Target Date	STATIC	Today 5:00 PM
Operator	STATIC	System Management
Request	SCOM	<Name>:<Description>
Impact	LIST	Based on severity Information -> Person Warning -> Person Error -> Department

5.3 Configuration of the example scenario

The configuration of The Backbone TOPdesk Connector consists of the following steps:

1. Configuration of Windows Service The Backbone TOPdesk Connector
2. The Backbone TOPdesk Connector configuration
3. The Backbone TOPdesk Connector mapping file
4. Creating SCOM Product Connector Subscription

5.3.1. Configuration of Windows Service The Backbone TOPdesk Connector

In the example scenario a service account is used, under which the Windows Service is running. It also allows The Backbone TOPdesk Connector to access SCOM. Follow the steps below to configure the service to use the service account:

- Click **Start -> Run** and enter *services.msc*
- Navigate to the Windows Service *The Backbone TOPdesk Connector* and open the **Properties**
- Click the **Log On** tab
- Edit the account and password and click **Apply**

5.3.2. The Backbone TOPdesk Connector configuration

The configuration file is loaded while starting The Backbone TOPdesk Connector. This file contains the general configuration of The Backbone TOPdesk Connector. Follow the steps below to change the configuration file:

- Open Notepad with *Administrator permissions*
- Click **File -> Open** and navigate to the installation folder
- Select the file *TOPdeskConnector.exe.config* and click **Open**
- Change the key *Server* to *scomsrv01*
- Change the key *NewResolutionState* to *20*
- Change the key *TOPdeskUser* to *Monitoring*
- Change the key *TOPdeskPassword* to *SCOM123*
- Click **File -> Save** to save the file

For the configuration changes to take effect, the Windows Service must be restarted. Follow the steps below to restart the service:

- Click **Start -> Run** and enter *services.msc*
- Select the Windows Service *The Backbone TOPdesk Connector*
- Right click on it and click **Restart**

The picture below shows the configuration file after performing the steps above. Changes have been marked yellow.

```
<add key="Server" value="scomsrv01" />
<add key="Domain" value="" />
<add key="User" value="" />
<add key="Password" value="" />
<add key="NewResolutionState" value="20" />
<add key="NewResolutionStateIncValue" value="100" />
<add key="IntervalSec" value="30" />
<add key="Customer" value="" />
<add key="ConnectorGUID" value="25f1e36c-cd1e-436c-a526-8ee125b7eba5"
/>
<add key="TOPdeskUser" value="Monitoring" />
<add key="TOPdeskPassword" value="SCOM123" />
<add key="IncidentIdentifier" value="(m)\bI\d{1,4} \d{1,5}\b" />
<add key="FullPathMappingFile" value="C:\Program Files (x86)\The
Backbone\The Backbone TOPdesk Connector\Mappings.xml" />
<add key="MaxDescriptionLength" value="1000" />
<add key="LogLevel" value="informational" />
<add key="ClientSettingsProvider.ServiceUri" value="" />
<add key="ConsoleTaskCustomFieldNumber" value="1" />
```

Note: the IncidentIdentifier is a regular expression that will be read from the <title></title> section in the response body. The example deliberately declares that the second part can consist of 5 digits if more than 9999 TOPdesk incident cards are created.

5.3.3. The Backbone TOPdesk Connector mapping file

The mapping file is used to specify which information is added to the TOPdesk incident card. The mapping file supports different types of mappings, the type of mapping determines how the value in the parameter is built up. The supported mapping types are listed below:

- STATIC: static text, the same for every SCOM Alert
- SCOM: value based on a SCOM Alert property
- LIST: value based on a SCOM Alert property, followed by a translation defined by a given list
- DATE: date/time field based on the moment the SCOM Alert is processed

The default mapping file must be edited in order to add the preferred information to the TOPdesk incident card. Follow the steps below to change the mapping file:

- Open Notepad as *Administrator permissions*
- Click **File -> Open** and navigate to the installation folder
- Select the file *Mappings.xml* and click **Open**
- Edit the file according to the example below, changes are marked with yellow:


```

<?xml version="1.0" encoding="utf-8" ?>
<Root>
  <Templates>
    <Template Name="MakeTicket">
      <!--TOPdesk URL construction -->

      <![CDATA[http://{topdeskserver}/tas/secure/incident?action=new&status=
      {status}
      &jspurl=/incidentnumber.jsp
      &field0=verzoek&value0={request_name}:{request_path}%0A%0A{incident_de
      scription}
      &replacefield0=persoonid&searchfield0=ref_dynanaam&searchvalue0={perso
      n_id}
      &replacefield1=soortbinnenkomstid&searchfield1=naam&searchvalue1={entr
      y}
      &replacefield2=incident_domeinid&searchfield2=naam&searchvalue2={incid
      ent_category}
      &replacefield3=incident_specid&searchfield3=naam&searchvalue3={inciden
      t_subcategory}
      &replacefield4=soortmeldingid&searchfield4=naam&searchvalue4={incident
      _type_id}
      &replacefield5=operatorid&searchfield5=ref_dynanaam&searchvalue5={oper
      ator}
      &replacefield6=impactid&searchfield6=naam&searchvalue6={impact}
      &field2=korteomschrijving&value2={incident_name}
      &field3=datumafspraak&value3={target_date}
      &save=true]]>
    </Template>
  </Templates>

  <Lists>
    <List id="ResolutionList1">
      <ListItem Value="0">admin</ListItem>
      <ListItem Value="11">scm</ListItem>
    </List>
    <List id="SeverityList1">
      <ListItem Value="Informational">Person</ListItem>
      <ListItem Value="Warning">Team</ListItem>
      <ListItem Value="Error">Department</ListItem>
      <ListItem Value="Audit">Organization</ListItem>
    </List>
  </Lists>
  <Mappings>

  <!-- TOPdesk Server -->
  <Mapping Type="STATIC">
    <Value>localhost</Value>
    <HelpDeskField>{topdeskserver}</HelpDeskField>
  </Mapping>

  <!-- First or second line ticket -->
  <Mapping Type="STATIC">
    <Value>2</Value>
    <HelpDeskField>{status}</HelpDeskField>
  </Mapping>

```

```

<!-- Caller Name -->
<Mapping Type="LIST">
  <ConnectorField>ResolutionState</ConnectorField>
  <HelpDeskField>{person_id}</HelpDeskField>
  <ListId>ResolutionList1</ListId>
</Mapping>

<!-- Request -->
<Mapping Type="STATIC">
  <Value>SelfServiceDesk</Value>
  <HelpDeskField>{entry}</HelpDeskField>
</Mapping>
<Mapping Type="SCOM">
  <ConnectorField>Name</ConnectorField>
  <HelpDeskField>{request_name}</HelpDeskField>
</Mapping>
<Mapping Type="SCOM">
  <ConnectorField>Description</ConnectorField>
  <HelpDeskField>{incident_description}</HelpDeskField>
</Mapping>

<!--Details - Brief description-->
<Mapping Type="SCOM">
  <ConnectorField>Name</ConnectorField>
  <HelpDeskField
RegExPattern="^.{0,80}">{incident_name}</HelpDeskField>
</Mapping>

<!--Details - Incident Type-->
<Mapping Type="STATIC">
  <Value>Malfunction</Value>
  <HelpDeskField>{incident_type_id}</HelpDeskField>
</Mapping>

<!-- Details - Category -->
<Mapping Type="STATIC">
  <Value>Malfunction</Value>
  <HelpDeskField>{incident_category}</HelpDeskField>
</Mapping>

<!-- Details - Subcategory -->
<Mapping Type="STATIC">
  <Value>Email</Value>
  <HelpDeskField>{incident_subcategory}</HelpDeskField>
</Mapping>

<!-- Planning - Impact -->
<Mapping Type="LIST">
  <ConnectorField>Severity</ConnectorField>
  <HelpDeskField>{impact}</HelpDeskField>
  <ListId>SeverityList1</ListId>
</Mapping>

<!-- Planning - Target Date -->
<Mapping Type="DATE">
  <ConnectorField>yyyy-MM-dd</ConnectorField>

```

```

    <HelpDeskField>{target_date}</HelpDeskField>
    <StrictEndTime>17:00:00</StrictEndTime>
  </Mapping>

  <!-- Processing - Operator -->
  <Mapping Type="STATIC">
    <Value>admin</Value>
    <HelpDeskField>{operator}</HelpDeskField>
  </Mapping>

</Mappings>
</Root>

```

➤ Click **File -> Save** to save the file

Note: If you are running TOPdesk on a non-standard HTTP(S) port, add the port number in the template and not in a mapping. For example:

```

...
<Template Name="MakeTicket">
  <![CDATA[http://{topdeskserver}:81/tas/secure...
...

```

The mapping file is explained in detail in paragraph 6.2.

Note: the mapping file can be changed while The Backbone TOPdesk Connector is active. Changes to the mapping file will become active during the next iteration of The Backbone TOPdesk Connector.

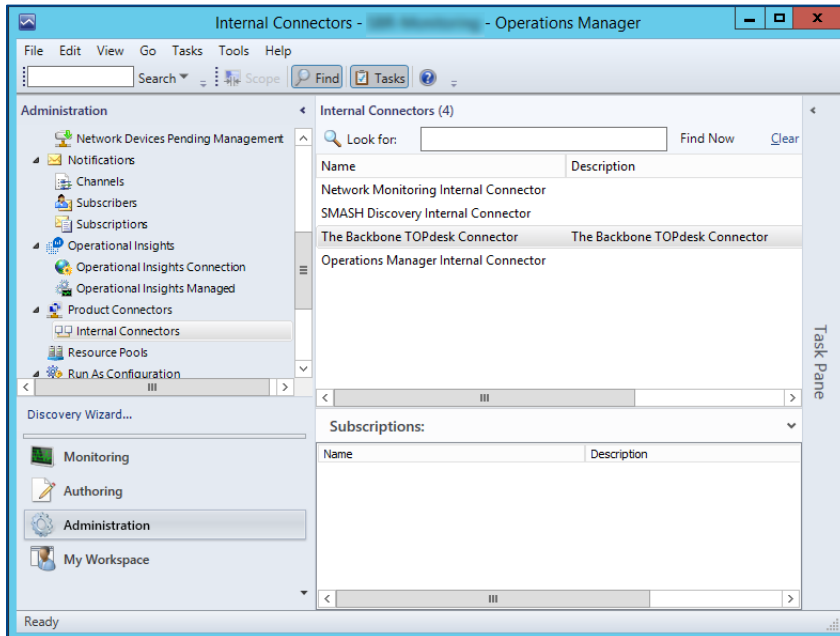
5.3.4. Creating the SCOM Product Connector Subscription

To forward SCOM Alerts based on the resolution state, a subscription has to be added to the Product Connector. The Product Connector will be created automatically the first time The Backbone TOPdesk Connector starts.

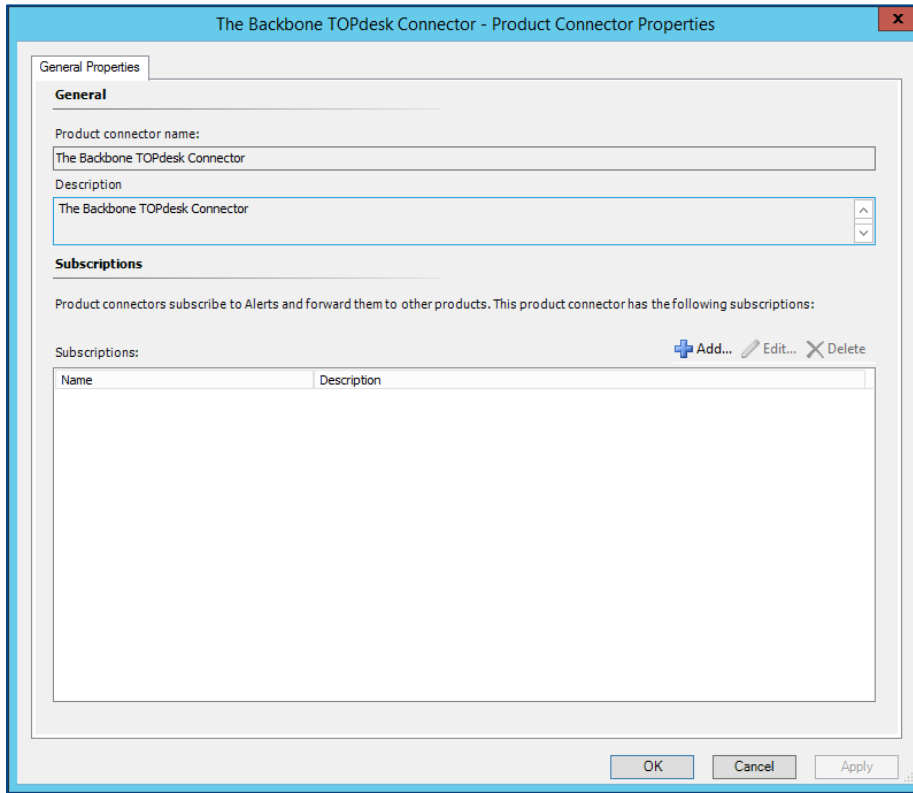
Note: If the Product Connector with name The Backbone TOPdesk Connector doesn't exist in SCOM, check the login details and the service account to access SCOM.

Follow the steps below to create a Product Connector subscription:

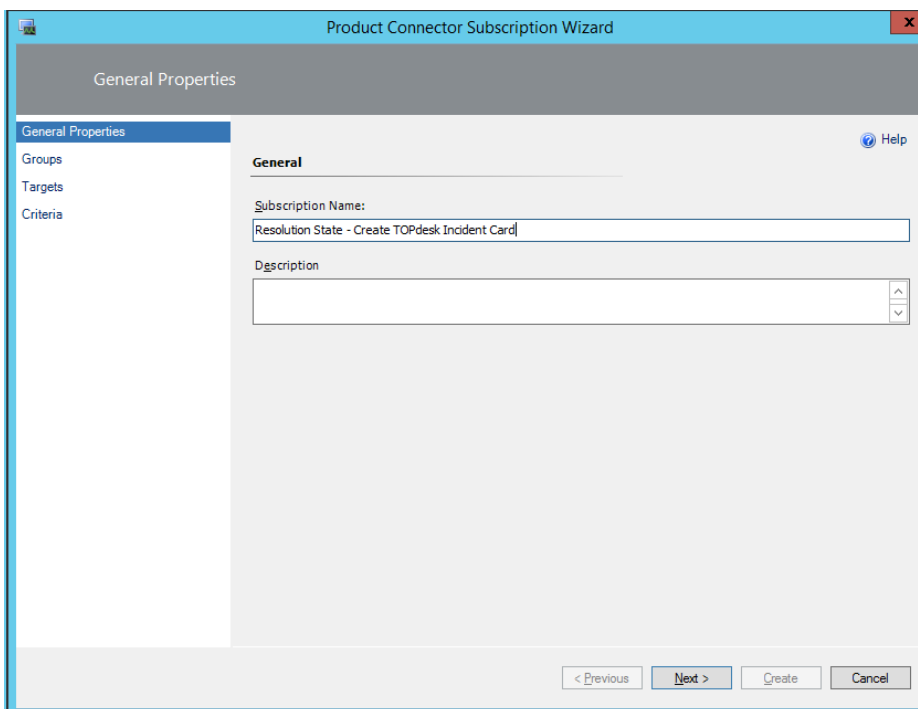
- Start the SCOM Console.
- Go to the **Administration** pane and choose **Internal Connectors**.



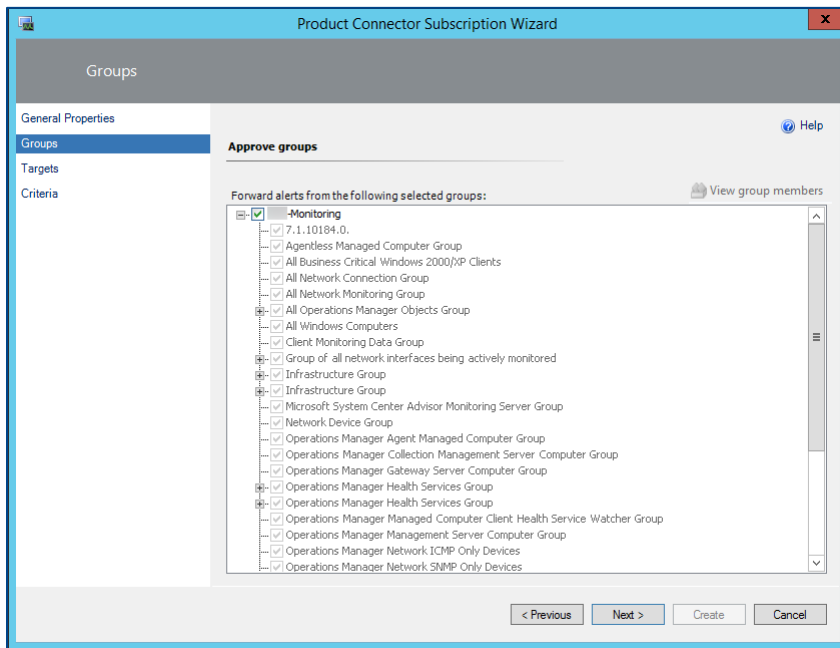
- Select *The Backbone TOPdesk Connector*, right click and choose **Properties**



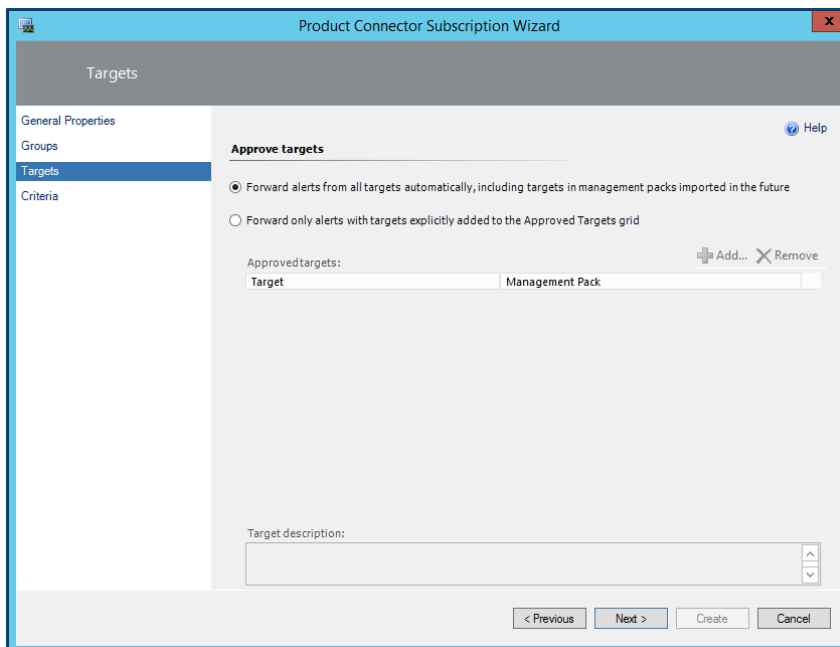
- Click **Add**
- Enter a name and a description for the new subscription and click **Next**



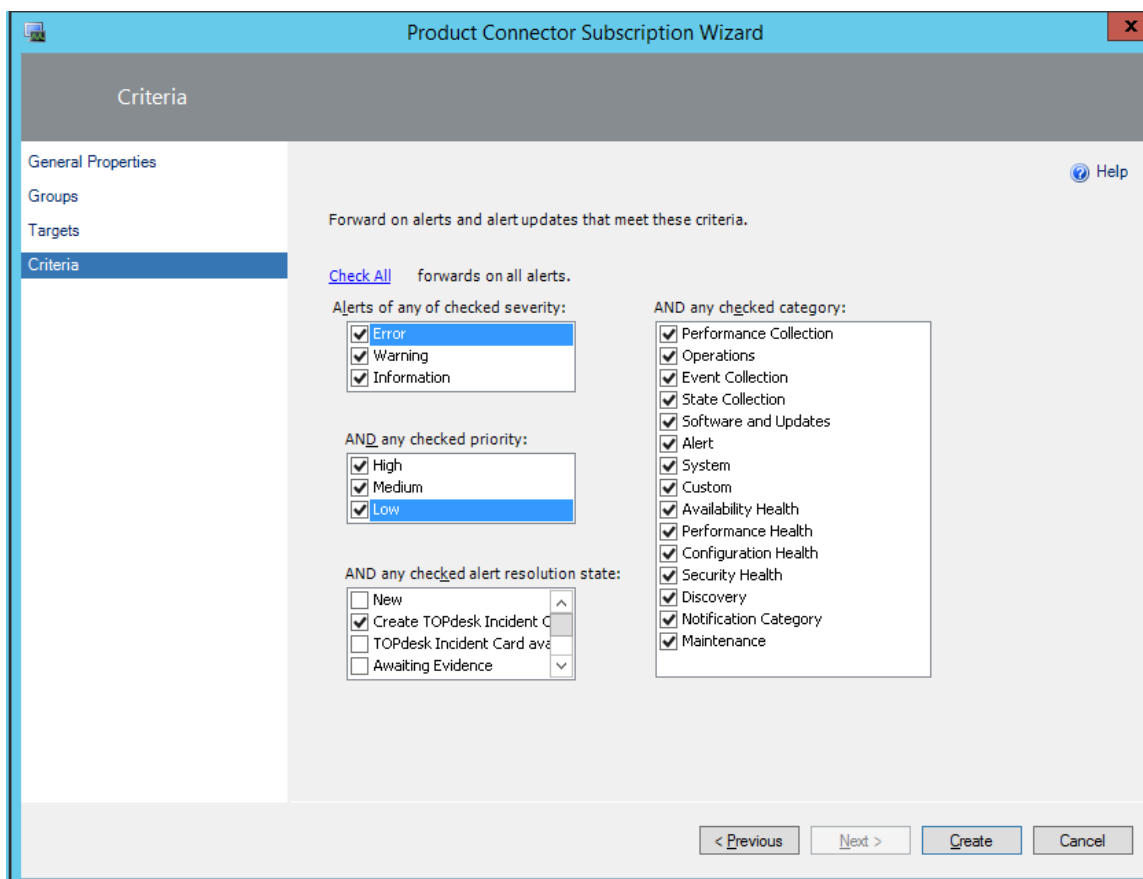
- No filter is applied based on groups, keep the default configuration and click **Next**



- No filter is applied based on targets, keep the default configuration and click **Next**



- Select all options under *severity*
- Select all options under *priority*
- Select the resolution state *Create TOPdesk Incident Card*
- Remove the selection for resolution states *New* and *Closed*
- Click **Create**

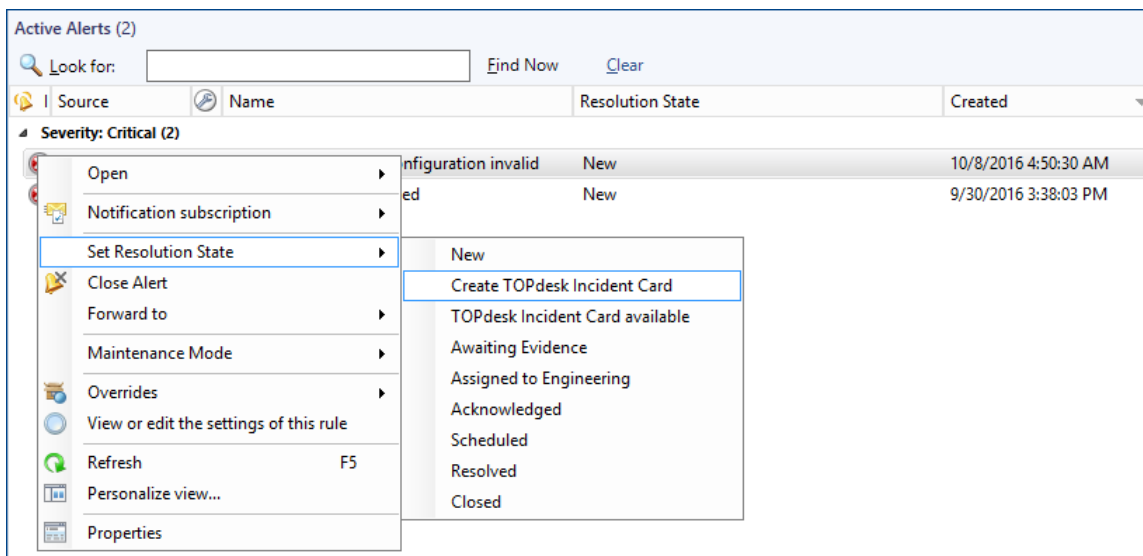


Note: if the selection for the New resolution state is not removed, a TOPdesk incident card will be created for every SCOM Alert. This does not apply to the Closed resolution state, these SCOM Alerts are ignored by The Backbone TOPdesk Connector. The SCOM Alert property last modified will be changed to The Backbone TOPdesk Connector.

5.4 Verifying the operation of The Backbone TOPdesk Connector

The operation of The Backbone TOPdesk Connector can be verified by changing the resolution state of a SCOM Alert.

- Start the SCOM Console
- Go to the **Monitoring** pane and click **Active Alerts**
- Select a SCOM Alert for which a TOPdesk incident card has to be created
- Right click on the selected SCOM alert
- Choose **Set Resolution State -> Create TOPdesk Incident Card**



- The resolution state will be changed to *Create TOPdesk Incident Card*
- After approximately 60 seconds, the *Connector* field and the *Forwarding Status* field will be changed to *The Backbone TOPdesk Connector* and *Forwarding Pending*, respectively.
- After approximately 60 seconds, the SCOM Alert resolution state will be changed to *TOPdesk Incident Card created* and the TOPdesk incident number will be added to the *Ticket ID* field of the SCOM Alert.
- The TOPdesk incident card has been created.

16 08 00036 Windows Service Stopped
SCOM (Test)

General Information Links Partial Incidents Attachments Audit Trail Time Registration

SCOM Test
Telephone Number

Details

Entry
Incident Type
Category Malfunction
Subcategory Malfunction

Request

Windows Service **Stopped**:
The 'SNMP Trap' service on computer [computer] has **stopped** running

Action

Object ID - Object Type

Planning

Impact
Duration

Active Alerts (2)

Look for: Find Now Clear

Source	Name	Resolution State	Ticket ID
SNMP Trap	Windows Service Stopped	TOPdesk Incident Card available	I1507 042
SNMP Trap	Windows Service Stopped	New	

6. Configuration documentation

This chapter describes the possibilities of the configuration files for The Backbone TOPdesk Connector in detail.

6.1 TOPdeskConnector.exe.config

This file contains the general configuration of The Backbone TOPdesk Connector and determines for example the used accounts, resolution states, the mapping file location and the logging level.

Filename	TOPdeskConnector.exe.config
File location	Installation folder
Default location	C:\Program Files (x86)\The Backbone\The Backbone TOPdesk Connector

The picture below shows the default contents of the appSettings tag in the configuration file:

```
<add key="Server" value="" />
<add key="Domain" value="" />
<add key="User" value="" />
<add key="Password" value="" />
<add key="NewResolutionState" value="" />
<add key="NewResolutionStateIncValue" value="100" />
<add key="IntervalSec" value="30" />
<add key="Customer" value="" />
<add key="ConnectorGUID" value="25f1e36c-cd1e-436c-a526-8ee125b7eba5" />
<add key="TOPdeskUser" value="" />
<add key="TOPdeskPassword" value="" />
<add key="IncidentIdentifier" value="(m)\bI\d{1,4} \d{1,5}\b" />
<add key="FullPathMappingFile" value="" />
<add key="MaxDescriptionLength" value="1000" />
<add key="LogLevel" value="informational"/>
<add key="ClientSettingsProvider.ServiceUri" value="" />
<add key="ConsoleTaskCustomFieldNumber" value="1"/>
```

Below, all editable keys are listed and explained:

Key	<add key="Server" value="" />
Description	NETBIOS or FQDN of the SCOM Management Server used with The Backbone TOPdesk Connector. If empty, localhost will be used as value.
Example	localhost scomsrv01 scom.contoso.local

Key	<add key="Domain" value="" />
Description	Domain name of the account used to create a connection with SCOM. <i>Warning: it is preferable to give the service account the necessary permissions in SCOM instead of entering an account in the configuration file.</i>
Example	contoso.local

Key	<add key="User" value="" />
Description	Username of the account used to create a connection with SCOM. <i>Warning: it is preferable to give the service account the necessary permissions in SCOM instead of entering an account in the configuration file.</i>
Example	svc_SCOM_TOPdesk

Key	<add key="Password" value="" />
Description	Password of the account used to create a connection with SCOM. <i>Warning: it is preferable to give the service account the necessary permissions in SCOM instead of entering an account in the configuration file.</i>
Example	P@ssw0rd

Key	<add key="NewResolutionState" value="" />
Description	Absolute resolution state id, applied to the SCOM Alert after creating a TOPdesk incident card. Make sure this is an existing resolution state ID in SCOM. If it is not, SCOM will just show the resolution state id instead of the resolution state name.
Allowed values	0 < NewResolutionState < 256
Example	20

Key	<add key="NewResolutionStateIncValue" value="" />
Description	Relative resolution state id, applied to the SCOM Alert after creating a TOPdesk incident card. The new resolution state is the outcome for the sum of the current resolution state and the value of NewResolutionStateIncValue. Make sure this is an existing resolution state ID in SCOM. If it is not, SCOM will just show the resolution state id instead of the resolution state name. <i>Warning: can only be used when NewResolutionState is empty.</i>
Allowed values	0 < NewResolutionStateIncValue < 256
Example	10

Key	<add key="IntervalSec" value="30" />
Description	Interval in seconds at which The Backbone TOPdesk Connector retrieves all tagged SCOM Alerts
Example	60

Key	<add key="Customer" value="" />
Description	Customer can be used in multi-tenant SCOM implementations where the site property of a gateway is used. The Backbone TOPdesk Connector only processes SCOM Alerts where the SCOM Alert site and the customer key property are identical.
Example	Tenant1 Tenant2

Key	<add key="TOPdeskUser" value="" />
Description	Username of the TOPdesk account used by The Backbone TOPdesk Connector.
Example	TOPdesk_SCOM

Key	<add key="TOPdeskPassword" value="" />
Description	Password of the TOPdesk account used by The Backbone TOPdesk Connector. Warning: the '&' character cannot be used in the password
Example	P@ssw0rd

Key	<add key="IncidentIdentifier" value="(m)\bI\d{1,4}\d{1,5}\b" />
Description	Regular expression to retrieve the TOPdesk incident number after creating the TOPdesk incident card. The regular expression is applied to text between <title> tags in the response body.
Example	(m)\bI\d{1,4}\d{1,5}\b

Key	<add key="FullPathMappingFile" value="C:\Program Files (x86)\The Backbone\The Backbone TOPdesk Connector\Mappings.xml" />
Description	The UNC to the Mappings.xml file. <i>Note: this path is automatically added during the installation based on the installation folder</i>
Example	C:\Program Files (x86)\The Backbone\The Backbone TOPdesk Connector\Mappings.xml

Key	<add key="MaxDescriptionLength" value="1000" />
Description	Maximum amount of characters for the SCOM Alert description field. The description will be cut off on the maximum amount.
Example	1000

Key	<code><add key="LogLevel" value="informational"/> <!--Loglevels: verbose, Critical, Warning, informational--></code>
Description	<p>Lower threshold level at which The Backbone TOPdesk Connector logs events to the event log.</p> <ul style="list-style-type: none"> ➤ Critical: only <i>Critical</i> events will be logged ➤ Warning: <i>Critical</i> and <i>Warning</i> events will be logged ➤ Informational: <i>Critical</i>, <i>Warning</i> and <i>Informational</i> will be logged ➤ Verbose: <i>Critical</i>, <i>Warning</i> and <i>Informational</i> will be logged, additional verbose log information is written to the log file in the installation folder.
Example	Informational

Key	<code><add key="ConsoleTaskCustomFieldNumber" value="1"/></code>
Description	<p>The SCOM Alert custom field used by The Backbone TOPdesk Connector to store the TOPdesk URL used by the SCOM Console Task. If it contains a value between 1 and 10, the console task will be enabled and the corresponding SCOM Alert custom field will be used.</p> <p>If the field is empty, the console task is disabled.</p> <p><i>Warning: if the SCOM Alert custom field is not empty, the information will be overwritten. Existing data will be logged in an event.</i></p>
Allowed values	<p>0 < ConsoleTaskFieldNumber < 11 Empty string ("")</p>
Example	1

Note: changes to the TOPdeskConnector.exe.config file will become active after restarting the Windows Service.

6.2 Mappings.xml

This file is used to specify which information should be added to the TOPdesk incident card. The file contains a template URL and several mapping definitions to replace URL parameters runtime.

Filename	Mappings.xml
File location	Installation folder
Default location	C:\Program Files (x86)\The Backbone\The Backbone TOPdesk Connector

The content of the file consists of three parts:

1. Templates: URL template for the web request to create TOPdesk incident cards
2. Lists: one or more lists to translate SCOM values to TOPdesk values
3. Mappings: one or more mappings to replace URL parameters

6.2.1. Templates

The current version of The Backbone TOPdesk Connector supports one URL template for creating TOPdesk incident cards. The URL consists of a mandatory part and a part that can be changed to suit the needs of the organization.

The default template URL for creating TOPdesk incident cards is shown below:

```
<Templates>
  <Template Name="MakeTicket">
    <!-- TOPdesk URL construction -->
    <![CDATA[http://{topdeskserver}/tas/secure/incident?action=new&status=
    {status}
    &jspurl=/incidentnumber.jsp
    &field0=verzoek&value0={request_name}:{request_path}
    &replacefield0=persoonid&searchfield0=ref_dynanaam&searchvalue0={perso
    n_id}
    &replacefield1=soortbinnenkomstid&searchfield1=naam&searchvalue1={entr
    y}
    &replacefield2=incident_domeinid&searchfield2=naam&searchvalue2={incid
    ent_category}
    &replacefield3=incident_specid&searchfield3=naam&searchvalue3={inciden
    t_subcategory}
    &replacefield4=soortmeldingid&searchfield4=naam&searchvalue4={incident
    _type_id}
    &replacefield5=operatorid&searchfield5=ref_dynanaam&searchvalue5={oper
    ator}
    &replacefield6=impactid&searchfield6=naam&searchvalue6={impact}
    &field2=korteomschrijving&value2={short_description}
    &field3=datumafspraak&value3={target_date}
    &save=true]]>
  </Template>
</Templates>
```

The sections within the template URL are explained below:

Section	<code>http://{topdeskserver}/tas/secure</code>
Explanation	URL of the TOPdesk web service, the hostname is replaced using a parameter

Section	<code>incident?action=new</code>
Explanation	Command to create a new TOPdesk incident card.

Section	<code>status={status}</code>
Explanation	Command to create a first line or a second line card.

Section	<code>jspurl=/incidentnumber.jsp</code>
Explanation	URL called after creating the TOPdesk incident card, at which the TOPdesk incident number will be returned. <i>Warning: this URL is only available when the TOPdesk custom part <code>incidentnumber.jsp</code> is installed.</i>

Section	<code>field0=verzoek&value0={request_name}:{request_path}</code>
Explanation	One or more combinations of a <i>field</i> and <i>value</i> parameter with a unique ID. With this command a static field on the TOPdesk incident card is filled with the given value. <i>Field</i> contains the name of the field on the TOPdesk incident card and the <i>value</i> parameters contains the corresponding value.

Section	<code>replacefield2=incident_domeinid &searchfield2=naam&searchvalue2={incident category}</code>
Explanation	One or more combinations of a <i>replacefield</i> , <i>searchfield</i> and <i>searchvalue</i> parameter with a unique ID. This command fills the specified field with a value based on a search table in TOPdesk. <i>Replacefield</i> contains the name of the field on the TOPdesk incident card, <i>searchfield</i> contains the name of the search table in TOPdesk and <i>searchvalue</i> contains the search term to use.

Section	<code>save=true</code>
Explanation	Command to save the TOPdesk incident card.

Note: The URL can be used in a browser if the `save` and `jspurl` are removed. TOPdesk will display the TOPdesk incident card filled with the specified values without saving it. This can be handy while configuring the `Mappings.xml` file.

Note: If one or more fields are invalid, TOPdesk returns an error, which does not indicate which field is invalid. The invalid field can be deduced by removing parts of the URL in combination with the previous note.

6.2.2. Lists

The lists section can be used to create one or more lists to translate values runtime. A list can be seen as a table with two columns. The first column contains the search term and the second column contains the value that has to be written to the TOPdesk incident card. Example usages for lists are:

- Filling the impact field based on the SCOM Alert severity field
- Filling the urgency field based on the SCOM Alert priority field
- Determining the operator based on the resolution state ID

The layout of the lists section is shown below:

```
<Lists>
  <List id="ResolutionList1">
    <ListItem Value="0">admin</ListItem>
    <ListItem Value="11">scom</ListItem>
  </List>
  <List id="SeverityList1">
    <ListItem Value="Informational">Person</ListItem>
    <ListItem Value="Warning">Team</ListItem>
    <ListItem Value="Error">Department</ListItem>
    <ListItem Value="Audit">Organization</ListItem>
  </List>
</Lists>
```

A list is built up as follows:

Section	<List id="xxx">
Explanation	Start of a list, the ID has to be unique.

Section	<ListItem Value="xxx">
Explanation	One or more list item tags, value contains the value read from a SCOM Alert property. There must exist a list item for every possible value.

Sectie	<ListItem ...>xxx</ListItem>
Toelichting	Value that should be stored in the TOPdesk incident card field.

Sectie	</List>
Toelichting	Closes the list.

Note: If The Backbone TOPdesk Connector is not able to find a list value while building the URL, the TOPdesk incident card for that SCOM Alert will not be created and an error will be logged.

6.2.3. Mappings

The Backbone TOPdesk Connector replaces the parameters in the template URL based on mappings. There *must* exist a mapping for every parameter in the *Mappings.xml* file. The type of mapping determines how The Backbone TOPdesk Connector determines the value for filling the TOPdesk incident card fields. The supported mapping types are listed below:

- STATIC: static text, the same for every SCOM Alert
- SCOM: value based on an SCOM Alert property
- LIST: value based on an SCOM Alert property, following a translation defined by a given list
- DATE: date/time field based on the moment the SCOM Alert is processed

The mapping layout of the different types is explained below:

Type	STATIC
Example	<pre><Mapping Type="STATIC"> <Value>topdesksrv01.domain.local</Value> <HelpDeskField>{topdeskserver}</HelpDeskField> </Mapping></pre>
Structure	<ul style="list-style-type: none"> ➤ Value: static text ➤ HelpDeskField: unique name for the parameter
Explanation	The parameter <i>{topdeskserver}</i> in the URL will be replaced by <i>topdesksrv01.domain.local</i> .

Type	SCOM
Example	<pre><Mapping Type="SCOM"> <ConnectorField>Description</ConnectorField> <HelpDeskField RegExPattern="^.{0,80}>{request_path}</HelpDeskField> </Mapping></pre>
Structure	<ul style="list-style-type: none"> ➤ ConnectorField: name of the SCOM Alert property ➤ HelpDeskField: unique name for the parameter ➤ RegExPattern: optional attribute to change the value retrieved from SCOM
Explanation	<p>The parameter <i>{request_path}</i> in the URL is replaced by the first eighty characters of the text in the <i>description</i> field of the SCOM Alert.</p> <p><i>Note: A SCOM Alert property without a value (NULL) is processed as an empty string ("")</i></p>

Type	LIST
Example	<pre><Mapping Type="LIST"> <ConnectorField>Severity</ConnectorField> <HelpDeskField>{impact}</HelpDeskField> <ListId>SeverityList1</ListId> </Mapping></pre>
Structure	<ul style="list-style-type: none"> ➤ ConnectorField: name of the SCOM Alert property ➤ HelpDeskField: unique name for the parameter ➤ ListId: ID of the list that should be used for translation of the value
Explanation	<p>The parameter <i>{impact}</i> in the URL is replaced by the text that belongs to the list item value equal to the value of the <i>Severity</i> field of the SCOM Alert, in the list with ID <i>SeverityList1</i>.</p> <p>Note: The mapping processing will not continue if the SCOM Alert property does not contain a value (NULL).</p>

Type	DATE
Example	<pre><Mapping Type="DATE"> <ConnectorField>yyyy-MM-dd</ConnectorField> <HelpDeskField>{target_date}</HelpDeskField> <StrictEndTime>17:00:00</StrictEndTime> </Mapping></pre>
Structure	<ul style="list-style-type: none"> ➤ ConnectorField: TOPdesk supports only one date format in the form of <i>yyyy-MM-dd hh:mm:ss</i>. The <i>hh:mm</i> in combination with <i>StrictEndTime</i> is optional for The Backbone TOPdesk Connector ➤ HelpDeskField: unique name for the parameter ➤ StrictEndTime: fixed time that has to be added to the TOPdesk incident card field. This option can only be used if the <i>ConnectorField</i> consists of <i>dd/mm/yyyy</i>
Explanation	<p>The <i>{target_date}</i> parameter in the URL is replaced by the date/time combination at which the TOPdesk incident card is created, optionally with a fixed end time.</p>

7. SCOM Management Pack documentation

7.1 General

A SCOM Management Pack is included in order to visualize the status and operation of The Backbone TOPdesk Connector. This chapter describes the operation of the SCOM Management Pack.

7.2 Health Rollup

The SCOM Management Pack contains one class called *The Backbone TOPdesk Connector Service*. The picture below shows the health rollup of the SCOM Management Pack:

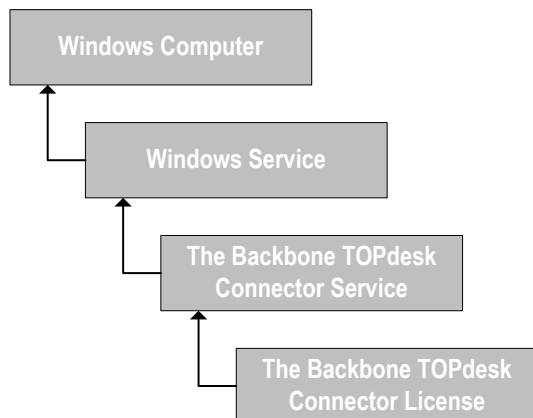


Figure 4: SCOM Management Health Rollup

7.3 Discoveries

The SCOM Management Pack contains the following discoveries:

Name	The Backbone TOPdesk Connector Service Discovery
Explanation	Checks if the Windows Service <i>The Backbone TOPdesk Connector</i> is installed on a Windows Computer and creates an object of the class <i>The Backbone TOPdesk Connector Service</i> .
Enabled	No (overridable)
Interval	43600 seconds (overridable)

Name	The Backbone TOPdesk Connector License File Discovery
Explanation	Checks if there is a valid license file present in the TOPdesk Connector installation folder.
Enabled	Yes
Interval	86400 seconds (overridable)

Name	The Backbone TOPdesk Connector License File Information Discovery
Explanation	Discovers the license file information.
Enabled	Yes
Interval	None, triggered on License event in <i>Windows Event Viewer</i>

7.4 Rules

The SCOM Management Pack contains the following rules:

Name	The Backbone TOPdesk Connector Caught Exception
Explanation	Creates a SCOM Alert based on an event when an error occurs in The Backbone TOPdesk Connector.
Enabled	Yes

Name	The Backbone TOPdesk Connector Failed To Logon
Explanation	Creates a SCOM Alert based on an event when The Backbone TOPdesk Connector is unable to authenticate in TOPdesk
Enabled	Yes

Name	The Backbone TOPdesk Connector Configuration Invalid
Explanation	Creates a SCOM Alert based on an event when an error is found in the TOPdeskConnector.exe.config file while starting The Backbone TOPdesk Connector.
Enabled	Yes

Name	The Backbone TOPdesk Connector Configuration Console Task Invalid
Explanation	Creates a SCOM Alert based on an event when the console task configuration in the TOPdeskConnector.exe.config is invalid.
Enabled	Yes

Name	The Backbone TOPdesk Connector Connection Warning
Explanation	Creates a SCOM Alert based on an event when The Backbone TOPdesk Connector is unable to construct a connection to SCOM.
Enabled	Yes

Name	The Backbone TOPdesk Connector SCOM Administrator Permissions
Explanation	Creates a SCOM Alert based on an event when The Backbone TOPdesk Connector does not have sufficient SCOM permissions.
Enabled	Yes

Name	The Backbone TOPdesk Connector Error Processing Alert
Explanation	Creates a SCOM Alert based on an event when an alert cannot be processed. Possible reasons are nonreplaced parameters or an error while replacing parameters.
Enabled	Yes

Name	The Backbone TOPdesk Connector Could Not Retrieve Ticket Id
Explanation	Creates a SCOM Alert based on an event when the ticket number cannot be retrieved from the response body in TOPdesk
Enabled	Yes

Name	The Backbone TOPdesk Connector Was Unable To Create a TOPdesk Incident Card
Explanation	Creates a SCOM Alert based on an event when the connector is unable to create a TOPdesk card
Enabled	Yes

Name	The Backbone TOPdesk Connector Data Overwrite Alert
Explanation	Creates a SCOM Alert based on an event when the connector overwrites Custom Fields which already contained information
Enabled	Yes

Name	The Backbone TOPdesk Connector Configuration Server Name Missing
Explanation	Creates a SCOM Alert based on an event when the connector configuration is missing the SCOM server name
Enabled	Yes

Name	The Backbone TOPdesk Connector Concurrent Update Exception
Explanation	Creates a SCOM Alert based on an event when the connector is unable to update a processed alert
Enabled	Yes

7.5 Monitors

The SCOM Management Pack contains the following monitors:

Name	The Backbone TOPdesk Connector License Invalid Monitor
Explanation	Creates a SCOM Alert based on an event when the license is invalid
Enabled	Yes

Name	The Backbone TOPdesk Connector License Expiration Monitor
Explanation	Creates a SCOM Alert with severity warning based on an event when the product license expires within 30 days. Creates a SCOM Alert with severity critical based on an event when the product license is expired.
Enabled	Yes

Name	The Backbone TOPdesk Connector Support Expiration Monitor
Explanation	Creates a SCOM Alert with severity warning based on an event when the support license expires within 30 days. Creates an SCOM Alert with severity critical based on an event when the support license is expired.
Enabled	Yes

Name	The Backbone TOPdesk Connector License Missing Monitor
Explanation	Creates a SCOM Alert with severity critical based on an event when the license file is missing.
Enabled	Yes

Name	The Backbone TOPdesk Connector SCOM Connection Monitor
Explanation	Verifies if the connector does have a connection with SCOM.
Enabled	Yes

7.6 Views

The SCOM Management Pack contains the following views:

Name	Alerts View
Type	Alert
Explanation	All SCOM Alerts that are not closed (resolution state <> 255) generated by one of the rules in this SCOM Management Pack. Warning: this view does not contain the SCOM Alerts that are tagged for or processed by The Backbone TOPdesk Connector.

Name	Event View
Type	Event
Explanation	The Backbone TOPdesk Connector events

Name	License View
Type	State
Explanation	The state of the License and the License information.

Name	TOPdesk Connector Services
Type	State
Explanation	Targets based on the class <i>The Backbone TOPdesk Connector Service</i>

7.7 Tasks

The SCOM Management Pack contains the following tasks:

Name	Open TOPdesk incident card
Type	Task
Explanation	Opens the corresponding TOPdesk incident card in the default browser

About The Backbone

The Backbone, based in The Netherlands (Hengelo), is the Dutch market leader in delivering SCOM based monitoring solutions. With more than 10 years' experience, The Backbone knows how to support companies in ensuring their business continuity by monitoring their core information systems.

IT Services are more and more delivered from systems that are located in own data centers and a hybrid cloud. Moving to a hybrid cloud environment creates more connections and integrations between systems and applications. The increase in complexity creates the need for a complete overview of the environment by implementing monitoring from several perspectives like a technical, application and end-user perspective. With the right organizational embedding a complete implemented Monitoring Solution gives insights in the availability, performance and security level of the core applications, portals and infrastructure, with an own viewpoint for each stakeholder.

Appendix 1: Configuration scenarios

This appendix shows some common configuration scenarios.

Scenario 1 – Incident card requester based on SCOM alert resolution state

The TOPdesk incident card field *operator* is filled based on the SCOM Alert resolution state. This allows a SCOM operator to choose the TOPdesk operator while creating the TOPdesk incident card. In the example, two possible operators are used and a resolution state is available to see which SCOM Alerts with a TOPdesk incident card are created for every operator.

- Create four resolution states
 - Create TOPdesk Incident Card – System Management, ID 10
 - Create TOPdesk Incident Card – Network Management, ID 11
 - TOPdesk Incident Cards – System Management, ID 110
 - TOPdesk Incident Cards – Network Management, ID 111
- Create a Product Connector Subscription which marks all SCOM Alerts with resolution states ID's 10 or 11
- Open *TOPdeskConnector.exe.config* and change the key *NewResolutionStateIncValue* to 100

```
<add key="NewResolutionStateIncValue" value="100" />
```

- Open *Mappings.xml* and create a list with ID *ResolutionList1* for resolution state 10 and 11

```
<List id="ResolutionList1">
  <ListItem Value="10">System Management</ListItem>
  <ListItem Value="11">Network Management</ListItem>
</List>
```

- Add the following mapping to the file

```
<Mapping Type="LIST">
  <ConnectorField>ResolutionState</ConnectorField>
  <HelpDeskField>{person id}</HelpDeskField>
  <ListId>ResolutionList1</ListId>
</Mapping>
```


Scenario 2 – TOPdesk incident card lead time of 2 days

All TOPdesk incident cards get a projected duration of two days.

- Open *Mappings.xml*
- Add the following parameters to the URL (replace the unique id 0 to a unique id in the URL)

```
Replacefield0=doorlooptijdid&searchfield0=naam&searchvalue0={lead_time}
}
```

- Add the following mapping to the file

```
<Mapping Type="STATIC">
  <Value>2 Days</Value>
  <HelpDeskField>{lead_time}</HelpDeskField>
</Mapping>
```

Scenario 3 – TOPdesk incident card impact based on SCOM Alert severity

The TOPdesk incident card impact field is filled based on the SCOM Alert severity. This requires a list to be available to convert the SCOM Alert severities to available TOPdesk impact values. The translation shown below is used.

SCOM Alert severity	TOPdesk Impact
Error	High
Warning	Medium
Informational	Low

- Open *Mappings.xml*
- Add the following parameters to the URL (replace the unique id 0 to a unique id in the URL)

```
Replacefield0=impactid&searchfield0=naam&searchvalue0={impact}
```

- Create a list with ID *SeverityList1* and a list item for every possible severity value

```
<List id="SeverityList1">
  <ListItem Value="Error">High</ListItem>
  <ListItem Value="Warning">Medium</ListItem>
  <ListItem Value="Informational">Low</ListItem>
</List>
```

- Add the following mapping to the file

```
<Mapping Type="LIST">
  <ConnectorField>Severity</ConnectorField>
  <HelpDeskField>{impact}</HelpDeskField>
  <ListId>SeverityList1</ListId>
</Mapping>
```

Scenario 4 – Filling the TOPdesk incident card request field based on multiple SCOM alert properties

The TOPdesk incident card request field has to be filled with the SCOM Alert name, SCOM Alert path and the first 150 characters of the SCOM Alert description. The layout shown below should be used:

Alert name: <Alert name>
Alert path: <Alert path>
Alert description: <Alert description (max 150 characters)>

- Open *Mappings.xml*
- Add the following parameters to the URL

```
field1=verzoek&value1=Alert%20name:%20{request_name}%0AAlert%20path:%20{request_path}%0AAlert%20description:%20{request_description}
```

- Add the following mapping to the file

```
<Mapping Type="SCOM">
  <ConnectorField>Name</ConnectorField>
  <HelpDeskField">{request_name}</HelpDeskField>
</Mapping>
<Mapping Type="SCOM">
  <ConnectorField>MonitoringObjectPath</ConnectorField>
  <HelpDeskField>{request_path}</HelpDeskField>
</Mapping>
<Mapping Type="SCOM">
  <ConnectorField>Description</ConnectorField>
  <HelpDeskField RegExPattern="^.{0,150}>{request_description}
  </HelpDeskField>
</Mapping>
```

Note: spaces in the URL should be entered as %20 and an new line as %0A.