HarePoint HelpDesk for SharePoint Administration Guide

For SharePoint 2019, SharePoint 2016,
SharePoint Server 2013, SharePoint Foundation 2013,
SharePoint Server 2010, SharePoint Foundation 2010

This manual has been produced by MAPILab and contains information essential for the successful installation of HarePoint HelpDesk for SharePoint on your computer.

Product version 16.9.0.0

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Contents

I.   Introduction

HarePoint HelpDesk is a ready-made customer support system for internet and intranet sites based on the SharePoint platform. This solution allows you to create an efficient system for processing incoming support requests.

Key features:

- Convenient and functional interface for handling and working with support requests.
- Customizable categories, levels and priority settings
- Support for collaboration among helpdesk team members with reassignment of requests
- Auto-assignment of responsible technicians using workflow
- Customizable e-mail notifications using workflow
- Analysis of helpdesk usage and technicians performance using a set of specialized reports
- Request processing cycle management using workflow

The most outstanding feature of the product in that it is easily deployed and immediately ready for use. The installed product presents a site template through which you can create one or more support sites. The web part with the request creation form can be placed on a page of any site within the site collection.

The product's logic is based on standard SharePoint declarative workflows, and using SharePoint Designer you can easily configure notification templates, modify automatic assignment of support requests, and modify the request processing cycle.

HarePoint HelpDesk is used for our technical support, so you can get an idea of how the product works by contacting our support team with a request or suggestion. We are happy to receive product development ideas from you.

II.   General description of the product

HarePoint HelpDesk for SharePoint is a solution containing the **template of the SharePoint site**.

HarePoint HelpDesk site contains necessary lists, views, forms and workflows that provide the automation of the technical support service work.

HarePoint HelpDesk **implements three roles**:

- **User**
  The consumer of technical support services. Users create requests, provide additional details if necessary and assess the quality of provided solutions.
- **Technician**
  The specialist of the technical support service. The responsibility of technician includes ensuring an adequate level of technical support service, timely response to requests created by consumers, providing consumers with the most viable options for solving problems described in the request.
- **Viewer**
  An additional role (optional), allowing viewing the requests (like a Technician), but not making any changes to them.

A **simplified scheme of a HarePoint HelpDesk usage scenario** can be represented as follows:

1. **User** creates a request to the technical support service. The request is created by a special mechanism that is called **User Console**. Using the features implemented in User Console, User can specify the subject, description, as well as additional request parameters. **User Console** from a technical point of view **is a web part** that can be placed on any page of the site collection. This method of User Console implementation allows you to completely prevent the direct access of users to HarePoint HelpDesk site, thus delivering a high level of security.
2. To work with the incoming requests, **Technician** uses another mechanism – **Technician Console**. Technician either having received the notification via E-mail, or seeing the new request in the list of Requests in Technician Console, assigns a responsible person for processing the incoming request. Technician Console provides the Technician with a rich set of tools for working with Users' requests. The Person responsible for further processing of the request is also notified.
3. **Responsible Technician** analyzes the contents of the User's request and provides the most adequate solution to the described problem. If it is necessary to obtain additional information from the consumer to solve the described problem, **Technician** has the opportunity to ask a question to the consumer. Technicians can leave internal comments (not visible for Users), or discuss the current Request with other Technicians.
4. **User**, having received the notification that a solution has been provided, makes a decision if the provided solution is applicable. If it is, the User closes the request by clicking the appropriate button in the **User Console** interface. Furthermore, resolved request can be closed automatically after a certain period.

The entire **life cycle of the request**, as well as some other mechanisms of the automated request processing are implemented using **declarative workflows**. Such implementation of automation processes makes it easy to make necessary changes to the request life cycle and ensures its fine-tuning almost for any required conditions.

All related **information is stored using standard SharePoint lists.** All **list functions are used**, including features such as list view, setting default values, running declarative workflows associated with lists. . This approach allows you to extend the HarePoint HelpDesk system with maximum flexibility, using only standard SharePoint API. In particular, you can create a new view, add fields to existing lists, and so on.

Templates for e-mail notifications are also **customizable** using **Microsoft SharePoint** which is a standard tool. In particular, by modifying templates, it is possible to create their **localized** copies to be used in **multilingual environment**.

III.   Preparation for deployment

HarePoint HelpDesk for SharePoint is deployed on all servers in the SharePoint farm. To install and deploy the program successfully, you must have administrator rights for both SharePoint servers and for the Windows Server on which the Product will be deployed.

The product is installed and deployed automatically by running **Setup.exe**

The Installer checks whether HarePoint HelpDesk can be installed:

- Installation of SharePoint
- Permissions to install and deploy SharePoint Solutions
- Whether the necessary services are started
- Whether SharePoint farm is configured completely.
- Whether web-sites and SharePoint Central Administration web-site are working properly
- Whether all files web.config are not write-protected
- Whether the package contains the latest version of HelpDesk available at HarePoint.com

Available options are:

- Install and deploy the solution
- Repair the solution (retract the solution and deploy it again)
- Remove the solution
- Select the web-applications to which the solution should be deployed

In addition, it generates **Installation.log** (in the same folder as Setup.exe file), which simplifies the troubleshooting if any problems occur during the installation or deployment.

1. System requirements

HarePoint HelpDesk for SharePoint is designed to operate in:

- Microsoft SharePoint Server 2019
- Microsoft SharePoint Server 2016
- Microsoft SharePoint Server 2013
- SharePoint Foundation 2013
- Microsoft SharePoint Server 2010
- SharePoint Foundation 2010

The Product has no special requirements to the operating system and its components, RAM memory space and CPU type. The Product may operate at any configuration where SharePoint is deployed.

2. Before the installation and deployment

Download the **latest version** of HarePoint HelpDesk from HarePoint.com website.
Unzip the distributive package to the temporary folder on any of your **Web Front-End** servers.

IV. Installation and deployment

Please, read carefully the Preparation for deployment area of the Administrator guide before the installation.

The product distributive contains the following files and folders:

- **Documents**
  the folder contains HarePoint HelpDesk **Administrator's Guide** and **User's Guide**
- **Install**
  the folder contains all necessary files for HarePoint HelpDesk deployment
- **installation.log**
  this file is created when the installation tool is started. Contains installation log
- **Setup.exe**
  executable file to start the automatic Installer
- **Setup.exe.config**
  XML file used by the automatic Installer.

The installation and deployment are performed by a special tool. To start it click file **Setup.exe**.

1. At the first step, the installation tool checks the installed version of SharePoint. If the supported version is detected you will see the following window:
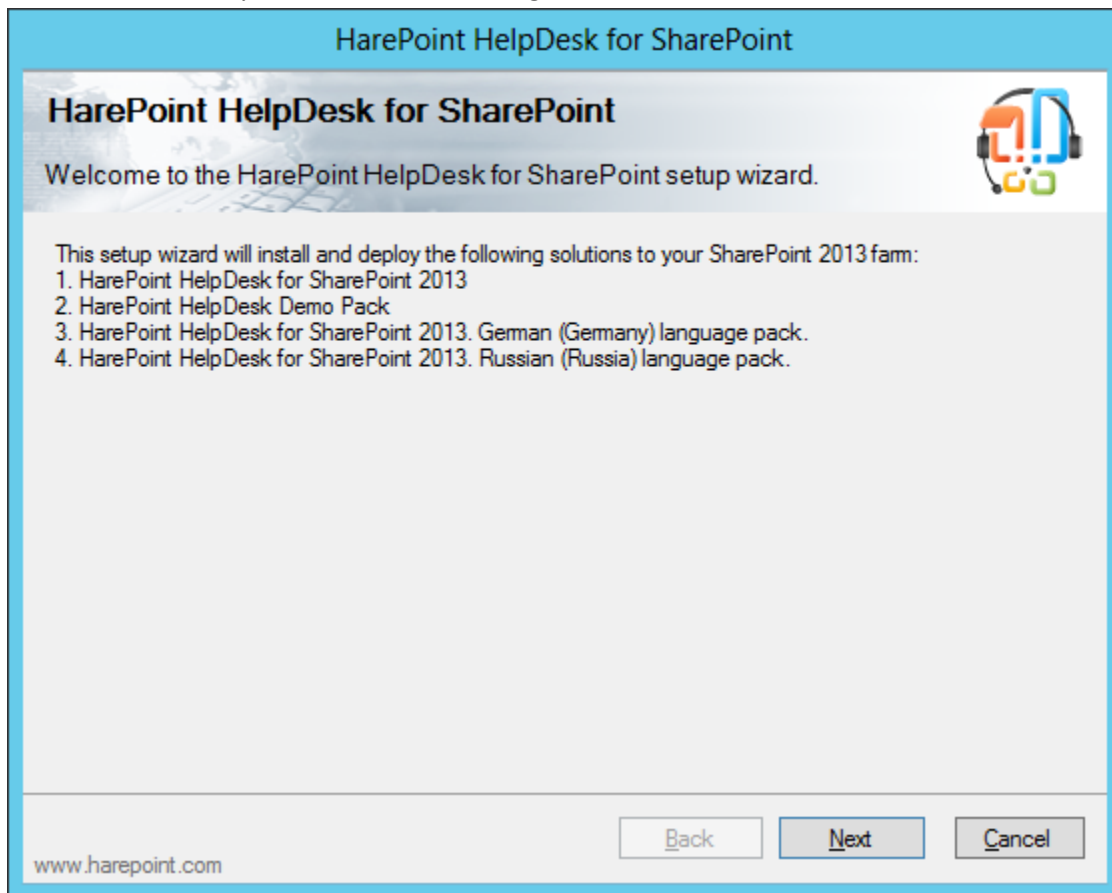
2. At the next step, the installation tool checks the necessary components and permissions to install and deploy the product. If everything is OK you will see the following window:
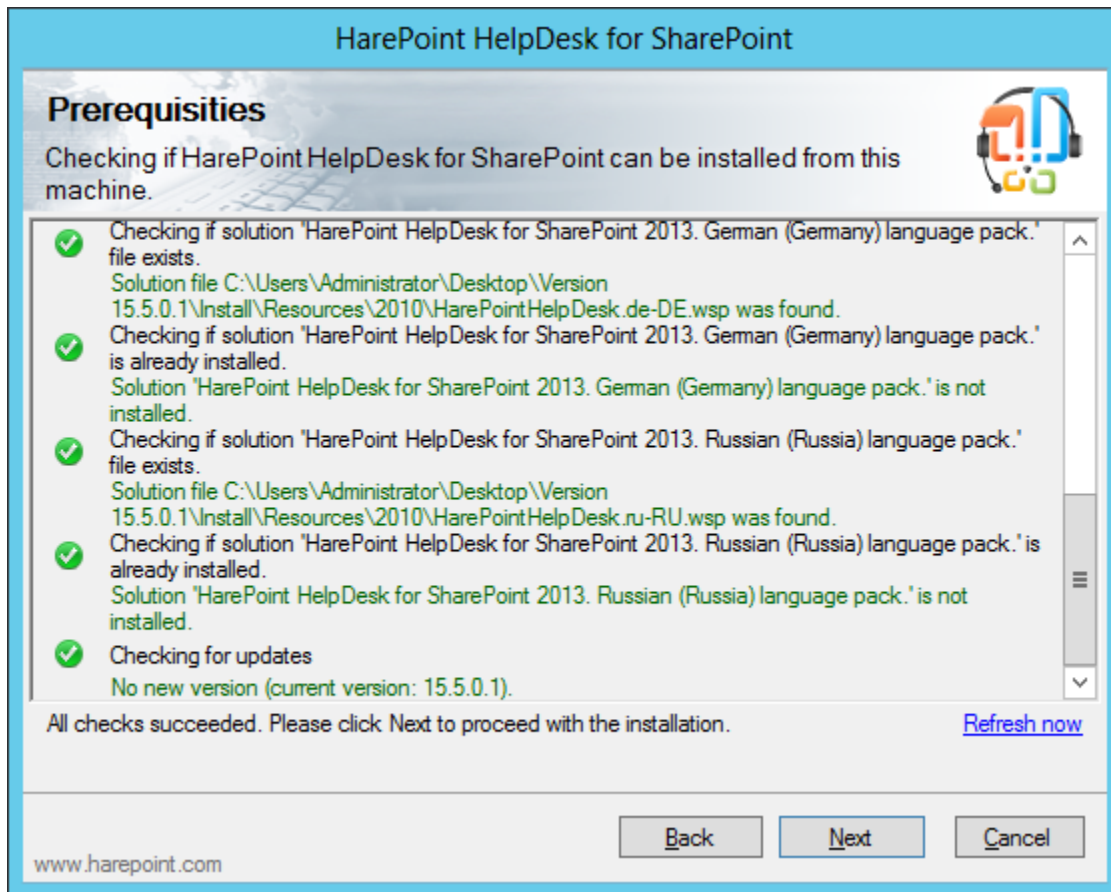
Note: If you see a **red mark** in the list – you should **fix the problem** before continuing the installation.

3. At the next step please read and accept the License Agreement:

4. At the next step you should select the target **Web-applications** and **Site Collections** for the deployment:
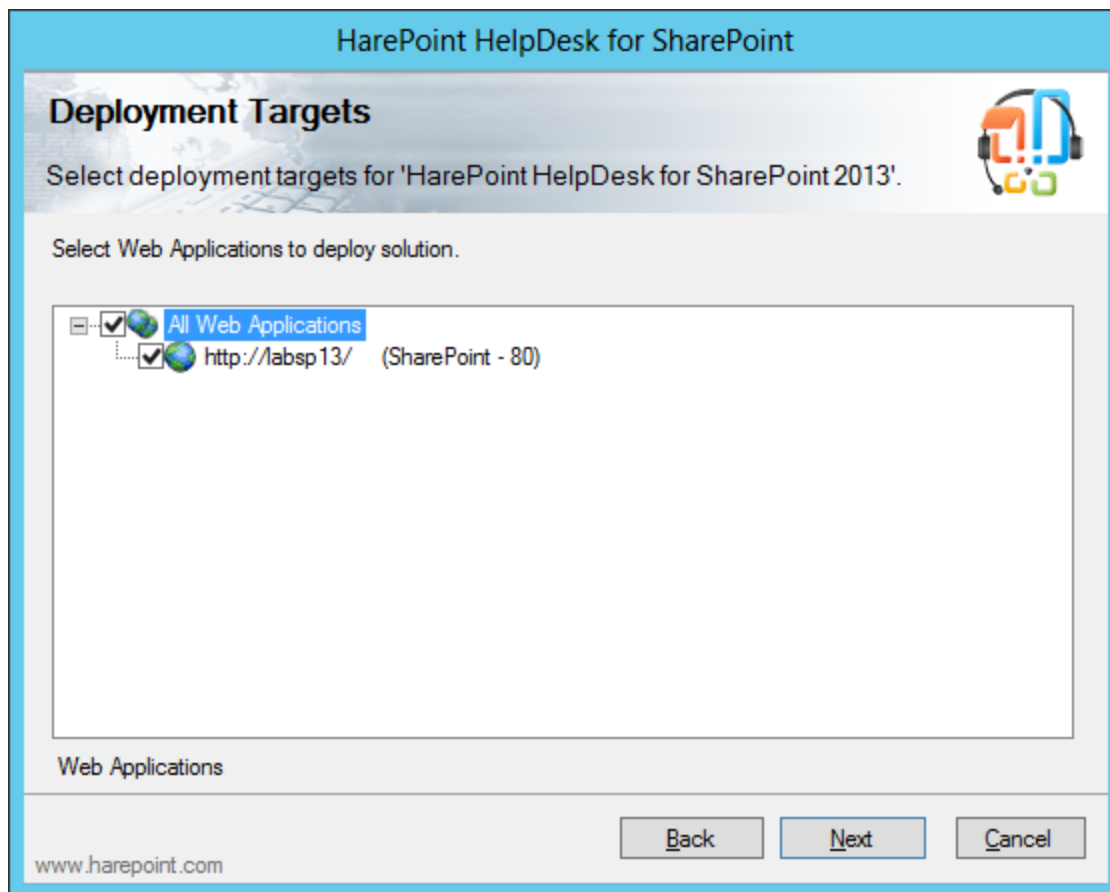
5. At the next step, select the solutions to be installed (the language packs are optional):
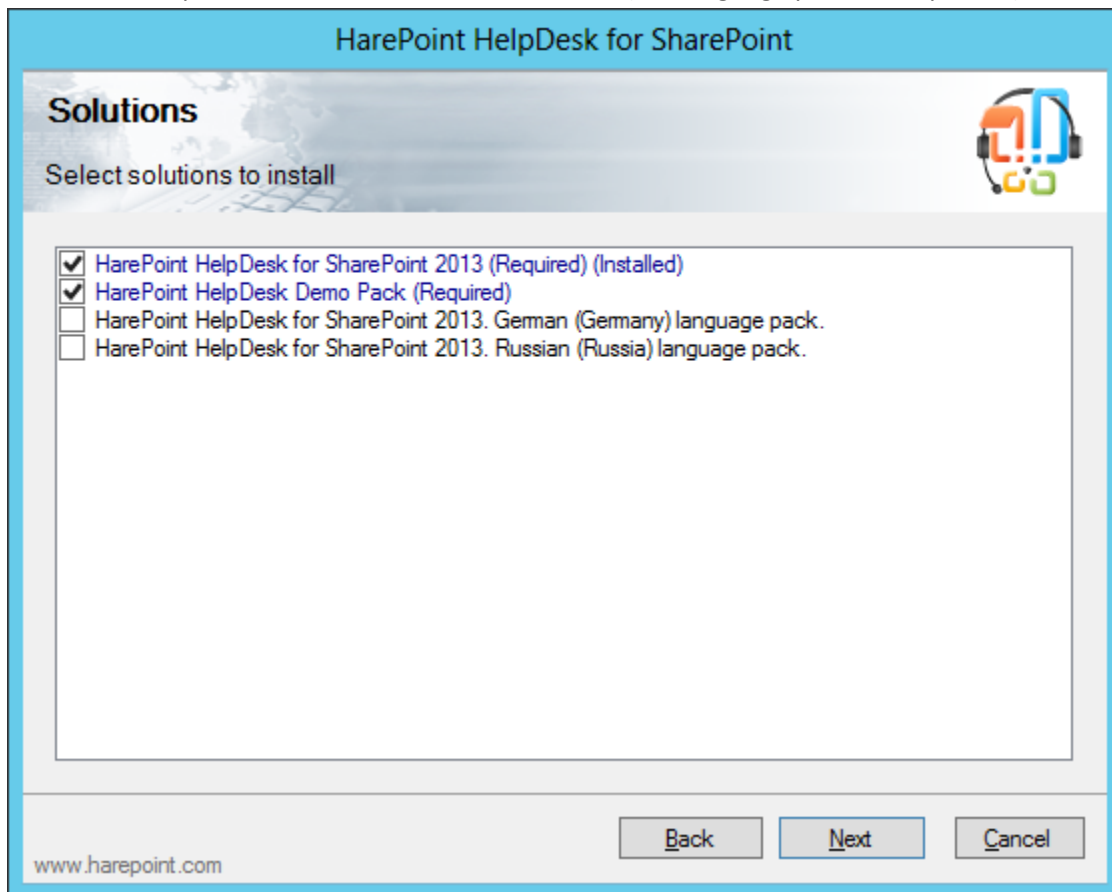
6. When you click **Next** the product **deployment will start** and you will see the window with the progress bar and deployment logs.

7. When the deployment is finished you will see message **Installation completed successfully** below the status bar.
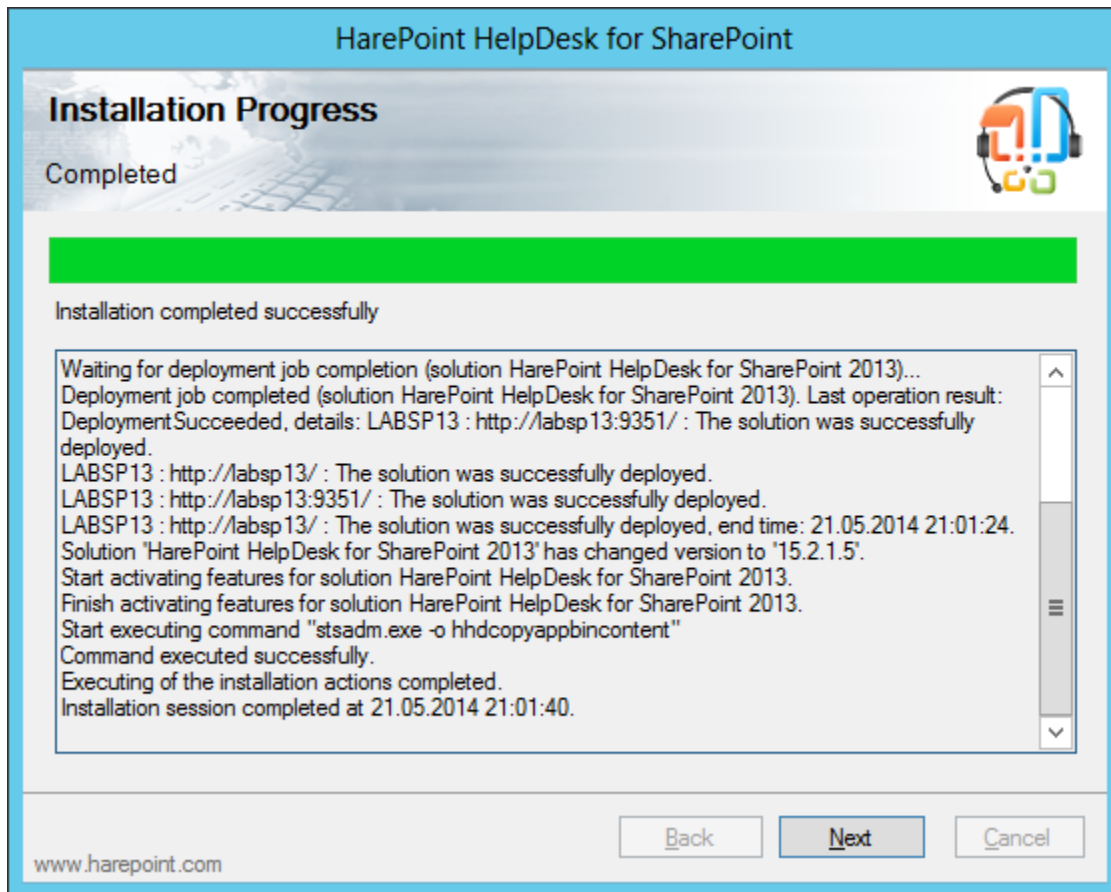
8. Click **Next** and **Finish** to exit the installation tool. The product is now installed and deployed.

V. Upgrading of the product version

We are working permanently to improve the product and we strongly recommend you to use the latest available version of the product.

Important note: Using the procedures described below, it is only HarePoint HelpDesk **solution** that is updated! If you have **existing HarePoint HelpDesk sites**, then to update them you need to **perform additional operations** described in paragraph Updating HarePoint HelpDesk sites.

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Important note: If you are upgrading **from a version 15.5.2.0 or older to version 15.6.0.0 or newer**, please perform these steps **before the upgrade**:

If you are fetching e-mails from external POP3/IMAP server, there are additional steps to be done before you install the upgrade:

a) In your mailbox – remove (or copy to another folder) those e-mails that have already been processed.
b) Empty the **Inbox** library on the HarePoint HelpDesk site.

After the upgrade, perform the following steps:

- Go to **Central Administration – Application Management**
- Click on **Manage Web Applications**
- Click on **required web application** in the list (until that the controls on the ribbon will be inactive)
- Click **Manage Feature** button on the ribbon:
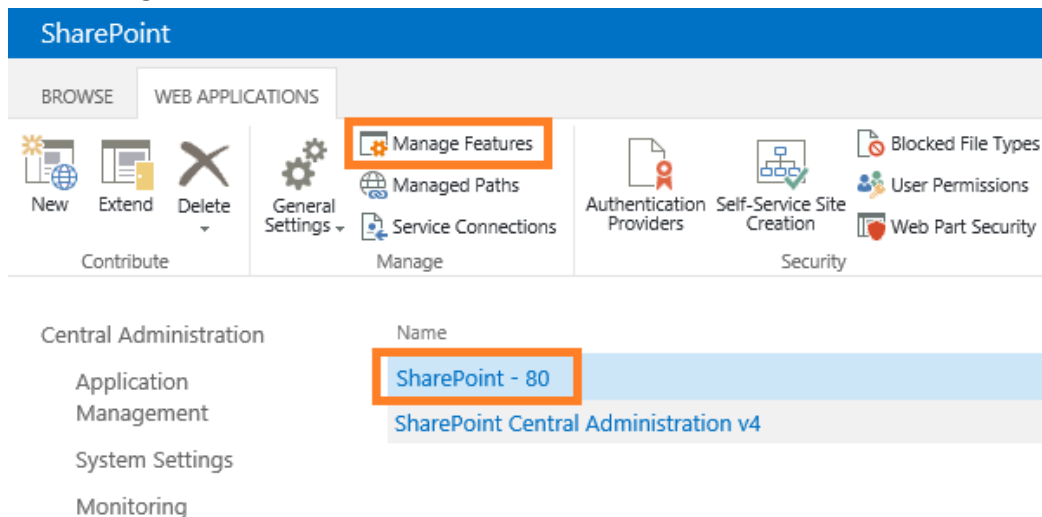
- Deactivate and then activate again **HarePoint HelpDesk WebApplication Timer Jobs** feature:
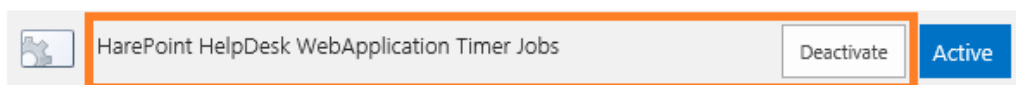
The upgrading is performed by a special tool. To start it click file **Setup.exe**.

1. At the first step, the installation tool checks the installed version of SharePoint:
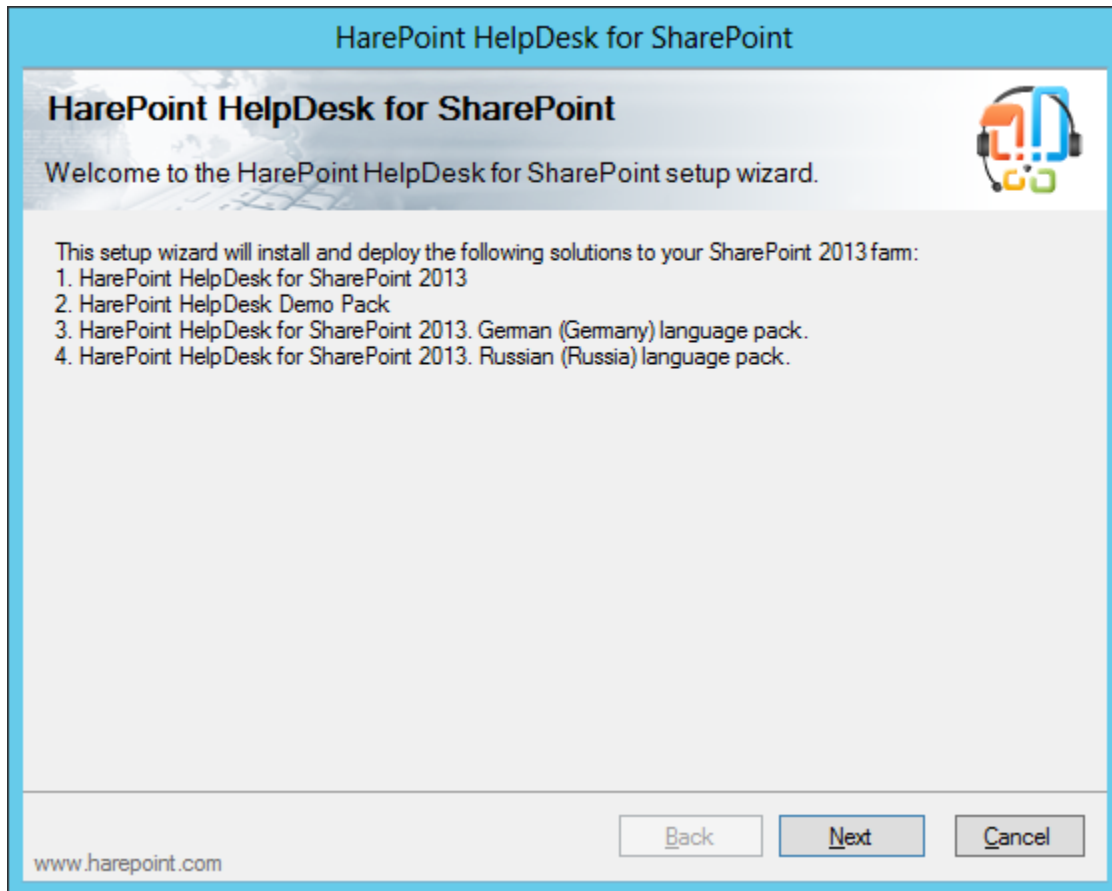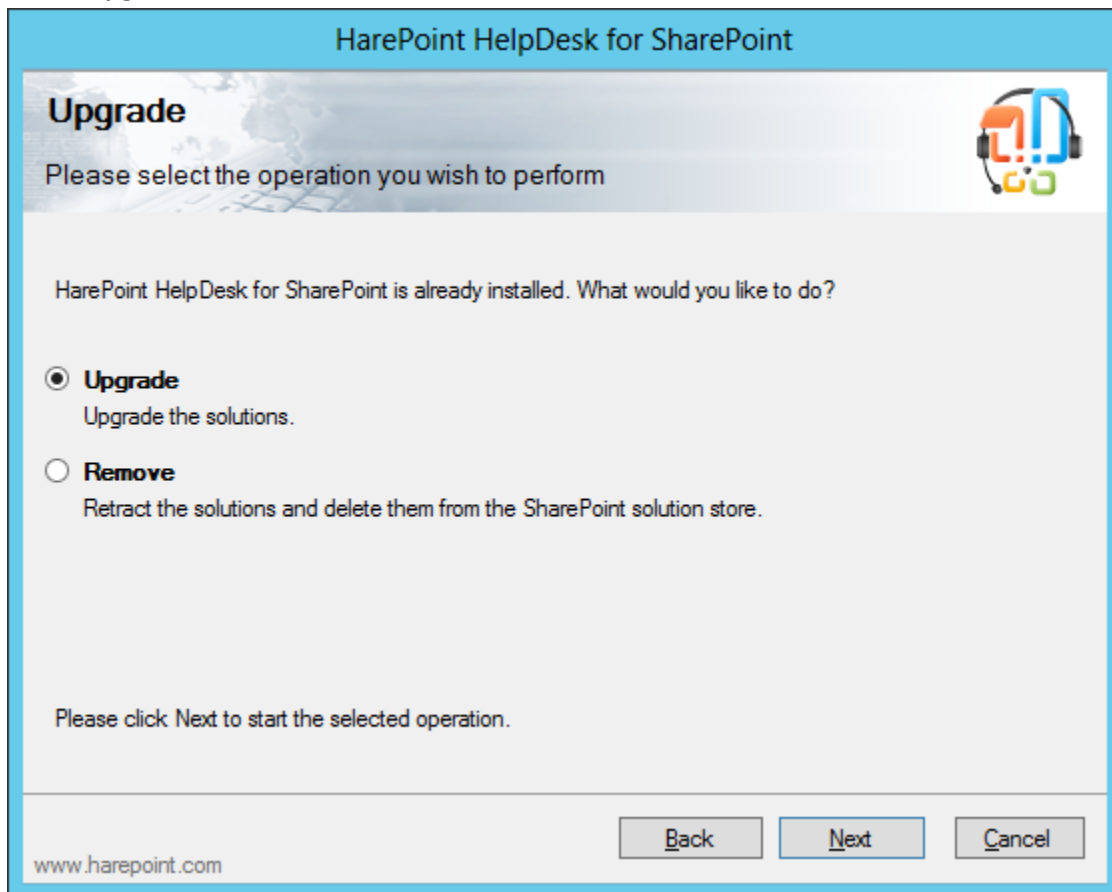
2. At the next step, the installation tool checks the necessary components and permissions to install and deploy the upgraded version of the product.

If everything is OK you will see the following window:
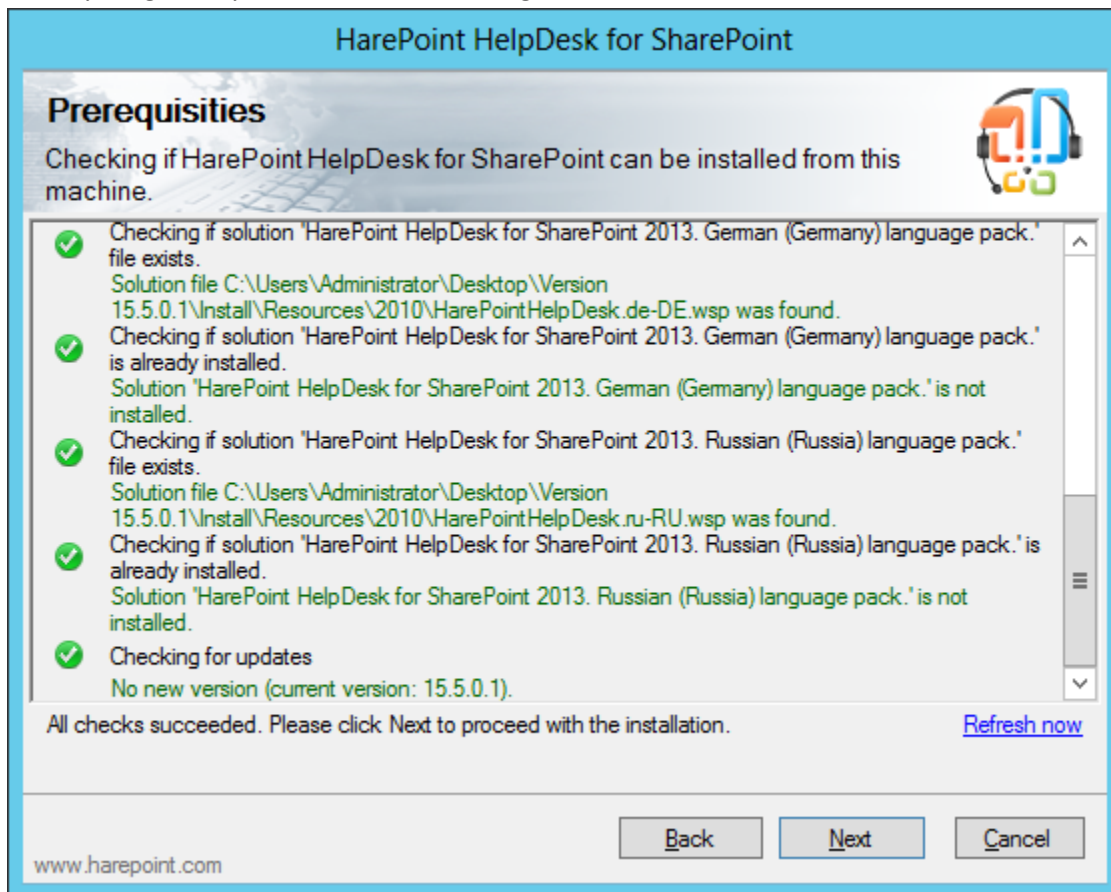
**Note:** If you see **a red mark** in the list – you should **fix the problem** before continuing the upgrade.

3. Select **Upgrade** and click the **Next** button:

4. At the next step, select the solutions to be installed:

5. When you click **Next** the **upgrading process will start** and you will see the window with the progress bar and upgrade logs. Wait until it is completed.

6. When the upgrade is finished you will see message **Installation completed successfully** below the status bar:
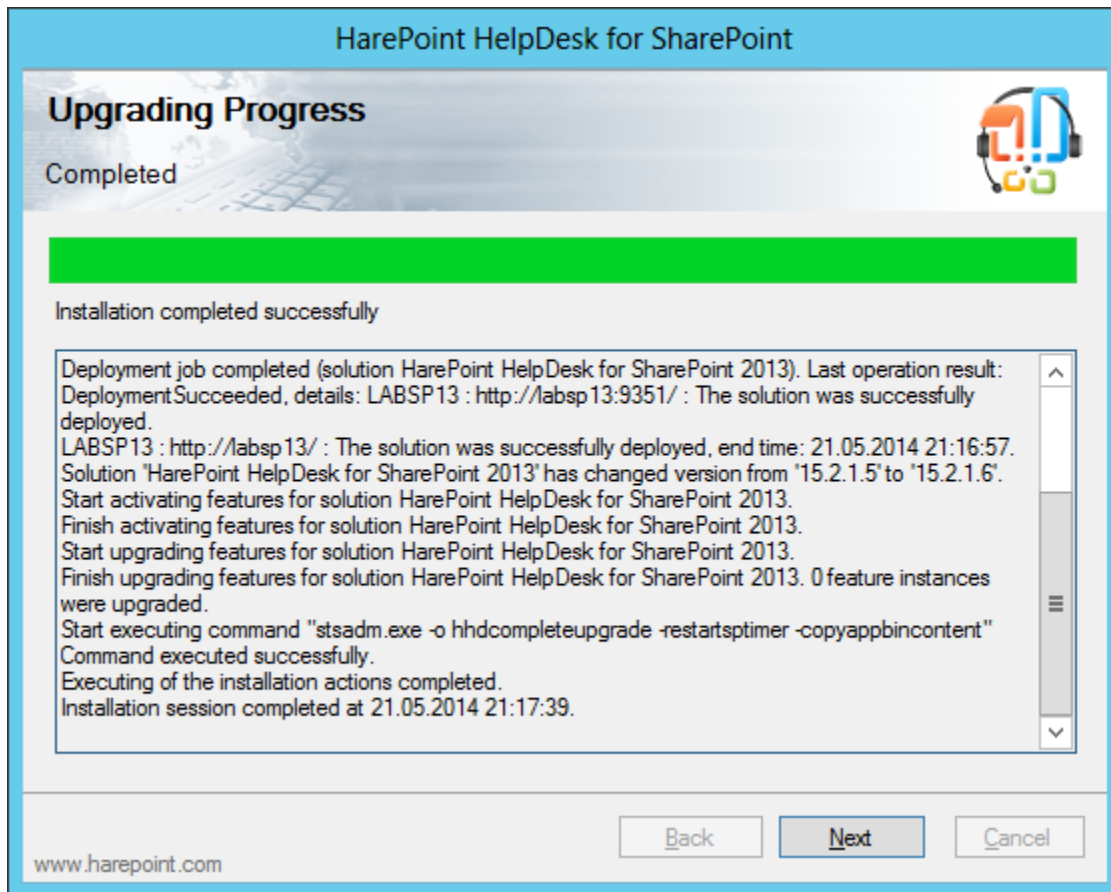
7. Click **Next** and **Finish** to close the wizard. The product is now upgraded.

VI.   Removing the solution

The removing of the product is performed by a special tool. To start it click file **Setup.exe**.

1. At the first step the installation tool checks the installed version of SharePoint:
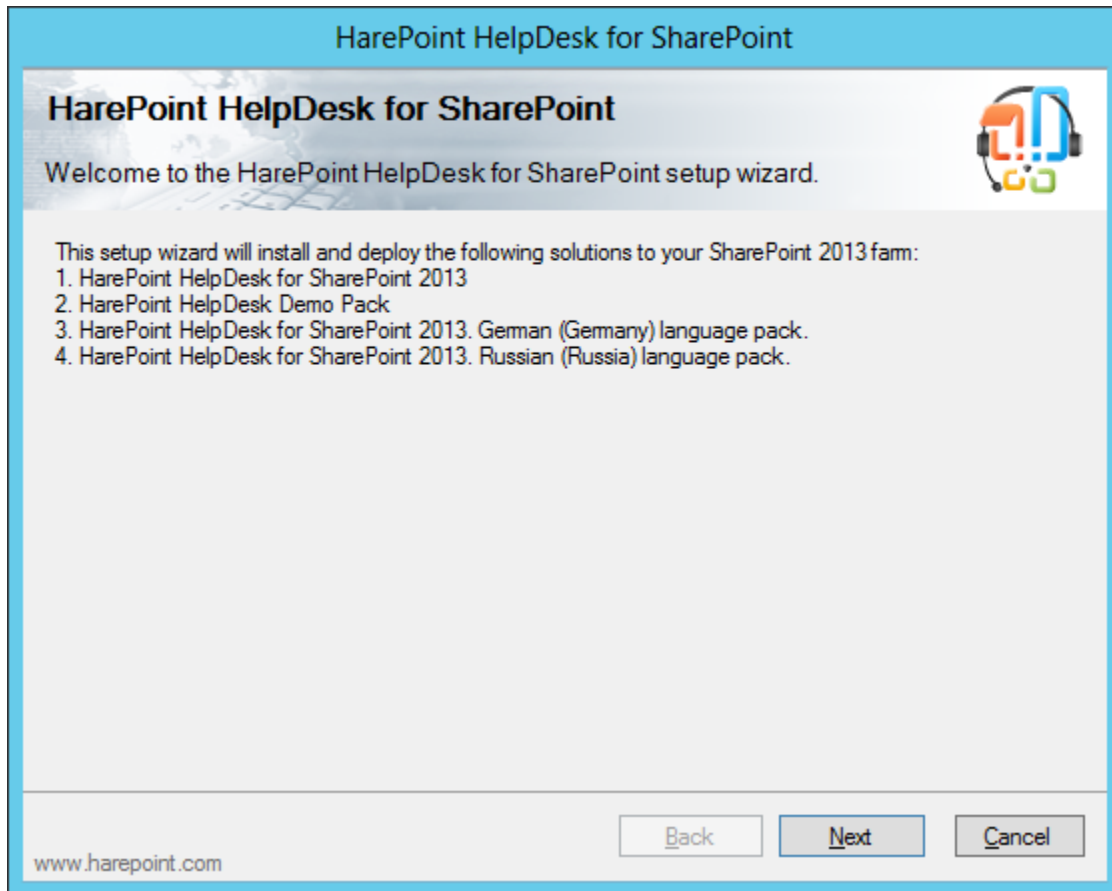
2. At the next step, the installation tool checks the necessary components and the permission to remove the product. If everything is **OK** you will see the following window:
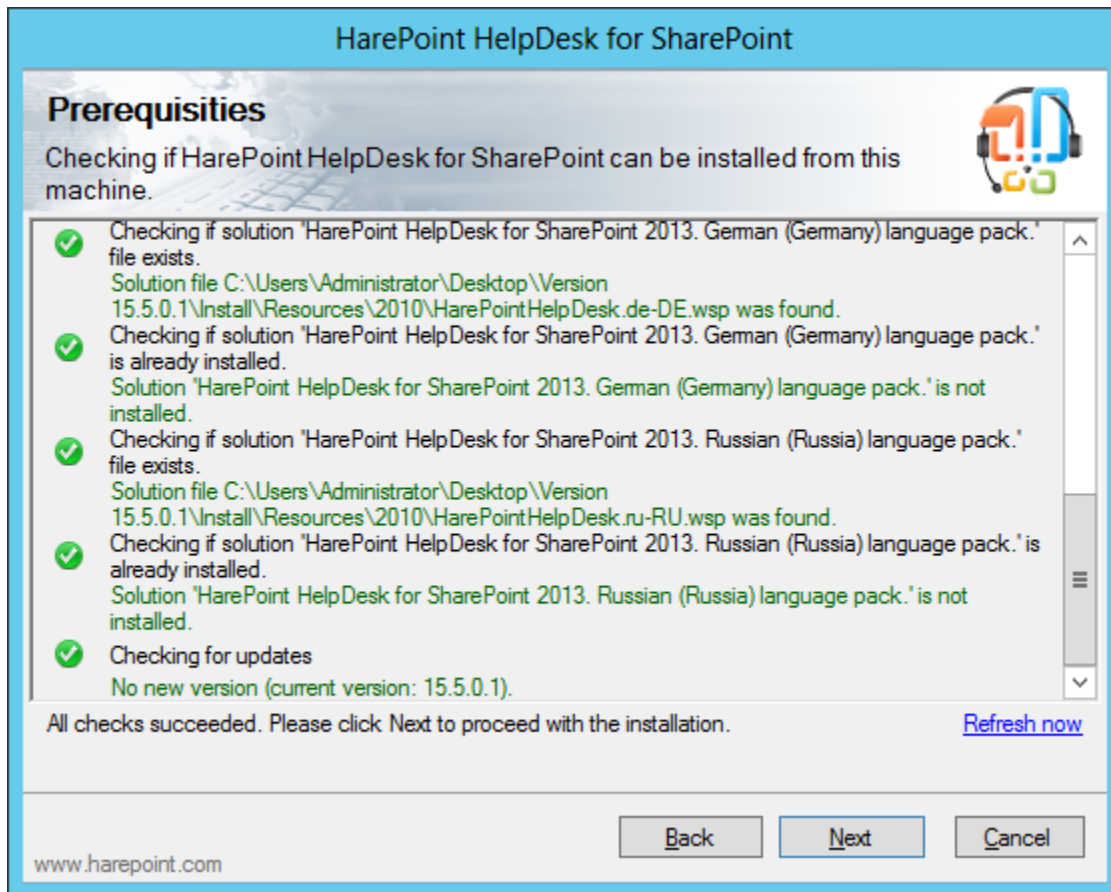
3. Select **Remove** and click the **Next** button:
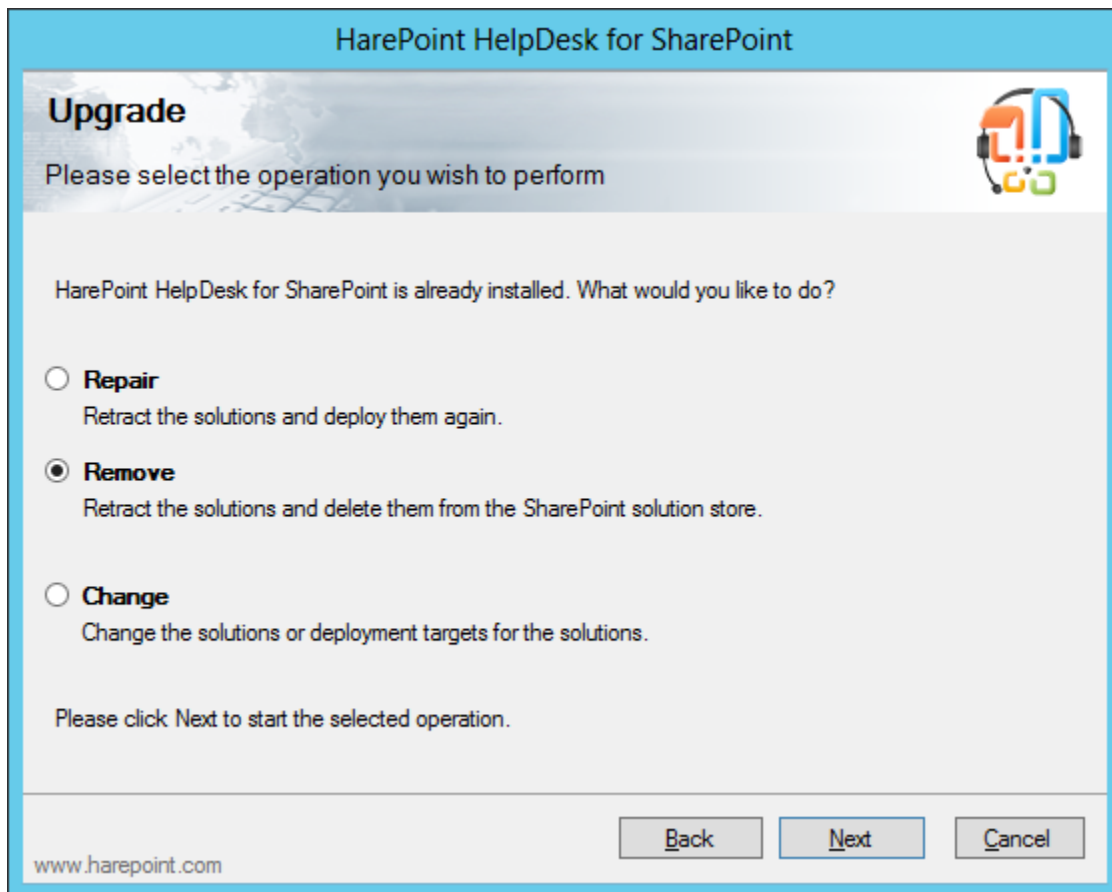
4. When you click **Next** the removing process will start and you will see the window with the progress bar and logs. Wait until it is completed.

5. Click **Next** and **Finish** to exit from the installation tool. The product is now removed.

VII. Using HarePoint HelpDesk Utility
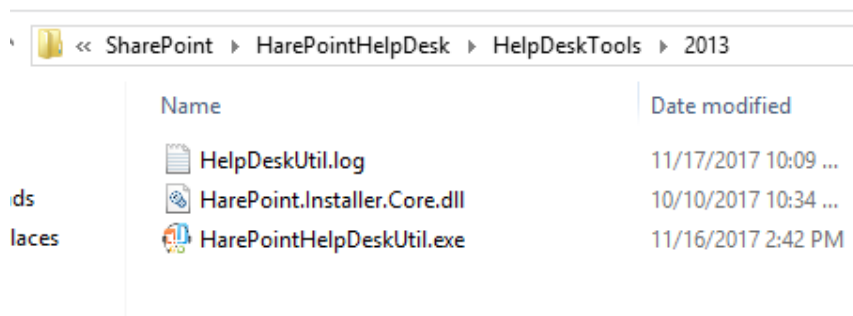
1. Introduction

In order to simplify maintenance and troubleshooting of HarePoint HelpDesk, we have developed a special Utility (**HarePointHelpDeskUtil.exe**). The Utility is available since **version 16.4.0.0** of HarePoint HelpDesk. The Utility allows management of some of the important settings and features of HarePoint HelpDesk without the need to explore the SharePoint interface extensively. Finally, the Utility can verify the key components in SharePoint and in HarePoint HelpDesk installation, and fix the issues if any, when possible.

Utility can be found in the distributive package, under HelpDeskTools\<SharePoint version>\HarePointHelpDeskUtil.exe.

HelpDeskUtil.log file logs how the Utility has been used, as well as any errors occurred in the Utility itself. This log file can be useful for HelpDesk developers team to improve and develop the Utility. When user generates a report on a Report tab, the two other log files are created: **HHDReport.txt** и **HHDLogs.log**

Run HarePointHelpDeskUtil.exe on any of **Web Front-End servers** in your SharePoint Farm.
Note: HarePoint HelpDesk needs to be installed for the Utility to run.

Precaution

Some of the management capabilities available in the Utility, if improperly used, can affect the operation of HarePoint HelpDesk or SharePoint.

Consult HarePoint Support in case if you have any questions.

2. Utility description

General Info tab

General Info tab shows a short but essential summary of the installed HarePoint HelpDesk:
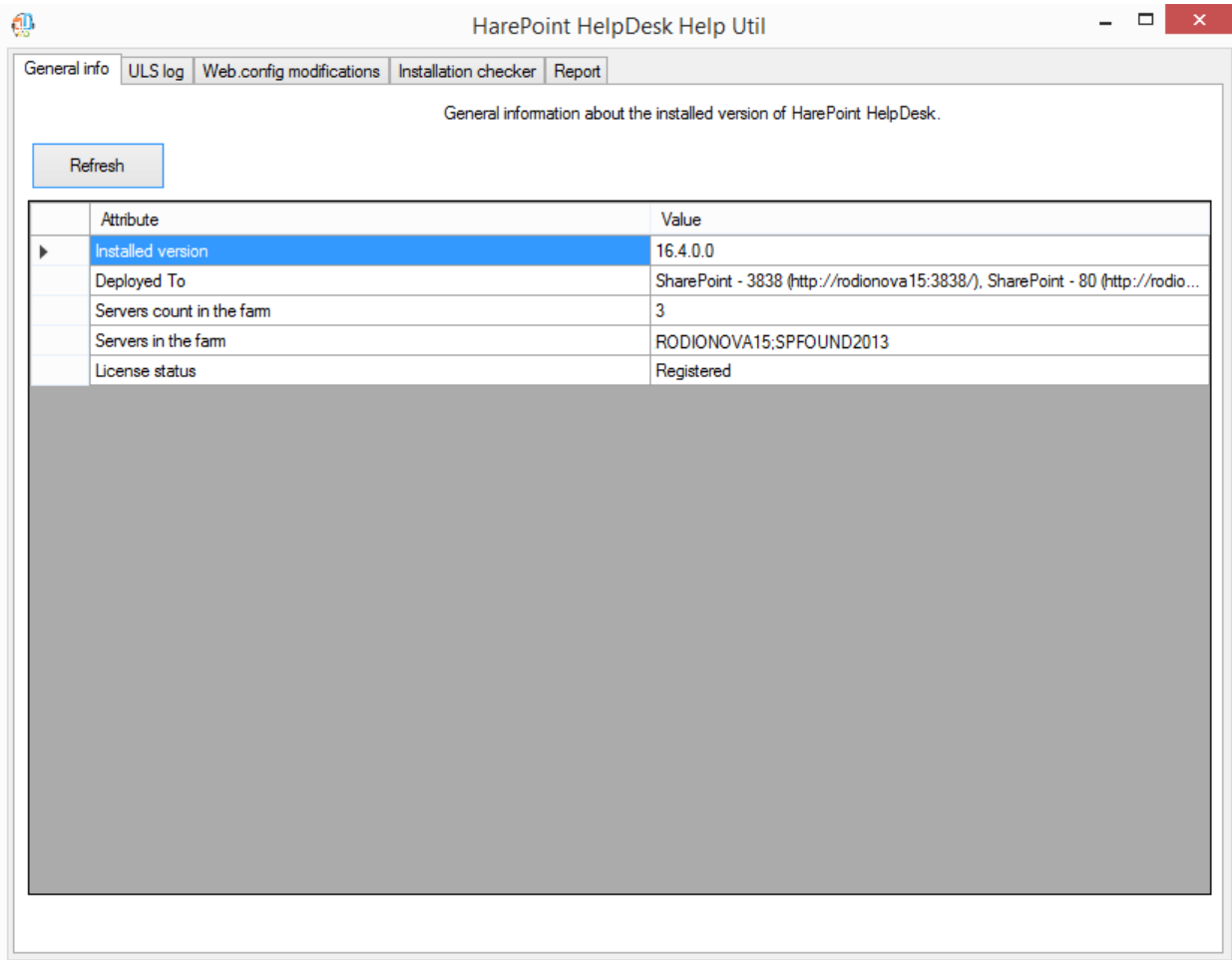
Refresh button – is used to retrieve and display the actual data on this tab.

3. ULS Log tab

On this tab, you can review the ULS log messages from the selected date/time range. It will aggregate messages **from all SharePoint servers** in the case of a multi-server farm.
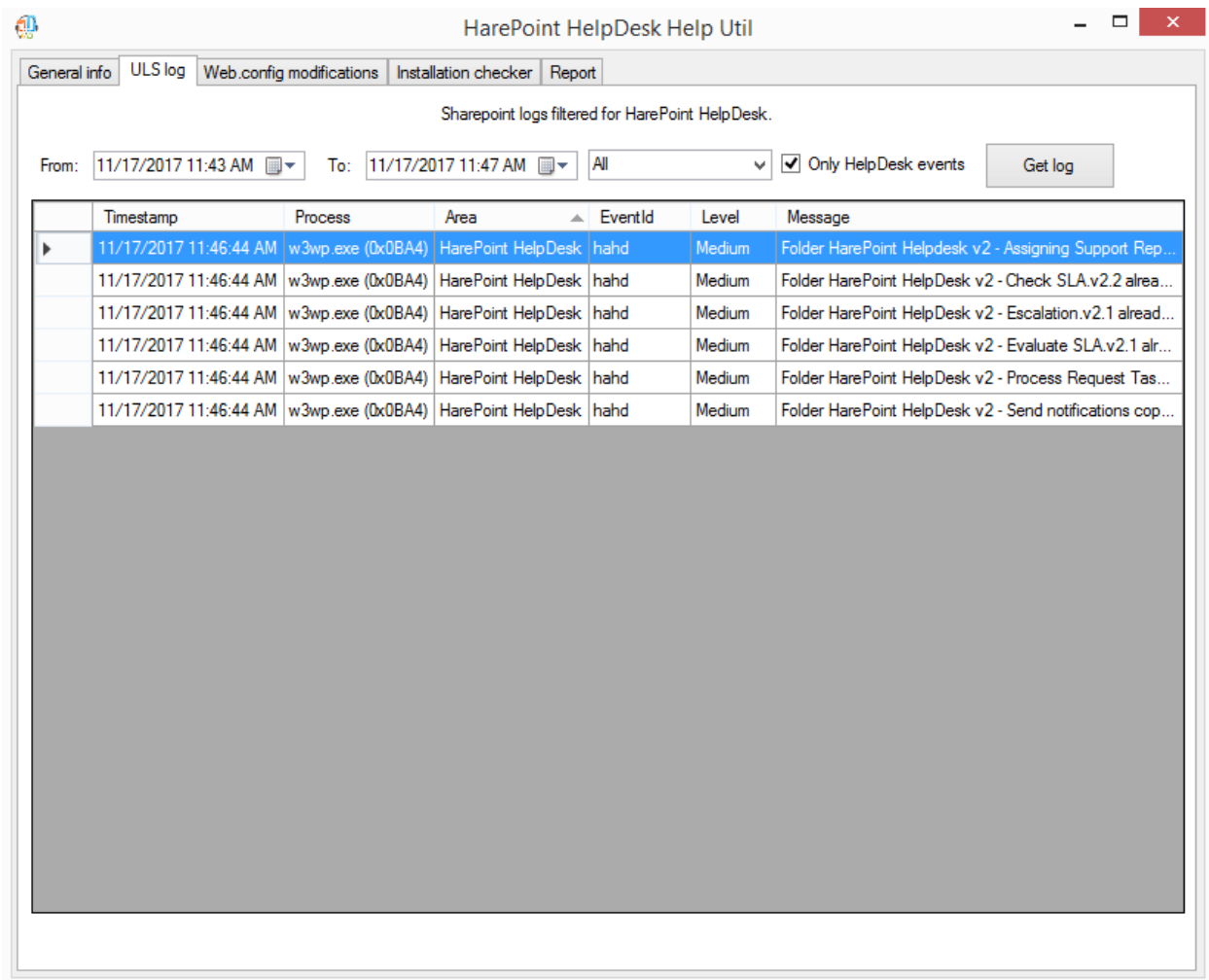
Select **From** and **To** dates and times, as well as the **logging level**.

Select **Only HelpDesk events** option to get only HarePoint HelpDesk specific events. In some cases, however, the issue may be related to SharePoint itself, so it is necessary to deselect this checkbox to see all the events happening at that time.

Click **Get log** button.

Note: Do not select too large a period, as this may take an extremely long time to extract the information, especially on a multi-server farm.

Hover the mouse pointer over the **Message** to see the complete text.
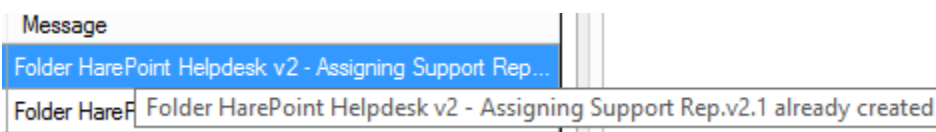
You **can highlight several lines** and then **copy and paste** them to another place.

4.   Web.config modifications tab

On this tab, you can manage the **web.config file** modifications. There are **two modes** available:

- **Global web.config modifications** – makes all necessary changes to SharePoint, so SharePoint automatically updates web.config files.
- **Manual web.config modifications** – in this mode, all changes are made directly to web.config files on the current WFE server.

Use radio buttons to switch between these modes.

Important note: Improper use of the functionality available on this tab can make HarePoint HelpDesk inaccessible and non-functional. Be sure to consult HarePoint Support in case if you have any doubts.

Global web.config modifications mode:

In this mode, all changes are made via SharePoint, so it is the **technically correct method** to do these changes. Web.config files are not touched directly.
You will see a **list of web.config modifications, added by HarePoint HelpDesk**.
You can **Retract all web.config modifications** and **Deploy all web.config modifications** for troubleshooting purposes.

Manual web.config modifications mode:
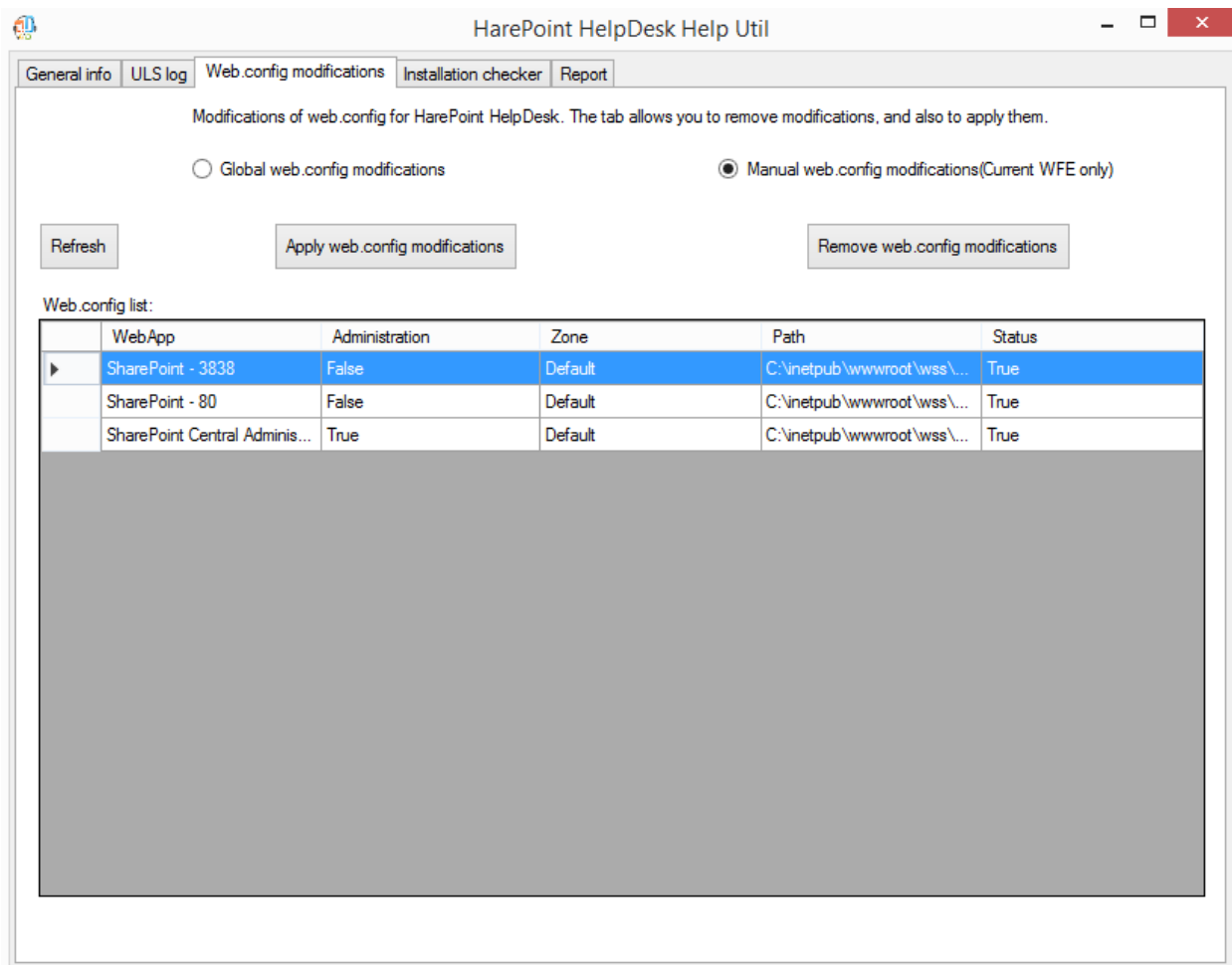
In this mode, all changes are made **directly to web.config files on current WFE**. There are disadvantages to this method from a technical point of view (since normally the web.config file is regenerated by SharePoint upon certain conditions, so the changes made in this mode can be lost), but it is still useful for troubleshooting purposes.

The Utility displays a **list of web applications**. Click **Refresh** if necessary. Select the required web application. You can **Remove web.config modifications**, and **Apply web.config modifications** using the respective buttons.

5.   Installation checker tab

On this tab, you can verify whether all components of HarePoint HelpDesk are installed properly and fix some issues.
Click **Check** to start checking.
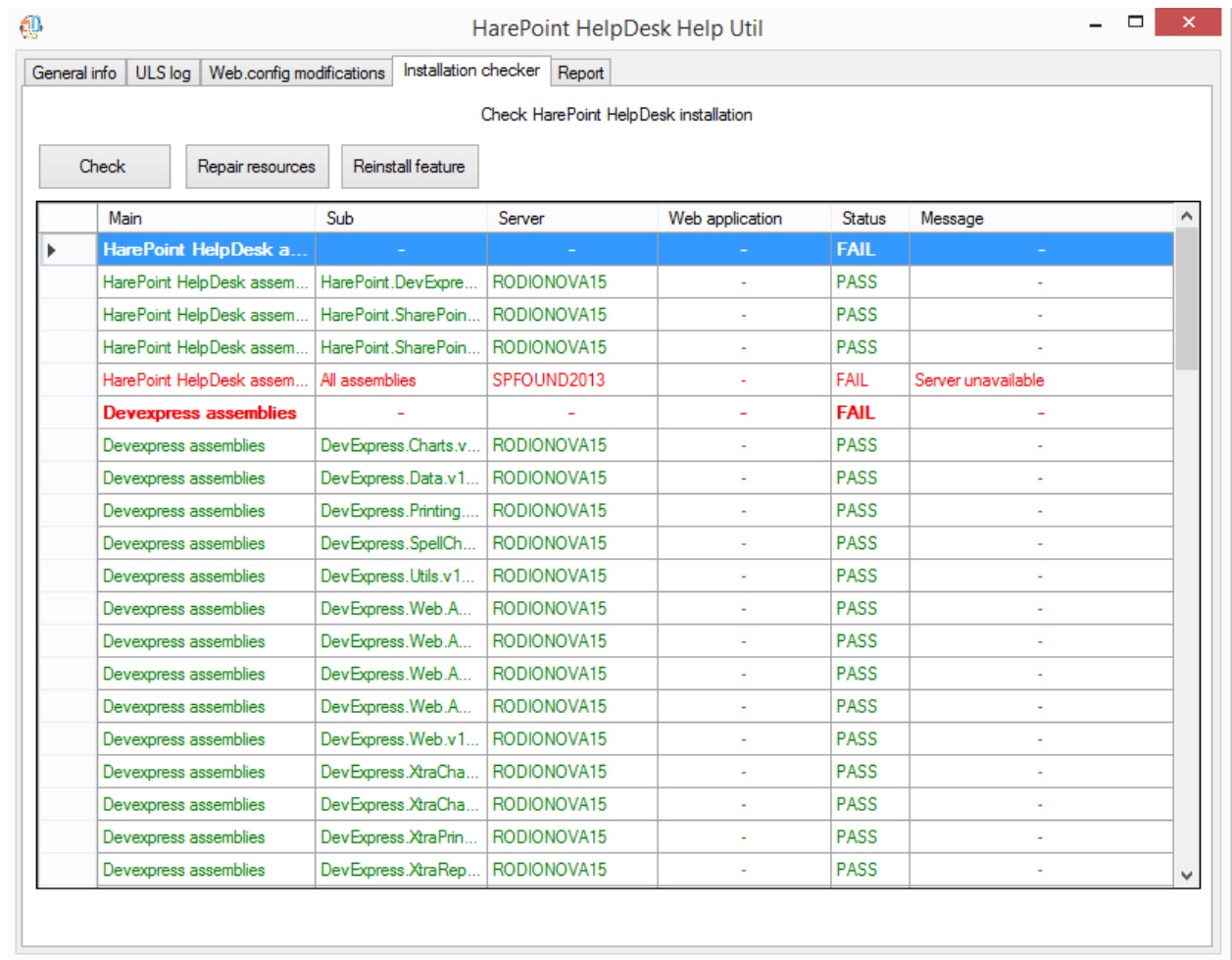
The following components are checked:

- HarePoint HelpDesk Assemblies
- DevExpress assemblies
- HelpDesk configuration
- Solution
- Web.config modifications
- Resource files
- Timer jobs

The components that are OK will have **PASS** status. The missing or improperly installed components will have **FAIL** status.

For more details on how to repair certain components, refer to Steps on how to fix Installation Checker components errors.

For any questions, contact **HarePoint Support.**

6. Report tab

On this tab you can **generate a summary report** based on all or selected tabs of the Utility.

If you plan to contact HarePoint Support, please generate a report with **all options selected** and the ULS log date range set to the period of time during which you have been experiencing issues. This report gives a complete overview of the current situation regarding HarePoint HelpDesk and allows HarePoint Support specialists to identify the reason of the issue and suggest steps to resolve it reasonably quickly.

Select the checkboxes as required. Set the date range in **ULS log** to the period of time when you've been experiencing issues. Avoid setting large date ranges, especially in a multi-server environment, as such reports can take an extremely long time to build. Click **Generate** when ready. Specify the **location** for the report.
The report is saved in two files:
- **HHDLogs.log** – contains the corresponding ULS log file messages
- **HHDReport.txt** – contains the data for all other points on Reports tab.

Zip both files and attach them to your request to HarePoint Technical Support.

VIII.   Quick start

To **start using HarePoint HelpDesk**, at least the following steps are necessary:

1. Creating a HelpDesk sub-site (you can create one or more HelpDesk sites)
2. Configuring access permissions
3. Assigning roles for HarePoint HelpDesk
4. Adding the HarePoint HelpDesk web-part to the corporate website in the location where you want to users to be able to create new requests and to see replies from Technicians.

Note: for more detailed description of these and other steps, please refer to next paragraph VIII. Initial configuration.

1.   Creating a HarePoint HelpDesk website
Note: We advise to create a HelpDesk website as a sub-site in the same site collection where you plan to add the HarePoint Helpdesk web-part.

For SharePoint 2019, SharePoint 2016 and SharePoint 2013:
1. Open the corporate site which is the root site of the site collection
2. Click ⚙ - **Site Contents** – scroll down to the bottom of the page – **new subsite**:

Subsites

⊕ new subsite

3. Use the **HarePoint HelpDesk site template** and fill the following fields:
   - Web Site Title
   - Web Site Address

Site Contents › New SharePoint Site

Title and Description

Title:

HelpDesk

Description:

Web Site Address

URL name:

http://labsp13/ helpdesk

Template Selection

Select a template:

Collaboration   Enterprise   HarePoint

HarePoint HelpDesk

Use this site template to create a HarePoint HelpDesk site.

4. Click **Create** when the fields contain appropriate data and wait while the new HelpDesk site is being created.

For SharePoint 2010:
1. Open the corporate site which is the root site of the site collection
2. Go to **Site Actions** - **New Site**:
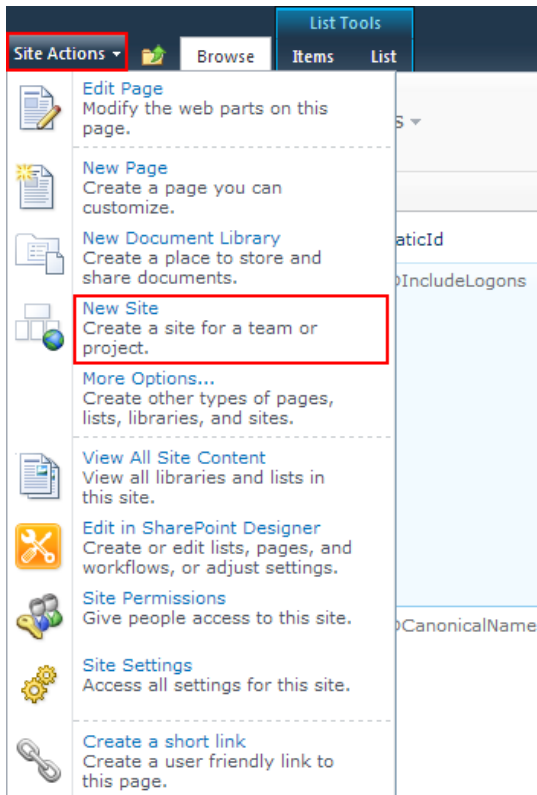
3. Use the **HarePoint HelpDesk template** and fill the following fields:
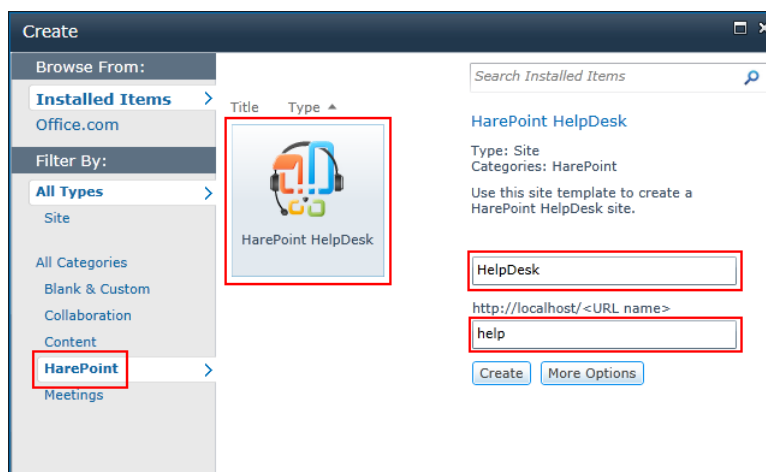
    - Web site Title
    - Web Site Address

4. Click **Create** when the fields contain appropriate data and wait while the new HelpDesk site is being created.

2. Configuring access permissions

By default, the Web Site inherits permissions from the parent Web Site, so you need to configure the permissions only once.

To work with HarePoint HelpDesk requests, **Technicians** must have at least the following permissions:

- **List Permissions**
  - **Add Items** - Add items to lists and add documents to document libraries.
  - **Edit Items** - Edit items in lists, edit documents in document libraries, and customize Web Part Pages in document libraries.
  - **Delete Items** - Delete items from a list and documents from a document library.
  - **View Items** - View items in lists and documents in document libraries.
  - **View Application Pages –** View forms, views, and application pages. Enumerate lists.
- **Site Permissions**
  - **View Pages** - View pages in a Web site.
  - **Open** - Allows users to open a Web site, list, or folder in order to access items inside that container.
  - **Browse User Information** – View information about users of the Web site.

To work with HarePoint HelpDesk requests, **Users** must have the following permissions:

- **List Permissions**
  - **Add Items** - Add items to lists and add documents to document libraries.
  - **Edit Items** - Edit items in lists, edit documents in document libraries, and customize Web Part Pages in document libraries.
  - **Delete Items** - Delete items from a list and documents from a document library.
  - **View Items** - View items in lists and documents in document libraries.
- **Site Permissions**
  - **View Pages** - View pages in a Web site.
  - **Open** - Allows users to open a Web site, list, or folder in order to access items inside that container.

To work with HarePoint HelpDesk requests, **Viewers** must have the following permissions:

- **List Permissions**
  - **View Items** - View items in lists and documents in document libraries.
  - **View Application Pages -** View forms, views, and application pages. Enumerate lists.
- **Site Permissions**
  - **View Pages** - View pages in a Web site.
  - **Open** - Allows users to open a Web site, list, or folder in order to access items inside that container.
  - **Browse User Information** – View information about users of the Web site.

In order to **create the specified set of permissions**, perform the following steps:

1. Go to **Site Settings,** in **Site Collection Administration** click **Go to top level site settings:**

   Site Collection Administration
   Go to top level site settings

2. In section **Users and Permissions** click **Site permissions**.

   Users and Permissions
   People and groups
   Site permissions
   Site collection administrators
   Site app permissions

3. On page **Permissions** click **Permission Levels**.

4. Create a new **Permission Level** for each group and select the permissions **as stated above**.

Use the created **Permission Levels** when creating access permissions for groups of **Users**, **Technicians** and **Viewers**.

3.   Assigning roles for HarePoint HelpDesk

Before you start using HelpDesk, you need to assign roles – who will act as a **User**, and who will act as a **Technician**.

To do this, access the **HelpDesk settings** either way:

- Click the **Configure Product** icon on the HelpDesk main page:

Configure product

Or

- Go to **Site Settings**
- In section **HarePoint HelpDesk for SharePoint** click link **Settings**

HarePoint HelpDesk for SharePoint
Requests
Requests (Mobile view)
Reports designer
Built-in reports
Settings
About
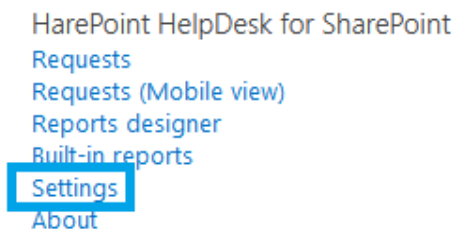
On the **Settings** page, click **Specify Technicians, Users and Viewers** link from **Users and Accounts** category:

Users and Accounts
Specify Technicians, Users and Viewers
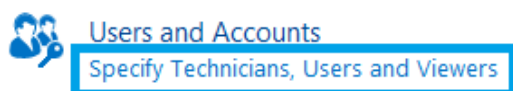
Specify in these fields who will act as a **Technician**, and who will act as **User.** Optionally you can specify **Viewers**:

(take into account each of the group need to have appropriate permissions – use the previously created Permission Level for them, as described above)

HelpDesk Test

HarePoint HelpDesk Settings · Specify Technicians, Users and Viewers ⓘ

Technicians

Specify users for Technician role of HarePoint HelpDesk. These users can view all Requests in the helpdesk and reply to them, create new Requests on behalf of other users, and assign or re-assign a responsible Technician to the Request.

You have to specify SharePoint users or groups. They must have List Permissions (Add Items, Edit Items, Delete Items, View Items, View Application Pages) and Site Permissions (View Pages, Open, Browse User Information) on the HarePoint HelpDesk site. Groups from the Active Directory cannot be added directly; they should be placed in a corresponding or otherwise appropriate SharePoint Group.

User/Groups:

AVM-SP2013\administrator;

Users

Specify users for the User role of HarePoint HelpDesk. These users can create new Requests in the helpdesk on their own behalf, receive notification of replies to their Requests, and close their Requests.

You have to specify SharePoint users or groups. They do not have to have permissions to access the HarePoint HelpDesk site, but they should have permissions to access one or more pages with the HarePoint HelpDesk Web-Part. Groups from the Active Directory cannot be added directly; they should be placed in a corresponding or otherwise appropriate SharePoint Group.

User/Groups:

AVM-SP2013\test1; AVM-SP2013\test2; AVM-SP2013\test3; AVM-SP2013\mandrews;

Viewers

Specify users for the Viewer role of HarePoint HelpDesk. These users can only view HelpDesk data(Requests, Report Dashboard, etc.).They can't make any changes in Requests and other build-in lists even if granted full control permissions. You can specify SharePoint users or groups. Make sure they have at least the following permissions: List Permissions - View Items, View Application Pages;Site Permissions - View pages, Browse User information, Open.

The access is not restricted to custom lists and libraries of HelpDesk site. Groups from the Active Directory cannot be added directly; they should be placed in a corresponding or otherwise appropriate SharePoint Group.

User/Groups:

Note: AD groups cannot be added directly; first a SharePoint group need to be created, where you can add the AD group. Then this SharePoint group can be added to this field.

4.   Deploying demo data

Note: This step is optional and **can be skipped**.

It is possible to deploy demo data to newly created HelpDesk site so you can quickly test and explore the features of HarePoint HelpDesk.
The deployment and structure of demo data are **described in details** in Demo data.

Note: Demo data cannot be deployed if this HelpDesk site already contains requests, so demo data will not mix with the existing actual data. Create a new HelpDesk site to deploy demo data in this case.

Click the icon **Deploy demo data** on the main page of HelpDesk site:

Deploy demo data

In the next step, if you haven't assigned roles for HelpDesk yet as described in Assigning roles for HarePoint HelpDesk, you will be asked to assign them now. This will be transferred to HelpDesk settings. Click **Next** when finished.

Demo data deployment will start. It may take several minutes. When the process is complete, you will see the following message:

Demo data have been successfully deployed

View created requests in the Technician dashboard.
The user console is located at http://avm-sp2013/HelpDesk/Support.aspx.

Now you can go to **Technician Dashboard** or **User Console** to view the demo requests and test the HelpDesk features.

5. Adding the HarePoint HelpDesk web-part

Web-part is used to allow **Users** to create new Requests and to see the replies provided by **Technicians**. **Users** can see **their own requests only**.

To add the HarePoint HelpDesk web-part to a page:

1. Open the required page in a browser or create a new one, and then switch that page into **Edit mode** using the **Page** tab and the **Edit Page** button:
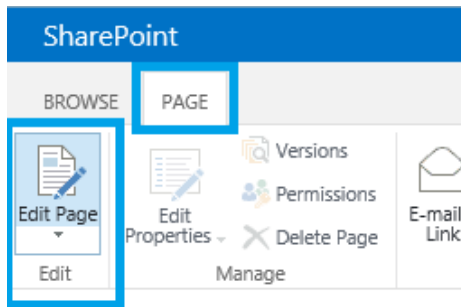
2. Click the area where the web part should be added and navigate to the **Insert** tab on the ribbon, then click the **Web Part** button
3. Scroll the list to HarePoint group of the web parts and select **HarePoint HelpDesk Web Part**
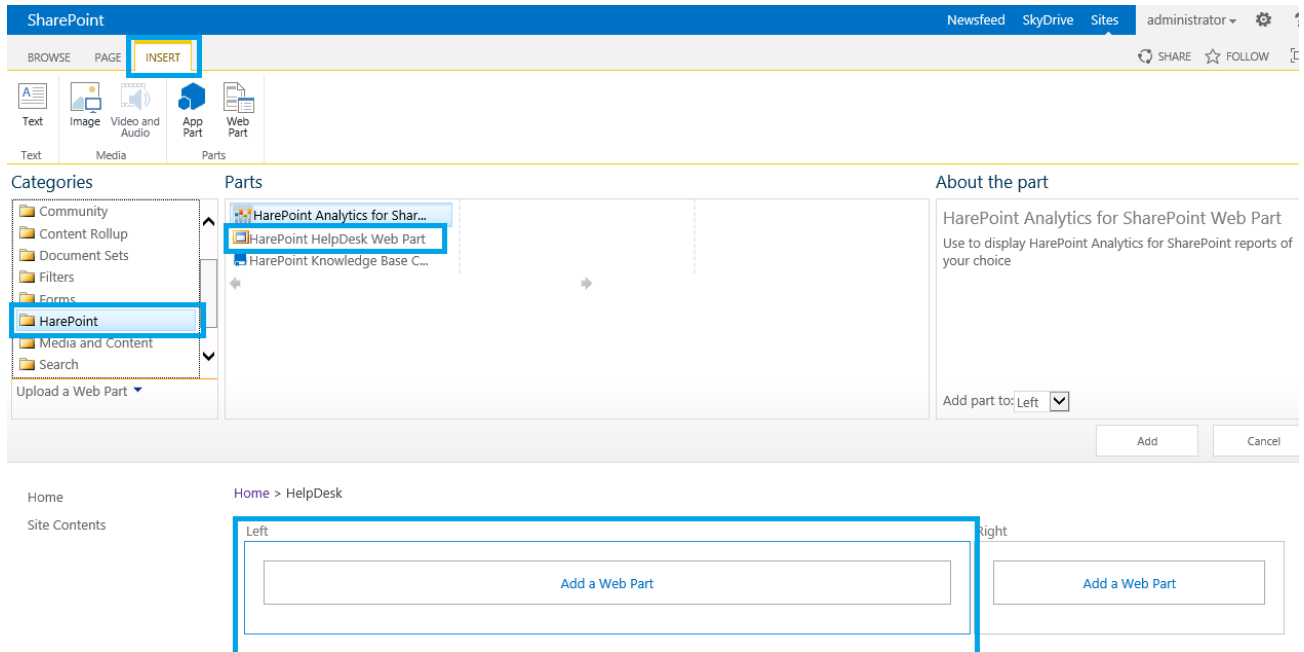
4. Click **Add** button.
5. The web-part is added to the web-page and now should be configured. The most important setting is the **URL of the HarePoint HelpDesk web-site**, because you need to connect the web-part to the required HelpDesk web-site:
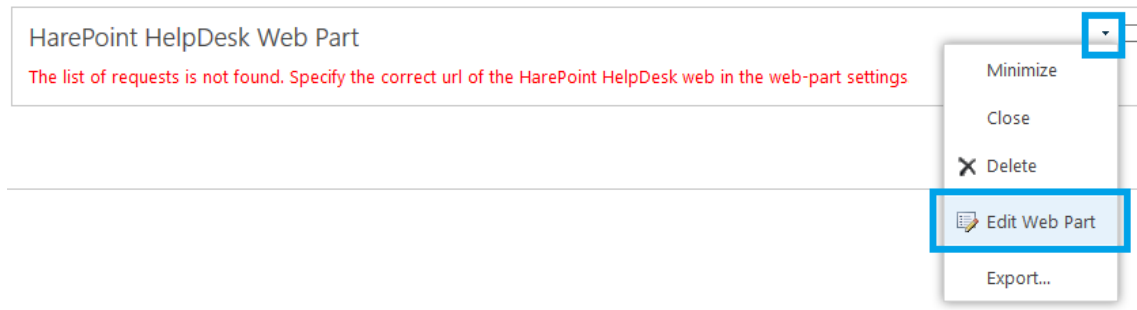
Type the URL of the HarePoint HelpDesk sub-site that you have created, or make sure the specified URL is correct:
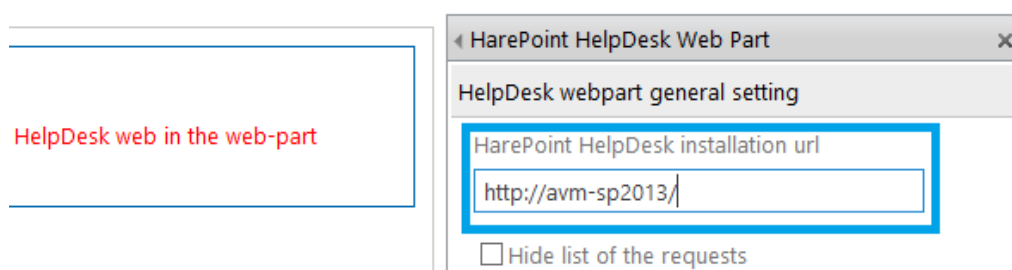
Note: changes are not applied until **Save** button is clicked

6. Click **OK** to finish the configuration of the web-part and save the changes made on the page by clicking **Save & Close** button on the **Page** tab in the ribbon.

As soon as web-part is successfully configured, you can **log in as a HelpDesk User** and **create a new request** by clicking **Create Request** button:

HarePoint HelpDesk Web Part

ID	Subject	Product	Status	Created	Commented By
7	test without field	HarePoint Workflow Extensions	Open	5/23/2014 11:16 AM	
6	Test of new field	HarePoint Analytics for SharePoint 2013	Open	5/23/2014 9:40 AM	
5	Test	HarePoint HelpDesk	Open	5/23/2014 9:23 AM	Administrator
4	Ticket #2	HarePoint HelpDesk	Resolved	5/23/2014 9:11 AM	Administrator
3	Test ticket #1	HarePoint HelpDesk	Open	5/23/2014 9:00 AM	

Create request

6. Using HarePoint HelpDesk

Requests

Users interact with HelpDesk using the **User Console**, which is technically a **web part** that you can place on a convenient page of a site collection:

They can view a list of their own requests, and create new requests.

Technicians and **Viewers** interact with HelpDesk using **Technician Dashboard**.
It is possible to access **Technician Dashboard** to see the list of created requests either way:

- Click the Technician Dashboard icon on HarePoint HelpDesk site:

Technician dashboard

Or

- Go to **Site Settings**
- In section **HarePoint HelpDesk for SharePoint** section click the link **Requests**

HarePoint HelpDesk for SharePoint
Requests
Requests (Mobile view)
Reports designer
Built-in reports
Settings
About

In **Technician Dashboard** Technicians can view requests and to reply to them; Viewers can only view requests:

Note: By default, **Unanswered Requests** view is used, so only opened Requests that were not answered by Technician are displayed. To see all Requests, switch to **All Items** view in the **Requests** menu in the left pane:

Since version 16.8, a **mobile web page for Technicians Dashboard** is available under http://<helpdesk>/_layouts/HarePoint/HelpDesk/Requests/RequestsMobile.aspx link.

Also, there is a separate link in HarePoint HelpDesk section in Site Settings:

HarePoint HelpDesk for SharePoint
Requests
Requests (Mobile view)
Reports designer
Built-in reports
Settings
About

Reports dashboard

To access reports dashboard:

- Go to **Site Settings**
- In section **HarePoint HelpDesk for SharePoint** click **Built-in reports** link

HarePoint HelpDesk for SharePoint
Requests
Requests (Mobile view)
Reports designer
Built-in reports
Settings
About

Overview
Requests trends
Trends by day
Trends by priority
Trends by category
Trends by product
Trends by responsible
Trends by users

Resolution reports
Resolution by priority
Resolution by category
Resolution by product
Resolution by responsible

Response time
Response time by priority
Response time by category
Response time by product
Response time by responsible

SLA Violations
SLA Violations by priority
SLA Violations by category
SLA Violations by product
SLA Violations by support group
SLA Violations by responsible

Responsible ↓	Opened	Resolved	Not responded	Due today	Overdue	All requests
Not Assigned	1	0	1	0	0	1
MAPILab\Sharanov	0	0	1	0	0	1

Status ↓	All requests
Resolved	0
Open	1
On Hold	1
Closed	0

Priority ↓	Opened	Resolved	Not responded	Due today	Overdue	All requests
Urgent	0	0	0	0	0	0
Medium	0	0	0	0	0	0
Low	1	0	2	0	0	2
High	0	0	0	0	0	0

Category ↓	Opened	Resolved	Not responded	Due today	Overdue	All requests
Upgrade service	0	0	0	0	0	0
Technical support	0	0	0	0	0	0
Sales Department	0	0	0	0	0	0
Not Selected	1	0	2	0	0	2
Monitoring system	0	0	0	0	0	0
Installation issues	0	0	0	0	0	0
Client service	0	0	0	0	0	0

Product ↓	Opened	Resolved	Not responded	Due today	Overdue	All requests
Not Selected	1	0	2	0	0	2

Overdue request ↓	Author	Responsible	Created	Due day	Replies
No data to display					

The reports in this dashboard allow you to analyze the number of requests, response times and resolution periods. There are also reports that show the number of requests resolved in violation of their SLA.

In the reports, it is possible not only view the number of requests, but also to see a list of related requests using the **drill-down option**.

Note: later versions of HarePoint HelpDesk Standard Edition include an advanced reporting mechanism – **Reports Designer.** An initial configuration is needed to be able to use it - please refer to Reports Designer chapter for more details.

To learn more about using HarePoint HelpDesk please refer to HarePoint HelpDesk User Guide.

IX. Initial configuration

The process of product configuration can be represented by the following steps:

1.
2.
3.
4.
5.

1. Creating a HarePoint HelpDesk Web site

When HarePoint HelpDesk is deployed to the SharePoint farm, a new template of the **HarePoint HelpDesk** site is available.

For SharePoint **2019**, SharePoint **2016** and SharePoint **2013**:

For SharePoint **2010**:

The creation of a HarePoint HelpDesk site is performed exactly the same way as creation of any other site – just select the **HarePoint HelpDesk** template, enter the site name and address and click **Create**.

The site created in this a way is actually a simple SharePoint site which has **HarePoint HelpDesk feature** enabled.

Note: HarePoint HelpDesk feature can also be activated on any existing site. However, be aware that this may lead to a **conflict in names of lists and libraries** created during the feature activation.

Important note: HarePoint HelpDesk site template is designed to create a **site within an existing site collection**. **Do not use it to create a site collection!** If still HelpDesk site is required to be a root site in a site collection, then first create a site collection using a standard simple template, then activate **HarePoint HelpDesk** site feature on it.

HarePoint HelpDesk performs the following operations during the **feature activation**:

1. Creation of HarePoint HelpDesk lists.
2. Creation of event handlers for site lists.
3. Creation and activation of HarePoint HelpDesk workflows.
4. Calculation and setting default values for properties of the HarePoint HelpDesk site.
5. Creation of templates for E-mail messages.

When **deactivating** the HarePoint HelpDesk feature, lists and other site items are **not removed**.

2. Setting access permissions

By default, the Web Site inherits permissions from the parent Web Site, so you need to configure the permissions only once.

To access HarePoint HelpDesk Settings, **HelpDesk Administrators** need either to be **Site Collection administrators**, or to have **Manage Web Site** permission. It doesn't matter if these persons are members of Technicians group or not – if they don't have **Manage Web Site** permission – they don't have access to the Settings.

To work with HarePoint HelpDesk requests, **Technicians** must have at least the following permissions:
- **List Permissions**
  - **Add Items** - Add items to lists and add documents to document libraries.
  - **Edit Items** - Edit items in lists, edit documents in document libraries, and customize Web Part Pages in document libraries.
  - **Delete Items** - Delete items from a list and documents from a document library.
  - **View Items** - View items in lists and documents in document libraries.
  - **View Application Pages –** View forms, views, and application pages. Enumerate lists.
- **Site Permissions**
  - **View Pages** - View pages in a Web site.
  - **Open** - Allows users to open a Web site, list, or folder in order to access items inside that container.
  - **Browse User Information** – View information about users of the Web site.

To work with HarePoint HelpDesk requests, **Users** must have the following permissions:
- **List Permissions**
  - **Add Items** - Add items to lists and add documents to document libraries.
  - **Edit Items** - Edit items in lists, edit documents in document libraries, and customize Web Part Pages in document libraries.
  - **Delete Items** - Delete items from a list and documents from a document library.
  - **View Items** - View items in lists and documents in document libraries.
- **Site Permissions**
  - **View Pages** - View pages in a Web site.
  - **Open** - Allows users to open a Web site, list, or folder in order to access items inside that container.

To work with HarePoint HelpDesk requests, **Viewers** must have the following permissions:
- **List Permissions**
  - **View Items** - View items in lists and documents in document libraries.
  - **View Application Pages -** View forms, views, and application pages. Enumerate lists.
- **Site Permissions**
  - **View Pages** - View pages in a Web site.
  - **Open** - Allows users to open a Web site, list, or folder in order to access items inside that container.

- **Browse User Information** – View information about users of the Web site.

In order to **create the specified set of permissions**, perform the following steps:

1. Go to **Site Settings,** in **Site Collection Administration** click **Go to top level site settings:**

   Site Collection Administration
   Go to top level site settings

2. In section **Users and Permissions** click **Site permissions**.

   Users and Permissions
   People and groups
   Site permissions
   Site collection administrators
   Site app permissions

3. On page **Permissions** click **Permission Levels**.

   BROWSE   PERMISSIONS

   Grant   Create   Edit User   Remove User   Check   Permission Levels
   Permissions Group   Permissions Permissions   Permissions   Site Collection Administrators

   Grant   Modify   Check   Manage

4. Create a new **Permission Level** for each group and select the permissions **as stated above**.

Use the created **Permission Levels** when creating access permissions for groups of **Users**, **Technicians** and **Viewers**.

3.   Creating a page for Users to submit and view Requests

HarePoint HelpDesk provides two different mechanisms to work with requests. One of them, **User console**, is designed for **Users**. The other one, **Technician console** – for **Technicians** and **Viewers**.

Technician console is always located at:
   http://<*helpdesk*>/_layouts/HarePoint/HelpDesk/Requests/Requests.aspx
where <*helpdesk*> is the HarePoint HelpDesk site address.

Also, since version 16.8, a **mobile page for Technicians Dashboard** is available under

   http://<*helpdesk*>/_layouts/HarePoint/HelpDesk/Requests/RequestsMobile.aspx

User console is represented by two **web parts** (one for the **desktop view**, the other one for **mobile view**), which are installed during the solution deployment.
Note: Mobile View HarePoint HelpDesk web part is only available in later versions of HarePoint HelpDesk.

That is, **HarePoint HelpDesk Administrator defines the location of User Console** – it could be any appropriate page either on a HelpDesk site, or on any other site within the same site collection.

Notes for a Mobile View web part:
Mobile View web part actually supports both mobile and desktop modes of a SharePoint page.

Mobile mode of a Mobile View web part:

Desktop mode of a Mobile View web part:

In most cases, SharePoint automatically detects if the page is accessed from a mobile device and then switches the page to a mobile mode.

If necessary, the SharePoint page can be forcibly switched to a mobile mode by appending **?mobile=1** to the URL:
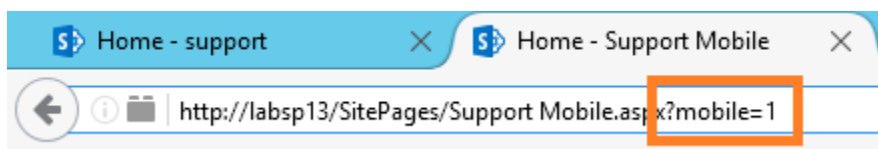
Note that it is **not possible** to toggle (neither manually, nor automatically) between the **Desktop View web part** and the **Mobile View web part**, as these are two different web parts.

Creating a User Console

Note: To make the HelpDesk web parts available for use, you need to **activate the feature** of **HarePoint HelpDesk Client Web Part** at the **site collection level**.

To create a User console, perform the following steps:

1. Go to **Site Settings,** in **Site Collection Administration** click **Go to top level site settings:**

Site Collection Administration
Go to top level site settings

2. In **Site Collection Administration,** click **Site collection features**.

Site Collection Administration
Recycle bin
Search Result Sources
Search Result Types
Search Query Rules
Search Schema
Search Settings
Search Configuration Import
Search Configuration Export
Site collection features
Site hierarchy
Site collection audit settings
Audit log reports
Portal site connection

3. Activate the **HarePoint HelpDesk Client Web Part** feature.

HarePoint HelpDesk Client Web Part   Deactivate   Active

4. Create a new page that is accessible for users, or select an appropriate existing one.

   Note: For security and convenience reasons, the best is when Users work with User Console web-part that is placed on a page of **another site than HelpDesk site**, while Technicians work with HelpDesk site directly.

5. Go to **Edit page** mode.
   Click the area where the web part should be added.
   Open the **Insert** tab on the ribbon, then open **HarePoint** category.
   Select which of two HarePoint HelpDesk web parts to add: **desktop view web part** (HarePoint HelpDesk Web Part), or **mobile view web part** (HarePoint HelpDesk Mobile Web Part, available only in later versions):
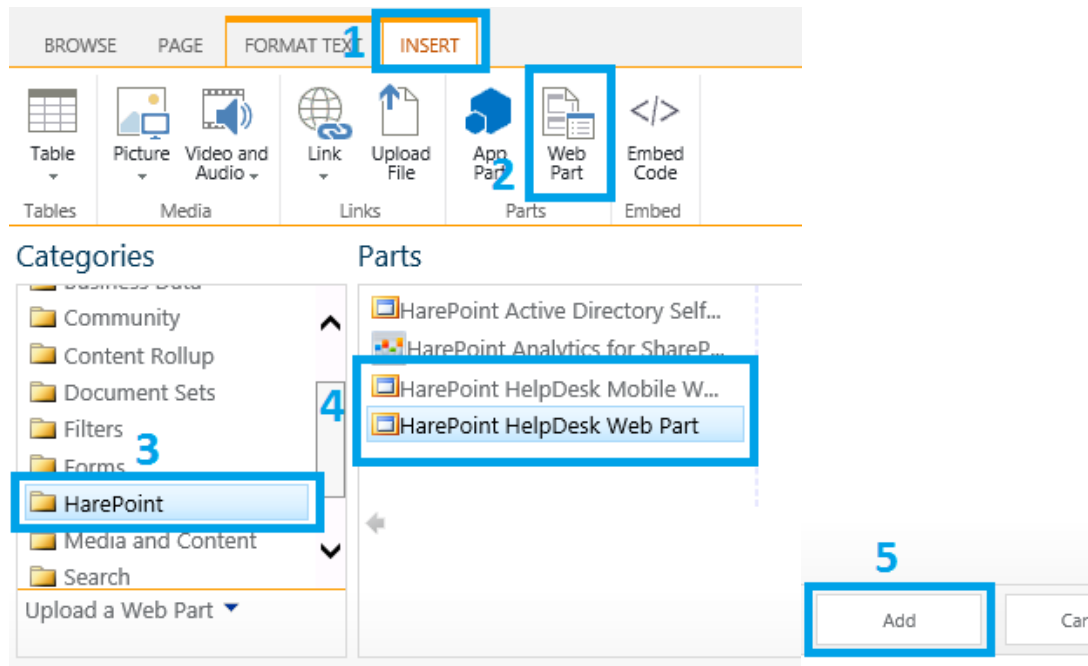
6. The web parts need to be configured before they can be used.
   The configuration of the two web parts is slightly different:

Desktop View web part

a) If the page to which the web part is added is located **not in the same site** as HarePoint HelpDesk, the web part will display an **error message**. This is an **expected behavior** in this case.
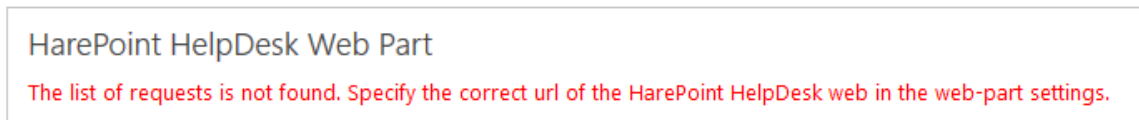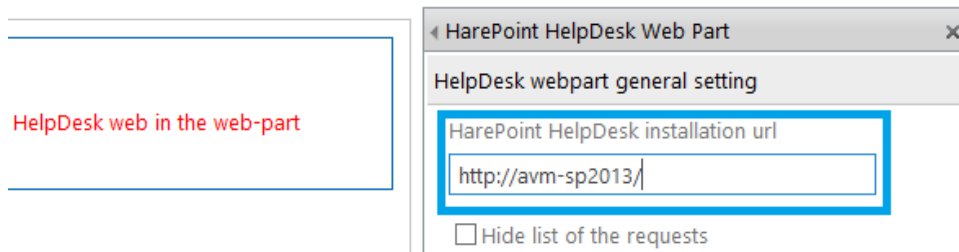
This error occurs, because the web part cannot find the necessary lists. To fix the error, additional settings for the web part are required – see next steps.

b) Open the settings panel of a web part by selecting **Edit Web Part** in the web part context menu.
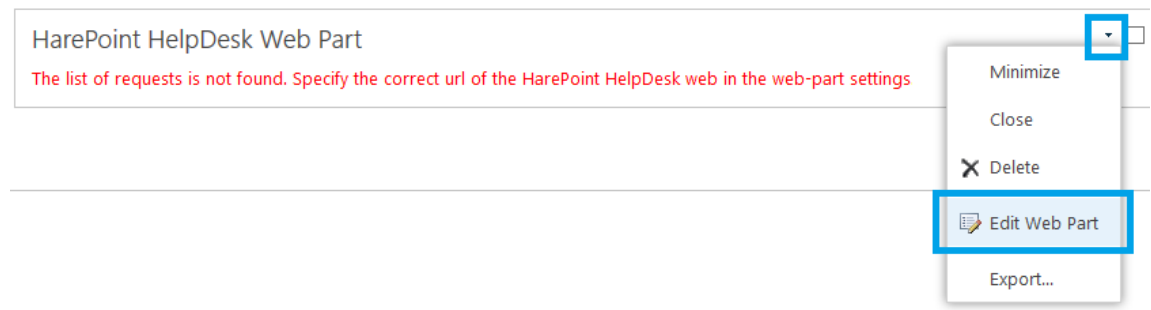
c) Specify the HarePoint HelpDesk site URL in **HarePoint HelpDesk installation url** field:
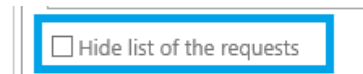
Note: changes are not applied until **Save** button is clicked
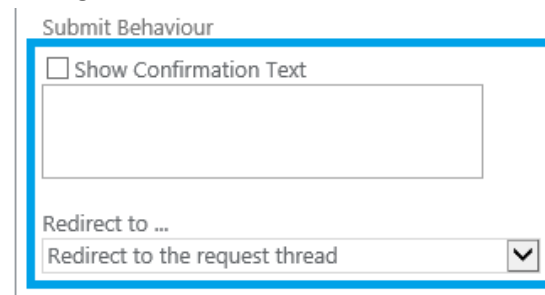
d) Optionally, the web part can be configured to display only **new Request form** instead of the list of Requests:

e) Optionally, configure the Request submission behavior – the **confirmation text**, and **redirection** settings:

f) Optionally, specify information that can be used to identify the location (**source page**) where a Request has been submitted. This is helpful when you have **several HarePoint HelpDesk web parts on different pages** of your site. You can enter in this field any text information that will help Technicians to identify which of the web parts was used. There is a corresponding field in Requests list that is by default not displayed by any of its views. You can adjust the views to make that column visible.

g) Optionally, specify the request template ID to have request fields prepopulated according to that template.
You can review, edit or create request templates **in HarePoint HelpDesk settings – Appearance**
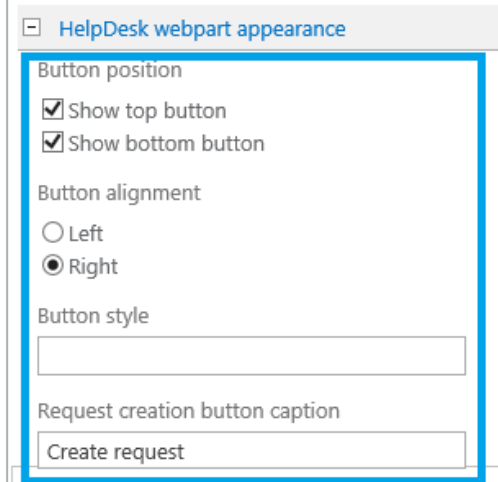
and Behavior – Request Templates.

The ID for each of Request template can also be checked there.

h) Optionally, configure the web part appearance:

In **Button style** field you can specify the **css** class name (for example `hhdButton`).
Then you can refer to it as follows:

```
.hhdButton
{
        Color:red;
}
```

i) The web part also allows you to configure additional parameters, which are the standard settings for any web part in SharePoint:

j) When finished, click **OK**, and then **Save** the changes on the page:

Mobile View web part

Note: Mobile View HarePoint HelpDesk web part is only available in later versions of HarePoint HelpDesk.

While the Mobile View web part is not configured, it will only display "**Please wait…**" message and the progress bar will be constantly moving – this is normal.

a) Open the settings panel of a web part by selecting **Edit Web Part** in the web part context menu.
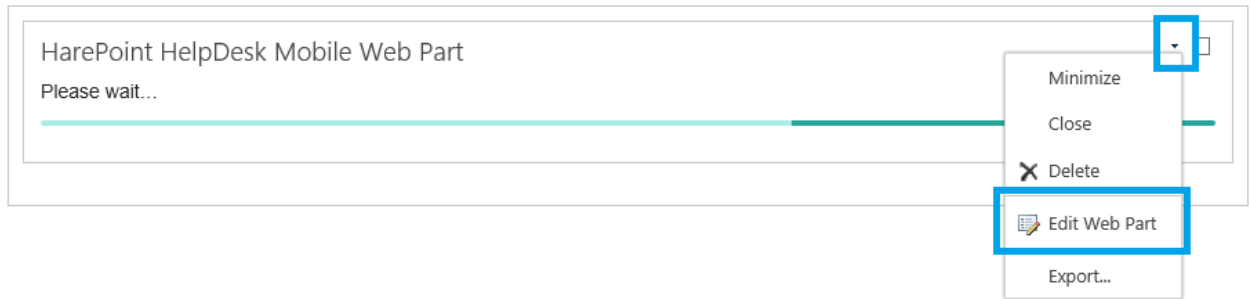
b) Specify the HarePoint HelpDesk site URL in **HarePoint HelpDesk installation URL** field:
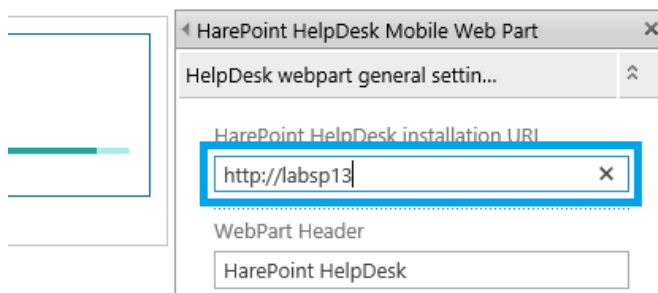
c) Optionally, select additional Request fields that will be visible in the Mobile View web part (currently, only three fields are supported):
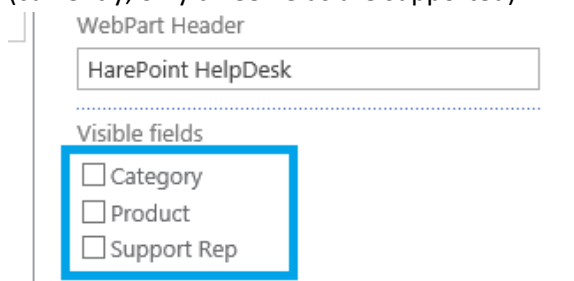
d) Optionally, add a custom javascript to customize the Mobile View appearance.
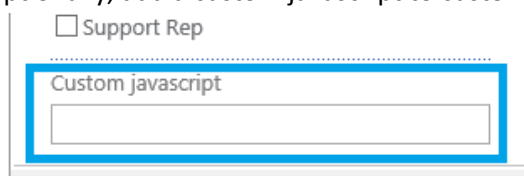
e) The settings panel of the web part also allows you to configure additional parameters, which are the standard settings for any web part in SharePoint.

f) When finished, click **OK**, and then **Save** the changes on the page:

Note: changes are not applied until **Save** button is clicked.

4.   Setting the HarePoint HelpDesk site parameters, roles and options

For normal operation of the HarePoint HelpDesk site, it is necessary to set several important parameters, as well as assign the roles of Users and Technicians.

There are several ways to open the configuration page of the HarePoint HelpDesk:

- Click **Configure Product** icon on main page of HelpDesk site:

Configure product

- For SharePoint **2019,** SharePoint **2016** and SharePoint **2013**:

  Click ⚙ - **Site Settings – HarePoint HelpDesk for SharePoint** section – **Settings**

- For SharePoint **2010**:
  In menu **Site Actions** select **Site Settings** - **HarePoint HelpDesk for SharePoint** section- **Settings**

HarePoint HelpDesk for SharePoint
Requests
Reports dashboard
Settings
About
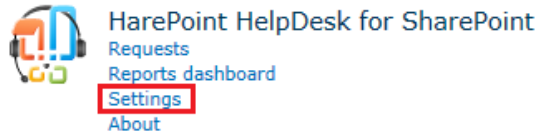
The settings are divided into groups:

Users and Accounts
Specify Technicians, Users and Viewers | Manage Signatures

Notifications
General notification settings | Specify URLs for notification e-mails | Turn notifications on/off | Configure cleanup of sent notifications

SLA and Request Lifecycle
Manage SLA rules | Configure auto-closing of Requests | Configure auto-assigning of responsible Technician |
Configure alerts for manual assigning of responsible Technician | Configure reopening of requests

Incoming E-Mails
Configure e-mail providers | Processing rules | Define junk e-mail filter rules | Configure auto-creation of user accounts |
Advanced settings

Appearance and Behavior
Configure HarePoint HelpDesk heading | Customize request form for Technicians | Customize request form for Users |
Search settings for Technicians | Configure default view forms for Category and Product | Configure Knowledge Base |
Define blocked attachments | Dashboard view settings | Request Templates | Configure cleanup of workflow history

Archiving
Configure archiving requests

Users and accounts

Specify Technicians, Users and Viewers:

Technicians

Specify SharePoint users/groups or AD users that will perform the role of Technicians.
They can view all Requests in the HelpDesk and reply to them, create new Requests on behalf of
other Users, and assign or re-assign a responsible Technician to the Request.

Important note: AD groups cannot be added directly; first, a SharePoint group need to be created,
where you can add the AD group. Then this SharePoint group can be added to this field.

Permissions required for Technicians:
(see also Setting access permissions)
List Permissions: Add Items, Edit Items, Delete Items, View Items
Site Permissions: View Pages, Open on the HarePoint HelpDesk site, View Application Pages

Important note: this setting cannot be empty!

Users

Specify SharePoint users/groups or AD users that will perform the role of Users.
They can create new Requests in the HelpDesk on their own behalf, receive notification of replies to
their Requests, and close their Requests.

Important note: AD groups cannot be added directly; first, a SharePoint group need to be created, where you can add the AD group. Then this SharePoint group can be added to this field.

Permissions required for Users:
(see also [Setting access permissions](#))
List Permissions: Add Items, Edit Items, Delete Items, View Items
Site Permissions: View Pages, Open a Web site, list, or folder

Important note: this setting cannot be empty!

Viewers (optional)

Specify SharePoint users/groups or AD users that will perform the role of Viewer. They can only view HelpDesk data (Requests, Report Dashboard, etc.), and unable to make any changes to Requests or other built-in lists even if granted full control permissions.

Important note: Do not add Technicians, Users or HelpDesk site creator account to this field! This will disrupt the proper functioning of HarePoint HelpDesk.

Important note: AD groups cannot be added directly; first, a SharePoint group need to be created, where you can add the AD group. Then this SharePoint group can be added to this field.

Permissions required for Viewers:
(see also [Setting access permissions](#))
List Permissions - View Items, View Application Pages
Site Permissions - View pages, Browse User information, Open

Note: Viewers role is optional, so you can leave this field blank.

Manage Signatures

Signature Behavior

Three options are available:
- you can completely **disable** Technicians' signatures on this HelpDesk site. In this case, "Signature" button on a ribbon is inactive.
- you can enable signatures, letting all Technicians have a **common signature**. "Signature" button is still inactive in this mode.
- you can allow Technicians to **rewrite (customize)** their own signatures. "Signature" button is active.

Common Signature

By default, all Technicians have the common signature, as specified in this field.
The following macro syntax can be used to refer to User Profile fields: #!FieldName!#.

For example:

Best regards,
#!PreferredName!#,
Support Team
MAPILab LTD
http://www.mapilab.com
E-mail: #!WorkEmail!#

<div align="center">

Notifications

</div>

Important note: Outgoing e-mail settings need to be configured properly in SharePoint to ensure sending e-mail notifications from HelpDesk to Users and Technicians.

Follow these steps to access the settings:

1. Open **Central Administration – System Settings – E-Mail and Text Messages (SMS)** section – **Configure outgoing e-mail settings**:
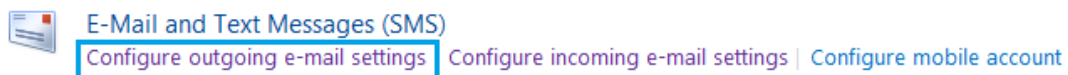
2. Specify proper settings or make sure the existing settings are valid:

Notification e-mails are placed for sending in the **Outbox** document library.
To access this library, go to **Site Contents** (or **All Site Content** for SharePoint 2010) at HarePoint HelpDesk website:
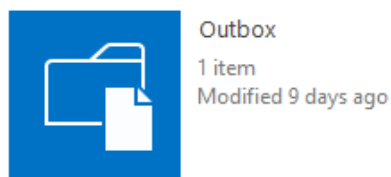
From Outbox library it is possible to **monitor** e-mails sending process and **troubleshoot** sending issues if any:

✓		E-Mail To	E-Mail Subject	Modified	Name		Modified By	Sending Status	Sending Error	Sending Attempt Number
	✉	Administrator	Request assigned to you: request ID ##2## at HelpDesk Test	May 08	098EB70C-9BD4-429B-B132-9D23F876D9AB	…	☐ System Account	Error	Outgoing E-Mail Settings is not configured (OutboundMailServiceInstance is NULL).	7

Note: All e-mail notification **templates** can be customized with SharePoint Designer (see Modifying notification templates).

General notification settings

Name for notifications

Specify the name to be used in the subject and body of notification e-mails for this helpdesk site.
In the templates of notification e-mails, this setting corresponds to the *[%hhdprop:helpdeskname%]* macro.

Note: If this setting is empty, the HelpDesk e-mail address will be used as the notification's name.

E-mail for notifications

Specify e-mail address to be used in the "From:" field of notification e-mails.
Format: Name [mapibox@domain.com]

Attachments in notifications

Specify if ticket attachments should be attached to notification e-mails

Note: Since all outgoing notifications are stored in **Outbox** document library, enabling this option will likely increase the disk space consumed. In order to prevent filling up the disk, it is recommended to configure the automatic cleanup of sent notifications (described at the end of this paragraph).

Specify URLs for notification e-mails

URL of help desk site for User

Specify the URL of the HelpDesk site to be used in the signature of notification e-mails to Users.
In the templates of notification e-mails, this setting corresponds to the
[%hhdprop:emailsignatureurl%] macro.

Note: It is recommended to replace the default value with the actual link to the page with the HarePoint HelpDesk web-part.

URL of Requests list for Technicians

Specify the URL of Requests list to be used in the notification e-mails to Technicans.

In the templates of notification e-mails, this setting corresponds to the *[%hhd:technicianrequestsview%]* macro.

Note: By default, this field contains the proper address unless Alternate Access Mapping is used for access to the Web site – in this case, URL should be modified accordingly.

URL of Requests list for Users

Specify **the actual link** to the page with the HarePoint HelpDesk web-part to be used in the notification e-mails to Users.

In the templates of notification e-mails, this setting corresponds to the *[%hhdprop:userrequestview%]* macro.

URL of Request for Technician

This URL is used in e-mail notifications to Technicians about new Requests, newly assigned Requests, new responses in assigned Requests, and so on.

In the templates of notification e-mails, this setting corresponds to the *[%hhd:technicianrequestviewform%]* macro.

Note: By default, this field contains the proper address unless Alternate Access Mapping is used for access to the Web site – in this case, URL should be modified accordingly.

Important note: The URL must contain a macro *[%RequestID%]*! Do not replace it with any actual value!

URL of Request for User

This URL is used in e-mail notifications to Users about new responses, closing of the Request, or Request resolution. It also In the templates of notification e-mails, this setting corresponds to the [%hhd:userrequestviewform%] macro.

Important note: The URL contains a **ContextListID** parameter, which is unique for each HelpDesk site; it is the ID of the Requests list. This parameter needs to be specified!
To get the proper value for this parameter, follow these steps:

- Log in as a HelpDesk user
- Go to User Console web part
- Submit a new request
- As the new request is submitted, copy the URL from the address line of the browser. It will look similar to this:
  http://<server>/SitePages/UserConsole.aspx?mlwebpartmode=Request&ContextListID=554b66d6-f2ec-420e-a396-978ef7efca5f&**ContextID=2**
- Replace the parameter ContextID=2 with macro ContextId=*[%RequestID%]:*

[http://<server>/SitePages/UserConsole.aspx?mlwebpartmode=Request&ContextListID=554b66d6-f2ec-420e-a396-978ef7efca5f&ContextID=[%RequestID%]](http://<server>/SitePages/UserConsole.aspx?mlwebpartmode=Request&ContextListID=554b66d6-f2ec-420e-a396-978ef7efca5f&ContextID=[%RequestID%])

- Specify this URL as **URL of Request for User**

The page for redirecting Users

For security and convenience reasons, the best is when Users work with User Console web-part that is placed on a page of a **different site** than HelpDesk site, while Technicians work with HelpDesk site directly.

Use the **URL** field to redirect HelpDesk Users trying to access the HarePoint HelpDesk site:

Url:

Important note: If this **URL** field is empty, HelpDesk Users will be able to access the HarePoint HelpDesk site.

Another scenario is when the web-part is placed on the HelpDesk site. In this case, you may need to specify pages that should be available for users and no redirecting is required for them. Specify relative paths separated by commas in **Do not perform redirecting for the following pages** field:

Do not perform redirecting for the following pages:
(For example: *Registration.aspx, AboutUs/Default.aspx*)

Turn notifications on/off

Notifications are sent by "**HarePoint HelpDesk E-mail Sender**" timer job. Its default schedule is to run every 1 minute.
All e-mail notification templates can be customized with SharePoint Designer.

Turn on/off Notifications for Technicians
Select which notifications should be sent to Technicians:

- Send notification to responsible Technician when SLA rule executes escalation due to expiration of Request resolution period.

- Send notification to responsible Technician when SLA rule executes escalation due to expiration of time of first response period for new Request.

- Send notification when new Request is added to helpdesk. If no recipients are specified, notification will be sent to all Technicians.

- Send notification to responsible Technician when a new response from User is added to a Request assigned to the given Technician.
  Option1: Don't send notification about Technician responses
  Option2: Don't notify Technician about his(her) own responses

- Send notification to responsible Technician when Request is assigned to him.
  Option1: Don't send a notification to Support Group if a request is assigned to Support Rep
  Option2: Don't send a notification to Support Group anyway

- Send notification to responsible Technician when User accepts resolution.
  Option1: Don't send a notification to Support Group if a request is assigned to Support Rep
  Option2: Don't send a notification to Support Group anyway

- Send notification to responsible Technician when User does not accept the resolution. This occurs when User adds a new response to a Request which the Technician had marked as resolved.

- Send notification to responsible Technicians when a hidden comment is added, updated or deleted.

Turn on/off Notifications for Users
Select which notifications should be sent to Users:

- Send notification to User when new Request is created by the given User or on User's behalf. This is especially useful when Requests are created from incoming e-mails or manually by a Technician (when User calls by phone or sends fax).

- Send notification to User when a new answer (not marked as resolution) from Technician is added to Request.
  Option: Don't notify User about his(her) own responses

- Send notification to User when a new answer from Technician is added and Request is marked as resolved.

- Send notification to User when Request is closed by Technician.

- Send notification to User when Request is automatically closed. This happens when the most recent response in the Request is from the Technician and the time period allotted for a

response from the User expires.

- Send notification to User when account for him is created on HelpDesk site. This notification is required when auto-creation of User accounts is configured. Notification contains User login and password to access HelpDesk. See also [Configuring notification for automatic user creation](#).

Note: Quite often managers, specialists or heads of departments need to be included in the e-mail loop for requests. In HarePoint HelpDesk, it is possible to configure **notification copies (CC's for notifications)** to be sent out. For further details, refer to [Configuring notification copies](#) paragraph.

Configure cleanup of sent notifications

Notification e-mails are placed for sending in the **Outbox** document library. These settings define the rules for deleting notifications, which have been successfully sent. You may wish to keep some sent e-mails in the Outbox to check sending of notifications.

- Delete sent e-mails older than ___
- Keep no more than ___ sent e-mails

Delivery and deleting are performed by the "**HarePoint HelpDesk E-mail Sender**" and "**HarePoint HelpDesk for SharePoint - Outbox auto cleanup**" timer jobs.

SLA and Request life cycle

Manage SLA rules

Important note: SLA rules are not available in Basic edition of HarePoint HelpDesk.

The mechanism for automated monitoring of **Service License Agreements** (SLA) fulfillment is one of the key components of the HarePoint HelpDesk for SharePoint. Automatic monitoring of the terms of the SLA ensures that tech support processes are completed properly and on time to end users.

By default, there are no SLA rules in HelpDesk. They are not required for normal HelpDesk operation.

SLA rules management provides additional functionality if you need to ensure a request is closed or resolved within a few business days, depending on various criteria (request priority, company that user belongs to, etc).

SLA Details
Specify SLA rule name and description (optional).

Request Matching
Specify which Requests are subject to this SLA.

Important note: the Request is processed only by the **first SLA rule** which applies to it. In the SLA rules list, you can move rules up and down to modify this matching sequence. Matching is performed at Request creation or upon changes in the Request.

Start with selecting the logical operator:
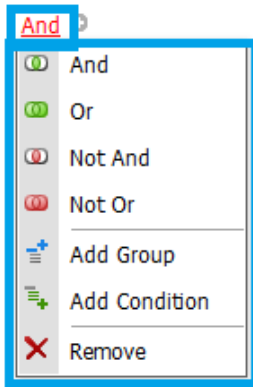
Then add a new condition by clicking ⊕ symbol:
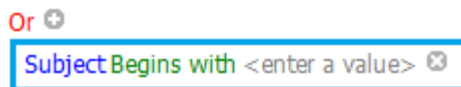
Click on the fields to choose the required values:
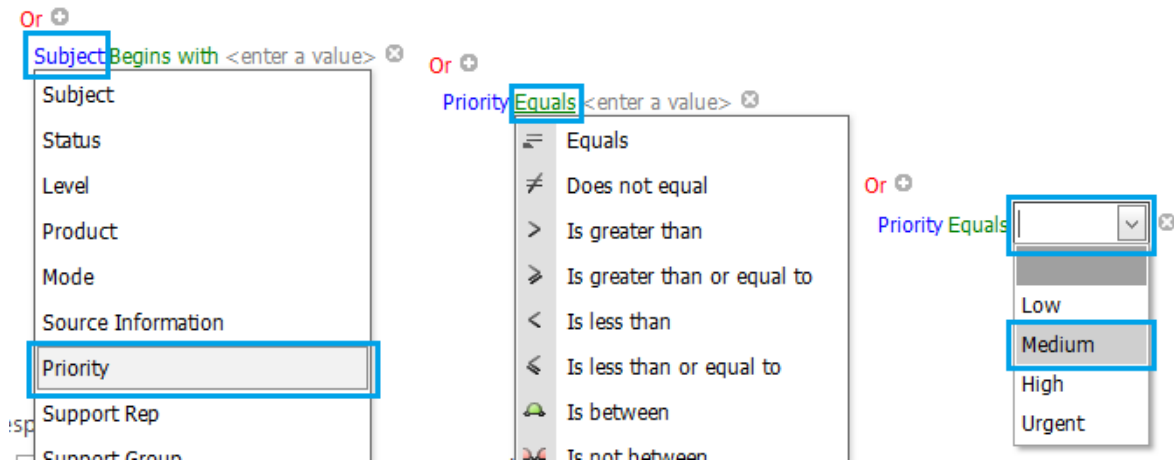
More conditions can be added by clicking ⊕ symbol:
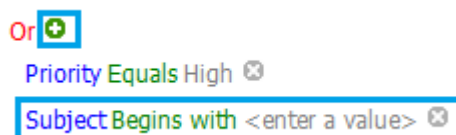
More groups of logical operators can be created by using **Add Group** menu:
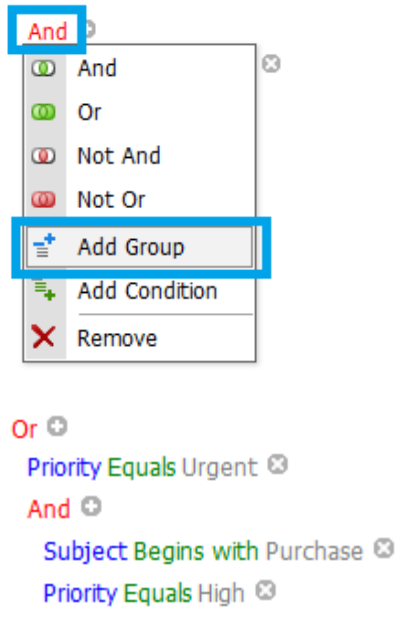
Response and resolution time

Assign the time period for responding to a request, and the time period for resolving the request.

For resolution time, a check box is available to calculate resolution time irrespective of working hours. This is based on SharePoint Settings: **Site Administration – Regional Settings – Define your work week:**

Escalation when response time expires

Notifications about a (possible) SLA violation can be sent, as well as new responsible Technician or group may be assigned at the same time, and a new level and new priority level for the Request may be set.

Only one level for response time escalation is available.

Escalation when resolution time expires

The same options are available as for the response time escalation.

Four levels are available for resolution time escalation.

Configure auto-closing of Requests

Requests where the latest response is from a Technician will be automatically closed after a specified number of calendar days if no response from the User is received.

Default setting is 10 days.

Configure auto-assigning of responsible Technician

In the **Products** and **Categories** lists, you can specify a responsible Technician or group of Technicians for every product or category. The link to these lists are provided in this section.

Click to edit an existing item, or create a new item. Fill the fields in this section accordingly:

A more flexible option is to edit the assigning algorithm in the "**HarePoint Helpdesk v2 - Assigning Support Rep.**" workflow with SharePoint Designer.
Important Note: Since it's an advanced option, use it with caution. Make sure to completely understand the logic of the workflow before making any changes to it.

Also, responsible Technicians may be assigned during escalation as carried out by **SLA rules**. The link to SLA rules management is provided in this section.

Later versions of HarePoint HelpDesk allow to auto-assign requests that are **received during non-working hours** to a specific Support Rep or Support Group.
Working hours are configured in **Site Settings – Site Administration – Regional Settings.**

Configure alerts for manual assigning of responsible Technician

Specify the time (in working minutes according to SharePoint regional settings on HelpDesk site) during which the new request should be assigned to Technician (either by auto-assignment or manually). After this time, HelpDesk sends notification to specified list of recipients that there is a new unassigned request that needs to be assigned manually as soon as possible.

Note: If no recipients are specified then notification will be sent to **all** Technicians.

Configure reopening of requests

You can allow reopening requests on this HarePoint HelpDesk site. In this case, however, when User clicks to reopen a request, a new linked request is created. Both Users and Technicians are able to view messages from the original request using the special drop down menu.

<center>**Incoming E-Mails**</center>

Important note: Features that allow creation and processing of Requests by incoming e-mails are not available in Basic edition of HarePoint HelpDesk.

Configure E-Mail providers

The service for receiving messages from an external mail server

HarePoint HelpDesk creates new Requests and adds replies to the existing Requests that come in by e-mail to the Inbox document library.

Note: This service is used only if you need to upload e-mails from an external POP3 or IMAP mail server to Inbox library. Alternatively, you can configure incoming e-mail settings on SharePoint and set up the Inbox document library as mail-enabled (refer to E-Mail Support configuration), in this case this service is not used.

Select the type of the external mail server (POP3 or IMAP) and fill in the parameters accordingly.

Uploading is performed by the "**HarePoint HelpDesk – Receiving incoming messages from the external mail servers**" timer job.

Processing rules

By default, when a request is created based on an e-mail, only Subject, User and Description fields are filled automatically.
In later versions of HarePoint HelpDesk, it is possible to configure processing rules to have other fields filled automatically as well.
In particular, this ensures the requests can be immediately auto-assigned, or corresponding SLA rules applied, while without the processing rules this will happen only after the HelpDesk dispatcher assigns the request or fills out the missing fields manually.

Click **Create** button on a ribbon to add a new processing rule:

Inbox processing rule

Rule name	rule HelpDesk
Expression type	String ▼
Find what	helpdesk
Look in	Message body ▼
Match case	☐
Set field	Product ▼
	HarePoint HelpDesk ▼

Process comments

By default, rules are only applied to e-mails for the new requests. Select this option if you also want to apply the rules to e-mails for the comments to existing requests.

☐

Enabled

To disable the rule, clear the check box. Enabling / disabling rules makes it possible not to delete the rules when they are not needed.

☑

OK   Cancel

Specify the **Rule name**, select if you are going to use a simple string match (**String** option) or a regular expression (**Regex** option). Specify what needs to be found (**Find what**) and where (**Look in** message body, From, To, Cc), then specify which field of a request needs to be set and its value in case if there is a match.

Select **Process comments** if you need to process not only the initial message in a request, but also all the following replies.

To temporarily disable the rule, uncheck the **Enabled** checkbox.

Note: the rules are checked according to their order, from the top rule in the list to the bottom one. Use **Move Up/Move Down** buttons to place the rules in the right order.

Define junk e-mail filter rules

It is possible to define rules to filter junk e-mails.
E-mails **matched** to the rules below will be **marked as junk** and no new Requests will be created by them.

Configure auto-creation of user accounts

Upon receiving an e-mail from an unknown sender, the HelpDesk can create a User in authentication provider data source before the Request is created. If this auto-creation is not configured, HelpDesk will ignore such e-mails.
Auto-creation is also used when a Technician creates new Request in the Console on behalf of a new user, e.g. from an incoming phone call or fax.

HarePoint HelpDesk supports **SqlMembershipProvider** only. You need to ensure that the web application account where the HarePoint HelpDesk site is installed has the appropriate permissions to the SQL membership database.

Please refer to Configuring automatic user creation for details on Account Creation Service configuration.

Advanced Settings

Account for Requests creation
Specify the account from which the Requests from incoming e-mails will be created. HarePoint HelpDesk uses this account only for technical purposes:

- to create new Requests or to add new comments to existing Requests that come in by e-mail. This account will be shown in the **Created By** field of the Request or the Request comment, while the User who actually sent the e-mail will be shown in the **User** field.
- to create outgoing e-mails (notifications) in **Outbox** library. This makes it possible to send copies of notifications by configuring a special workflow – for more details refer to Configuring notification copies section.

This is a technical field purposed for HelpDesk technical administrators rather than for Technicians.

You should specify only one account and make sure it has at least the following **permissions**:
List Permissions - Add, Edit, View Items
Site Permissions - View Pages, Browse User Information, Open.

Note: If this field is left blank, the HelpDesk Site **Creator's** account will be used for Requests creation, and System Account will be used for outgoing e-mails (notifications) creation.

Turn on/off processing Incoming e-mails from Technicians
By default, only Users can reply to requests by e-mail. With this option, you can enable this feature for technicians as well.
Choose whether Technicians can reply only to requests where they are assigned as responsible, or to any requests.

- Allow Technicians to add request comments by e-mail
  Option: Technician can add comments only to requests assigned to him/her (as responsible Technician or Support Group member)

Turn on/off e-mails hash check

With this option enabled, HelpDesk will check incoming e-mails for duplicates. This prevents from creating multiple requests from these e-mails.

<h2 style="text-align:center;color:#4472C4;">Appearance and Behavior</h2>

Configure HarePoint HelpDesk heading

By default, page titles include the product name - **HarePoint HelpDesk** (can be found on the Settings page, Technician dashboard, and some others).
Here you can specify an alternative title that should be displayed.

Customize request form for Technicians

Use this group of settings to customize the New Form, View Form and Edit Form of Request for Technicians. Settings are divided into groups.

In HarePoint HelpDesk v16.3 and above it is possible to specify **different required fields** for Technicians and for Users.
In older versions, the required fields could only be the same both for Technicians and for Users, and were based on Requests list configuration.

Note: There are system fields that are always required:

- For Technicians these are **Status, Subject** and **User** fields
- For Users this is a **Subject** field.

Select the fields that need to be required for Technicians:

Customize request form for Technicians

☐ Prevent from posting a reply if required fields are not filled
☐ Hide profile pictures on the request view page
☐ Show request category change panel above the reply text box

Form Fields	View Form	New Form	Edit Form	Ac
Request info				
Status Required ☑	☑	☑	☑	Change Group ▼
Level Required ☐	☑	☑	☑	Change Group ▼
Product Required ☐	☑	☑	☑	Change Group ▼
Mode	☑	☑	☑	Change Group ▼

Important notes:

- the required **system fields** are always pre-selected and cannot be unchecked
- if **none of the fields** is selected, the required fields will be set as per Requests list configuration.

In addition, you can enable the option **Prevent from posting a reply if required fields are not filled**. When enabled, it will **keep the reply designer inactive** until Technician fills all the required fields for this Request:

This option facilitates having all the required fields filled, which in turn ensures proper functioning of SLA rules and reports dashboard.

Example:
Product and **Category** fields are optional for Users but required for Technicians. With this feature enabled the Technician will have to fill **Product** and **Category** fields to be able to write a reply to a User.

Since version 16.4 onwards, it is possible to **hide profile pictures** on request view pages:

This makes the request display more compact:

Since version 16.9 onwards, it is possible to display **category change panel** in the ticket, which enables Technicians to submit a reply and change category of the request in one action:

Customize request form for Users

Use this group of settings to customize the New Form, View Form and Edit Form of Request for Users.

In later versions of HarePoint HelpDesk (v16.3 and above) it is possible to specify **different required fields** for Technicians and for Users.
In older versions, the required fields could only be the same both for Technicians and for Users, and were based on Requests list configuration.

Note: There are system fields that are always required:

- For Technicians these are **Status, Subject** and **User** fields
- For Users this is a **Subject** field.

Select the fields that need to be required for Users:

Customize request form for Users

Form Fields		View Form	New Form
Subject			
Required ☑		☐	☑
Priority			
Required ☐		☑	☑

Important notes:

- the required **system fields** are always pre-selected and cannot be unchecked
- if **none of the fields** is selected, the required fields will be set as per Requests list configuration.

Search settings for Technicians

When entering keywords in **Search** field in a **Technician Console**, a search is initiated to find related items in **Requests** as well as find **Users** with matching names:

Search results for: License

Search by requests

> Select the fields of Request to be used in search by Technicians in Technician Console.

> In later versions of HarePoint HelpDesk, search results can be filtered by Product, Category, User, as well as sorted by one or several parameters.
> It is also possible to limit the number of search results per page.

Search by users

> Select User properties to be used in search by Technicians in Technician Console.
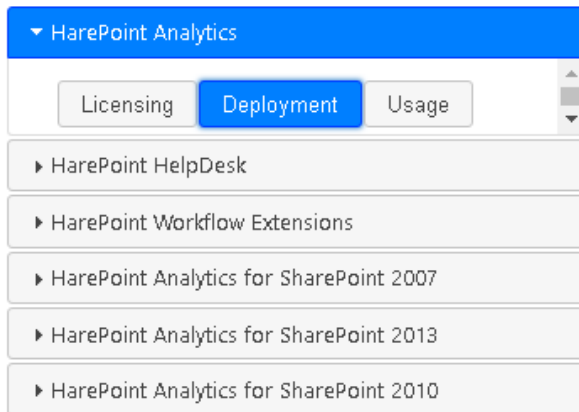
Configure default view forms for Category and Product

Configure default view forms for Category and Product

> In case if Category and/or Products fields have hierarchical structure and displayed as a cascaded menu, it possible to configure if these menus should be displayed **Collapsed** or **Expanded** by default.
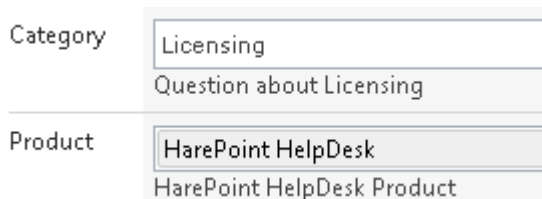
Link Categories and Products

You can link Categories and Products, so that when a Category is selected, only specific Products are available in the form, and vice versa.

Show Category and Product Description

Each Category and Product may have its own description configured in corresponding lists. With this option enabled, the descriptions will be displayed on the request form (right under the field) when a Product or a Category is selected, so that Users and Technicians could better understand what the selected item refers to.

Configure Knowledge Base

Suggested KB articles

Enable/disable suggesting articles from an internal knowledge base to the User in the Request creation form using keywords entered in the subject of Request.
Note: Knowledge Base articles marked as "**Only for Technicians**" will never be suggested to Users.

Design view of article identifier

Specify prefix and starting number for KB article identifier.

Note: the identifier number of the new article will always be greater than the number of any existing article and greater or equal to the starting number.
Example: With the prefix 'KB' and 1000 as starting number, the identifier of the first article will be KB1000.

Define blocked attachments

Maximum file size to upload

Specify the maximum attachment size for Requests, the number of attachments is not limited.

Attachments blocked file types

Specify file types allowed or blocked for Request attachments.

Dashboard view settings

Highlight overdue tickets

With this option enabled, **Due By Date** column in the grid will also contain a colored indicator (similar to a progress bar) which gradually turns from green to red as there are only few days remaining.
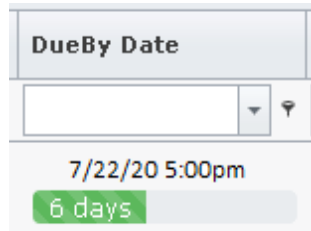
Show priority as text

When enabled, **Priority** column in the grid will additionally contain a text tag for current priority level.

Column resize mode

Choose how columns in the grid are resized:

- **Next Column** – resizing the selected column also resizes the adjacent column, so that overall grid width remains the same
- **Control** – resizing the selected column does not affect other columns, but changes the overall grid width

Mobile Dashboard favico

With this option, you can set the custom site icon (favicon.ico) for the **mobile version** of Technicians Dashboard of HarePoint HelpDesk site.
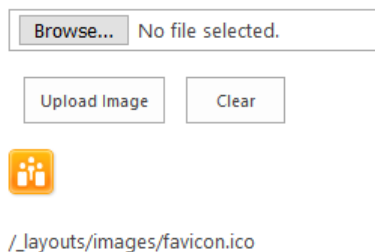
Request templates

Request templates allow to quickly prepopulate fields in the form when creating a new request. This is useful for standard requests: with this feature, Users and Technicians can choose the appropriate template from the drop down menu and then only fill in the gaps with the essential

information, without the need to type the same standard text every time from scratch.
This also ensures no important details in the request will be missed.

Click ⊕ to add a new template.
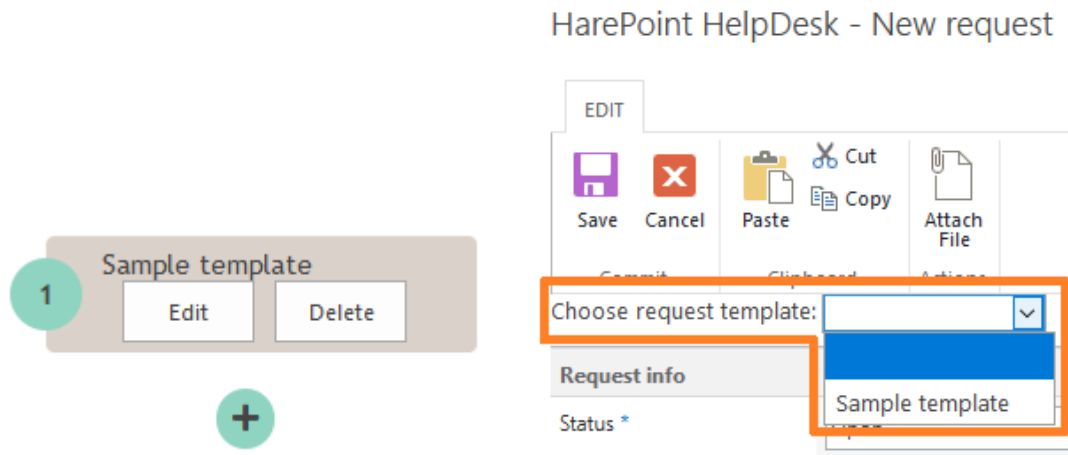
The request templates can also be used in **User Console web part** – see Desktop View web part for more details.

A **template ID**, as seen here, would need to be provided to web part settings, so that web part fields will be prepopulated according to the template:

Configure cleanup of workflow history

HarePoint HelpDesk actively uses native SharePoint workflows that log their history to a special list. You can enable a special timer job to remove older records from workflow history so that list doesn't grow large.

Deleting is performed by the "HarePoint HelpDesk for SharePoint - Workflow History and Sessions Cleaner" timer job. It can also be found in "Central Administration – Monitoring – Job definitions" section.

<div align="center">

Archiving

</div>

Configure archiving requests

Configure the archiving parameters for this HarePoint HelpDesk site. For further details, refer to Archiving chapter.

5.   Setting the time zone and defining the working time

HarePoint HelpDesk takes the information on the **time zone and working time** from standard SharePoint parameters. It is important to configure these parameters correctly since time intervals calculation by HelpDesk is based on these parameters.

To configure these settings, you need to perform the following steps.

1. Go to **Site Settings**.
2. In section **Site Administration** click **Regional settings**.

Site Administration
Regional settings
Site libraries and lists
User alerts
RSS
Sites and workspaces
Workflow settings
Site Closure and Deletion
Manage HarePoint Discussion Boards
Term store management
Popularity Trends
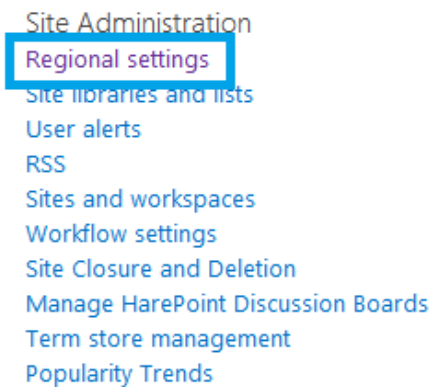
3. On page **Regional Settings** specify the corresponding time zone and operating mode of the technical support service. Click **OK**.

Site Settings ▸ Regional Settings ⓘ

Time Zone

Time Zone
Specify the standard time zone.

Time zone:
(UTC+02:00) Athens, Bucharest, Istanbul

Region

Locale
Select a locale from the list to specify the way the site displays numbers, dates, and time.

Locale:
English (United States)

Sort Order
Specify the sort order.

Sort order:
General

Set Your Calendar
Specify the type of calendar.

Calendar:
Gregorian

☐ Show week numbers in the Date Navigator

Enable An Alternate Calendar
Specify a secondary calendar that provides extra information on the calendar features.

Alternate Calendar:
None

Define Your Work Week
Select which days comprise your work week and select the first day of each work week.

☐ Sun ☑ Mon ☑ Tue ☑ Wed ☑ Thu ☑ Fri ☐ Sat

First day of week: Sunday   Start time: 8:00 AM

First week of year: Starts on Jan 1   End time: 5:00 PM

Time Format
Specify whether you want to use 12-hour time format or 24-hour format.

Time format:
12 Hour

X. Demo data

Optionally, it is possible to deploy demo data to **newly created HelpDesk site** so you can quickly test and explore the features of HarePoint HelpDesk.

1. Deploying demo data

Note: Demo data cannot be deployed if this HelpDesk site already contains **at least one request**. This prevents demo data to be deployed to HelpDesk site being in use and mixing demo data with the existing actual data. If you still would like to deploy demo data to current HelpDesk site, make sure the existing requests are **not used** and do not contain any important data, and then delete all requests. If you are **unsure**, the best is to create **a new HelpDesk site for demo purposes**.

Click the icon **Deploy demo data** on the main page of HelpDesk site:

Deploy demo data

In the next step, if the roles for HelpDesk are not assigned yet (please refer to HelpDesk Settings - Users and Accounts) you will be asked to assign them now. The settings you make here will be transferred to HelpDesk settings. Click **Next** when finished.

Demo data deployment will start. It may take several minutes. When the process is complete, you will see the following message:

Now you can go to **Technician Dashboard** or **User Console** to view the demo requests – see next paragraph.

2. Using demo data

Demo data are designed to make it possible to **check most of the product capabilities**, such as

- Using **multi-level** menu for Products and/or Categories
- Working with different Requests **statues**
- Selecting different **views** for Requests
- Using **HTML-formatted text** in Requests.
- **Requests exporting**
- **Assigning and re-assigning** responsible Technicians
- Adding **comments visible for Technicians only**
- **Users** seeing **their own Requests only**
- Creating and viewing **tasks for Requests**
- Running a **search through Requests**
- **Viewing and exporting reports**
- **SLA rules** implementation
- Using **Quick reply** templates
- Using **Knowledge Base**
- Using **signature** for Technicians
- And many more

Please refer to [HarePoint HelpDesk for SharePoint User Guide](#) for detailed description on HelpDesk functionality and features.

3. What demo data are installed

The following data are installed:

1. Categories
2. Products
3. Requests:
   - with different statuses
   - with different number of comments
   - with different formatting
   - created by different Users – chosen from the available HelpDesk Users randomly
4. SLA rules
5. KnowledgeBase articles
6. Reply templates
7. Signature for Technicians

4. Removing demo data

There is no automated way to remove demo data. This can only be done manually.

To do this, access **lists** used by the HarePoint HelpDesk site:

- In SharePoint **2019,** SharePoint **2016** and SharePoint **2013**: Click ⚙ - **Site Settings – Site Contents**
- In SharePoint **2010**: **Site Actions - View All Site Content**

Remove demo data, enumerated in [What demo data are installed](#) from the respective lists.

Additionally, you can **remove a web part** located on [http://*<HelpDeskURL>*/HelpDesk/Support.aspx](#), or remove the **entire page Support.aspx** on this site.

XI.   Possibilities for further configuration of the product

HarePoint HelpDesk site can be modified by almost any means available within the SharePoint platform.

Microsoft SharePoint Designer can be used as the basic tool for configuration.

Here are some of the examples of possible settings and fine-tunings of the HarePoint HelpDesk site:

1. [Modifying/supplementing lists](#)
2. [Modifying notification templates sent via e-mail](#)
3. [Editing workflows](#)

1.   Modifying/supplementing lists

The storage of all information is implemented using standard SharePoint lists. All list functions are used, including features such as list view, setting default values, using declarative workflows associated with lists. This approach allows you to extend the HarePoint HelpDesk system with maximum flexibility, using only standard SharePoint API. In particular, you can create a new view, add fields to existing lists, and so on.

To get access to all lists used by the HarePoint HelpDesk site:

- In SharePoint **2019,** SharePoint **2016** and SharePoint **2013**:
  Click ⚙ - **Site Settings – Site Contents**
- In SharePoint **2010**:
  Site Actions - View All Site Content

Some lists are added for future functionality implementations in the HelpDesk.

Any of the available lists can be modified according to the needs of the end customer by accessing **List Settings** in SharePoint or via **SharePoint Designer**.
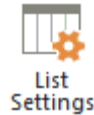
Note: Some of the lists of the HarePoint HelpDesk site initially have one or more items. All such items are built-in. Their **removal is blocked** by the system, because such changes may disrupt the normal functioning of the product. However, such records can be modified.

Category and Products lists

As the product is installed, you need to add your products and categories to HelpDesk. It is done simply by adding items to Category and Products lists.

Note: By default, these lists contain **no items**.

It is possible to create **cascaded menus** for categories and/or products.
Click to **add a new item** or **edit** the existing one:

If the field **Parent Product / Parent Category** is **empty** for all items in the list, you will get the **simple drop-down**:

Upon adding parent Products / Groups to the list and specifying them for other items as **Parent**, you will get a **cascaded menu**:

- HarePoint HelpDesk
- HarePoint Analytics
  - Analytics 2010
  - Analytics 2013
- HarePoint Workflow Extensions
- HarePoint Discussion Board
- HarePoint Content and Workflow Migrator

Note: the items from these lists, when displayed in HarePoint HelpDesk interface, are **sorted** according to the sorting settings of the **default views** for these lists.

Example: If for **Products** list the default view is **All Items**, which has **sorting by ID**, the same sorting will be used by HarePoint HelpDesk when displaying the list of Products list in its interface.

Status list

Status
4 items
Modified 2 days ago
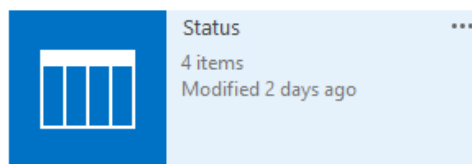
Status list is a list containing the enumeration of all possible Request statuses.

The list initially contains four possible Request statuses:

Status ⓘ

⊕ new item or edit this list

All Items ...   Find an item 🔍

✓	Description	Status Name		Status Type
	Request Pending	Open	...	In Progress
	Request On Hold	On Hold	...	In Progress - Stop timer
	Request Completed	Closed	...	Completed
	Request Resolved	Resolved	...	Completed

It's **not possible to delete** these items, the following message will be shown if attempted:

Error

Built-in item cannot be deleted

If necessary, it is possible to create additional request statuses by simply adding a new record in the required list. Manually added record can be modified or removed without any restrictions.

Note: In Technician Dashboard, the statuses are displayed as per the default view for Statuses list (originally it is **All Items** view). This allows hiding certain (unused) statuses, as well as defining how they are sorted.

Important note: each of the **Status Types** should be used in **Status** list at least once! Not using some of Status Types will cause **HelpDesk Reports Dashboard** to display **improper values**.

Requests List

Requests
2 items
Modified 2 days ago
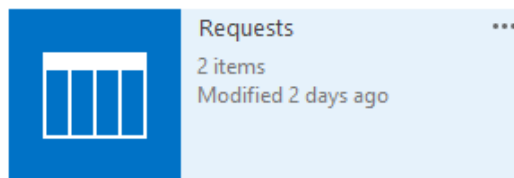
This is **the most significant list** in HelpDesk:

- All **Requests** are stored in this list.
- You can **add a new column or modify the existing ones** in this **List Settings** and these columns will become available both for **Technician console** and for **User console**.
- You can **modify the Views** for this list according to your requirements in this **List Settings** to **hide or display the existing List columns**:
    - **User requests** View affect **User Console**
    - Other views affect **Technician Console**
- You can **add or remove views** for this list, **except User Requests** view, as this will disrupt the functionality of the User Console.
- You can create additional **workflow(s)** associated with this list using SharePoint Designer to do some custom actions with requests
- By default, the **required fields** for the request form are the fields set as Required in this list. (This, however, can be overridden and configured separately for Technicians and for Users in **Customize request form for Technicians** and **Customize request form for Users** settings respectively).

Adding a column displaying number of active tasks for a request

It is possible to create **tasks** associated with requests. Normally, the number of active tasks in a request can only be seen if you open that request and look at the ribbon, **View Tasks** button:
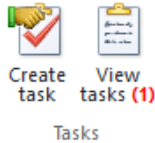
However, it is possible to add a column to a dashboard that will display the number of active tasks for each ticket.

Follow these steps:

- Go to **Site Contents – Requests list – List Settings**
- Make sure if **TasksNumber** column is listed in Columns:

- If it's not there, create any task for any ticket and this column will be automatically created
- Scroll down to **Views** section and edit a corresponding view.
- Select the TasksNumber column there. Set the position for this column:

- Save changes. **TasksNumber** column is now visible on the dashboard

2.   Modifying notification templates

Special templates are used for generating notifications sent by e-mail. Templates are stored as html-files in a special folder of the HarePoint HelpDesk site. To edit a template, you need to use a standard tool for administrating SharePoint sites - Microsoft **SharePoint Designer**.

HarePoint HelpDesk site templates of E-mail notifications are located in folder:

 [http://<_helpdesk url_>/HHDEmailTemplate](http://)
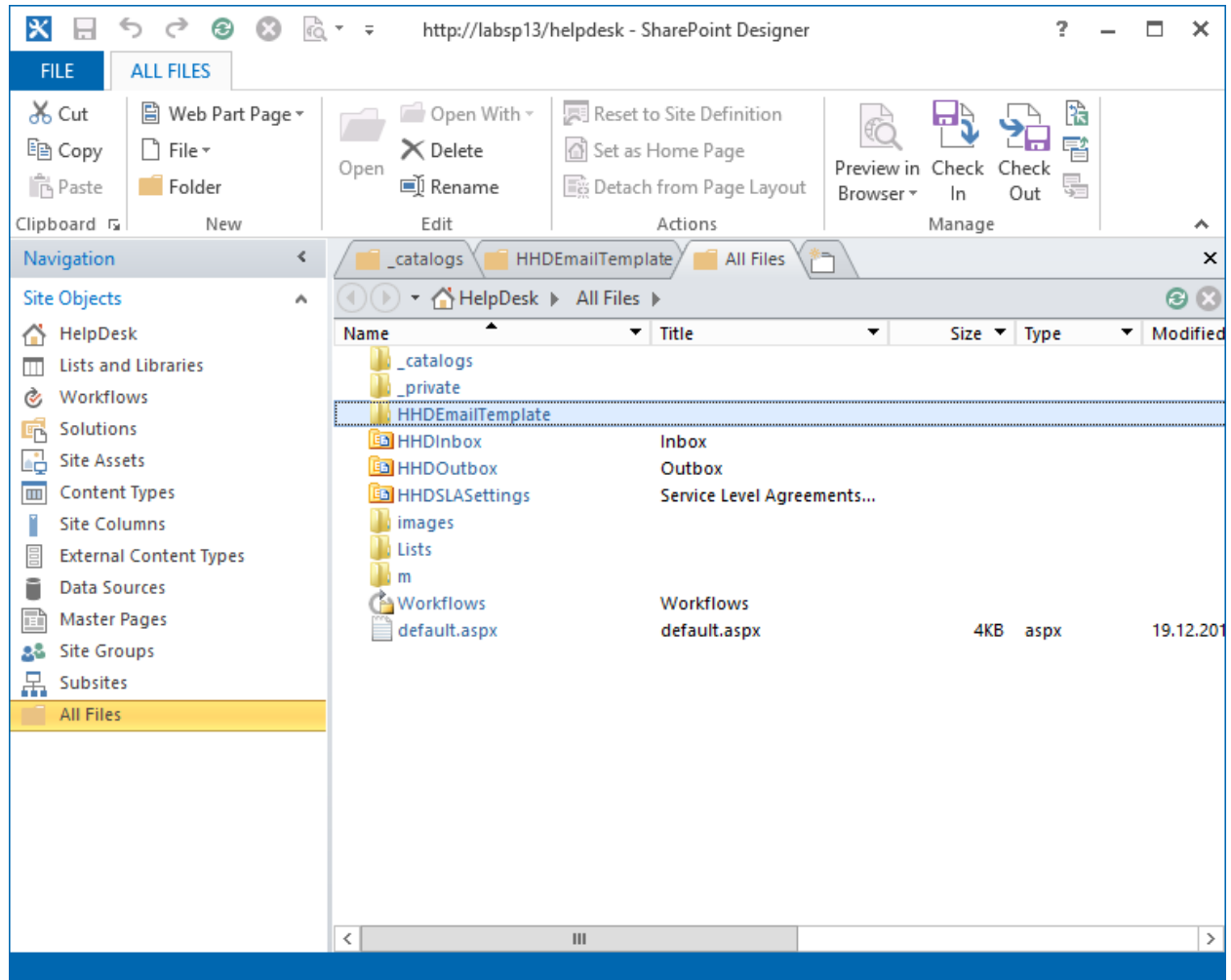
Templates localization

Folder **HHDEmailTemplate** contains a subfolder named **Default** and may also contain subfolders with the names of cultures, for example: **en-US**, **ru-RU**, etc. When generating notifications, HelpDesk first attempts to find a template in the language corresponding to the culture of the HarePoint HelpDesk site, and if there is none, a template from the **Default** folder is used.

Templates editing

To edit a notification template, click on its name. The form for editing a template will open in the right pane in Microsoft SharePoint Designer:
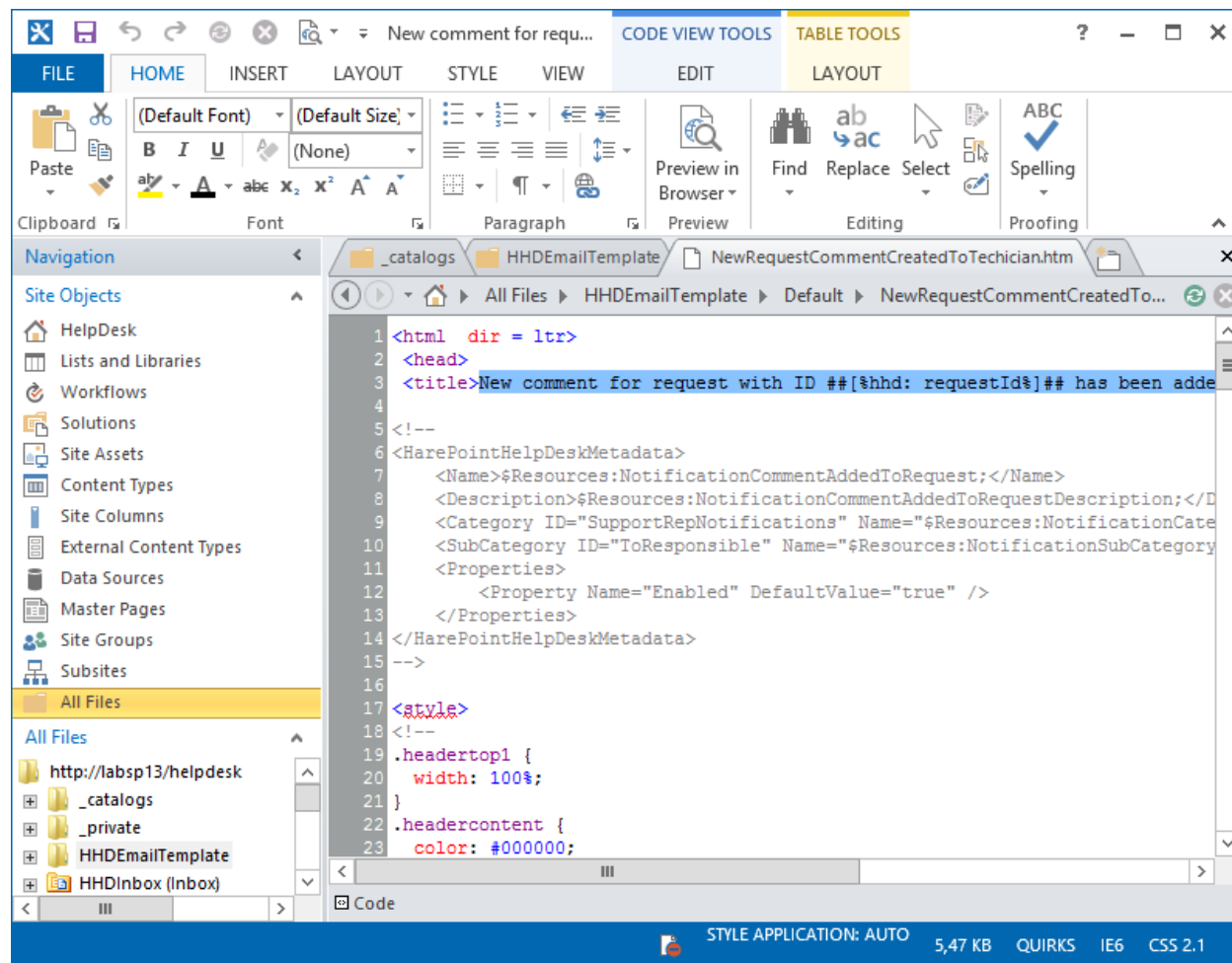
Template is a file in **HTML** format.
The contents of HTML-tag **TITLE** is used as the subject of the created message.

Special **macros** described in paragraph HarePoint HelpDesk macros are used in the message template. When generating a message, macros are replaced with the values of corresponding parameters.

Creating custom templates
It is possible to add custom notification templates, so that they will become available in HarePoint HelpDesk settings and SharePoint Designer.

Follow the steps below to properly add a new custom template:

a) Open **All Files - HHDEmailTemplate** folder in SharePoint Designer

b) Copy any template (**except** ReportExportMailing and RequestsExportPdfMailing!), and save it with a different name:
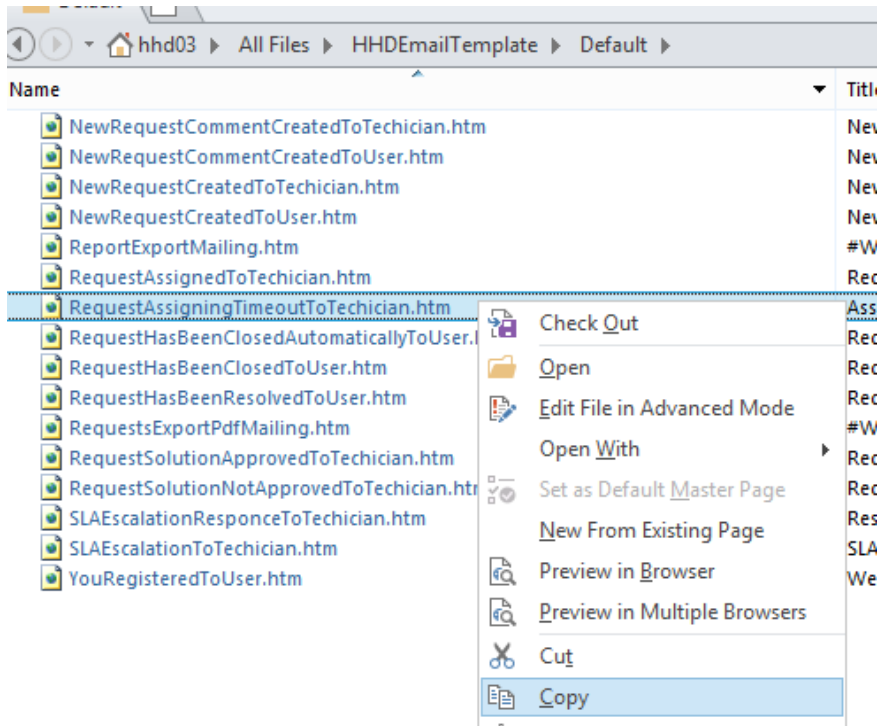
c) Edit the newly created template (see also **Templates editing** section above).

Under **\<HarePointHelpDeskMetaData\>** tag, edit only the **Name** and **Description**:

Save this template in SharePoint Designer

d) **Important:** Deactivate and activate **site level** feature **HarePoint HelpDesk Templates**:
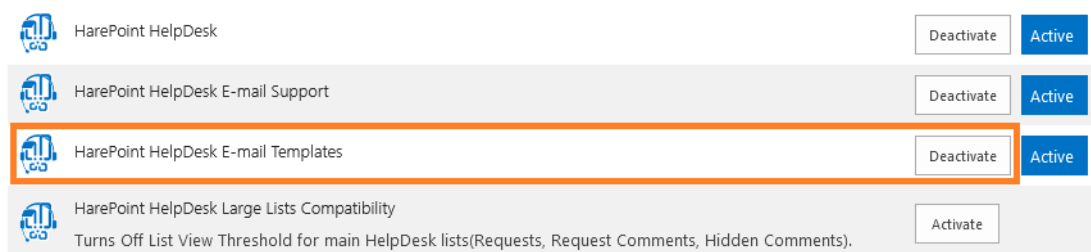
As a result, the new custom template will become available in **HarePoint HelpDesk settings - Turn notifications on/off**:

Additional notifications

You can create custom notification templates in SharePoint Designer. New notifications
will be displayed here, so that you will be able to turn on\off sending these notifications
without editing a workflow. For more details, refer to the Administrator's Guide.

☑ Assigning time out (Custom notification for assign time out by category Licensing)

This new custom template can also be used in **workflows**:

If Current Item:Category contains Licensing

    Send notification from {%hhdprop:helpdeskfullemail%} TO {%hhd:roles.technician.emailrecipients%} CC this address BCC this address

Else   with importance Normal using template with CustomRequestAssigningTimeOutToTechician

    Send notification from {%hhdprop:helpdeskfullemail%} TO {%hhd:roles.technician.emailrecipients%} using template with RequestAssigningTimeoutToTechician

Templates update during the HelpDesk update

Initial versions of templates are created as so-called **ghosted** files. It means that the message templates
will be automatically updated during the HelpDesk update procedure, **unless** they have been modified
with SharePoint Designer – in this case, they will remain intact.

If necessary, it is possible to **undo changes** and return to the original state of the template:

- Choose the template that has been modified. It can be identified by 🛈 icon.
- Right-click the file - **Reset to Site Definition**
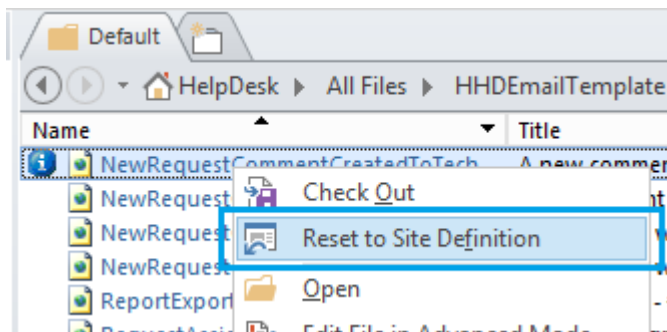
In this case, the status of the template will be returned to not modified, and custom changes will be
saved as a backup. Backup files do not affect the functionality of HelpDesk.

3. Configuring notification copies

Quite often managers, specialists or heads of departments need to be included in the e-mail loop for
support requests. In HarePoint HelpDesk, it is possible to configure how notification copies (CC's for
notifications) will be sent out.

For that purpose, HarePoint HelpDesk contains a workflow template - **HarePoint HelpDesk v2 – Send
notification copies** that can be adjusted as necessary. This workflow can be modified using SharePoint
Designer (for more details, refer to next paragraph Editing workflows).

Important note: this workflow is associated with **Outbox** document library, where all outgoing notifications are stored. With the default HarePoint HelpDesk settings, these notifications are created by a **System Account**, therefore associated workflows **will not start automatically** on that library.

In order to enable automatic start of this workflow, specify a non-system account in **HarePoint HelpDesk settings – [Incoming E-mails](#) – Advanced settings - Account for Requests creation**.

The workflow contains four pre-configured steps, which serve **only as examples** to demonstrate the available options:

- **Notifications for Head of Technical Support Department** – triggers when there is an SLA escalation occurred
- **Notifications for Senior Specialist** – triggers if current Request resolution has not been approved by a User and if Request has been assigned to a certain Technician(s)
- **Notifications for Head of Marketing** – triggers if there is a new Request about Licensing
- **Notifications for Head of IT Department** – triggers if an Urgent request about Deployment has been successfully resolved

Impersonation Step

The contents of this step will run as the workflow author:

Notificaions for Head of Technical Support Department

If Current Item:Notification template equals SLAEscalationToTechician.htm

    Email <Head of Technical Support Department>

Notifications for Senior Specialist

If Current Item:Notification template equals RequestSolutionNotApprovedToTechician...

and Current Item:Recipients contains technician1@mycompany

or Current Item:Recipients equals technician2@mycompany

    Email <Senior Specialist>

Notifications for Head of Marketing

If Requests:Category equals 1;#Licensing

and Current Item:Notification template equals NewRequestCreatedToTechician.htm

    Email <Head of Marketing Department>

Notifications for Head of IT Department

If Requests:Category equals 2;#Deployment

and Requests:Priority equals 4;#Urgent

and Current Item:Notification template equals RequestHasBeenResolvedToUser.htm

    Email <Head of IT Department>

That is, you can configure various notification copies to be sent out, based on the following conditions:

- **The template** of the original notification, using *Current Item: Notification template*
- **Recipients of the** original notification, using *Current Item: Recipients*
- **Request properties**, using the following *lookup* (keep in mind the workflow is associated **not** with a Requests list, but with the **Outbox** library, so that *Current Item* refers not to the request, but to an original notification):

(this example shows how to get the **Priority** of the current request)

Create your own workflow step, or adjust the existing one.

Remove the steps that are not needed.

Click to **Save** and **Publish** the workflow.

4. Editing workflows

Workflows used by the HelpDesk can be modified, using Microsoft **SharePoint Designer** if it is necessary to adjust or modify the logic of the Product.

HelpDesk contains the following workflows:

1. **HarePoint HelpDesk v2 – Assigning Support Rep**
   Auto-assignment responsible Technician according to the Category or the Product specified in the Request
2. **HarePoint HelpDesk v2 – Check SLA**
3. **HarePoint HelpDesk v2 – Escalation**
4. **HarePoint HelpDesk v2 – Evaluate SLA**
5. **HarePoint HelpDesk v2 – Process Request Task**
6. **HarePoint HelpDesk v2 – Send notification copies**

Important note: Since editing workflows is an advanced option, use it with **caution**. Make sure to completely understand the logic of the workflow before making any changes to it.

1. Connect to your HelpDesk site using **SharePoint Designer**.

2. In **Navigation** pane at left, click **Workflows**.
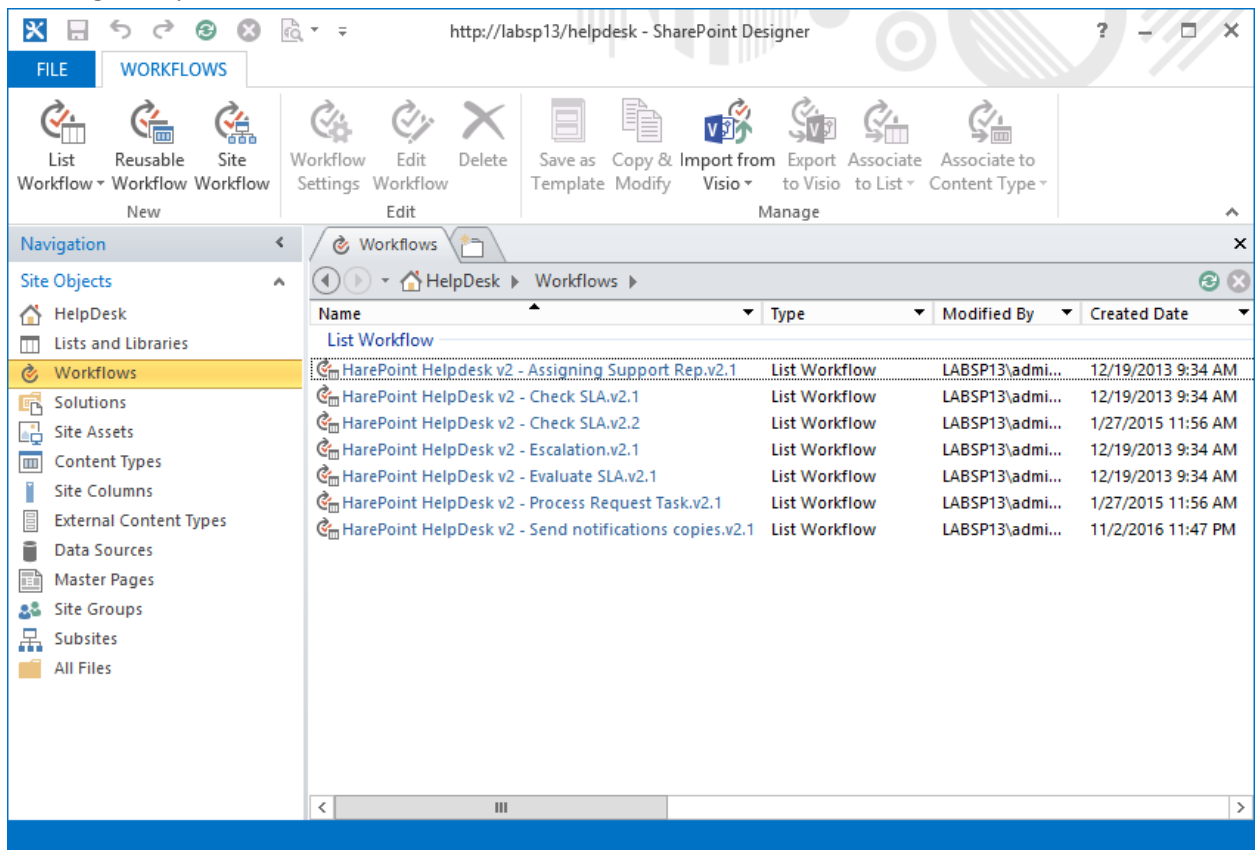
3. All workflows related to HarePoint HelpDesk have **HarePoint HelpDesk** prefix.

4. Select the necessary workflow, and click **Edit workflow**.
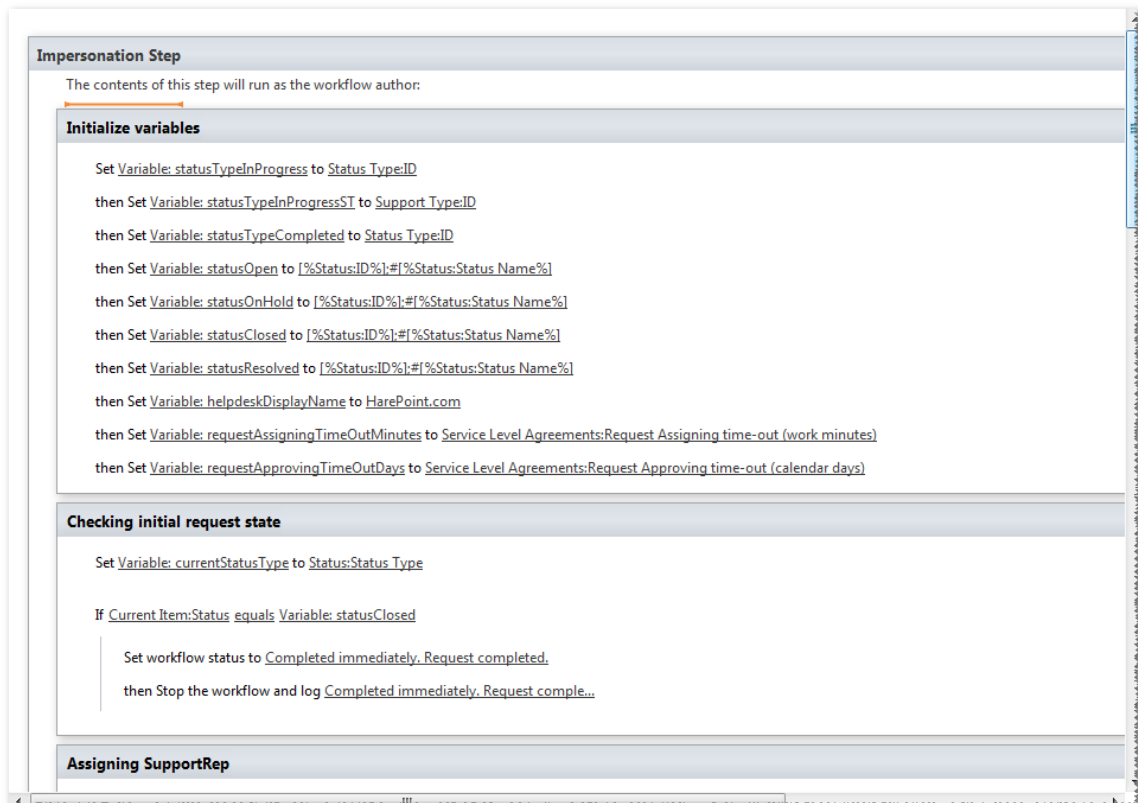
5. Make necessary changes to the workflow and click **Publish** on the ribbon.

These workflows contain both standard activities and the additional ones, which are also supplied as a part of the HarePoint HelpDesk solution. These activities are described in the next paragraph HarePoint HelpDesk Workflow activities.

5.   HarePoint HelpDesk workflow actions

Since out-of-the-box workflow actions and conditions do not provide sufficient functionality, additional custom workflow actions are provided with HelpDesk. They are also available using SharePoint Designer quite the same way as the standard ones.

You can use them if workflow customization is necessary.

Below you can find a description and examples for them.
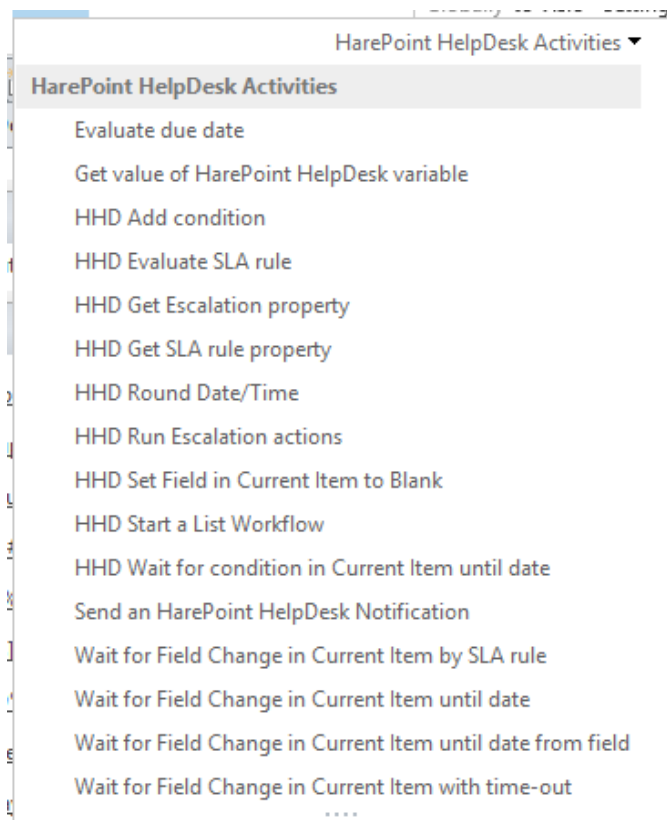
Is user in role of HarePoint HelpDesk

This condition is initially displayed in a workflow step as

> *If <u>this user</u> is in <u>this</u> role of HarePoint HelpDesk*

The condition checks the user belongs to one of the HarePoint HelpDesk roles. One of the following values can be specified as **this** parameter: **User**, **Technician**.

Evaluate due date

This action is initially displayed in a workflow step as

> *Evaluate due date from <u>this time</u> for <u>0</u> days, <u>0</u> hours, <u>5</u> minutes (Output to Variable: <u>due date</u>)*

The action calculates date and time of the task completion, starting from **this time** with the duration specified in parameters **days**, **hours** and **minutes**. The data from **Site Settings - Regional Settings** of the current site are used to determine the working time.

Get value of HarePoint HelpDesk variable

This action is initially displayed in a workflow steps as

Get value of HarePoint HelpDesk variable by name (Output to new variable)

The activity puts the value of the HarePoint HelpDesk parameter to variable **new variable**. The list of parameters and their current values can be discovered using the command:

```
> stsadm -o hhddisplayproperties -url <HarePoint HelpDesk installation web url>
```

Send a HarePoint HelpDesk Notification

This action is initially displayed in a workflow steps as

Send notification from this address TO this address CC this address BCC this address with importance Normal using template with static name

The action creates and sends a message with the specified parameters, using a template. The template name is specified in parameter **static name**.
To learn where message templates are located, look for details in paragraph Modifying notification templates.
In fields that define the recipients of the notification it is possible to use macros described in paragraph HarePoint HelpDesk macros.

Example:

Send notification from {%hhdprop:helpdeskfullemail%} TO {%hhd:roles.technician.emailrecipients%} CC this address BCC this address with importance High using template with RequestAssigningTimeoutToTechician

HHD Add Condition

This action is initially displayed in a workflow steps as

Add condition field to equal value with Id condition id to variable

This action adds a new condition for Request list items values.

Example:

HHD Evaluate SLA rule

This action is initially displayed in a workflow steps as

Evaluate SLA rule for request. Store rule id to Variable: SLARuleId

This action defines the identifier of a SLA rule for the given query.

Example:

Evaluate SLA rule for <u>Current Item</u> . Store rule id to <u>Variable: SLARuleId</u>

HHD Get Escalation property

This action is initially displayed in a workflow steps as

Get value of Escalation properly <u>by name</u> from <u>escalation details</u> (Output to <u>new variable</u>)

This action gets the value of the indicated escalation property.

Example:

Get value of Escalation property <u>EscalationRecipient</u> from <u>Parameter: escalationDetails</u> (Output to <u>Variable: escalationRecipient</u>)

HHD Get SLA rule property

This action is initially displayed in a workflow steps as

Get SLA property. SLA Id: <u>0 </u>. Property name: <u>key</u>. Output to: <u>value</u>

This action obtains the value of the indicated SLA property

Example:

Get SLA property. SLA Id: <u>Variable: SLARuleId</u> . Property name: <u>UseWorkingHours</u> . Output to: <u>Variable: useWorkingHours</u>.

HHD Round Date/Time

This action is initially displayed in a workflow steps as

Round <u>this time</u> using method <u>Trim seconds</u> (Output to <u>Variable: value</u>)

This action rounds dates/times. The options available are: Trim seconds, Trim minutes, Round to minutes, Round to hours.

Example:

Round <u>Variable: dueByDate</u> using method <u>Trim seconds</u> (Output to <u>Variable: dueByDate</u>)

HHD Run Escalation actions

This action is initially displayed in a workflow steps as

Run escalation additional actions (<u>escalation details</u>) for <u>request</u>

Execution of additional escalation actions according to an SLA rule.

Example:

Run escalation additional actions (<u>Parameter: escalationDetails</u>) for <u>Current Item</u>

HHD Set Field in Current Item to Blank

This action is initially displayed in a workflow steps as

Set <u>field</u> to Blank

This action lets you set a selected field as blank in the current query in the list.

Example:

Set Response <u>DueBy Time</u> to Blank

HHD Start a List Workflow

This action is initially displayed in a workflow steps as

Start <u>HarePoint HelpDesk list workflow</u> with <u>data</u> on <u>this item</u> . Run options: <u>Synchronous but allow postpone</u>

This action lets you start a workflow associated with a list.

HHD Wait for condition in Current Item until date

This action is initially displayed in a workflow steps as

Wait for <u>variable</u> until date <u>this time</u> . Store waiting result to <u>Variable: variable</u> .

This action pauses the workflow until the condition (created by Add condition action) has occurred until the certain date.

Example:

Wait for Field Change in Current Item by SLA rule

This action is initially displayed in a workflow steps as

Wait for <u>field</u> <u>to equal</u> <u>value</u> by SLA rule id <u>0</u> . Escalate using workflow with name pattern <u>workflow</u> <u>name pattern</u> . Store waiting result to <u>Variable: variable</u>

This action suspends the execution of a workflow until an expected condition is met.

The given action is applied in the context of a workflow that monitors the execution of an SLA rule, specifically the **HarePoint HelpDesk v2 - Check SLA process**. The indicated workflow is associated with a list of user queries – Requests (Lists/HHDRequests). This action is **not applicable** in any other circumstances.

Typical completion of this activity occurs when the required condition is met. However, there might be other, non-typical possibilities.
The result of the completed activity returns the value of the variable. The possible **values** for this variable are:

1. **<MatchCondition/>** - waiting for the condition was fulfilled.
2. **<SLARuleChanged/>** -while waiting, the SLA rule changed. The SLA rule identifier is taken from the SLA Rule field from the Requests list.
3. **<DueByIsIncreased/>** - a change (increase) in the date and time assigned in the *Due By Date* field in the *Requests* lists.

Also a situation is possible, where the result is affected by multiple factors.

Example:
Wait for <u>Status</u> <u>to equal</u> <u>[%Variable: statusResorved%]||[%Varia...</u> by SLA rule id <u>Current Item:SLA</u> <u>Rule</u> . Escalate using workflow with name pattern <u>^HarePointHelpDeskv2 - Escalation^</u> Store waiting result to <u>Variable: resolution Waiting Result</u>.

Wait for Field Change in Current Item until date

This action is initially displayed in a workflow steps as

Wait for <u>field</u> <u>to equal</u> <u>value</u> until date <u>this time</u>. Store timeout flag to Variable: <u>isTimeOut</u>.

This action pauses the workflow until the field in the current item has changed to a new value with specified time-out.

Example:
Wait for <u>Approval Status</u> <u>to equal</u> <u>1;#Rejected</u> until date <u>03.03.2012</u>. Store timeout flag to Variable: <u>isTimeOut</u>

Wait for Field Change in Current Item until date from field

This action is initially displayed in a workflow steps as

Wait for <u>field</u> <u>to equal</u> <u>value</u> until date from field <u>field</u> . Store timeout flag to <u>Variable: isTimeOut</u>

This action pauses the workflow until the field in the current item has changed to a new value, or until the certain date.

Wait for Field Change in Current Item with time-out

This action is initially displayed in a workflow steps as

Wait for <u>field</u> <u>to equal</u> <u>value</u> with timeout <u>0</u> days, <u>0</u> hours, <u>5</u> minutes. Store timeout flag to Variable: <u>isTimeOut</u>.

This action pauses the workflow until the field in the current item has changed to a new value with specified time-out.

Example:

Wait for <u>Approval Status</u> <u>to equal</u> <u>1;#Rejected</u> with timeout <u>0</u> days, <u>0</u> hours, <u>5</u> minutes. Store timeout flag to Variable: <u>isTimeOut</u>

6.   HarePoint HelpDesk macros

Generally, a HarePoint HelpDesk macro is a string that looks like:

[%type: value.subvalue%]

or

{%type: value.subvalue%}

The **type** parameter is **not case sensitive**.

The following values of parameters included in the macro are allowed:

- type: **variable**
  The macro will be replaced by the text value of the workflow variable. The variable name is specified as the **value** parameter.
  Example: *[%variable: currentStatusName%]*
- type: **current item**
  The macro is replaced by the field value of the current record. Static or display field name can be used as the field name.
  Example: *[%Current Item: Title%]*
  Beside the field name, you can also specify which of its values should be used.
  - For fields of type **Lookup** you can specify the **subvalue** parameter, it could be one of the following values: **id**, **value**.
  - For fields of type **User**: **id**, **value**, **sipaddress**, **name**, **email**, **loginname**, **fullemail**.
  Examples: *[%Current Item: Product.Value%], [%Current Item: Author.email%].*
- type: **hhd**
  One of the following values can be specified as a value:
  - value: **roles**
    When **subvalue** is equal to **technician.emailrecipients**, the **TO** field value of the message is formed. The list of users with the **Technician** role is used as the source of recipients.
    Example: *John Smith [smith@example.com]; Sergey Voronkov [voronkov@example.com];*
  - value: **userrequestviewform**
    Address of the page containing the form for viewing the request of user with the **User** role.
  - value: **technicianrequestviewform**
    Address of the page containing the form for viewing the request of user with the **Technician** role.
  - value: **technicianrequestsview**
    The address of the page containing the list of requests of users with the **Technician** role.

- value: **requestuser**

  The value of the **RequestUser** field. If the specified field is empty, the value of the **Author** field is taken. Example: **[%hhd: requestuser.fullemail%]**.

- *value: **supportrepusername**

  The name of the responsible technician
- *value: **supportrepuseremail**

  the e-mail address of the responsible technician

  *Note: The latter two can only be used in following notifications:
  - NewRequestCommentCreatedToTechnician
  - NewRequestCommentCreatedToUser
  - NewRequestCreatedToUser
  - NewRequestCreatedToTechnician
  - RequestAssignedToTechicianNotification
  - RequestApprovedToTechicianNotification

- value: **userrequestapprove**

  The link to approve the suggested resolution for a request.

  Note: only used in RequestHasBeenResolvedToUser notification.

- type: **hhdprop**

  The macro is replaced by the value of the HarePoint HelpDesk parameter. The list of parameters and their current values can be learnt using the command:

  ```
  > stsadm -o hhddisplayproperties -url <HarePoint HelpDesk installation
  web url>
  ```

  Example: *[%hhdprop:helpdeskname%].*

There is a macro, which is different from the macros above:

    [%FullRequestHistory: On%]
    [%FullRequestHistory: OnReverse%]

When it is used in template, **full request history** will be added to e-mail message.
[%FullRequestHistory: On%] displays messages from oldest to newest, identically to what can be seen in HarePoint HelpDesk interface.
[%FullRequestHistory: OnReverse%] displays messages in a reverse order, from newest to oldest, which is the same as in e-mail communications.

The macro can be set to **Off** do disable adding full request history:

    [%FullRequestHistory: Off%]

It is more convenient than just to remove the macro since it can be easily changed back to **On** or **OnReverse** when necessary, without referring to this Product Guide.

XII.   Updating HarePoint HelpDesk sites

Important note: Before starting the update, **always create a backup copy** of the site to be updated!

The updating procedure of HarePoint HelpDesk site is designed to be as safe as possible, it means no data will be lost or corrupted, and all settings will remain.

When to run an update?
There are several reasons to run the update for the existing HelpDesk site:
- A **new version** of HelpDesk has been downloaded and installed. Note that Installation Wizard does not update the existing HelpDesk sites! It only updates the solution package in SharePoint.
- HelpDesk **functionality is affected or completely lost** due to improper customization.

Update procedure
The update of a HarePoint HelpDesk site is performed by deactivating and then activating again the **HarePoint HelpDesk** site feature.

To do this:
1. Go To **Site Settings**.
2. In section **Site Actions** click link **Manage site features**.
3. Click **Deactivate** opposite to the name of the **HarePoint HelpDesk** feature and confirm the deactivation.
4. Click **Activate** opposite to the name of the **HarePoint HelpDesk** feature.

In the process of updating the site, the changes of the following items are made:

- **Lists**
  In the process of Product development the structure of lists can be changed.
  When updating lists the safety of the existing data in lists is guaranteed. A new field can be added to the list, or the existing one can be slightly modified. But the existing field cannot be removed under any circumstances.

- **Pages of applications**
  These pages are located in the folder:
  - SharePoint 2010: **%ProgramFiles%\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\LAYOUTS\HarePoint\HelpDesk**
  - SharePoint 2013: **%ProgramFiles%\Common Files\Microsoft Shared\Web Server Extensions\15\TEMPLATE\LAYOUTS\HarePoint\HelpDesk**
  - SharePoint 2016 and 2019: **%ProgramFiles%\Common Files\Microsoft Shared\Web Server Extensions\16\TEMPLATE\LAYOUTS\HarePoint\HelpDesk**

Application pages are automatically updated when you update the solution.

- **Workflows**

    Details of this process are described in paragraph [Updating HarePoint HelpDesk workflows](#).

- **E-mail notification templates**

    Templates for notification e-mails are automatically updated when you update the solution.
    However, this **does not happen** if template files are in the **modified** state.
    In order to bring notification templates to the original, you need to revert them to the unmodified state, as described in paragraph [Modifying notification templates](#).

1. Updating HarePoint HelpDesk workflows

The HarePoint HelpDesk site includes several workflows. When creating a site the latest version of the workflow is always installed.
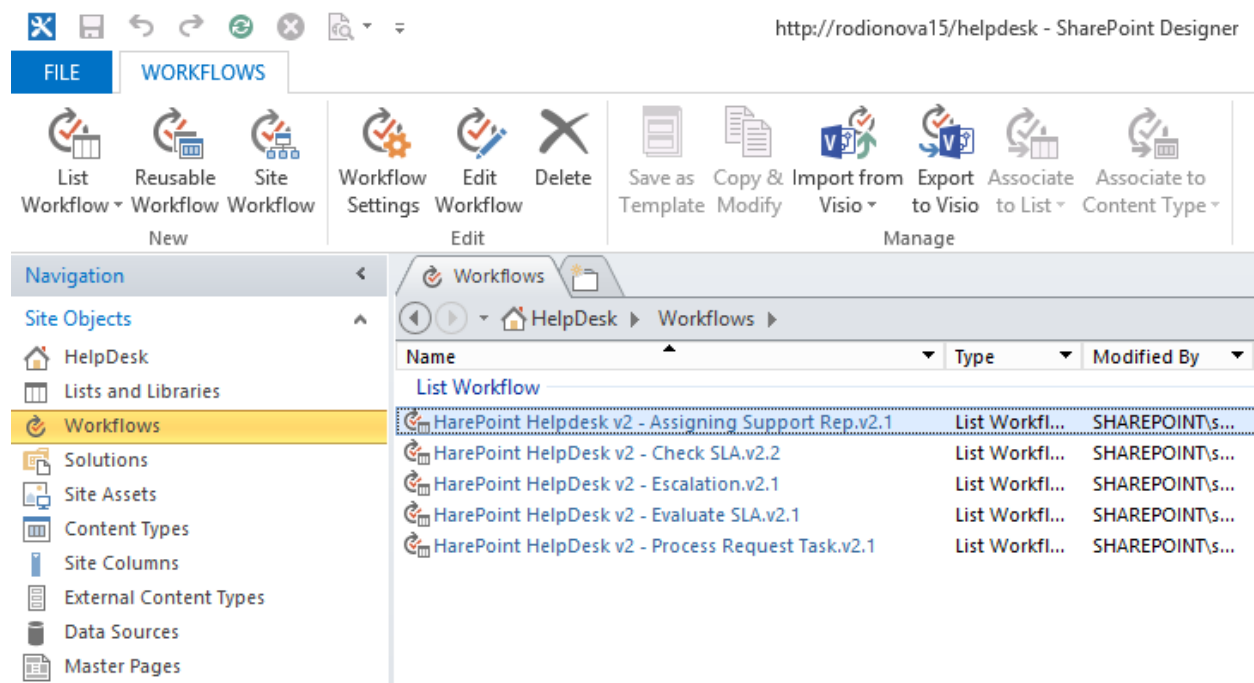
The version of the installed workflow is specified in its name.

Note: Workflows are updated rarely and **not in every release** of HelpDesk.

The existing version of a workflow **is not updated** under any circumstances. A new version of the workflow is created instead.

Important note: the new version of the workflow is **only created on the site, but not published**. That is, the previous version remains operational after the update. This approach ensures the safety of all customization changes made to the workflow.

Activation of the new versions of workflows if there <u>were modifications</u> to previous versions of workflows:

1. Open the settings page for the **current version** of the workflow in SharePoint Designer. **Remember the status** of checkboxes for **Start workflow automatically when an item is created**, **Start workflow automatically when an item is changed** and then **uncheck** them:
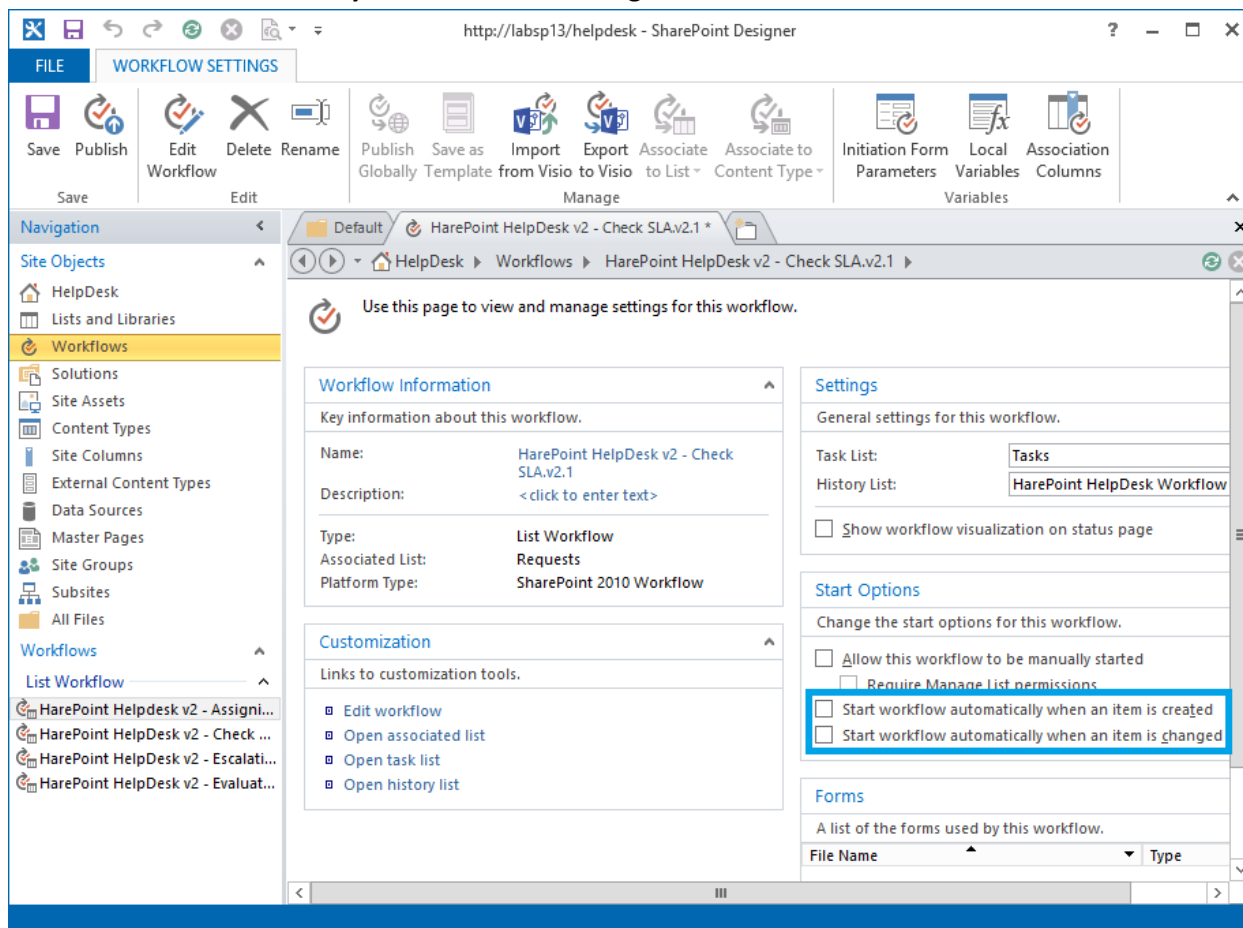
2. Press **Publish** in the ribbon.
3. Open the settings page for the new version of the workflow. Check **Start workflow automatically when an item is created, Start workflow automatically when an item is changed** according to the settings of the previous version of the workflow.
4. Press **Publish** in the ribbon.

Important note: If the previous version of the workflow has some modifications made during the customization of HelpDesk, they **need to be replicated in the new version**.

Activation of the new versions of workflows if previous versions of workflows <u>were not</u> modified:

If no changes were made to workflows, the update procedure can be simplified.

To do this, manually **delete** the current versions of workflows **before starting the update process**.

XIII. Migration

This chapter describes three migration scenarios:

1. Migrating from SharePoint 2010 to SharePoint 2013

HarePoint HelpDesk site can be migrated from SharePoint **2010** farm to SharePoint **2013** farm.

A **database attach upgrade** should be used, which means that you upgrade only the content for your environment and not the configuration settings.

Before copying the databases:

1. Install SharePoint HelpDesk to SharePoint2013 farm using Setup.exe
2. Make sure that the **account** to be used to copy databases:
   a. has access to **SQL Server Management Studio** both on the SharePoint 2010 and SharePoint 2013 environments
   b. has access to a **network location** accessible from both environments to store the copies of the databases.

Step1: Backing up the content databases of the web application where HarePoint HelpDesk site is located.

Follow these **steps to back up a database** using **SQL Server tools:**
1. Verify that the user account that is performing this procedure is a member of the **db_owner** fixed database role for the databases.
2. In **Management Studio** go to **Object Explorer**, connect to an instance of the Database Engine, expand the server, and then expand **Databases**.
3. Right-click the database that you want to back up, point to **Tasks**, and then click **Back Up**.
4. The **Back Up Database** dialog box appears.
5. Verify the database name in the **Source** area - **Database** box.
6. In the **Backup type** box select **Full**.
7. Under **Backup component**, select **Database**.
8. In the **Backup set** area, in the **Name** box, either accept the backup set name that is suggested or specify a different name for the backup set.
9. In the **Destination** area, specify the type of backup destination by selecting Disk or Tape, and then specify a destination. To create a different destination, click **Add**.
10. Click **OK** to start the backup process.

Step2: Copying the databases

Copy the backup files that were created in the **Step 1** from SharePoint 2010 environment to SharePoint 2013 environment. E.g. you can use a **network location** accessible from both environments.

Step 3: Restoring the backup copies of the databases to SQL Server

Important note: perform this step only when the new SharePoint 2013 server farm configuration is complete!

Follow these **steps to restore a backup copy of a database** using **SQL Server tools**:

1. Verify that the user account that is performing this procedure is a member of the **db_owner** fixed database role for the databases.
2. After you connect to the appropriate instance of the SQL Server Database Engine, in Object Explorer, expand the server name.
3. Right-click **Databases**, and then click **Restore Database**.
4. The **Restore Database** dialog box appears.
5. In the **Restore Database** dialog box, on the **General** page, type the name of the database to be restored in the **To database** list.
6. In the **To a point in time** text box, keep the default (**Most recent possible**).
7. To specify the source and location of the backup sets to restore, click **From device**, and then click **[…]** to select the backup file.
8. In the **Specify Backup** dialog box, in the **Backup media** box, be sure that **File** is selected.
9. In the **Backup location** area, click **Add**.
10. In the **Locate Backup File** dialog box, select the file that you want to restore, click **OK**, and then, in the **Specify Backup** dialog box, click **OK**.
11. In the **Restore Database** dialog box, under **Select the backup sets to restore** grid, select the **Restore** check box next to the most recent full backup.
12. Click **OK** to start the restore process.

Step 4: Creating a web application and attaching database

It is necessary to **create a web application**. You can use the same URL (including name, port, and host header) as for web application that existed in SharePoint 2010.

Before attaching the content database to the web application, use the **Test-SPContentDatabase** Windows PowerShell cmdlet to verify that you have all the custom components that you must have for that database:

At the Windows PowerShell command prompt, type the following command:

> **Test-SPContentDatabase -Name *DatabaseName* -WebApplication *URL***

- *DatabaseName* is the name of the database.
- *URL* is the URL for the web application that will host the HarePoint HelpDesk site.

To **attach a content database** to a web application using Windows PowerShell, type the following command:

Mount-SPContentDatabase -Name *DatabaseName* **-DatabaseServer** *ServerName* **-WebApplication**
URL
- *DatabaseName* is the name of the database.
- *ServerName* is server on which the database is stored.
- *URL* is the URL for the web application that will host the HarePoint HelpDesk site.

Step 5: Upgrading the site collection

When databases have been upgraded, you would need to **upgrade site collection**. When you first access your sites after the database has been upgraded, a notification bar at the top of the site indicates that sites can be upgraded. The choices are **Start now** or **Remind me later**.

Click **Start now** to begin the site collection upgrade process.

In case if you don't plan to upgrade the site collection immediately, you can perform this later as follows:

1. On the **Site Settings** page for the site collection, in the **Site Collection Administration** section, click **Site collection upgrade**.

2. On the **Site Collection Upgrade** page, click **Upgrade this Site Collection**.

3. This option starts the process of upgrading your site collection. A window pops up to make sure that you actually want to start the process.

4. Click **I'm ready** to start the upgrade.

5. The upgrade starts, and the **Upgrade status** page for the site collection is displayed. This page is updated automatically during the upgrade and displays the following information:
- Errors or warnings
- When the upgrade started
- Location of the upgrade log file

9. After the upgrade is complete, the **Upgrade status** page is displayed in the new user interface with the message **Upgrade Completed Successfully**.

10. Click **Let's see the new site** to go to the home page.

2.   Migrating from SharePoint 2010 to SharePoint 2016/2019

Important note: Due to SharePoint restrictions, it is **not possible to migrate** HarePoint HelpDesk site from SharePoint 2010 to SharePoint 2016 or SharePoint 2019 **directly**.

This can only be performed as a two-step process:

   a.   First migrate to SharePoint 2013, as described in the [previous paragraph](#)

b. Then migrate from SharePoint 2013 to SharePoint 2016/2019, as described in the <u>next paragraph</u>

3.   Migrating from SharePoint 2013/2016 to SharePoint 2016/2019

HarePoint HelpDesk site can be migrated from SharePoint **2013** farm to SharePoint **2016/2019** farm.

A **database attach upgrade** should be used, which means that you upgrade only the content for your environment and not the configuration settings.

Before copying the databases:

3. Install SharePoint HelpDesk to SharePoint 2016/2019 farm using Setup.exe
4. Make sure that the **account** to be used to copy databases:
    a. has access to **SQL Server Management Studio** both on the source and target environments
    b. has access to a **network location** accessible from both environments to store the copies of the databases.

Step1: Backing up the content databases of the web application where HarePoint HelpDesk site is located.
Follow these **steps to back up a database** using **SQL Server tools:**
11. Verify that the user account that is performing this procedure is a member of the **db_owner** fixed database role for the databases.
12. In **Management Studio** go to **Object Explorer**, connect to an instance of the Database Engine, expand the server, and then expand **Databases**.
13. Right-click the database that you want to back up, point to **Tasks**, and then click **Back Up**.
14. The **Back Up Database** dialog box appears.
15. Verify the database name in the **Source** area - **Database** box.
16. In the **Backup type** box select **Full**.
17. Under **Backup component**, select **Database**.
18. In the **Backup set** area, in the **Name** box, either accept the backup set name that is suggested or specify a different name for the backup set.
19. In the **Destination** area, specify the type of backup destination by selecting Disk or Tape, and then specify a destination. To create a different destination, click **Add**.
20. Click **OK** to start the backup process.

Step2: Copying the databases
Copy the backup files that were created in the **Step 1** from SharePoint 2013/2016 environment to SharePoint 2016/2019 environment. E.g., you can use a **network location** accessible from both environments.

Step 3: Restoring the backup copies of the databases to SQL Server

Important note: perform this step only when the new SharePoint 2016/2019 server farm configuration is complete!

Follow these **steps to restore a backup copy of a database** using **SQL Server tools**:

13. Verify that the user account that is performing this procedure is a member of the **db_owner** fixed database role for the databases.
14. After you connect to the appropriate instance of the SQL Server Database Engine, in Object Explorer, expand the server name.
15. Right-click **Databases**, and then click **Restore Database**.
16. The **Restore Database** dialog box appears.
17. In the **Restore Database** dialog box, on the **General** page, type the name of the database to be restored in the **To database** list.
18. In the **To a point in time** text box, keep the default (**Most recent possible**).
19. To specify the source and location of the backup sets to restore, click **From device**, and then click **[...]** to select the backup file.
20. In the **Specify Backup** dialog box, in the **Backup media** box, be sure that **File** is selected.
21. In the **Backup location** area, click **Add**.
22. In the **Locate Backup File** dialog box, select the file that you want to restore, click **OK**, and then, in the **Specify Backup** dialog box, click **OK**.
23. In the **Restore Database** dialog box, under **Select the backup sets to restore** grid, select the **Restore** check box next to the most recent full backup.
24. Click **OK** to start the restore process.

Step 4: Creating a web application and attaching database

It is necessary to **create a web application**. You can use the same URL (including name, port, and host header) as for web application that existed in SharePoint 2013/2016.

Before attaching the content database to the web application, use the **Test-SPContentDatabase** Windows PowerShell cmdlet to verify that you have all the custom components that you must have for that database:

At the Windows PowerShell command prompt, type the following command:

   Test-SPContentDatabase -Name *DatabaseName* -WebApplication *URL*
- *DatabaseName* is the name of the database.
- *URL* is the URL for the web application that will host the HarePoint HelpDesk site.

To **attach a content database** to a web application using Windows PowerShell, type the following command:

   Mount-SPContentDatabase -Name *DatabaseName* -DatabaseServer *ServerName* -WebApplication *URL*
- *DatabaseName* is the name of the database.

- *ServerName* is server on which the database is stored.
- *URL* is the URL for the web application that will host the HarePoint HelpDesk site.

The migration process is now complete.

XIV. Archiving requests

Note: This functionality is only available in **Standard Edition** of HarePoint HelpDesk.

At some point you may figure out you are having too many closed or very old requests stored in HelpDesk. Removing them is not really a good option since you possibly may need to refer to these requests in the future. HarePoint HelpDesk suggests a good way to store and manage these requests: you can move (or copy) them to archive. You will be able to **view** the requests within archive quickly and easily right from Technician Dashboard, and if necessary **restore** them back to HarePoint HelpDesk site.
From technical point of view, requests archive is a **separate SQL database**. This approach ensures you can store huge amount of requests and access any request quickly.

Archive includes the following:

- Requests matching certain parameters (see [Archiving settings on a HelpDesk site](#))
- All request comments (answers) and hidden comments (visible only for technicians)
- Request history
- Attached files to the ticket and its comments (answers).

The data from other lists (such as Product, Categories) will not be archived.

Important note: The archiving is neither designed to transfer data from one HarePoint HelpDesk site to another, nor to backup HarePoint HelpDesk sites – you would need to use standard tools in SharePoint to perform full site or site collection backups.

1. Archive Database configuration
Archived requests are stored in a separate SQL database.
Note: **HarePoint HelpDesk stores the archives from all HarePoint HelpDesk sites of this farm in a single database.** It is, however, guaranteed that the archived requests only from the corresponding HelpDesk sites will be displayed, because the archived requests are stored along with the site ID where they come from.

You can create and attach a new database (right from HarePoint HelpDesk settings), or attach an existing database (that was created earlier).

Note: These settings are reset if you perform if you completely uninstall HarePoint HelpDesk and install it from scratch. In this case you would need to re-attach an existing database.

Creating and attaching a new SQL database:

1. Go to the SharePoint **Central Administration** page. You need to use **farm administrator account** for the authorization.
2. Go to the **Archiving** page using the link in the **HarePoint HelpDesk for SharePoint** section.

3. Click **Create or change database**.
   Specify the SQL server name (or SQL alias), the name for the new database and select authentication method:
   - If **SQL-authentication** is selected, the specified account needs to have **dbcreator** and **securityadmin** roles on SQL-server, before connecting the database.
   - If **Windows-authentication** is selected, the SharePoint **farm administrator account** is used to access the database. This is the account that runs the Central Administration web application (you can check this account in IIS). It is important to make sure the SharePoint farm administrator account has **dbcreator** and **securityadmin** roles on SQL-server, before connecting the database.
4. Click **Create** button.

Connecting an existing SQL database

1. Go to the SharePoint **Central Administration** page. You need to use **farm administrator account** for the authorization.
2. Go to the **Archiving** page using the link in the **HarePoint HelpDesk for SharePoint** section.

3. Click **Connect the existing database**.
4. Specify the SQL server name (or SQL alias), the name for the new database and select authentication method:
   - If **SQL-authentication** is selected, the specified account needs to have **dbcreator** and **securityadmin** roles on SQL-server, before connecting the database.
   - If **Windows-authentication** is selected, the SharePoint **farm administrator account** is used to access the database. This is the account that runs the Central Administration web application (you can check this account in IIS). It is important to make sure the SharePoint farm administrator account has **dbcreator** and **securityadmin** roles on SQL-server, before connecting the database.

Important note: Do NOT specify content databases, configuration databases, or other databases used by SharePoint or other applications. Only use a **separate database** for archiving requests in HarePoint HelpDesk!

5. Click **Connect** button.

2. Configure Archiving on a HelpDesk site

Go to **HarePoint HelpDesk site – Settings –Archiving**.
Click **Configure archiving requests**.

Users and Accounts
Specify Technicians, Users and Viewers

Notifications
General notification settings | Specify URLs for notification e-mails | Turn notifications on/off | Configure cleanup of sent notifications

SLA and Request Lifecycle
Manage SLA rules | Configure auto-closing of Requests | Configure auto-assigning of responsible Technician |
Configure alerts for manual assigning of responsible Technician

Incoming E-Mails
Configure e-mail providers | Processing rules | Define junk e-mail filter rules | Configure auto-creation of user accounts |
Advanced settings

Appearance and Behavior
Configure HarePoint HelpDesk heading | Customize request form for Technicians | Customize request form for Users |
Search settings for Technicians | Configure default view forms for Category and Product | Configure Knowledge Base |
Define blocked attachments

Archiving
Configure archiving requests

The currently **connected database** will be displayed:

Archiving database of HarePoint HelpDesk for SharePoint

Database connection parameters are set in Central Administration.

Database server
  LABSP13\SHAREPOINT
Database name
  HelpDesk_Archive

You can **configure the archiving parameters** on this page:

Archiving parameters

"Delete requests from HelpDesk site after archiving" option removes the requests from HelpDesk that are previously saved in archive. It removes them with all answers and hidden comments. You can work with archives on "Archived requests" page, which is accessible from Technician dashboard menu. You can archive requests with certain statuses and created\modified\completed before a certain date, as needed.

☑ Delete requests from HelpDesk site after archiving

Archive the requests with the following statuses:

Open; On Hold; Closed; Resolved

Archive the requests based on:

Created Date

Archive the requests older than:

4   months

Delete requests from HelpDesk site after archiving option removes the requests (with all answers and hidden comments) from HelpDesk site that are previously saved in archive.

Important note: Archiving a huge amount of requests with this option enabled can take a long time to complete, since deleting an item in a list is a slow process in SharePoint.

You can archive requests with certain statuses and created\modified\completed before a certain date, as needed.

Example 1: archive closed requests that were created longer than 6 months ago:

Archive the requests with the following statuses:
Closed

Archive the requests based on:
Created Date

Archive the requests older than:
6 months

Example 2: archive all requests in HarePoint HelpDesk:

Archive the requests with the following statuses:
Open; On Hold; Closed; Resolved

Archive the requests based on:
Created Date

Archive the requests older than:
0 days

If necessary, you can **archive requests automatically by schedule**.
Set **Archiving schedule** to **Enabled** and configure how often archiving should be performed:

Archiving schedule
Configure how often archiving should be performed

Enabled
○ Daily
○ Weekly
⦿ Monthly
Time:
1 Sunday 12:00 AM

Permission to delete requests from archive - To prevent duplication of the requests on HelpDesk site, it is recommended to remove requests from the archive when restoring them to the site. There is a corresponding option available on the recovery form. Specify the users who will have the permission to delete requests from the archive while restoring. By default, **only site collection administrators** have this permission.
Note: Active Directory groups cannot be added directly; they should be added to a SharePoint group first.

Click **OK** to save the configuration, or click **Run archiving now** – it will save configuration and initiate archiving immediately. In this case, you will be redirected to **Archiving progress** page:

3. Archiving process

Actual request data in archive

At first run, HelpDesk archives all requests matching the current configuration for this site.

At next runs, if **Delete requests from HelpDesk site after archiving** is unchecked (thus requests remain on HelpDesk site), HelpDesk checks if data for each matching request already exist in the archive. In this case, the existing data will be updated. This ensures the archive always contains the actual version of the request as of last archiving date.

Timer job for archiving

Archiving by schedule is performed by a timer job **HarePoint HelpDesk for SharePoint – Archiving**:

Important note: In order for archiving by schedule to run successfully, this timer job needs to be **enabled and scheduled to run every 1 minute** – whatever archiving schedule is.

(You can check this in Central Administration – Monitoring – Check job status).
Archiving schedule and timer job schedule are not related one to another!

Note: The timer job performs archiving by schedule for all HarePoint HelpDesk sites within one web application. That is, if you have several HarePoint HelpDesk sites one web application, it is recommended to set **non-overlapping schedules** for archiving on these sites.

In case if this timer job is missing in job definitions, follow these steps:

- Go to **Central Administration – Application Management**
- Click on **Manage Web Applications**
- Click on **required web application** in the list (until that the controls on the ribbon will be inactive)
- Click **Manage Feature** button on the ribbon:
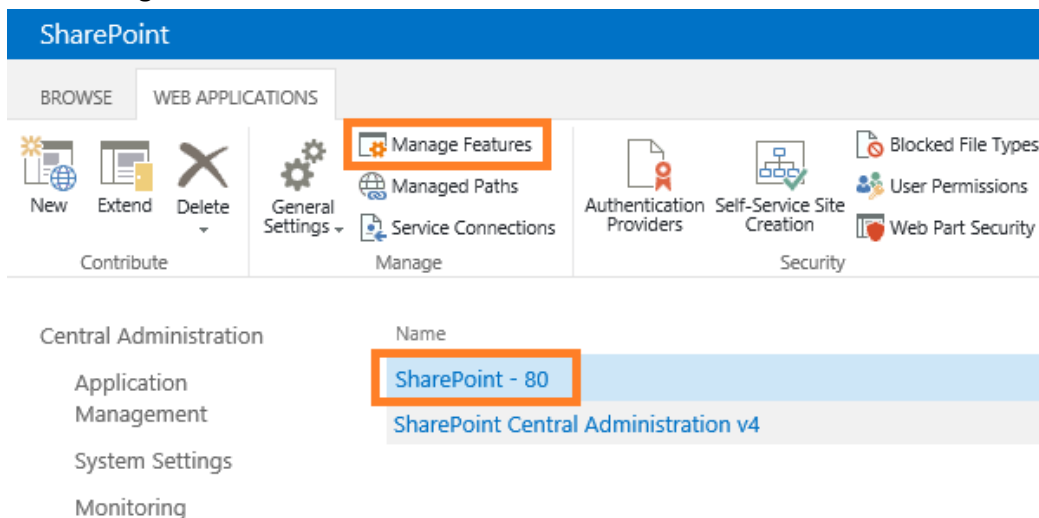
- Deactivate and then activate again **HarePoint HelpDesk WebApplication Timer Jobs** feature:

4.   View and restore archived requests

SQL Permissions required to view and restore requests
Important note: HarePoint HelpDesk uses the **application pool account** to connect to archiving database for viewing and restoring the archived requests. Therefore, make sure the account that runs the application pool of the web application where HarePoint HelpDesk is installed, has at least the following permissions for HarePoint HelpDesk archiving database:

db_datareader and **db_datawriter**

Viewing

Only Technicians and Viewers can view the archived requests.

To view the archived requests, access Technician Dashboard and click on **Archived requests** in the left pane. The archived requests are displayed in the same design as in Technician Dashboard.
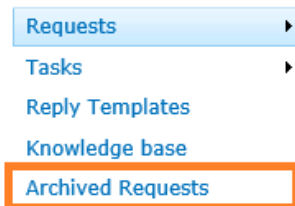
It is possible to change how archived requests are displayed, for that technician needs to have **Manage Web** permission. Click on **View Settings** button on the ribbon.

You can change the following:
- What columns are displayed
- How many archived requests per page to display. Default is 30.

These view settings are applied **for all technicians**.
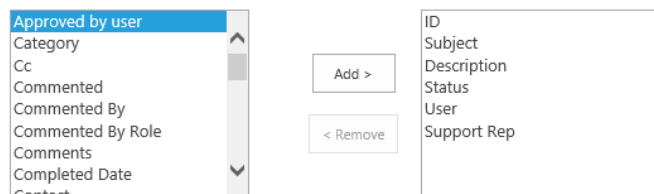
Restoring

Technicians can restore requests from archive back to HarePoint HelpDesk site.

To restore requests, go to **Archived requests.**

Select one or more requests in the list and click **Restore** button on the ribbon.

The confirmation window will pop up.

Restore request(s) from archive   ✕

The selected request will be restored from archive. Upon restoring, the new ID will be assigned to it.

☐ Delete request from archive after restoring

                                                                        [Restore]   [Cancel]

If necessary, you can check to **Delete request from archive after restoration**.
Note: this option requires a specific permission – see <u>Archiving configuration on a HelpDesk site</u>.

Click **Restore** button.

Note: The restored tickets get the new ID. In particular, that means, if you did not check the option to **remove request from archive after restoration**, then upon next archiving this request will be archived as a new request with its new ID.

During the request restoration a **field mismatch** can occur between current fields in Requests list on HarePoint HelpDesk site, and the fields stored in archive for this request.
In this case, a warning message will be displayed. You can either **Continue** restoring (ignoring the missing fields) or create manually the missing fields and then **Try again** the restoration:

Restore request(s) from archive   ✕

⚠ List fields in the archive do not match the fields on the site. The following fields are missing.

Internal name	Field Display name	Field Type
List: Requests		
ReferenceID	ReferenceID	Number

To restore the request(-s) fully with all values, create missing fields and click Try again button. Press Continue to restore request(-s) without these fields.

☐ Delete request from archive after restoring

                                                     [Continue]   [Try again]   [Cancel]

Note: Version history is not restored together with the request.

XV.   Viewing HarePoint HelpDesk requests

1.   SharePoint 5000 Item List view Threshold

SharePoint has a well-known limitation that not more than 5000 items can be displayed by a **list view**. Note that you can have much more than 5000 items in a list – **this limitation only concerns a list view**.

HarePoint HelpDesk stores all requests and comments to them in SharePoint lists. This means that at some point you can face the SharePoint threshold for 5000 items for a list view.

One of the workarounds is to increase the threshold. There are two possible disadvantages of this approach:

1) This setting is available at web application level, meaning that you will affect all lists on all site collections in this web application.

2) Microsoft does not recommend increasing the threshold, as it can reduce the SharePoint performance.

We made multiple tests and checks, and based on them we managed to create an appropriate solution.

Now, HarePoint HelpDesk has **site** feature **HarePoint HelpDesk Large Lists Compatibility**:
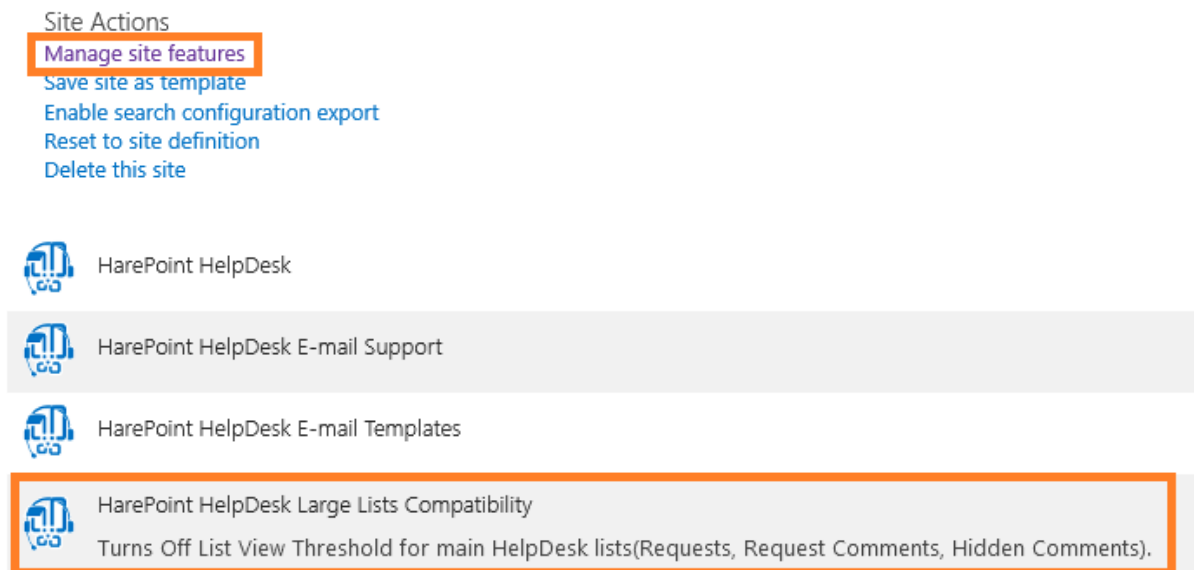
When this feature is activated, it disables List View Threshold for **three lists only**:

- Requests
- Request Comments
- Hidden Comments

This is the main point, that other lists, as well the whole web application remain unaffected.
This also ensures there will be no noticeable performance impact if you have more than 5000 items list view in the mentioned lists. Our tests confirm this.

Note: **only Farm Administrator** is able to activate/deactivate this feature.

Upon feature deactivation, the changes are reverted to standard SharePoint settings.

Another approach that can be used in addition to this feature, is **Archiving requests**. You can define a suitable scenario to move old and unused requests to a SQL database, so they are no longer stored in HarePoint HelpDesk lists. Please refer to Archiving requests chapter.

2. Exporting requests

Request can be exported to PDF in portrait or landscape orientation.

Select necessary requests by marking checkboxes against them. Click **Export to PDF** on the ribbon:
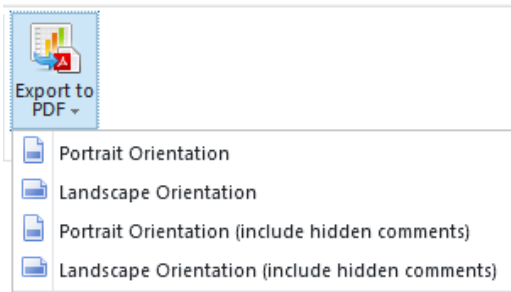
3. Subscription to requests

It is possible to **subscribe to requests** to receive them by e-mail according to the schedule:

Note: this option is not available for Basic license
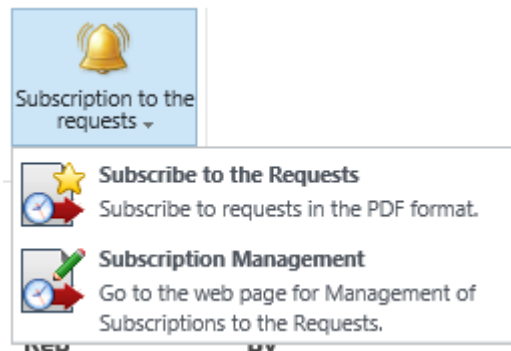
Sending reports is performed by **'HarePoint HelpDesk for SharePoint - Request exporting by schedule**' timer job; its default schedule is to run every **5 minutes**. This can be changed in Central Administration – Monitoring – Review Timer Job Definitions.

XVI.   Reports Designer

Older versions of HarePoint HelpDesk (16.4 and older) included only the built-in (predefined) reports that could not be changed. Neither it was possible to create custom reports or manage permissions to reports.
HarePoint HelpDesk version **16.5** introduces a **Reports Designer**.

Note: Reports Designer is only available in Standard Edition of HarePoint HelpDesk.
The Basic Edition, however, still includes the built-in (predefined) reports.

> **Important note:** if you are upgrading from version older than 16.5, the two features need to be re-activated after an upgrade:
>
> - **HarePoint HelpDesk** site level feature
> - **HarePoint HelpDesk Web Application Timer Jobs** web application level feature (in Central Administration)
>
> For more details, refer to Upgrading of the product version section.

Reports Designer has significant advantages and enhancements, compared to built-in reports. It is now possible to create custom reports, as well as manage permissions to reports flexibly.
In particular, HarePoint HelpDesk site administrator can configure permissions in a way that Managers are able to add and edit reports, while HelpDesk Technicians can only view reports.
Accounts granted "Manage Permissions" rights are able to set unique permissions to their reports – for more details refer to Managing access to reports.

Note: Initial configuration is required to enable Reports Designer. It is not set up out-of-the-box.

1.   Preliminary check

Before you start configuring and working with Reports Designer, make sure, you have at least one request on HarePoint HelpDesk site (check **All Requests** view, since the default **Unanswered Requests** view does not display all the requests on the site).
If this a new site and there are no requests yet, you can either create test requests manually, or deploy demo data.

2.   Reports Database configuration

Next step is adding a SQL database for reports. HarePoint HelpDesk will upload requests to this database, and Reports Designer will then use these data to build reports. This approach enables Reports Designer to build various reports quickly even when there is a large amount of requests in HelpDesk.

You can create and attach a new database (right from HarePoint HelpDesk settings), or attach an existing database (that was created and used earlier).
Note: You can use the same database that is used for Archiving.

Note: These settings are reset if you completely uninstall HarePoint HelpDesk and install it from scratch. In this case, you would need to re-attach an existing database.

Creating and attaching a new SQL database:

1. Go to the SharePoint **Central Administration** page. You need to use **farm administrator account** for the authorization.
2. Go to the **Reports** page using the link in the **HarePoint HelpDesk for SharePoint** section.

3. Click **Create or change database**.
   Specify the SQL server name (or SQL alias), the name for the new database and select authentication method:
   - If **SQL-authentication** is selected, the specified account needs to have **dbcreator** and **securityadmin** roles on SQL-server, before connecting the database.
   - If **Windows-authentication** is selected, the SharePoint **farm administrator account** is used to access the database. This is the account that runs the Central Administration web application (you can check this account in IIS). It is important to make sure the SharePoint farm administrator account has **dbcreator** and **securityadmin** roles on SQL-server, before connecting the database.
4. Click **Create** button.

Connecting an existing SQL database

1. Go to the SharePoint **Central Administration** page. You need to use **farm administrator account** for the authorization.
2. Go to the **Reports** page using the link in the **HarePoint HelpDesk for SharePoint** section.

3. Click **Connect the existing database**.
4. Specify the SQL server name (or SQL alias), the name for the new database and select authentication method:
   - If **SQL-authentication** is selected, the specified account needs to have **dbcreator** and **securityadmin** roles on SQL-server, before connecting the database.
   - If **Windows-authentication** is selected, the SharePoint **farm administrator account** is used to access the database. This is the account that runs the Central Administration web application (you can check this account in IIS). It is important to make sure the SharePoint farm administrator account has **dbcreator** and **securityadmin** roles on SQL-server, before connecting the database.

Important note: Do NOT specify content databases, configuration databases, or other databases used by SharePoint or other applications. Only use a **separate database** for reports data in HarePoint HelpDesk!

Note: You can however use the same database that is used for Archiving.

5. Click **Connect** button.

Timer job HarePoint HelpDesk - Filling in the reports database

Right after the database is configured in the settings, the timer job **HarePoint HelpDesk - Filling in the reports database** will start. It uploads all requests from HarePoint HelpDesk to reports database, and these data will then be used by Reports Designer.

By default, this job is scheduled to run **daily at 5:00am**. You can adjust this time, as well as set the hourly schedule if you need to have reports updated hourly.

Note: It is not recommended to set Minutes schedule, as this may create extra load to SharePoint servers (depending on number of requests in HarePoint HelpDesk).

Job Title	HarePoint HelpDesk - Filling in the reports database
Job Description	Exports HarePoint HelpDesk requests to a separate database for Reports designer. It's recommended to set daily or hourly schedule for this job.
Job Properties This section lists the properties for this job.	Web application: SharePoint - 3838 Last run time: N/A
Recurring Schedule Use this section to modify the schedule specifying when the timer job will run. Daily, weekly, and monthly schedules also include a window of execution. The timer service will pick a random time within this interval to begin executing the job on	This timer job is scheduled to run: ○ Minutes Starting every day between ○ Hourly [5 AM ▼] [00 ▼] ● Daily and no later than ○ Weekly [5 AM ▼] [00 ▼] ○ Monthly

3.   Reports overview

By default, four groups of reports are created:

- **Requests trends**
- **Resolution reports**
- **Response time**

- **SLA Violations**

Report groups are used to organize reports conveniently and break them down by their types.

It is possible to **collapse** or **expand** groups by clicking on arrows next to group name.

Reports that are not assigned to any of the groups, displayed under **Ungrouped reports**:

An **Overview** page displays four reports:
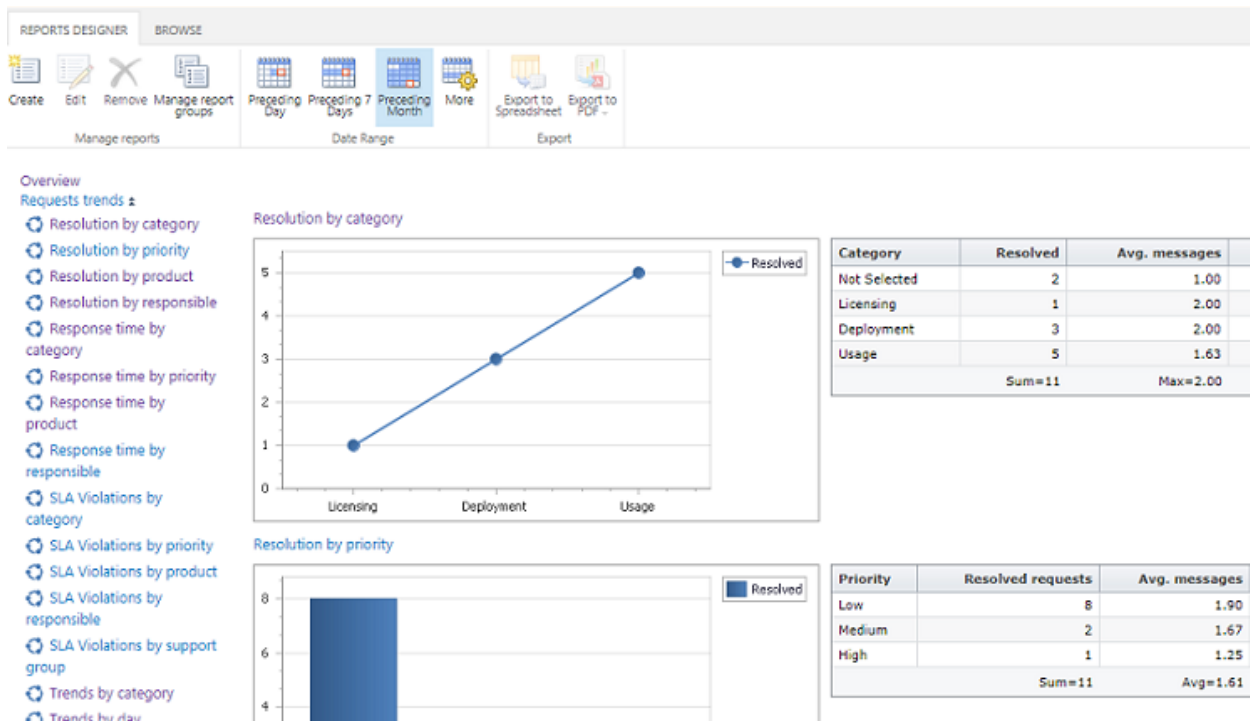
The left pane contains the dynamic menu, showing groups and reports in them.

Icons next to report name indicate the access level, as follows:

- Private report (only visible to its author)
- Author has limited access to this report to only specific users
- Common report (available for anyone who has permission to view reports)

The ribbon contains actions buttons.
On an **Overview** page, you can:

- select the date range for reports
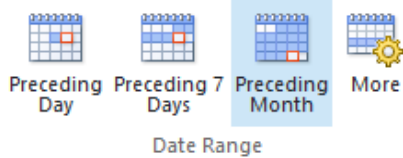
- go to new report creation page
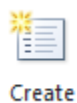
- manage report groups
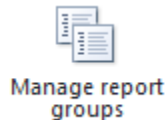
Click on report name in the left pane, to view the report in full details:
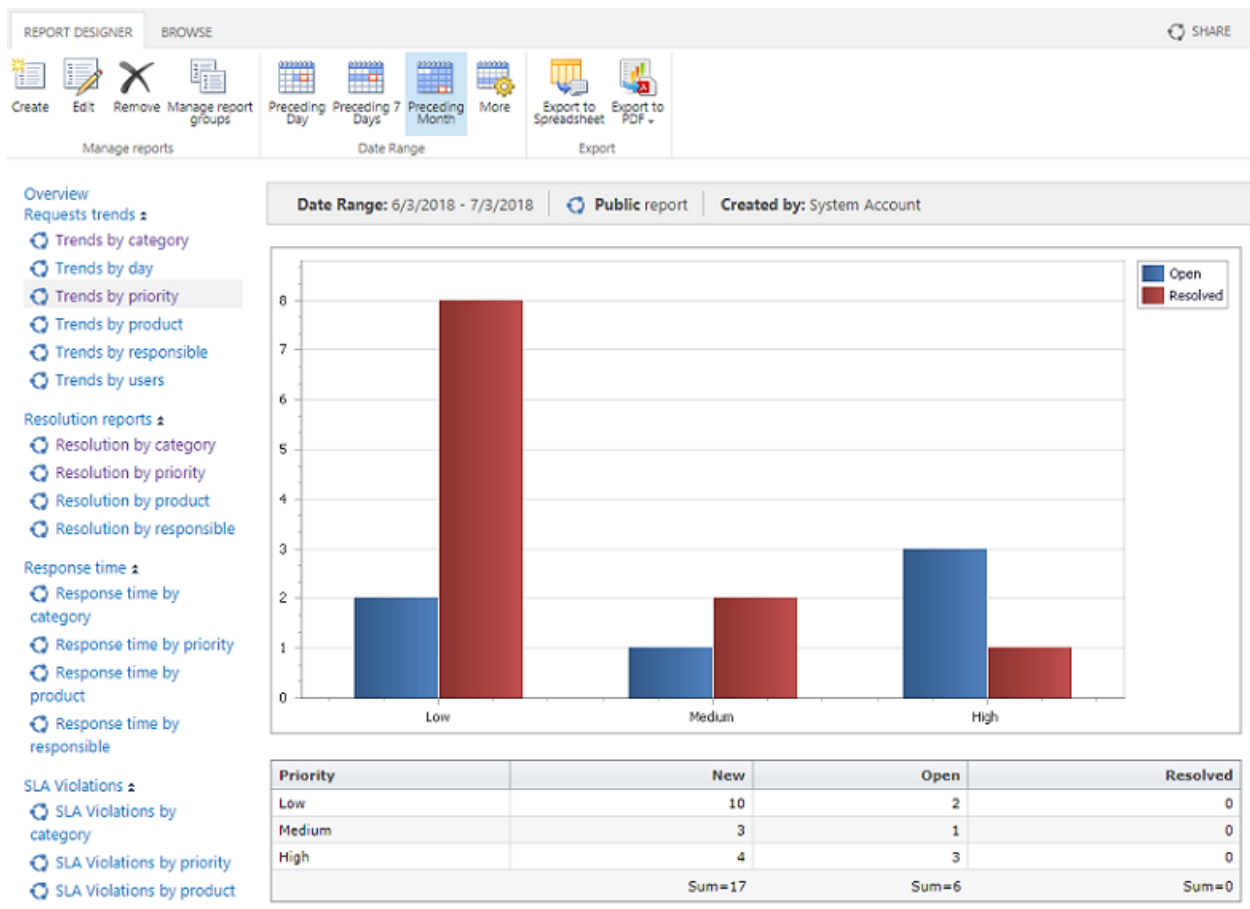
4. Exporting reports

Any report can be **exported** to a spreadsheet or to PDF in portrait or landscape orientation:
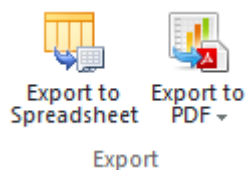
5. Subscription to reports

It is possible to **subscribe to reports** to receive them by e-mail according to the schedule:

Note: this feature is available in HarePoint HelpDesk v16.9 and newer.
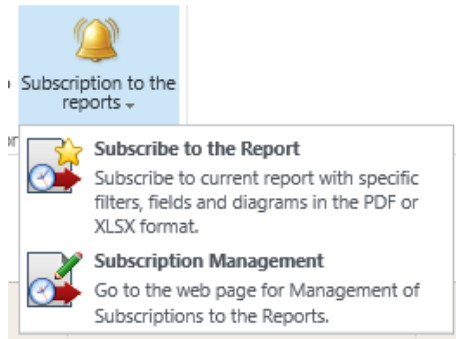
Sending reports is performed by **'HarePoint HelpDesk for SharePoint - Report exporting by schedule**' timer job, its default schedule is to run every **5 minutes**. This can be changed in Central Administration – Monitoring – Review Timer Job Definitions.

6.   Creating, Editing and Removing reports

To create, edit or remove a report, use corresponding buttons on the ribbon:
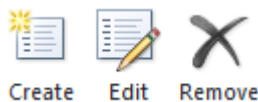
For more detailed description on creating and editing reports, refer to **User Guide for HarePoint HelpDesk**.

7.   Managing access to reports

Technically, reports are files with **.report** extension, stored in a standard SharePoint document library **Reports** on HarePoint HelpDesk site.

By default, Reports library has unique permissions – upon HarePoint HelpDesk site feature activation permission inheritance is broken and access is granted to users having **Full Control**, **Manage Lists** and **Manage Web permissions** on the current site. These settings can be changed later, if necessary. For that, it possible to use all the available permission management functionality in SharePoint; it is not specifically limited by the capabilities of HarePoint HelpDesk product.

When a user creates his/her first report, a folder with a unique ID is created in Reports library. All reports created by this user will then be stored in this folder.

Below are two examples on reports permission management.

Examples on reports permission management

Scenario 1
In this scenario, three user groups will be using reports – administrators, managers and technicians. The corresponding groups are already created on the site. These groups need to have following access levels to reports:

- «**HelpDesk Reports Administrators**»
  Have full access to reports, can add/edit/remove **any** reports, can edit/delete common reports of other administrators, can grant access to reports, and can create private reports.
- «**HelpDesk Reports Managers**»
  Can view/add/edit their own reports, and reports of other managers. Cannot edit reports of administrators. Cannot remove reports. Cannot grant access to reports.
- «**HelpDesk Reports Technicians**»
  Can only view certain reports.

First, let's create **Permission levels**. They will be used **only to manage access to Reports library, and not to HarePoint HelpDesk site**.
Permission levels are created on a root site of a site collection, **Site settings -> Site permissions - > Permissions levels**.
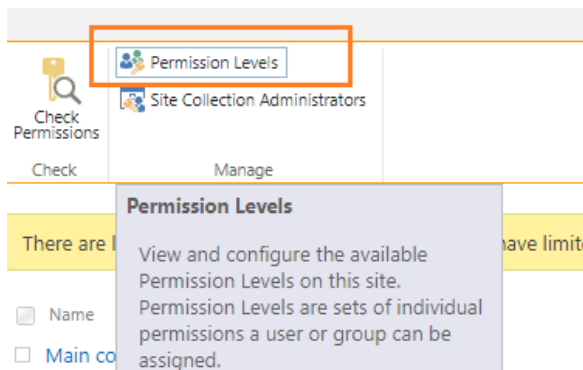
Add a permissions level:
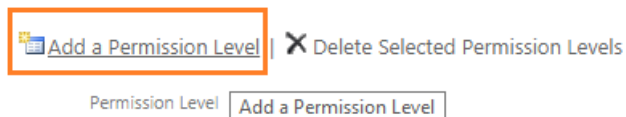
Type in the name **HelpDesk Reports Administrators** – and select the following options:

- ✓ Add Items
- ✓ Edit Items
- ✓ Delete Items
- ✓ View Items
- ✓ Manage Permissions

Note that some additional options will be selected automatically as you select the options above.

Name:

HelpDesk Reports Administrators

Description:

Select the permissions to include in this permission lev

☐ **Select All**

List Permissions

☐ Manage Lists - Create and delete lists, add or remo
a list.

☐ Override List Behaviors - Discard or check in a doc
change or override settings which allow users to rea

☑ Add Items - Add items to lists and add documents

☑ Edit Items - Edit items in lists, edit documents in d
document libraries.

☑ Delete Items - Delete items from a list and docum

☑ View Items - View items in lists and documents in

Click **Save**.

Next, create a permission level for **HelpDesk Reports Managers**, and select different options for them:

- ✓ Add Items
- ✓ Edit Items
- ✓ View Items

Finally, create a permission level for **HelpDesk Reports Technicians**, with only one option selected:

- ✓ View Items

Now, these permissions need to be specified in **Reports** library permissions.
Go to **Site contents -> Reports** library **-> Settings -> Permissions to this document library**

Reports ▸ Settings

List Information

Name:	Reports
Web Address:	http://rodionova15:3838/test24_en/HHDReports/Forms/AllItems.aspx
Description:	HarePoint HelpDesk Reports

General Settings

▫ List name, description and navigation

▫ Versioning settings

▫ Advanced settings

▫ Validation settings

Permissions and Management

▫ Delete this document library

▫ Save document library as template

▫ Permissions for this document library

▫ Manage files which have no checked in version

On the ribbon, click **Grant Permissions**:
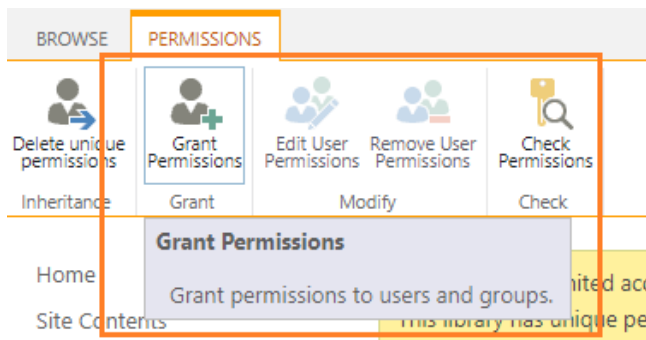
Find there **HelpDesk Reports Administrators** group, and choose the corresponding permission level:
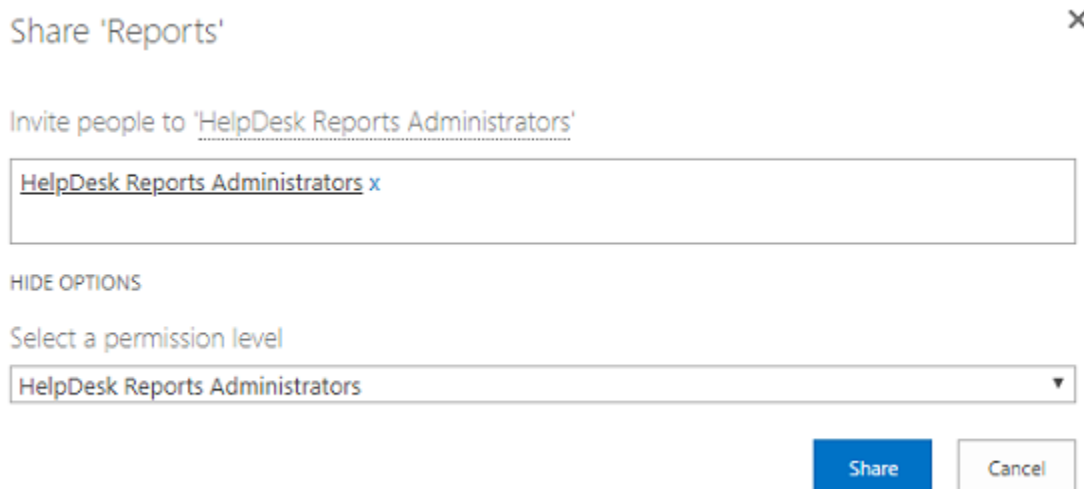
In the same way, specify permission levels for **HelpDesk Reports Managers** and **HelpDesk Reports Technicians** groups:

Share 'Reports'   ✕

Invite people to 'HelpDesk Reports Managers'

HelpDesk Reports Managers x

HIDE OPTIONS

Select a permission level

HelpDesk Reports Managers ▾

Share   **Cancel**

And **Technicians**:

Share 'Reports'   ✕

Invite people to 'HelpDesk Reports Technicians'

HelpDesk Reports Technicians x

HIDE OPTIONS

Select a permission level

HelpDesk Reports Technicians ▾

Share   **Cancel**

Scenario 2

This scenario is similar to Scenario 1; the only difference is Managers should only be able to edit/remove only their own reports (but not the reports of other Managers):

- «**HelpDesk Reports Administrators**»
  Have full access to reports, can add/edit/remove **any** reports, can edit/remove common reports of other administrators, can grant access to reports, and can create private reports.

- **«HelpDesk Reports Managers»**
  Can view/add/edit **only their own** reports. Cannot edit reports of administrators. Cannot remove reports. Cannot grant access to reports.
- **«HelpDesk Reports Technicians»**
 Can only view certain reports.

Same as in **Scenario 1**, create three groups with corresponding permissions levels. Note that **HelpDesk Reports Managers** permission level in this **Scenario** does not contain **Edit items** permission, only **Add items** and **View items**:

Site Settings -> Site Permissions -> Permissions Levels -> HelpDesk Reports Managers

☐   HelpDesk Reports Administrators
☐   HelpDesk Reports Managers
☐   HelpDesk Reports Technicians

Select only **Add Items** and **View Items**:

List Permissions
☐ Manage Lists - Create and delete lists, add or remove columns in a

☐ Override List Behaviors - Discard or check in a document which is
  read/edit only their own items

☑ Add Items - Add items to lists and add documents to document lib

☐ Edit Items - Edit items in lists, edit documents in document librarie

☐ Delete Items - Delete items from a list and documents from a docu

☑ View Items - View items in lists and documents in document librar

Save these settings.

Same as in **Scenario 1**, in **Reports** library settings, specify the three permission groups:
Site contents -> Reports library -> Settings -> Permissions to this document library

	Name	Type	Permission Levels
☐ ☐	HelpDesk Reports Administrators	SharePoint Group	HelpDesk Reports Administrators
☐ ☐	HelpDesk Reports Managers	SharePoint Group	HelpDesk Reports Managers
☐ ☐	HelpDesk Reports Technicians	SharePoint	HelpDesk Reports Technicians

At this stage, Managers are not able to edit or remove any reports at all. In order to enable them to edit and remove **only their own** reports, it is necessary to grant unique permissions to manager's folder in Reports library (where all his/her reports are stored).

The folder name in Reports library is a user ID. Upon creation of a first report, this folder will be created automatically. Administrators however, may create folders in advance, to grant necessary unique permissions.

In this example, we will create a folder for **test6** user account.

In order to find out the ID of this user, click on the account name in **People and Groups**:
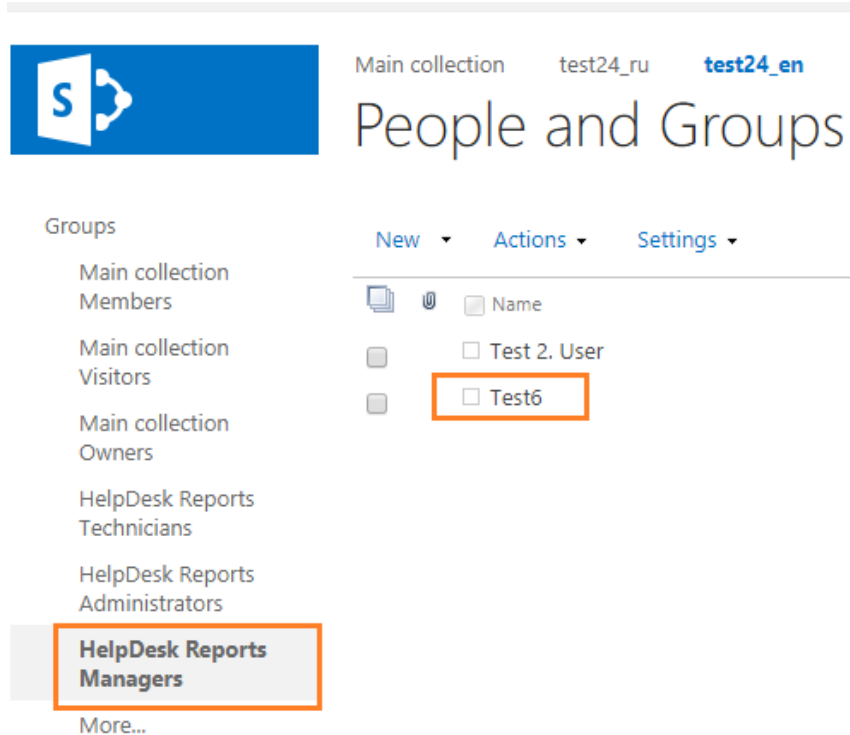
This will take you to user profile. From the URL in the address line, you can find out the user ID; it is **9** in our example:

userdisp.aspx?ID=<value>

:3838/test24_en/_layouts/15/userdisp.aspx?ID=9&Source=http%3A%2F%2Frodionova15%3A3838%2l

Main collection   **test24_en**

People and Groups · User Information

Close

Edit Item | ✖ Delete User from Site Collection

Account	i:0#.w|mapilab\test6
Name	Test6
E-Mail	test6@mapilab.local
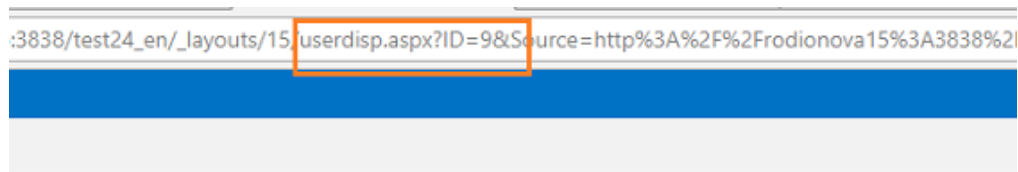
Go to Reports library, and locate folder "**9**".

It may not exist if this user has never created a report – in this case, it can be created manually.

By default, **New Folder** button is disabled. In order to enable it, go to **Library Settings -> Advanced settings -> Make "New Folder" command available**, set it to **Yes**.

Note: After you create a folder, it is recommended to change the setting back to **No**.

Folders

Specify whether the "New Folder" command is available. Changing this setting does not affect existing folders.

Make "New Folder" command available?

◉ Yes   ○ No
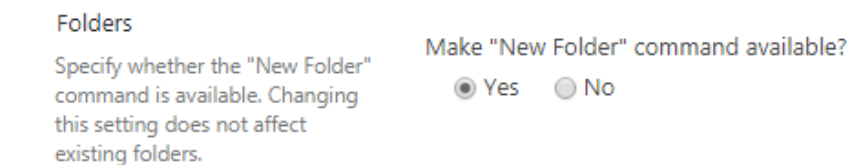
The **New Folder** button is now available:

New Folder

New Folder

Create a new folder in this library.
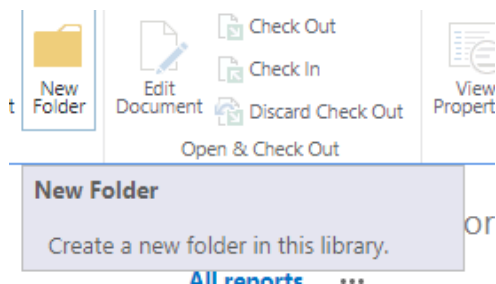
Create folder "**9**".

Create a new folder

Name *   9

Save   Cancel

In order to set unique permissions for this folder, select the folder "**9**" and click **Shared With** on the ribbon:

In the new window, click **Advanced**

Click **Stop Inheriting Permissions** on the ribbon so that it is now possible to set unique permissions:
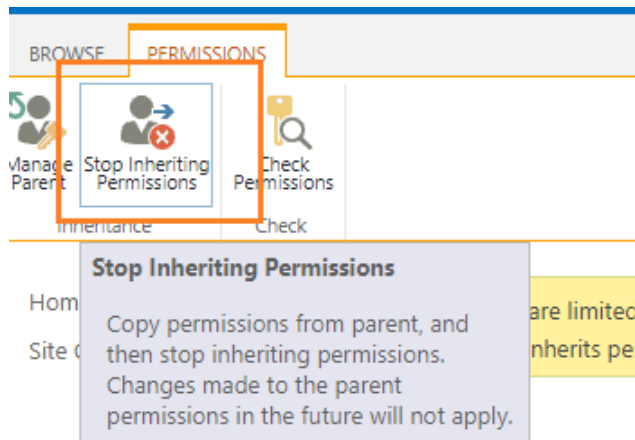
After this, the option **Grant Permissions** will become available on the ribbon:
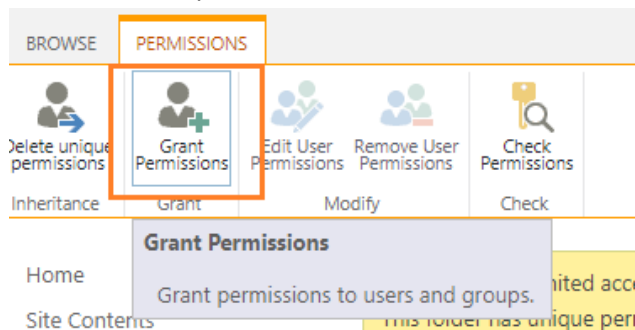
In the new window, enter the account name, it is **test6** in this example, then choose the permission level, which is **Edit**.

Click **Share**.

That is, manager **test6** is now able to edit and delete his/her own reports.

Setting unique permissions for an individual report

There could be situation when a unique access needs to be granted to an individual report.

In this example, **test8** user has no permissions to view reports, but needs to be granted permissions to view only **Trends by Category** report.

First, it is necessary to find the necessary report in **Reports** library. It is convenient to use **Reports by groups and author** view:
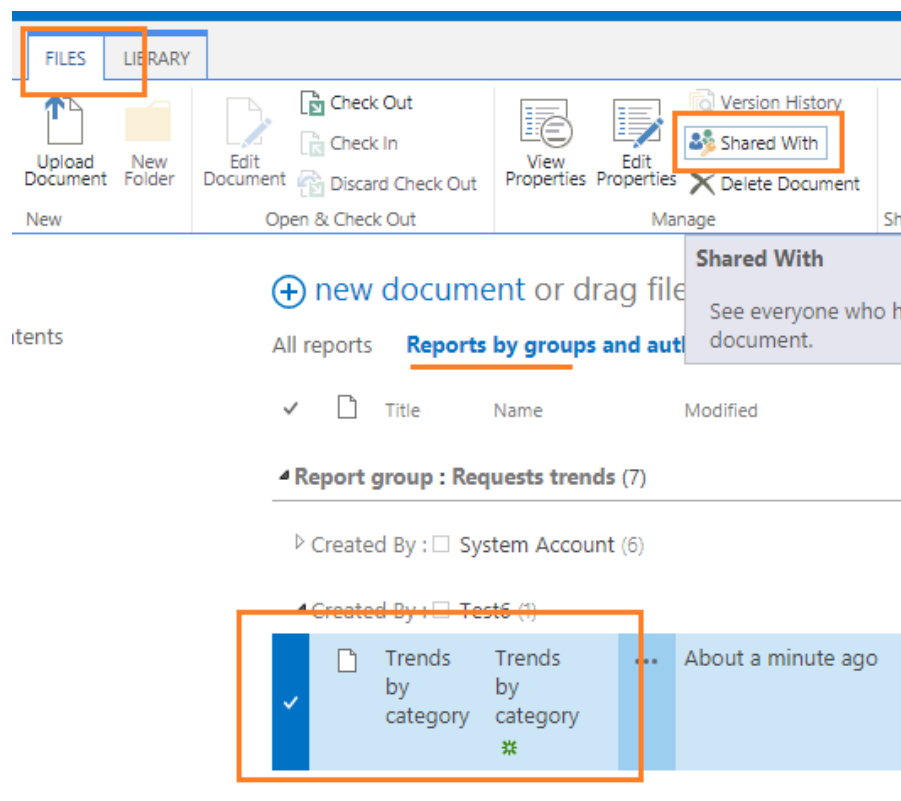
Select the file that corresponds to a report, then on a ribbon (**Files** tab) click **Shared** button. In a new window, click **Advanced**:

Now you are on the page where you can manage permission specifically to that file (report). By default, permissions for the file are inherited from library permissions.

Click **Stop Inheriting Permissions** button on a ribbon:

After ribbon reloads with new options, click **Grant permissions** button:
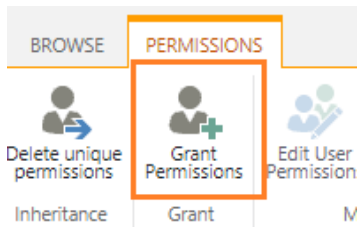
Specify the user (it is **test8** in this example) and the appropriate permission level (**Read**, in this case):

Share 'Trends by category'

Invite people to 'Read'

test8 x

HIDE OPTIONS

Select a permission level

Read

Share   Cancel

Now **test8** user is able to view one single report – **Trends by category**:
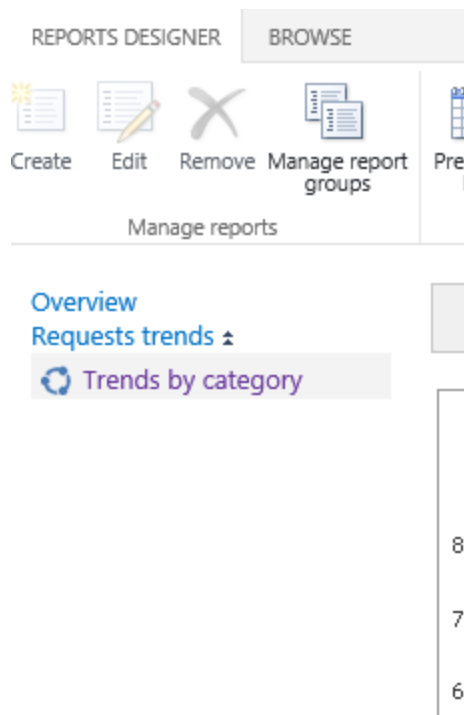
Additional information on configuring unique permissions

Since the permissions for Reports library are set using the standard SharePoint functionality, you can refer to following articles on this subject:

Edit and manage permissions for a SharePoint list or library

https://support.office.com/en-us/article/edit-and-manage-permissions-for-a-sharepoint-list-or-library-02d770f3-59eb-4910-a608-5f84cc297782

Change the permissions on a subfolder

https://support.office.com/en-us/article/change-the-permissions-on-a-subfolder-5427bd7c-f20a-4f75-8cf2-5359dd45a1a6

8.   Limiting access to reports groups management

By default, four groups of reports are available:

Requests trends, Resolution reports, Response time, SLA Violations.
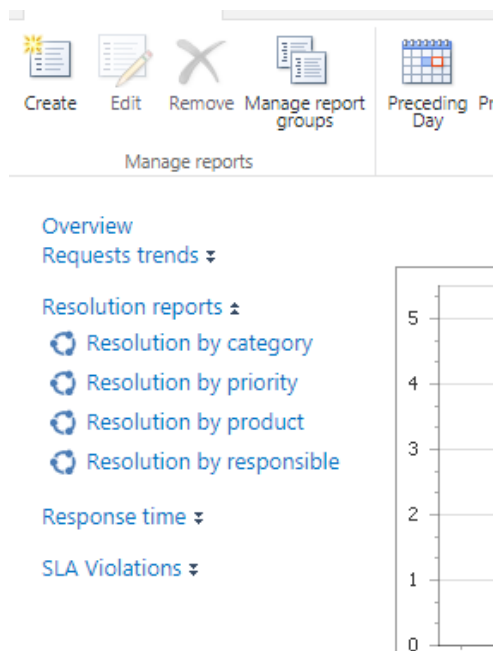
Reports that is not assigned to any of the groups are displayed under **Ungrouped reports**:

Using **Manage report groups** button on a ribbon, it is possible to create, change or delete groups:

Managing report groups
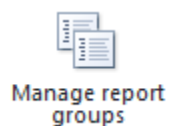
➕ Add report group
Requests trends 🖉 🗑
Resolution reports 🖉 🗑
Response time 🖉 🗑
SLA Violations 🖉 🗑
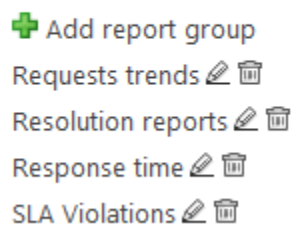
By default, permissions to reports groups management are inherited from HelpDesk site permissions. In order to limit access to report groups management (so that for example only site administrator could

add, rename or remove groups) it is necessary to set unique permissions for **HHDHiddenReportsGroups** list.

This list is hidden so it can only be accessed from SharePoint Designer.

Open SharePoint Designer, connect to HarePoint HelpDesk site and go to **All Files -> Lists -> HHDHiddenReportsGroups**, right click -> **Properties**:
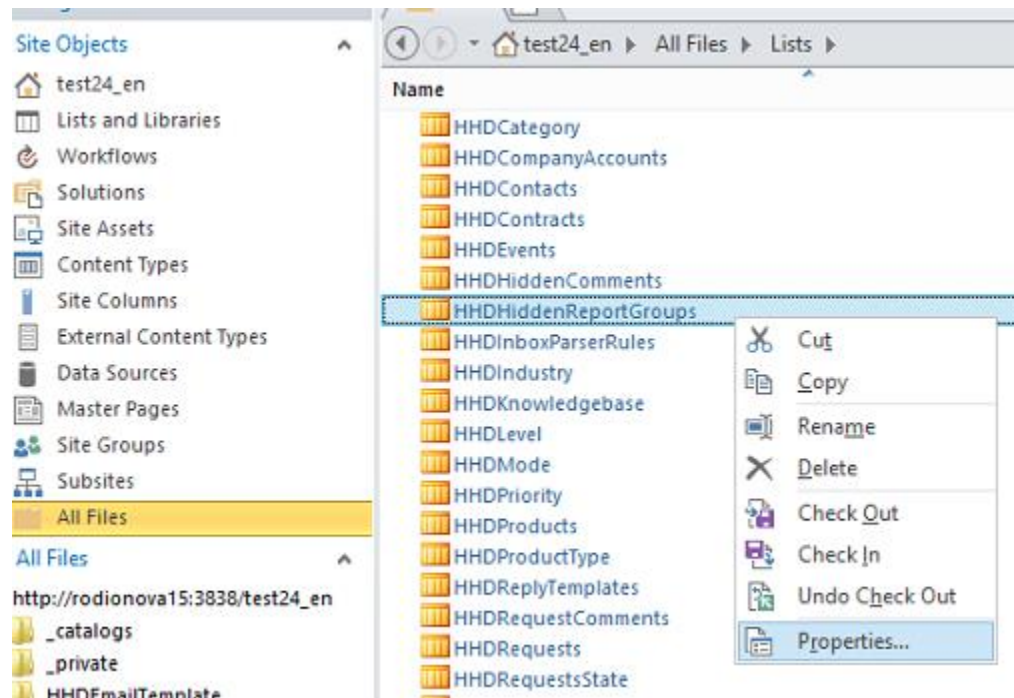
In the new window, click **Permissions to this list**:
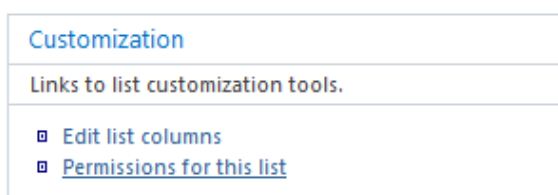
This link will open list permission management page in your browser.

Change the list permissions accordingly.

XVII.   Built-in Reports

In older versions of HarePoint HelpDesk, only built-in (predefined) reports were available.

Since version 16.5 of HarePoint HelpDesk, a **Reports Designer** became available. It provides much more advanced reporting capabilities compared to older built-in reports.

The **built-in (predefined) reports** however are still available in HarePoint HelpDesk, although their capabilities are much more limited compared to Reports Designer.

This chapter describes the **built-in reports**. The advanced reports from Reports Designer are described in Reports Designer chapter.

HarePoint HelpDesk solution generates various reports for assessing the current status of the most important HelpDesk parameters.

1.   Accessing reports

To access the built-in reports,

- Go to **Site Settings**
- In section **HarePoint HelpDesk for SharePoint** click **Built-in reports** link.

HarePoint HelpDesk for SharePoint
Requests
Reports designer
Built-in reports
Settings
About
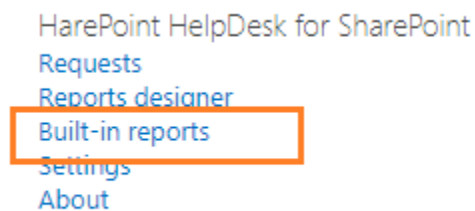
Select a report in the left pane:

HelpDesk Test

HarePoint HelpDesk - Overview ⓘ

Overview
Requests trends
 Trends by day
 Trends by priority
 Trends by category
 Trends by product
 Trends by responsible
 Trends by users

Resolution reports
 Resolution by priority
 Resolution by category
 Resolution by product
 Resolution by responsible

Responsible	↓	Opened	Resolved	Not responded
Not Assigned		1	0	1
Administrator		1	0	1
Total		2	0	2

Status
Resolved
Open
On Hold
Closed
Total

Priority	↓	Opened	Resolved	Not responded
Urgent		0	0	0
Medium		0	0	0
Low		2	0	2

2.   List of available reports

The following built-in reports are available:

Report name	Description
Overview	Overview reports of HarePoint HelpDesk
Trends by day	This report shows dynamic and intensity of creating and processing requests within the specified time frame
Trends by priority	This report shows dynamic and intensity of creating and processing requests within the specified time frame and grouped by priority
Trends by category	This report shows dynamic and intensity of creating and processing requests within the specified time frame and grouped by category
Trends by product	This report shows dynamic and intensity of creating and processing requests within the specified time frame and grouped by product name
Trends by responsible	This report shows dynamic and intensity of creating and processing requests within the specified time frame and grouped by responsible person
Trends by users	This report shows dynamic and intensity of creating and processing requests within the specified time frame and grouped by users
Resolution by priority	This report shows statistics of processed requests within the specified time frame and grouped by priority. The report contains data about the number of processed requests, average number of requests, and average request processing time, grouped by priority
Resolution by category	This report shows statistics of processed requests within the specified time frame and grouped by category. The report contains data about the number of processed requests, average number of requests, and average request processing time, grouped by category
Resolution by product	This report shows statistics of processed requests within the specified time frame and grouped by product name. The report contains data about the number of processed requests, average number of requests, and average request processing time, grouped by product name
Resolution by responsible	This report shows statistics of processed requests within the specified time frame and grouped by responsible person. The report contains data about the number of processed requests, average number of requests, and average request processing time, grouped by responsible person
Response time by priority	This report shows average time of response to user's request, grouped by priority
Response time by category	This report shows average time of response to user's request, grouped by category
Response time by product	This report shows average time of response to user's request, grouped by product name
Response time by responsible	This report shows average time of response to user's request, grouped by responsible person
SLA Violations by priority	This report shows the number of SLA violations, grouped by priority
SLA Violations by category	This report shows the number of SLA violations, grouped by category
SLA Violations by product	This report shows the number of SLA violations, grouped by product

SLA Violations by support group	This report shows the number of SLA violations, grouped by support groups
SLA Violations by responsible	This report shows the number of SLA violations, grouped by responsible

3.   Utilizing reports

By default, the information is displayed for the preceding month, but you can select another **date range** using buttons on the ribbon:
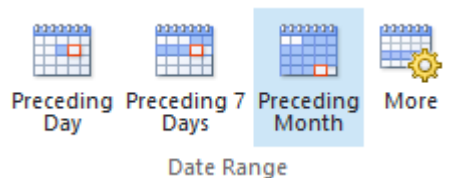
You can **filter** the following reports by Support Group: **Trends by responsible**, **Resolution by responsible**, **Response time by responsible**, **SLA Violations by responsible.**
Also, using the filter, you can display data only by responsible technicians from that group:
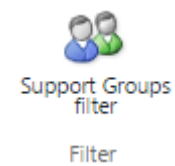
The information in tables in the reports can be **sorted** by ascending or descending order, by clicking on the header.

In most of reports, values in the tables are clickable, so you can **drill-down** to get the detailed information on that value.

4.   Exporting reports

Any report can be **exported** to spreadsheet or to PDF in portrait or landscape orientation:
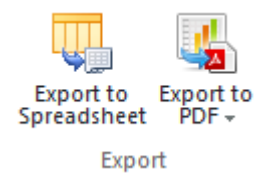
5.   Subscription to reports

It is possible to **subscribe to reports** to receive them by e-mail according to the schedule:

Note: In HelpDesk version 16.4 and older, reports subscription was only available in **Standard** edition. Since version 16.5 and newer, reports subscription is also available in **Basic** edition.

Sending reports is performed by **'HarePoint HelpDesk for SharePoint - Report exporting by schedule'** timer job, its default schedule is to run every **5 minutes**. This can be changed in Central Administration – Monitoring – Review Timer Job Definitions.

XVIII.   E-mail Support

Note: Configuration is required to enable E-Mail support. It is not set up out-of-the-box.

E-mail support provides HarePoint HelpDesk Users and Technicians with an **additional way** to create requests or to comment them.

E-mail **handling procedure** works as follows:
1. E-mail messages are received either using e-mail enabled document library, or by fetching e-mails from external POP3/IMAP server. Received messages are stored in the HarePoint HelpDesk site **Inbox** document library in EML format.
2. A new message in the **Inbox** library starts a special mechanism. This mechanism has the following functions:
    a. E-mail message analysis.
    b. If required, E-mail sender registration as a new User of the HarePoint HelpDesk site. Generated login and password are sent to the User.
    c. Based on e-mail analysis, HelpDesk defines if the User's message is a new request or a comment to an existing Request. Depending on this, a new Request is created, or a new comment is added.

As the new Request is created, the workflow is started, which sends notifications to User and Technicians. Thus, in this context, e-mail notifications become an important part of E-Mail Support functionality.

Note: If HelpDesk is configured the way that it uses the **same e-mail address to send notifications and to receive e-mails** (see below), Users are able then to interact with HelpDesk conveniently by e-mails only:

- User sends an e-mail to HelpDesk
- A **new request is created** (all e-mail attachments are added to the request); User receives a notification about that.
- Technician provides a reply in the request; User receives a notification about that.
- If User has additional questions or needs to provide additional information, he/she can **reply to the notification e-mail**.
- The contents from user's e-mail is **appended to the existing request**.
- And so on

In case if HelpDesk receives a **reply by e-mail from a User to an e-mail notification**, the **subject** and **sender of the e-mail** are analyzed. If the subject contains **##*N*##**, where *N* is a certain number, this number is considered as the ID of the request. Then, HelpDesk checks if there actually exists a request with this ID and if this request has been created by that User. If both are true, the e-mail message is considered as a comment to this request. Otherwise, a new request is created.

Optionally, you can configure HarePoint HelpDesk to accept request comment by e-mails from Technicians as well (**HarePoint HelpDesk settings – Advanced settings - Turn on/off processing Incoming e-mails from Technicians**).

Turn on/off processing Incoming e-mails from Technicians

By default, only Users can reply to requests by e-mail. When an e-mail is received, HarePoint HelpDesk checks if the sender's e-mail address matches the e-mail address of the user who created the corresponding request. If it matches, the e-mail reply will be appended to the existing request, otherwise a new request will be created based on that e-mail.

You can allow Technicians to reply to requests by e-mail as well. Choose whether Technicians can reply only to requests where they are assigned as responsible, or to any requests. Note that Technicians cannot create a request on behalf of a User via e-mail; this can only be done through the Technician Dashboard.

☐ Allow Technicians to add request comments by e-mail

   ☐ Technician can add comments only to requests assigned to him/her (as responsible Technician or Support Group member)

Technically, **when a request is created from e-mail**, the author of this request (**Created By** field) will be set according to the setting **Incoming E-mails – Advanced Settings – Specify account for requests creation,** while the User who sent the e-mail with the request will be indicated in **User** field of the request.

This is a technical field mostly purposed for HelpDesk technical administrators rather than for Technicians.

Account for Requests creation

HarePoint HelpDesk uses this account to create new Requests or to add new comments to existing Requests that come in by e-mail. This account will be shown in the Created By field of the Request or the Request comment, and the User who sent the e-mail will be shown in the User field.

You should specify only one account and make sure it has at least the following permissions: List Permissions - Add, Edit, View Items; Site Permissions - View Pages, Browse User Information, Open. Leave this setting blank to use the Site Creator account for Request creation.

Specify an account

[   ]

By default, when a request is created from e-mail, only **Subject**, **User** and **Description** fields are filled automatically.

In later versions of HarePoint HelpDesk, it is possible to configure **processing rules** to have other fields filled automatically as well.

In particular, this ensures the requests can be immediately auto-assigned, or corresponding SLA rules applied, while without the processing rules this will happen only after the HelpDesk dispatcher assigns the request or fills out the missing fields manually.

For further details, refer to Setting the HarePoint HelpDesk site parameters - Incoming E-Mails - Processing rules

Additional HarePoint HelpDesk parameters and some global settings of the SharePoint farm should be configured to ensure normal e-mails handling by HarePoint HelpDesk. The following items describe the configuration procedure for these parameters.

1. Incoming e-mail configuration

To start handling, the e-mails first need to be delivered to **Inbox** document library of HelpDesk site.

As was mentioned before, there are **two ways** to achieve that:

a) fetching e-mails from external POP3/IMAP server – as described in Settings: Incoming E-Mails - Configure e-mail providers.
b) using e-mail enabled document library – it is configured in **two steps**, see below:

Step 1: Interaction mechanism of the SharePoint farm and SMTP-service should be configured globally with the help of Central Administration host.

Important note: This procedure is **described in details** in Configure incoming e-mail on the Microsoft website. It is recommended to read the article and make sure all related settings are correct.

Go to **Central Administration – System Settings – E-Mail and Text Messages (SMS) – Configure incoming e-mail settings**:
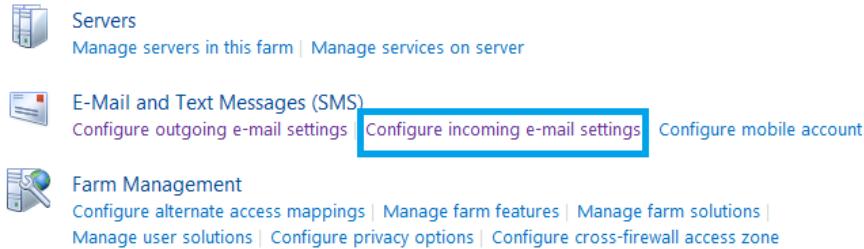
Switch **Enable sites on this server to receive e-mail** to **Yes**:
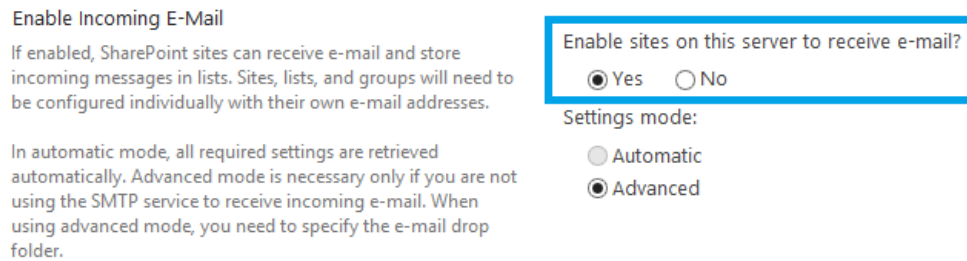
Specify **Incoming E-Mail Server Display Address**:

Specify **E-Mail drop folder**:
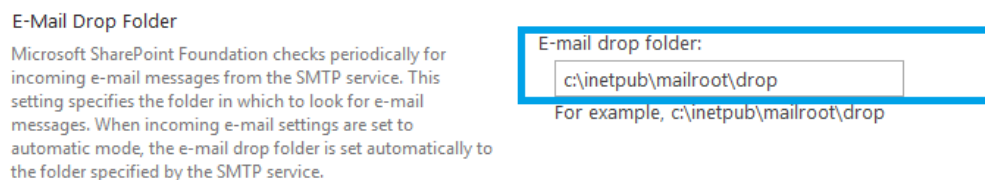
Step 2: Inbox document library should be configured to receive e-mails. This library is created when creating or updating HarePoint HelpDesk site. Follow these steps to configure it:

1. Go to **Site Contents** (or **All Site Content** for SharePoint 2010) at HarePoint HelpDesk website.

2. Follow the link **Inbox** of **Document Libraries**
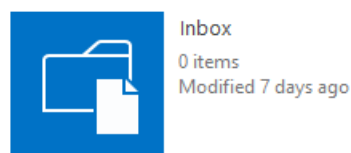
3. Go to **Inbox** document library parameters configuration page, by clicking **Library Settings** button in the ribbon:
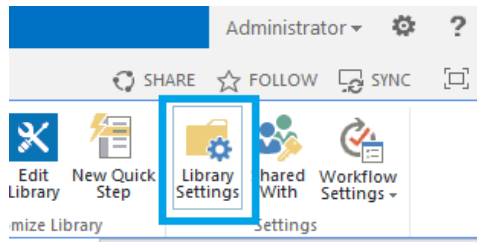
4. Follow the link **Incoming e-mail settings** at **Document Library Settings** page.

    Note: this link will not be displayed unless **Step 1** has been completed.

5. Switch **Allow this document library to receive e-mail?** To **Yes** and specify the e-mail address to serve as the Support Service e-mail.

Note: If the e-mail address specified here is **the same** as e-mail address that is used to send notifications (see Settings - [Notifications](#) - General notification settings) Users are able then to interact with HelpDesk using e-mails only, by replying to e-mail notifications.

6. Press **OK**.

2.   Configuring automatic user creation

During e-mail handling a situation may occur when the **sender is not a registered user** of the HarePoint HelpDesk site. There are two scenarios available:

- Ignore the e-mail
- Automatically register the sender as a new user of the site

The process of automatic user registration is sophisticated mostly because the authentication system is not an integral part of the SharePoint farm. Generally speaking, the authentication system may not have native support for creating new accounts. For this reason, automatic user registration functionality may be rather limited.

Important note: The current version of the product only supports user account creation for a **SqlMembershipProvider** authentication provider**,** which stores the list of accounts in a Microsoft SQL Server database.

Only after SharePoint is configured to use Forms-Based Authentication with SQLMemberShipProvider, it is possible to enable and set up automatic user creation.

Please use these links to configure SharePoint:

> SharePoint **2019,** SharePoint **2016** and SharePoint **2013**:
> http://blogs.technet.com/b/ptsblog/archive/2013/09/20/configuring-sharepoint-2013-forms-based-authentication-with-sqlmembershipprovider.aspx

> SharePoint **2010**:
> http://blogs.msdn.com/b/kaevans/archive/2010/07/09/sql-server-provider-for-claims-based-authentication-in-sharepoint-2010.aspx

Although it may seem quite limited, SQL database-based support for automatic user registration still makes it possible to **cover various scenarios**, according to the following facts:

1. Using a SQL database is natural since all other SharePoint farm information is stored there as well.
2. The **claim**-based authentication system makes it possible to set up multiple authentication scenarios for a single web application. For example, automatically registered users may be using Forms authentication, while other users (e.g. technical support staff) may be authenticated using Windows or any other authentication.
3. Generally, automatic user registration is needed for to support Internet users since they are normally "outside" of the HelpDesk infrastructure scope. On the other hand, if it's intended to provide support to corporate users in-house, these users are normally registered on Active Directory or on any other internal authentication system, i.e. there is simply no need for account creation in this case.

The mechanism of automatic user registration provides the following functionality:
1. Username generation. The sender's email address is used as the username.
2. Password generation. In the current version, the password is generated using the following criteria:
   a. Password length 10 characters.
   b. The password has at least one capital letter.
   c. The password has at least one digit.
   d. The password has at least one of special characters such as **@#$%**.
3. The user is assigned one of the specified roles.
4. The user is assigned to one of the specified groups of the SharePoint site.

Note: The mechanism of automatic user registration is only activated when no user with this e-mail address is found by any of the authentication providers.

Automatic user registration configuration

1. Access HarePoint HelpDesk **Settings** either way:

   - Click **Configure Product** icon on main page of HelpDesk site:
   - Go to **Site Settings – HarePoint HelpDesk for SharePoint** section **– Settings**

2. In **Incoming E-Mails** section**,** click **Configure auto-creation of user accounts**.

   Incoming E-Mails
   Configure e-mail providers | Define junk e-mail filter rules | Specify account for requests creation | Configure auto-creation of user accounts

3. In **Specify Access Point for your HelpDesk Customers**, choose a zone whose authentication provider will be used to set up an account in the authentication system. In **Specify Role to add users to** and **Specify SharePoint group to add users to**, you can specify the role and group for the automatically registered users.

   Account Creation Service

   Account Creation Service enables automatic creation of user accounts in your authentication provider data source.

   Note: Currently supports only SqlMembershipProvider.

   Note: You need to ensure that the web application account where HelpDesk web site is installed has appropriate permissions to SQL membership database.

   Specify Access Point for your HelpDesk Customers
   Default Zone - http://nova7:402/
   Specify Role to add users to
   HelpDeskUsersRole
   Specify SharePoint group to add users to
   HelpDeskUsersGroup

4. Click **OK**.

You can **disable** the automatic user registration system at any time by setting **Specify Access Point for your HelpDesk Customers** parameter to **UserCreationServiceProviderDisabled**.

3.   Configuring notification for automatic user creation

As the automatic user account creation is completed, the e-mail notification is sent to the new user. (this can be turned on/off in Settings – Notifications – Turn notifications on/off)

The special template – **YouRegisteredToUser** – is used to create the notification. The template includes user name, as well as login and password which are necessary for HarePoint HelpDesk host authentication.

Registration notification template can be edited like the other notification templates included in HarePoint HelpDesk. For more details regarding the procedure of notification templates modification, see Modifying notification templates.

Important note: YouRegisteredToUser template has a different set of macros! This is due to the fact that in this case the notification is sent not in the context of the workflow, but right during the user creation process.

When editing this template, please, use the macro as described below:

HarePoint HelpDesk macro is a string that looks like:

[%type: value.subvalue%] or **{%type: value.subvalue%}**

The **type** parameter is **not case sensitive**.

The following values of parameters included in the macro are allowed:

- type: **hhd**
  One of the following values can be specified as a value:
  - value: **roles**
    When **subvalue** is equal to **technician.emailrecipients**, the **TO** field value of the message is formed. The list of users with the **Technician** role is used as the source of recipients.
    Example: *John Smith [smith@example.com]; Sergey Voronkov [voronkov@example.com];*
  - value: **newusername**
    Display name of new user.
  - value: **newuseremail**
    E-mail address of new user.
  - value: **newuserlogin**
    Login on new user.
  - value: **newuserpassword**
    Password.
- type: **hhdprop**
  The macro is replaced by the value of the HarePoint HelpDesk parameter. The list of parameters and their current values can be learnt using the command:
  > **stsadm -o hhddisplayproperties -url <HarePoint HelpDesk installation web url>**

  Example: *[%hhdprop:helpdeskname%]*

XIX.   License management

Registration of HarePoint HelpDesk is performed through the acquisition of the necessary number of licenses in the form of license keys, and their entry in the license management page of your product.

To open the license management page:

1. Go to the SharePoint **Central Administration** page. You must use farm administrator account during the authorization.
2. Go to the **Licensing** page using the link in the **HarePoint HelpDesk for SharePoint** section.
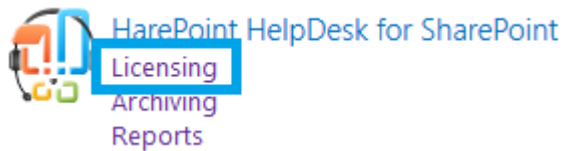
The Product is considered as registered when the types and number of license keys entered fully comply with the relevant points of the license agreement of HarePoint HelpDesk for SharePoint.

Note: If there are no license keys entered (permanent or trial) or the trial period is expired, the product enters limited functionality mode. In particular, posting comments to requests in Technician dashboard is not possible.

Detailed information about HarePoint HelpDesk licensing can be found here:

http://www.harepoint.com/Purchase/HarePointHelpDesk/Default.aspx

1.   Entering license keys

To enter license keys:

1. Go to the SharePoint **Central Administration** page. You must use farm administrator account during the authorization.

2. Go to the **Licensing** page using the link in the **HarePoint HelpDesk for SharePoint** section.
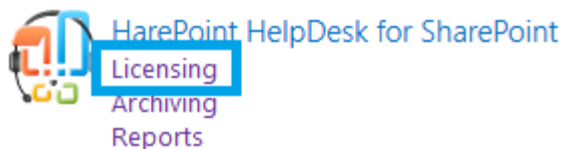
3. In Licensing, go to **Add license keys**.

Enter the license keys on the **Add license keys** page.

Note: To avoid possible mistyping when entering the key, use the copy-and-paste functions in the Windows clipboard.

XX.   Troubleshooting

This section describes some typical issues that may occur with **HarePoint HelpDesk**.
A detailed guidance is provided for each situation.

1.   Contacting HarePoint Support

If you encounter an issue, which is not described here, and you need assistance, please contact **HarePoint Support** via support@harepoint.com, or create a ticket on http://harepoint.com/support:

- 1. **describe** the situation

- 2. attach relevant **screenshots**

- 3. generate a **report** by **HarePoint HelpDesk Utility – Report tab –** preferably with **all options checked**, **ULS log date range** set according to the time frame when the issue took place or related timer jobs were running. Zip the output files - **HHDLogs.log** and **HHDReport.txt** and attach to an email or a ticket.

User console web part is not properly displayed, or not displayed at all

Symptoms

The User Console web part is improperly displayed, or you are getting an error
Web Part Error: A Web Part or Web Form Control on this Page cannot be displayed or imported.

Explanation

This situation may occur if **web.config** file has not been modified during the installation (e.g. due to write-protection), or if **HarePoint HelpDesk Client Web Part** site collection level feature has not been activated.

Steps to take

1. Run **HarePoint HelpDesk Utility** and check the **Installation Checker** tab. Make sure all the parameters return PASS value.

2. To fix any FAIL status refer to Installation checker components fix steps

3. Make sure that **HarePoint HelpDesk Client Web Part** site collection level feature is activated.

Users are not getting notification e-mails from a newly created HarePoint HelpDesk site

Symptoms

A new HarePoint HelpDesk site has been successfully created and configured, but only technicians receive e-mail notifications about new or changed requests; users are not getting such notifications.

Steps to take

Fill in the required fields **Url of Request for User**, **Url of Requests list for User** in HelpDesk settings. Refer to **Specify URLs for notification e-mails** for more details.

All the ribbon buttons are disabled for a Technician

Symptoms

The technician has all the necessary permissions, but the buttons on the ribbon are not functional (grayed out).

Steps to take

1. Make sure that none of technicians belongs to **Viewers** group in HarePoint HelpDesk settings. The Viewers are limited to viewing requests only so ribbon buttons are inactive for them. See Users and accounts for details.

2.   Steps on how to fix Installation Checker components' errors

Using the HarePoint HelpDesk Utility it is possible to check the key components of HarePoint HelpDesk. The missing or improperly installed components will have **FAIL** status. This section describes how to fix each of the components if Installation Checker returns FAIL for it.

HarePoint HelpDesk or DevExpress components.

1. Manually restart **Timer Job Service** on each WFE. Make sure you are a member of a local group **Administrators**.

2. Run the Installer and choose the **Repair** option. This will reinstall **HarePoint HelpDesk**.

MLGlobalConfig, Solution components fix

In the Utility, on the same **Installation Checker** tab, click **Reinstall feature**. Wait while the process completes.
Click **Check** button to run the check again to make sure it is now fixed.
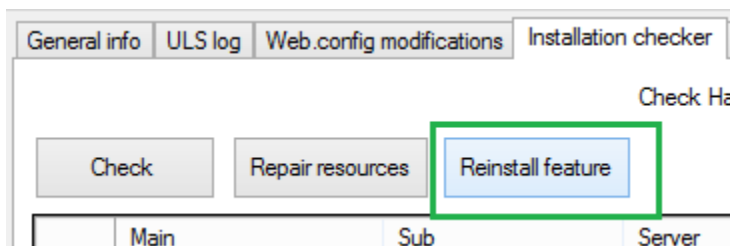
Web.config components fix

1. In the Utility, go to **Web.config modifications** tab.

2. Select **Global web.config modifications** mode.

3. Click **Retract all web.config modifications**

4. Click **Deploy all web.config modifications**.

5. Wait while the process completes.
Go back to to **Installation checker** tab and click **Check** button to run the check again to make sure it is now fixed.

Resources components fix

In the Utility, on the same **Installation Checker** tab, click **Repair resources**. Wait while the process completes.
Click **Check** button to run the check again to make sure it is now fixed.
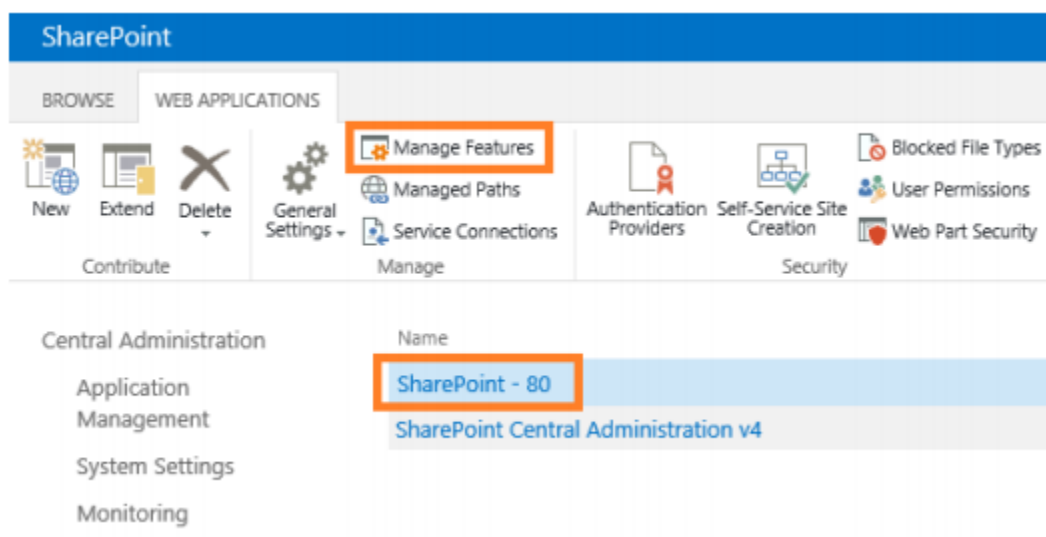
Feature definitions fix

In the Utility, on the same **Installation Checker** tab, click **Reinstall feature.** Wait while the process competes.

Click **Check** button to run the check again to make sure it is now fixed.

Timer jobs fix

1. Go to the **Central Administration – Application Management**

2. Click on **Manage Web Applications**

3. Click on **required web application** in the list

4. Click **Manage Feature** button on the ribbon:

5. Deactivate and then activate **HarePoint HelpDesk WebApplication Timer Jobs** feature: