upKeeper®

Installation instructions

Revision 1.2
2022-08-08

Table of contents

Prerequisites

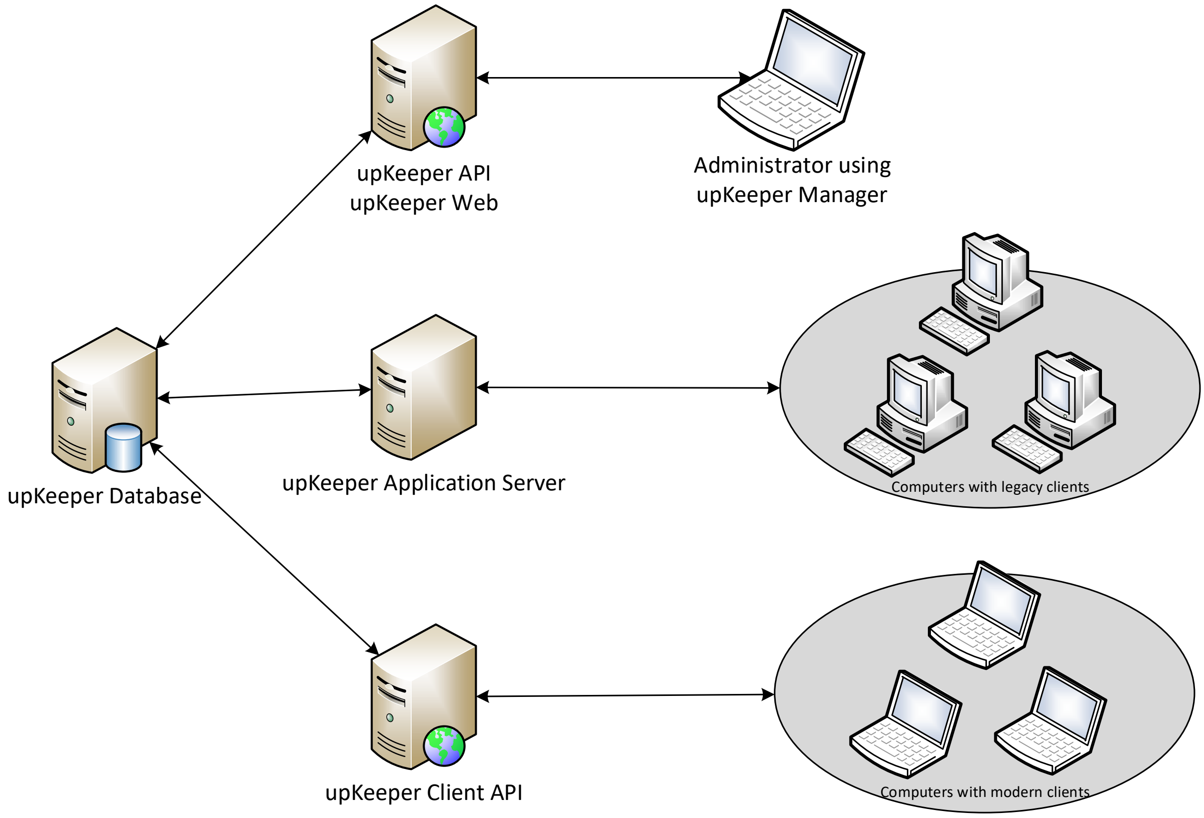
Prerequisites are described in the document “upKeeper 4 - Installation Prerequisites”.

Report management

Management of reports is described in the document “upKeeper 3.9 – SQL Reporting”

System overview

Server components can all be installed on the same server or spread on different servers (see picture below). If you are new to the system or want advice, please consult with an upKeeper expert.



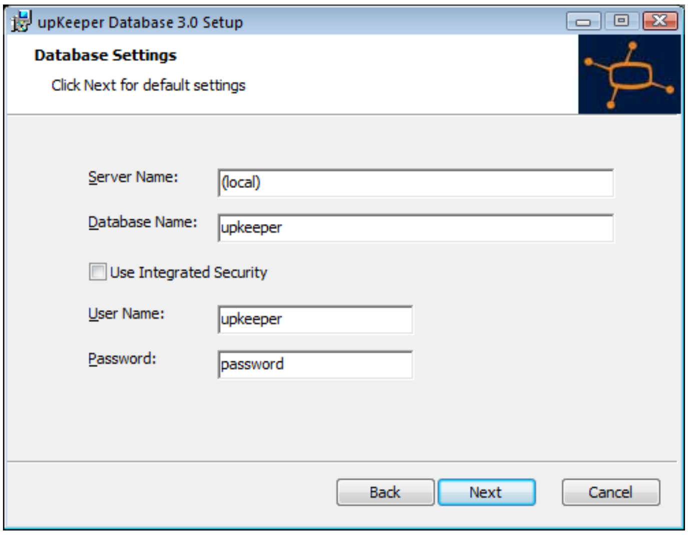
Installing Server Components

Note that before installing, you must notify your provider or upKeeper Solutions to activate the license.

Installation – upKeeper Database

- Sign in with administrative rights to the server that will be used for the upKeeper database.
- Execute the file **upKeeper.DB.4.3.0.msi**
- Select server\instance.
- Enter the name of the upKeeper database.
- Specify if you want to use Integrated Security or SQL Server Authentication.

Note! The rest of this document will assume that SQL Server Authentication is used



upKeeper Database 3.0 Setup

Database Settings

Click Next for default settings

Server Name: (local)

Database Name: upkeeper

☐ Use Integrated Security

User Name: upkeeper

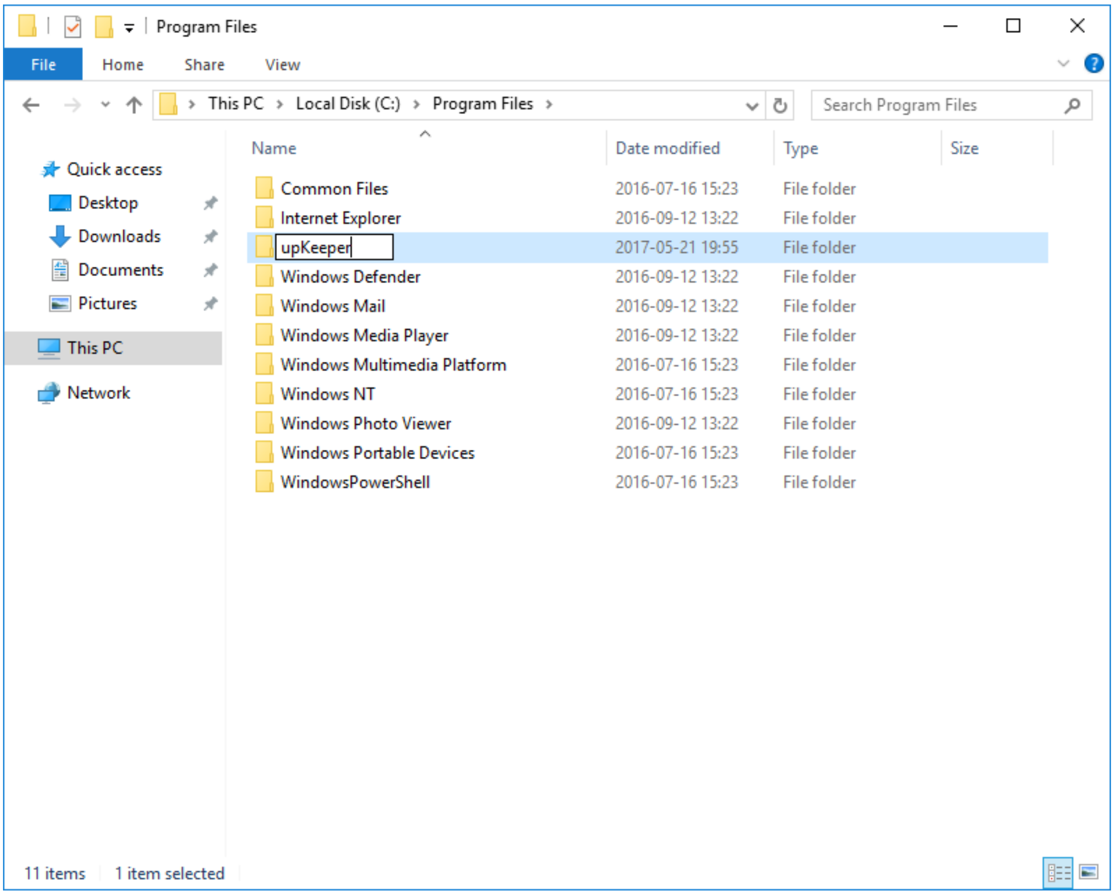
Password: password

- Run each database update script to reach current version.

Installation – upKeeper API

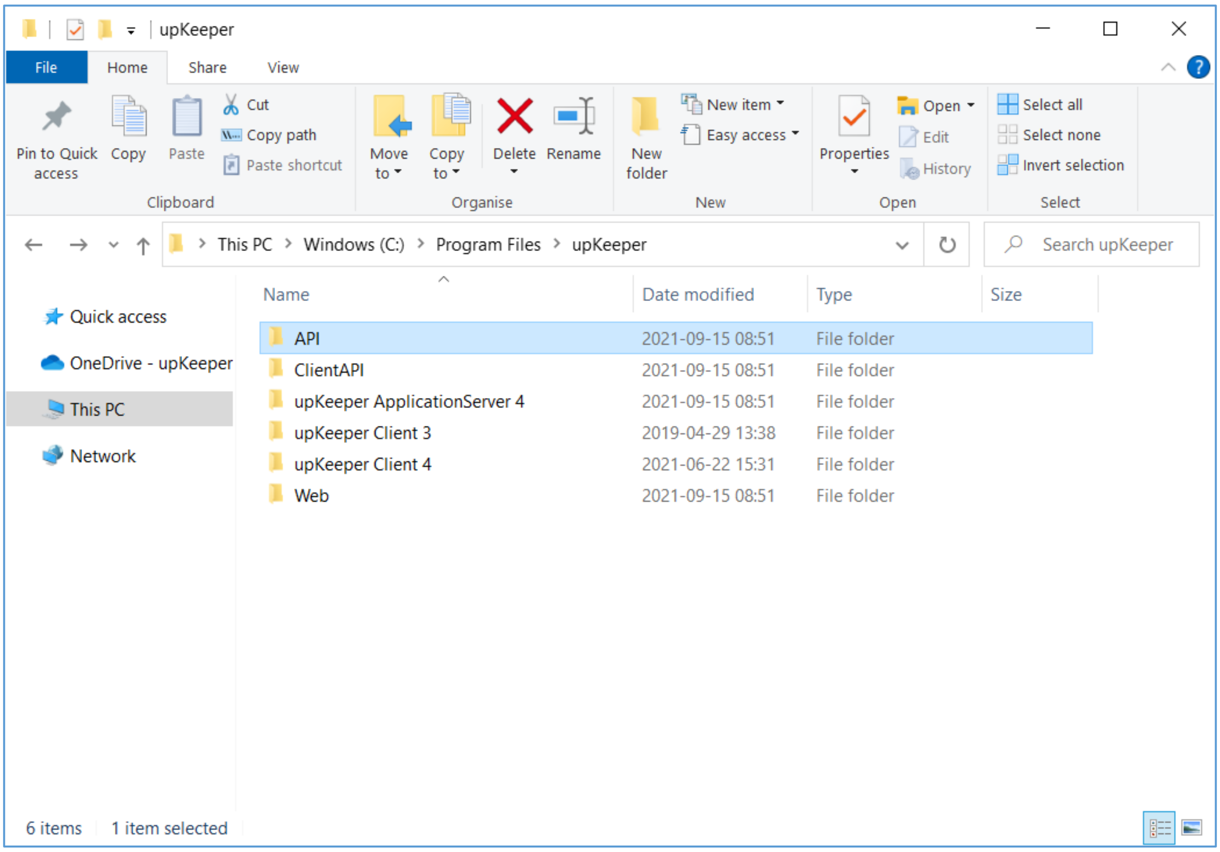
Sign in with administrative rights to the server that will be used for the upKeeper API.

Create a folder named “upKeeper” in the path “C:\Program Files\”.



Name	Date modified	Type	Size
Common Files	2016-07-16 15:23	File folder	
Internet Explorer	2016-09-12 13:22	File folder	
upKeeper	2017-05-21 19:55	File folder	
Windows Defender	2016-09-12 13:22	File folder	
Windows Mail	2016-09-12 13:22	File folder	
Windows Media Player	2016-09-12 13:22	File folder	
Windows Multimedia Platform	2016-07-16 15:23	File folder	
Windows NT	2016-07-16 15:23	File folder	
Windows Photo Viewer	2016-09-12 13:22	File folder	
Windows Portable Devices	2016-07-16 15:23	File folder	
WindowsPowerShell	2016-07-16 15:23	File folder	

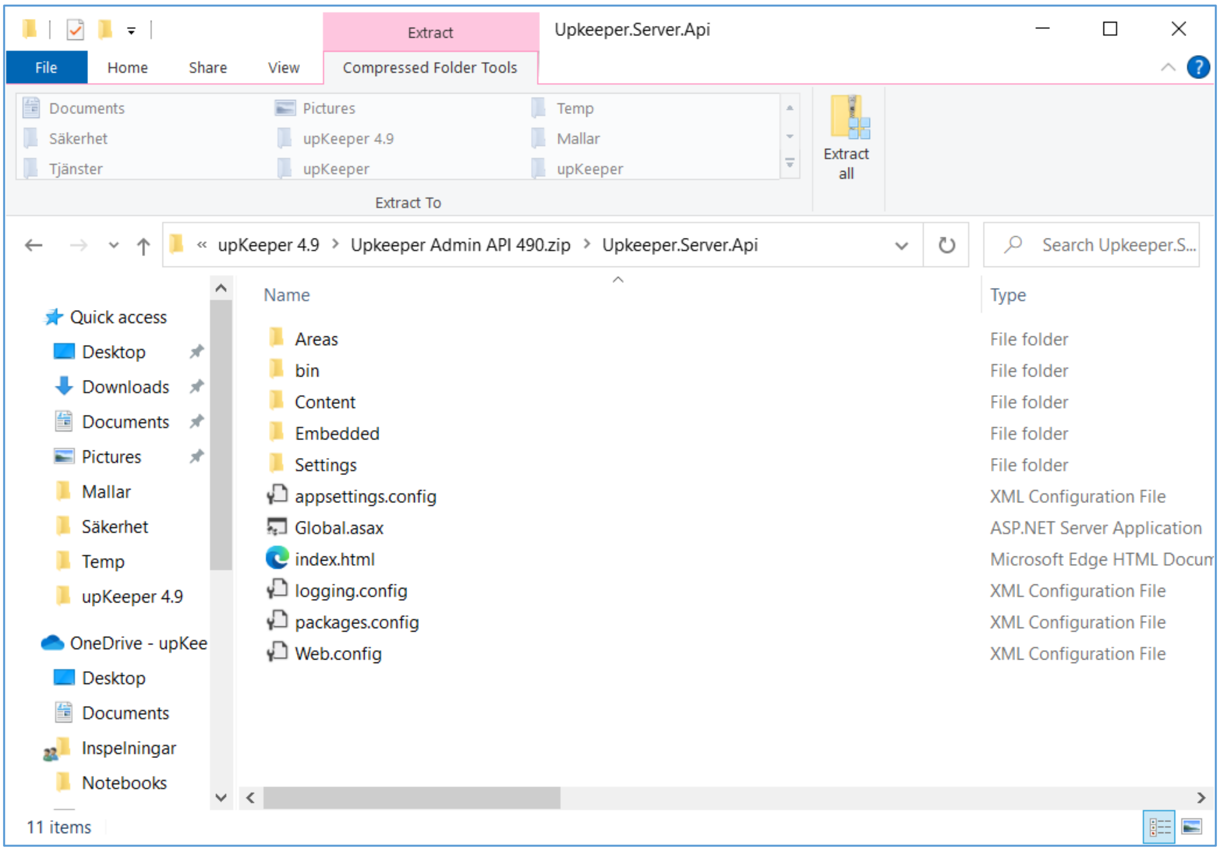
Create a folder named “API” in the path “C:\Program Files\upKeeper”.



Name	Date modified	Type	Size
API	2021-09-15 08:51	File folder	
ClientAPI	2021-09-15 08:51	File folder	
upKeeper ApplicationServer 4	2021-09-15 08:51	File folder	
upKeeper Client 3	2019-04-29 13:38	File folder	
upKeeper Client 4	2021-06-22 15:31	File folder	
Web	2021-09-15 08:51	File folder	

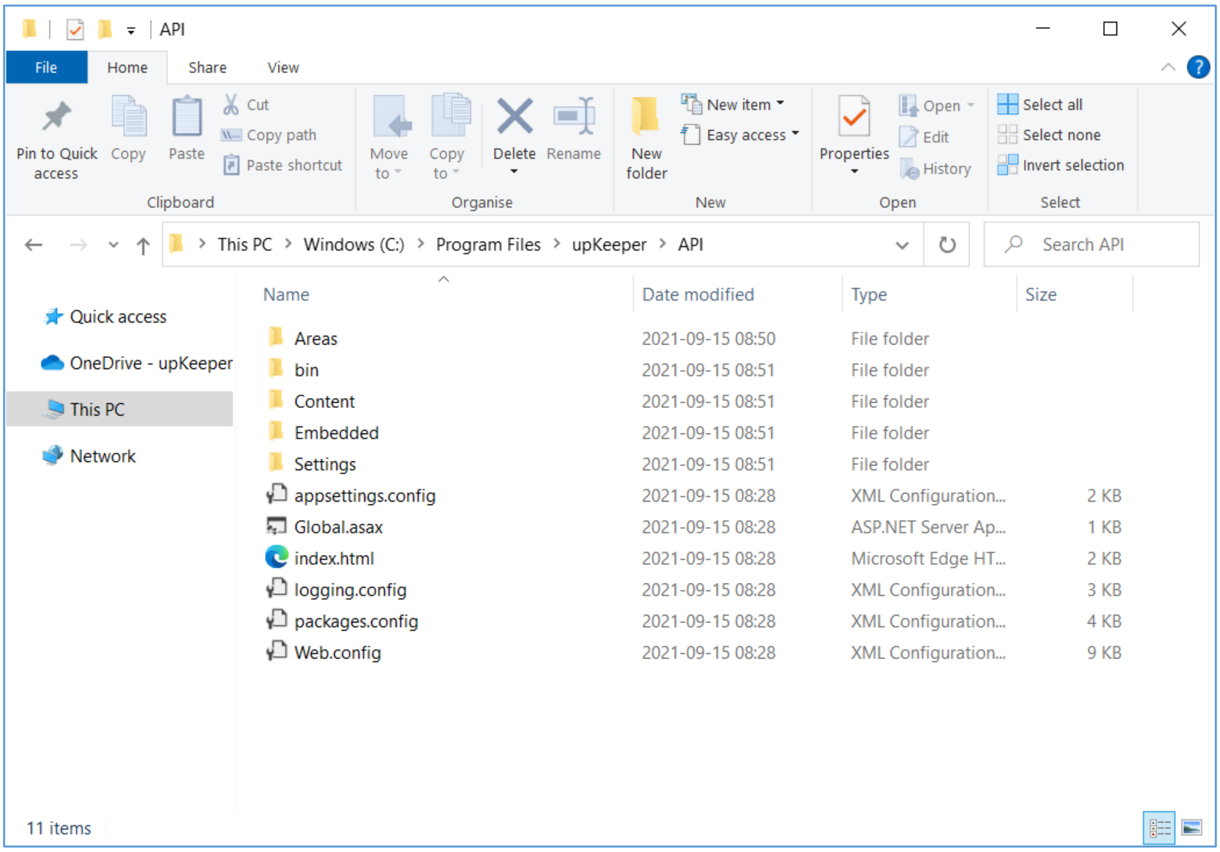
6 items 1 item selected

Extract the content of the file “upKeeper Admin API 4.x.x.zip” into the “API” folder just created.



Name	Type
Areas	File folder
bin	File folder
Content	File folder
Embedded	File folder
Settings	File folder
appsettings.config	XML Configuration File
Global.asax	ASP.NET Server Application
index.html	Microsoft Edge HTML Docum
logging.config	XML Configuration File
packages.config	XML Configuration File
Web.config	XML Configuration File

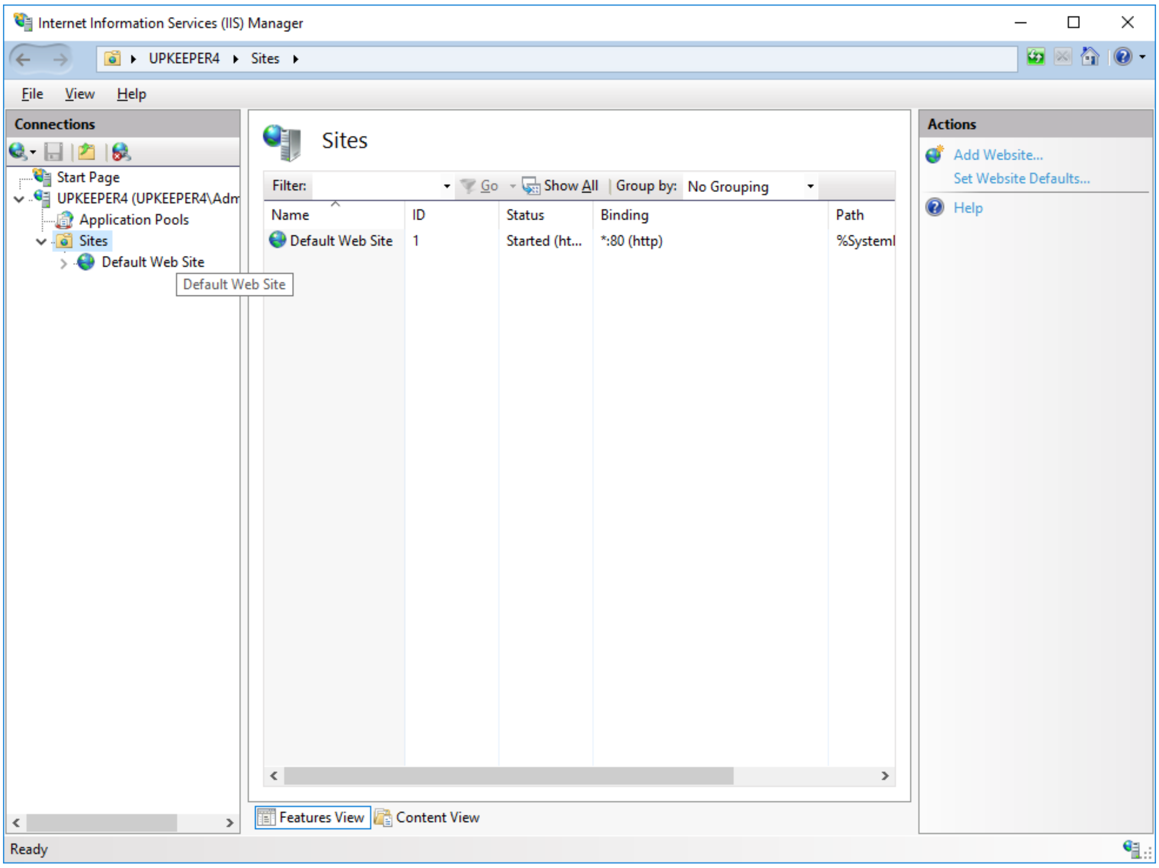
The “API” folder after extraction (content can look different due to version).



Name	Date modified	Type	Size
Areas	2021-09-15 08:50	File folder	
bin	2021-09-15 08:51	File folder	
Content	2021-09-15 08:51	File folder	
Embedded	2021-09-15 08:51	File folder	
Settings	2021-09-15 08:51	File folder	
appsettings.config	2021-09-15 08:28	XML Configuration...	2 KB
Global.asax	2021-09-15 08:28	ASP.NET Server Ap...	1 KB
index.html	2021-09-15 08:28	Microsoft Edge HT...	2 KB
logging.config	2021-09-15 08:28	XML Configuration...	3 KB
packages.config	2021-09-15 08:28	XML Configuration...	4 KB
Web.config	2021-09-15 08:28	XML Configuration...	9 KB

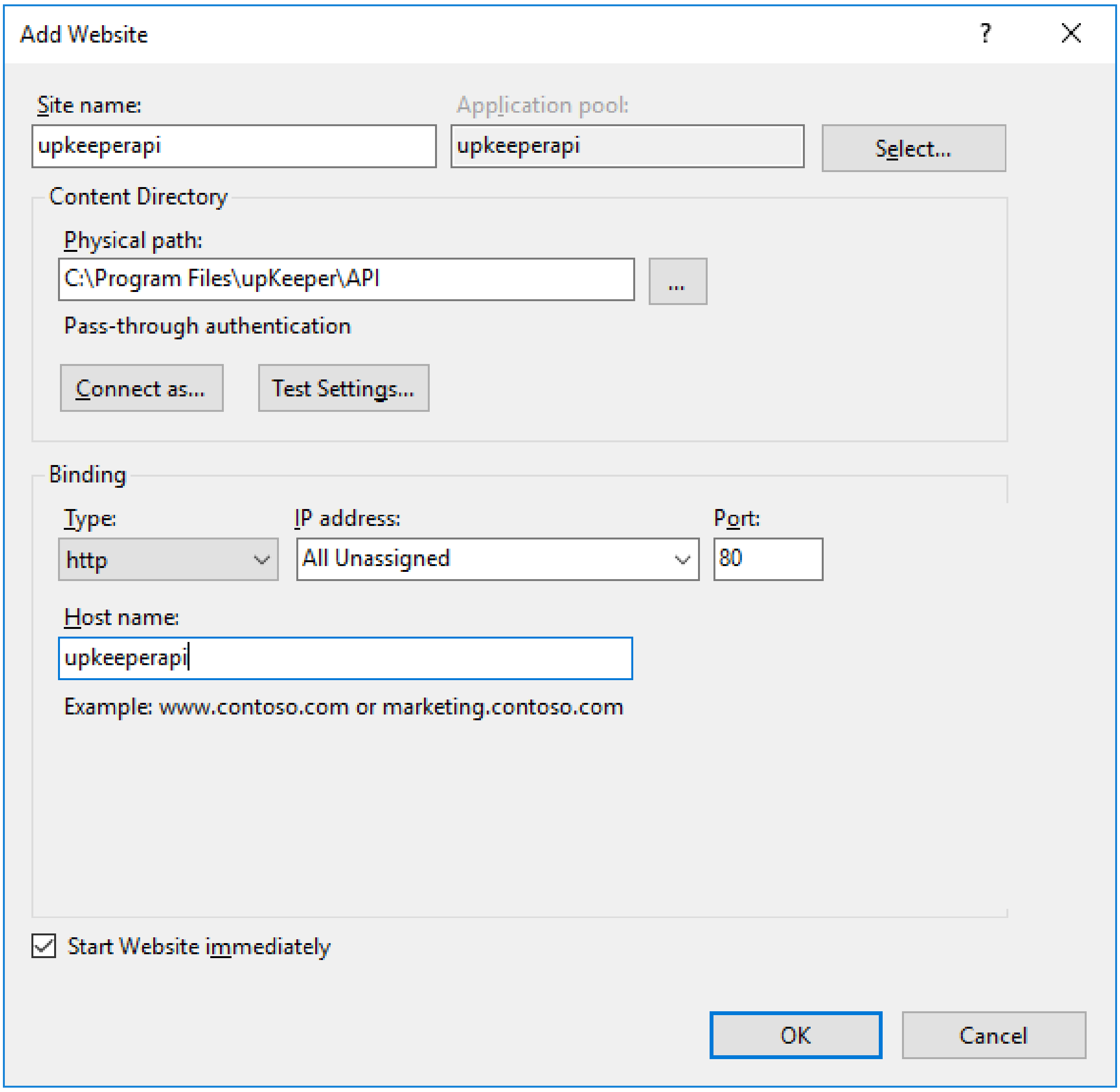
11 items

Open “Internet Information Services (IIS) Manager” on the server.



Name	ID	Status	Binding	Path
Default Web Site	1	Started (ht...	*:80 (http)	%SystemI

Add new web site in “Internet Information Services (IIS) Manager”. The “Physical path” should point to the folder where you extracted the API files. Remember to change the “host name” to a DNS address reachable from where the system will be administrated.



Add Website

Site name: upkeeperapi

Application pool: upkeeperapi

Content Directory

Physical path: C:\Program Files\upKeeper\API

Pass-through authentication

Binding

Type: http

IP address: All Unassigned

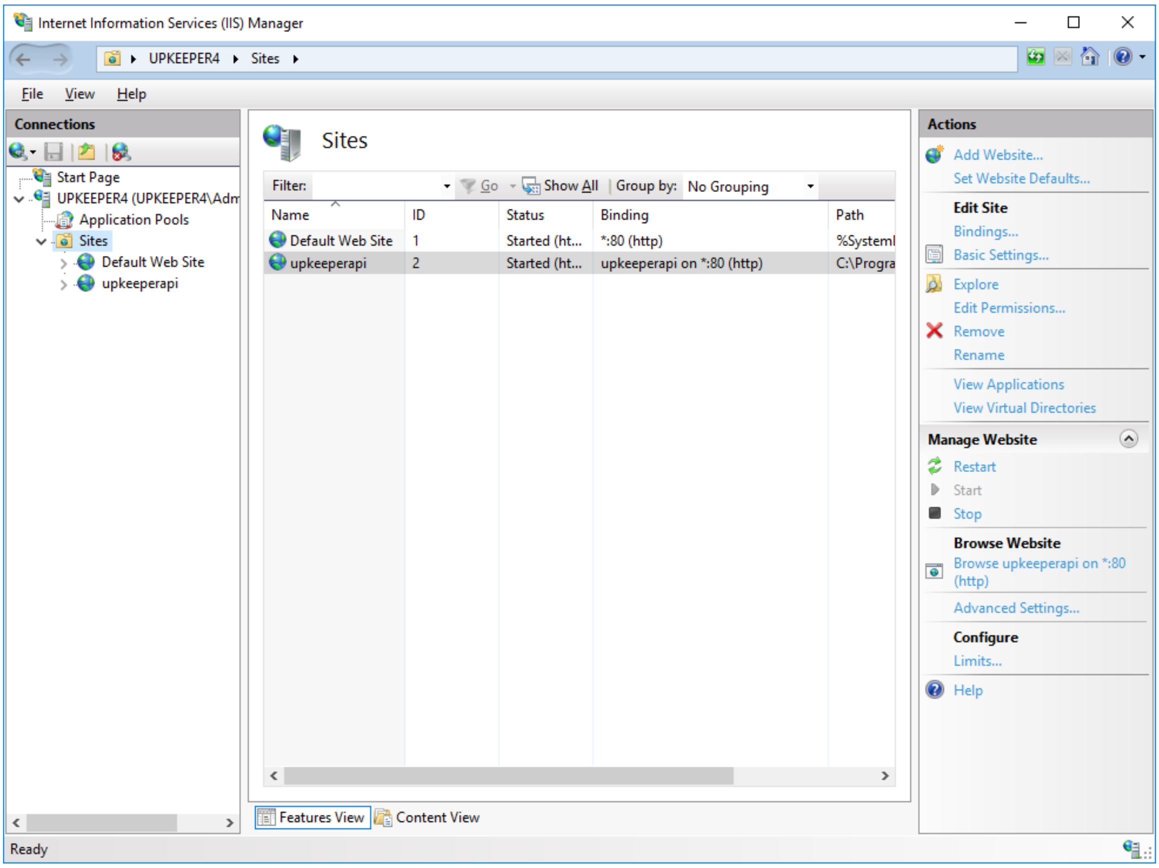
Port: 80

Host name: upkeeperapi

Example: www.contoso.com or marketing.contoso.com

☑ Start Website immediately

Available sites should look like this.

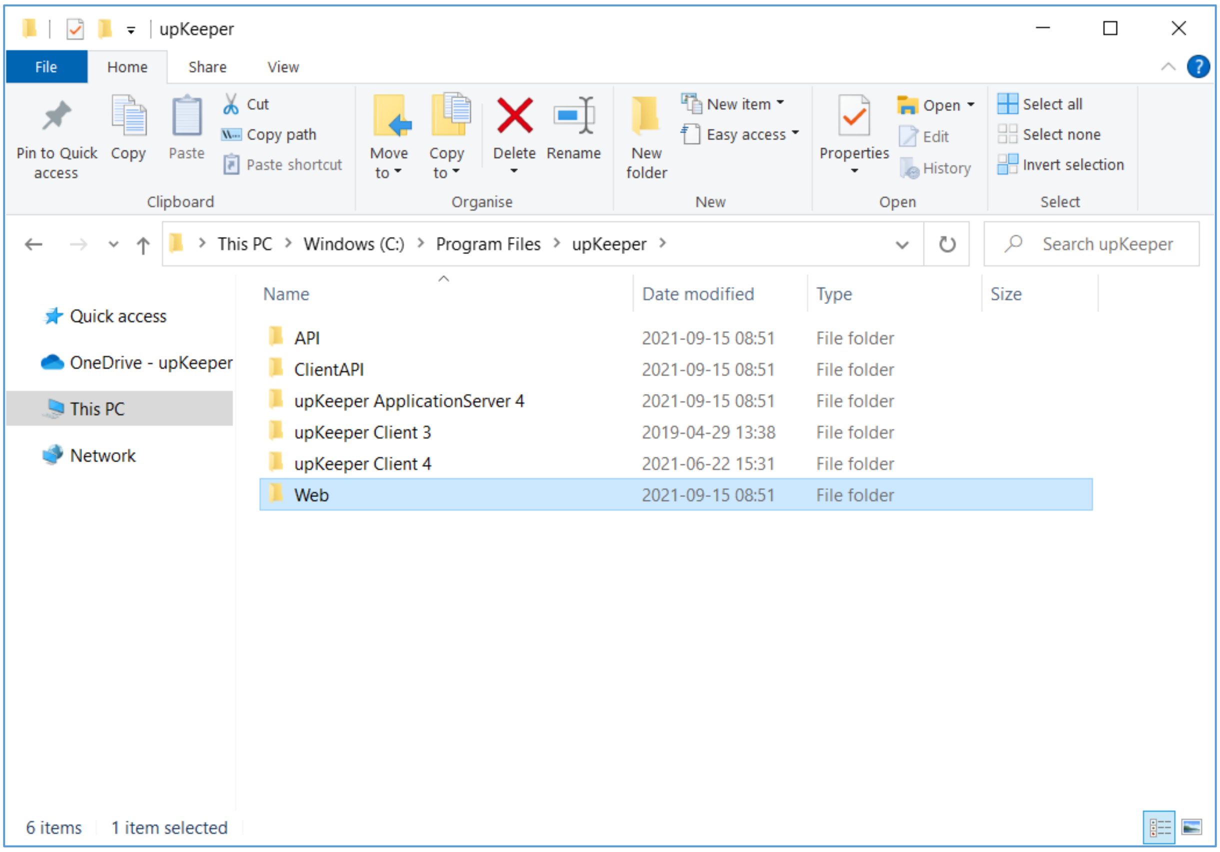


Name	ID	Status	Binding	Path
Default Web Site	1	Started (ht...	*:80 (http)	%SystemI
upkeeperapi	2	Started (ht...	upkeeperapi on *:80 (http)	C:\Progra

Installation – upKeeper Administration Website

Sign in with administrative rights to the server you used for the upKeeper API Website

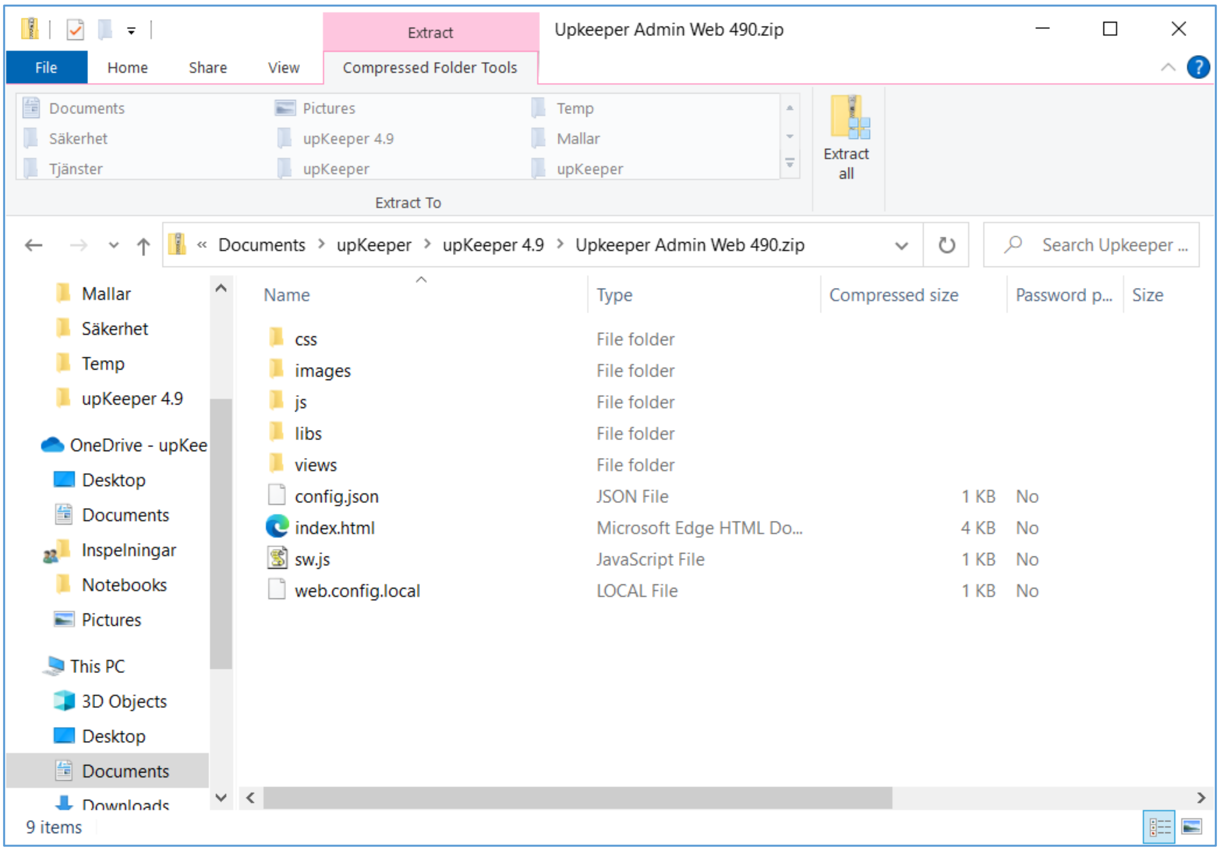
Create a folder named “Web” in the path “C:\Program Files\upKeeper”.



Name	Date modified	Type	Size
API	2021-09-15 08:51	File folder	
ClientAPI	2021-09-15 08:51	File folder	
upKeeper ApplicationServer 4	2021-09-15 08:51	File folder	
upKeeper Client 3	2019-04-29 13:38	File folder	
upKeeper Client 4	2021-06-22 15:31	File folder	
Web	2021-09-15 08:51	File folder	

6 items 1 item selected

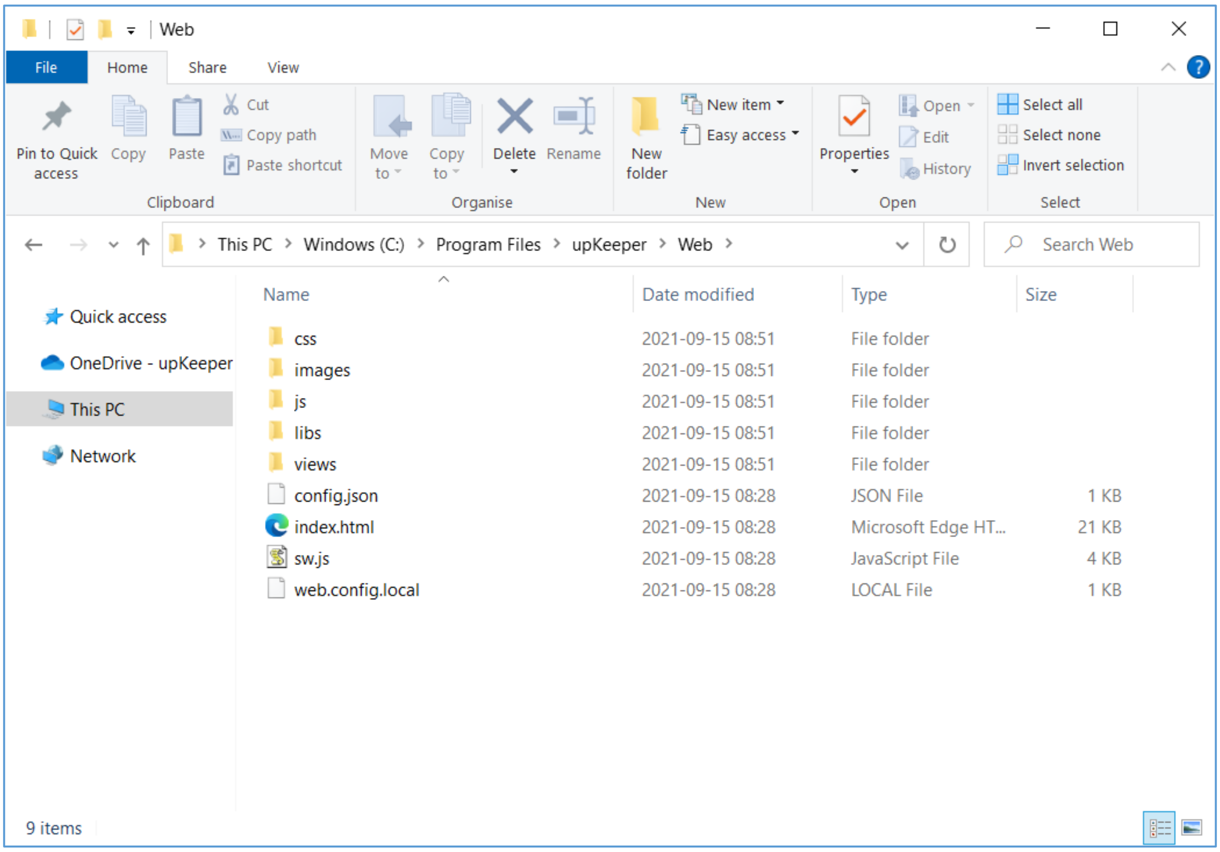
Extract the content of the file “upKeeper Admin Web 4.x.x.zip” into the “Web” folder just created.



« Documents › upKeeper › upKeeper 4.9 › Upkeeper Admin Web 490.zip

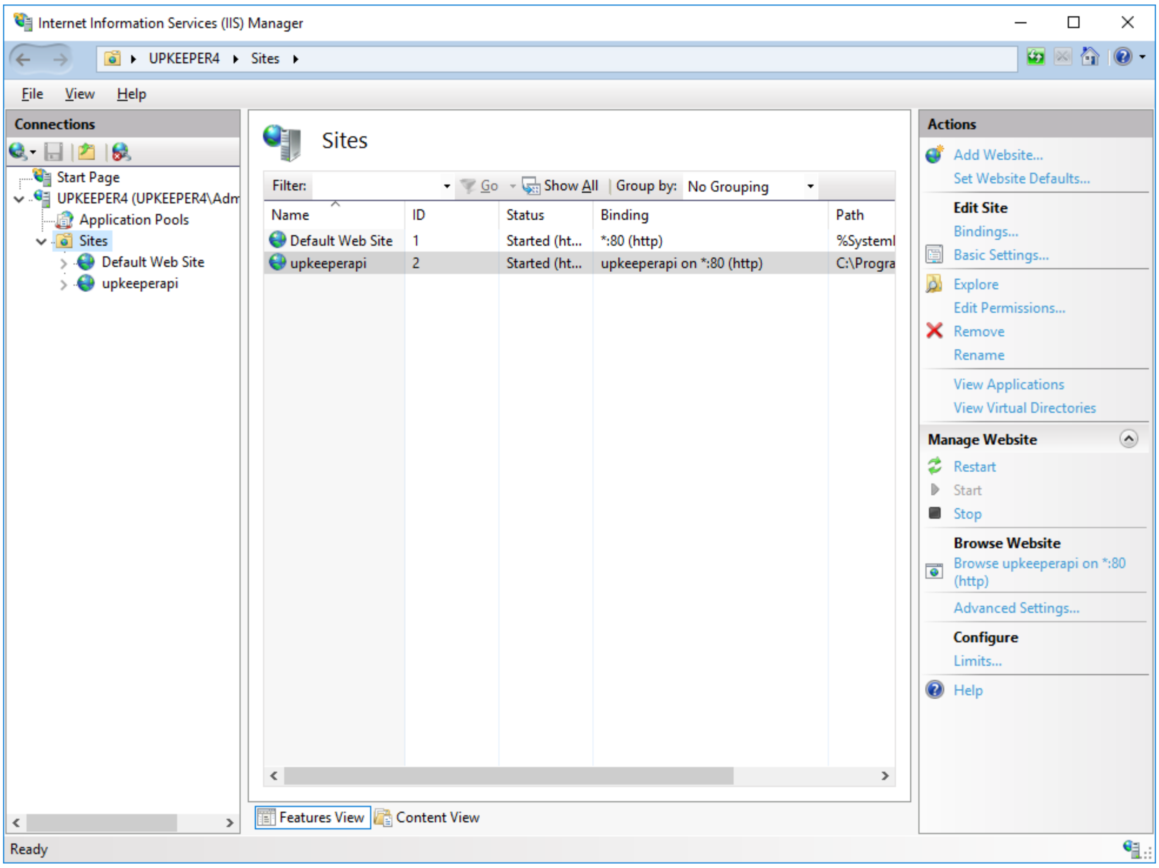
Name	Type	Compressed size	Password p...	Size
css	File folder			
images	File folder			
js	File folder			
libs	File folder			
views	File folder			
config.json	JSON File	1 KB	No	
index.html	Microsoft Edge HTML Do...	4 KB	No	
sw.js	JavaScript File	1 KB	No	
web.config.local	LOCAL File	1 KB	No	

The “Web” folder after extraction (content can look different due to version).



Name	Date modified	Type	Size
css	2021-09-15 08:51	File folder	
images	2021-09-15 08:51	File folder	
js	2021-09-15 08:51	File folder	
libs	2021-09-15 08:51	File folder	
views	2021-09-15 08:51	File folder	
config.json	2021-09-15 08:28	JSON File	1 KB
index.html	2021-09-15 08:28	Microsoft Edge HT...	21 KB
sw.js	2021-09-15 08:28	JavaScript File	4 KB
web.config.local	2021-09-15 08:28	LOCAL File	1 KB

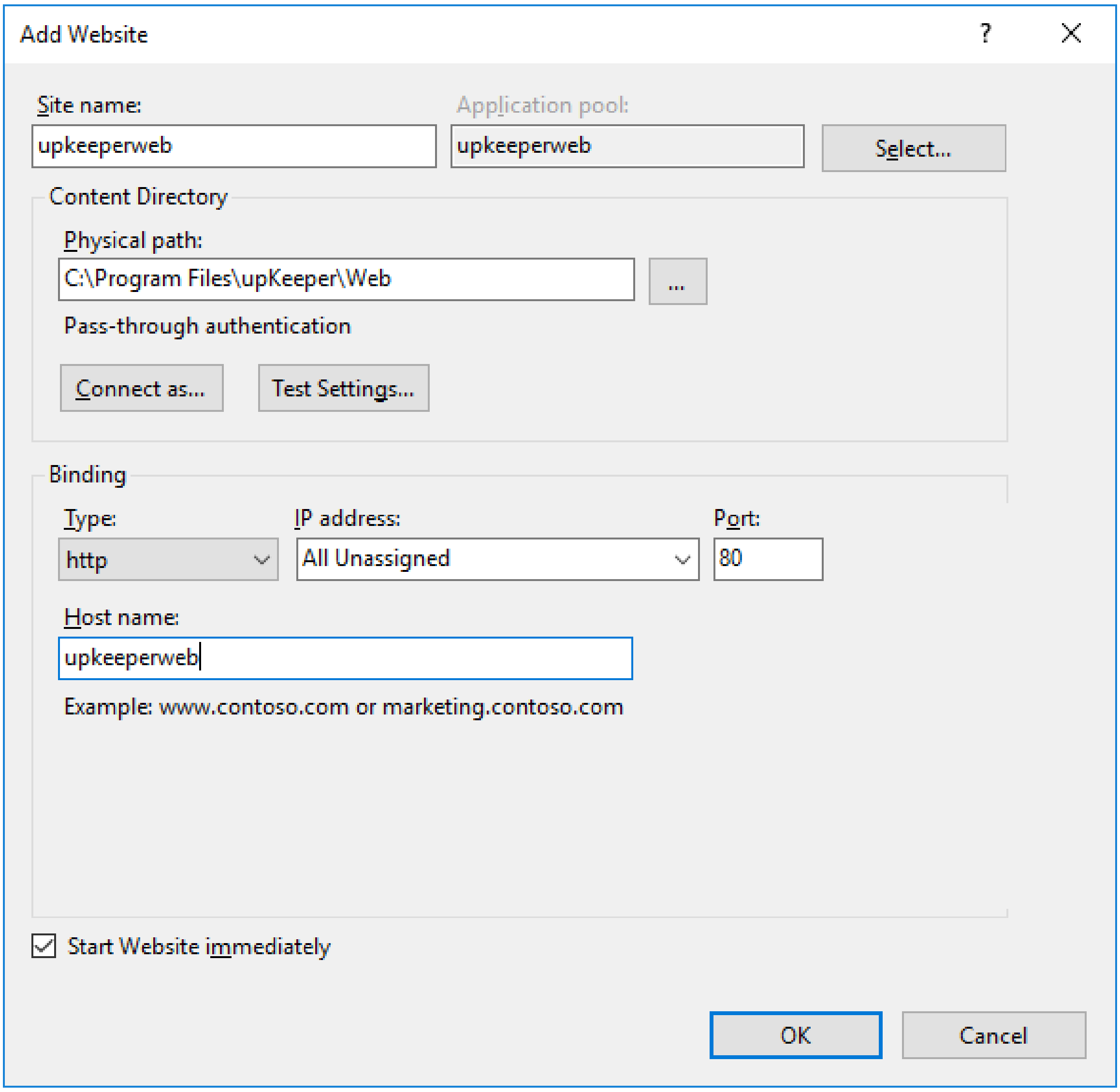
Open “Internet Information Services (IIS) Manager” on the server



Filter: Group by: No Grouping

Name	ID	Status	Binding	Path
Default Web Site	1	Started (ht...	*:80 (http)	%SystemI
upkeeperapi	2	Started (ht...	upkeeperapi on *:80 (http)	C:\Progra

Add new web site in “Internet Information Services (IIS) Manager”. The “Physical path” should point to the folder where you extracted the web files. Remember to change the “host name” to a DNS address reachable from where the system will be administrated.



Add Website

Site name: upkeeperweb

Application pool: upkeeperweb

Content Directory

Physical path: C:\Program Files\upKeeper\Web

Pass-through authentication

Binding

Type: http

IP address: All Unassigned

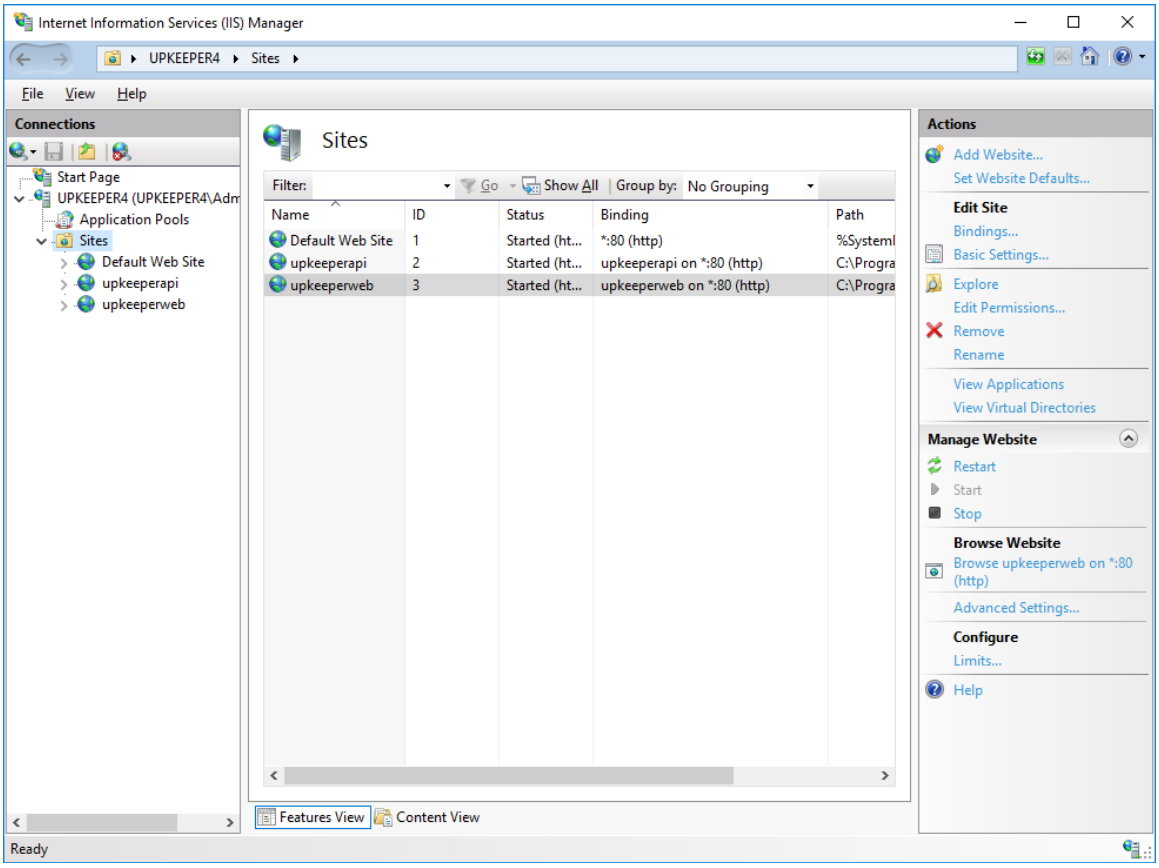
Port: 80

Host name: upkeeperweb

Example: www.contoso.com or marketing.contoso.com

☑ Start Website immediately

Available sites should look like this.

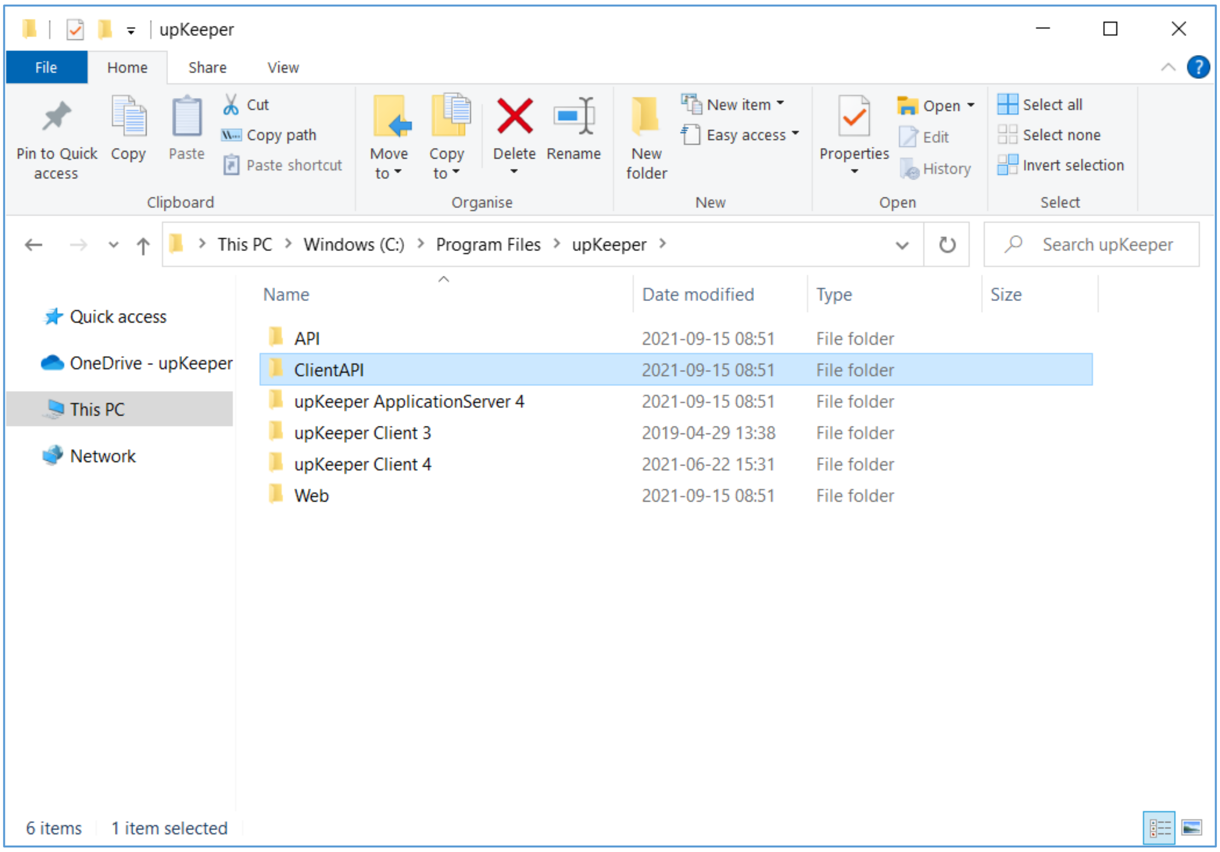


Name	ID	Status	Binding	Path
Default Web Site	1	Started (ht...	*:80 (http)	%SystemI
upkeeperapi	2	Started (ht...	upkeeperapi on *:80 (http)	C:\Progra
upkeeperweb	3	Started (ht...	upkeeperweb on *:80 (http)	C:\Progra

Installation – upKeeper Client API

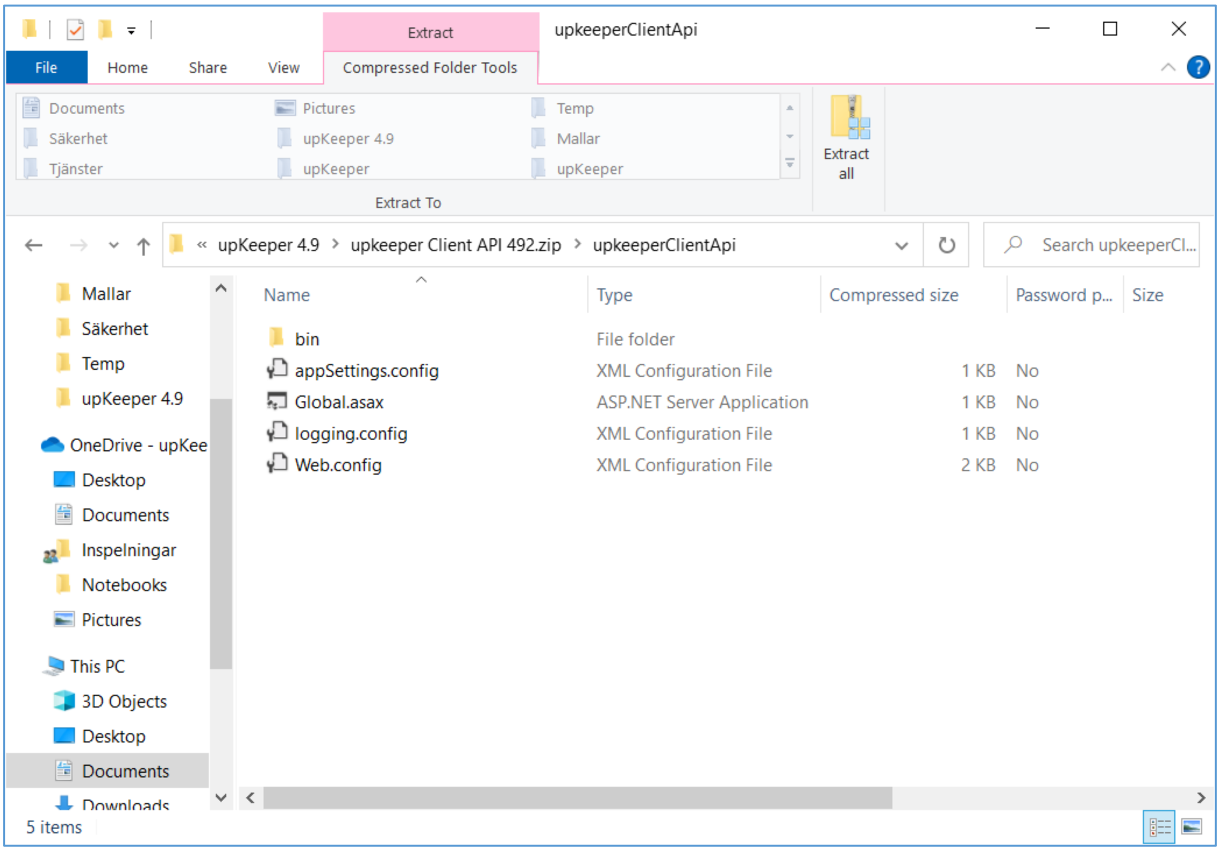
Sign in with administrative rights to the server you used for the upKeeper Administration Website or any server with the feature Internet Information Server enabled.

Create a folder named "ClientAPI" in the path "C:\Program Files\upKeeper".



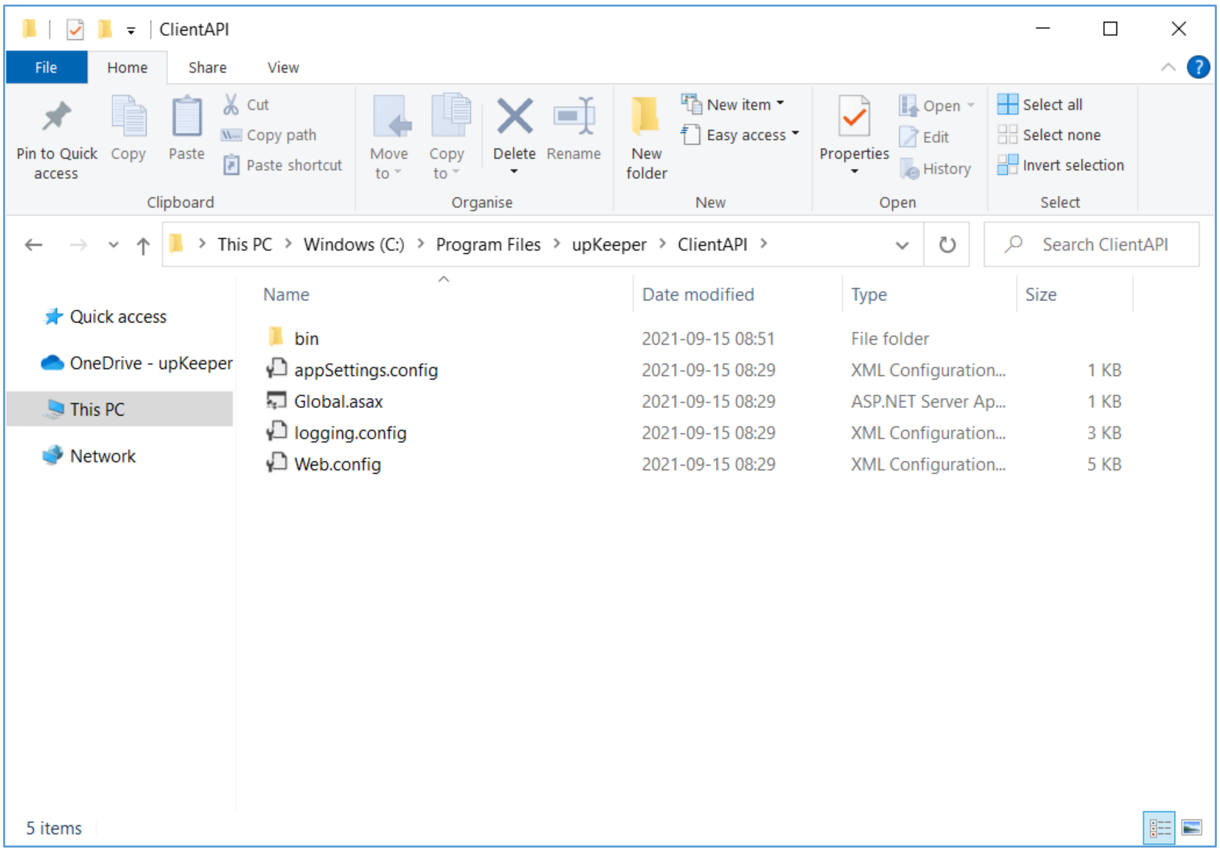
Name	Date modified	Type	Size
API	2021-09-15 08:51	File folder	
ClientAPI	2021-09-15 08:51	File folder	
upKeeper ApplicationServer 4	2021-09-15 08:51	File folder	
upKeeper Client 3	2019-04-29 13:38	File folder	
upKeeper Client 4	2021-06-22 15:31	File folder	
Web	2021-09-15 08:51	File folder	

Extract the content of the file “upKeeper Client API 4.x.x.zip” into the “ClientAPI” folder just created.



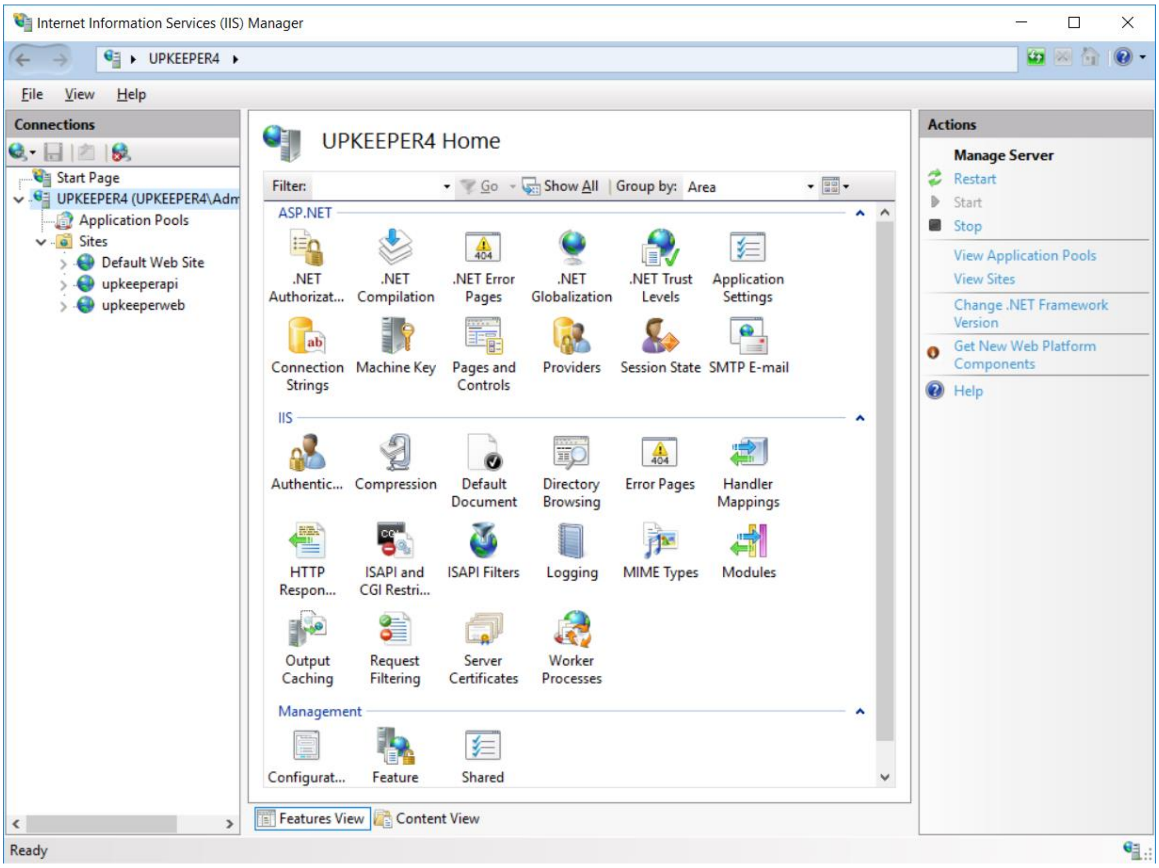
Name	Type	Compressed size	Password p...	Size
bin	File folder			
appSettings.config	XML Configuration File	1 KB	No	
Global.asax	ASP.NET Server Application	1 KB	No	
logging.config	XML Configuration File	1 KB	No	
Web.config	XML Configuration File	2 KB	No	

The “ClientAPI” folder after extraction. (Content can look different due to version)

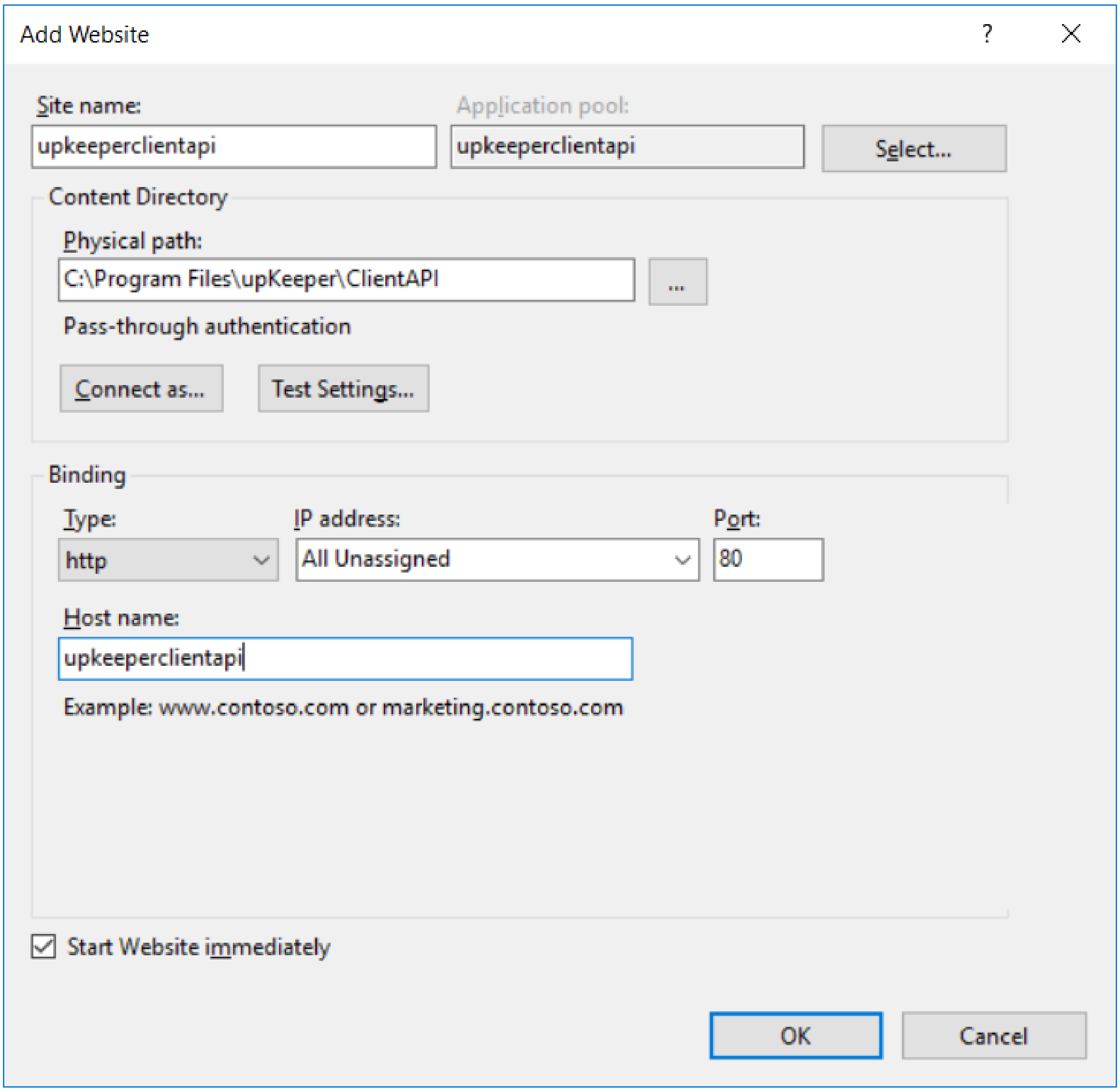


Name	Date modified	Type	Size
bin	2021-09-15 08:51	File folder	
appSettings.config	2021-09-15 08:29	XML Configuration...	1 KB
Global.asax	2021-09-15 08:29	ASP.NET Server Ap...	1 KB
logging.config	2021-09-15 08:29	XML Configuration...	3 KB
Web.config	2021-09-15 08:29	XML Configuration...	5 KB

Open “Internet Information Services (IIS) Manager” on the server



Add new web site in “Internet Information Services (IIS) Manager”. The “Physical path” should point to the folder where you extracted the web files. Remember to change the “host name” to a DNS address reachable from the clients.



Site name: upkeeperclientapi

Application pool: upkeeperclientapi

Physical path: C:\Program Files\upKeeper\ClientAPI

Type: http

IP address: All Unassigned

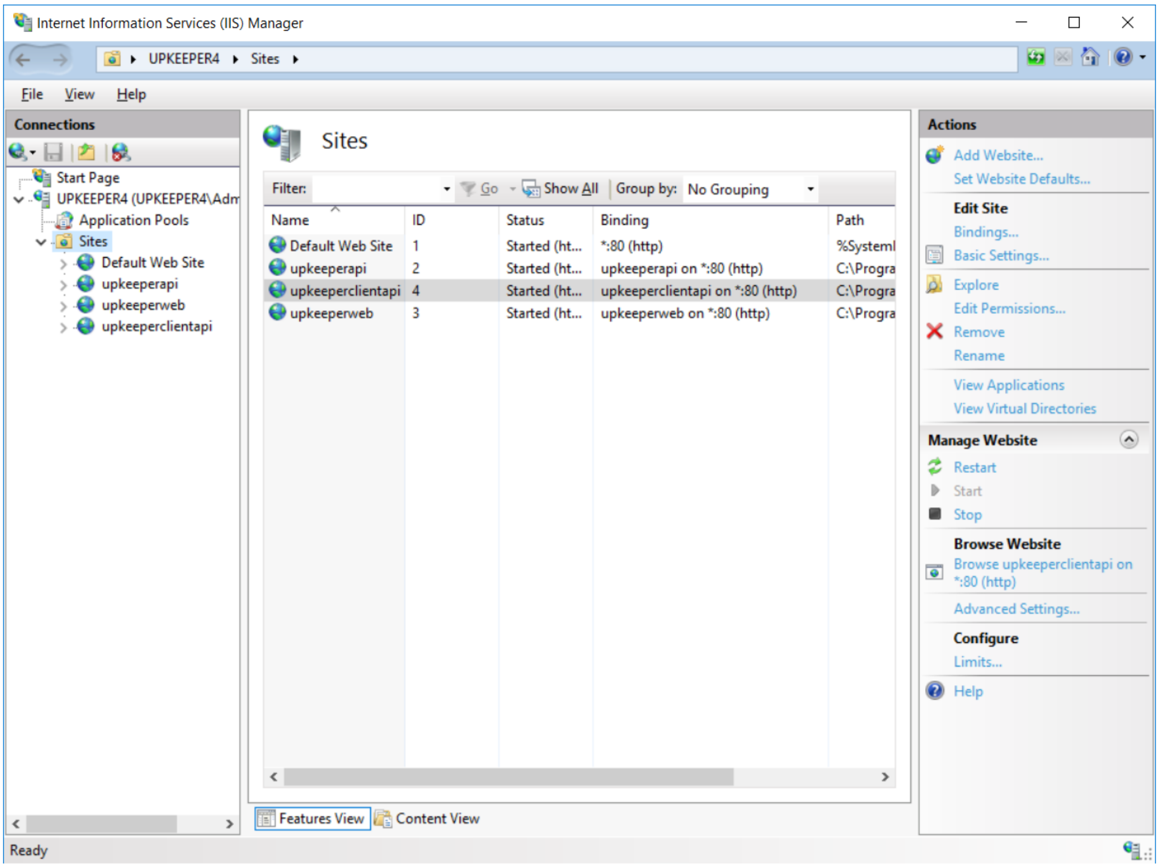
Port: 80

Host name: upkeeperclientapi

Example: www.contoso.com or marketing.contoso.com

☑ Start Website immediately

Available sites should look like this.



Name	ID	Status	Binding	Path
Default Web Site	1	Started (ht...	*:80 (http)	%SystemI
upkeeperapi	2	Started (ht...	upkeeperapi on *:80 (http)	C:\Progra
upkeeperclientapi	4	Started (ht...	upkeeperclientapi on *:80 (http)	C:\Progra
upkeeperweb	3	Started (ht...	upkeeperweb on *:80 (http)	C:\Progra

Edit the configuration file

Perform the following changes in the file **Web.config**, located in the **Destination Folder** (C:\Program Files\upKeeper\ClientAPI) specified during the installation.

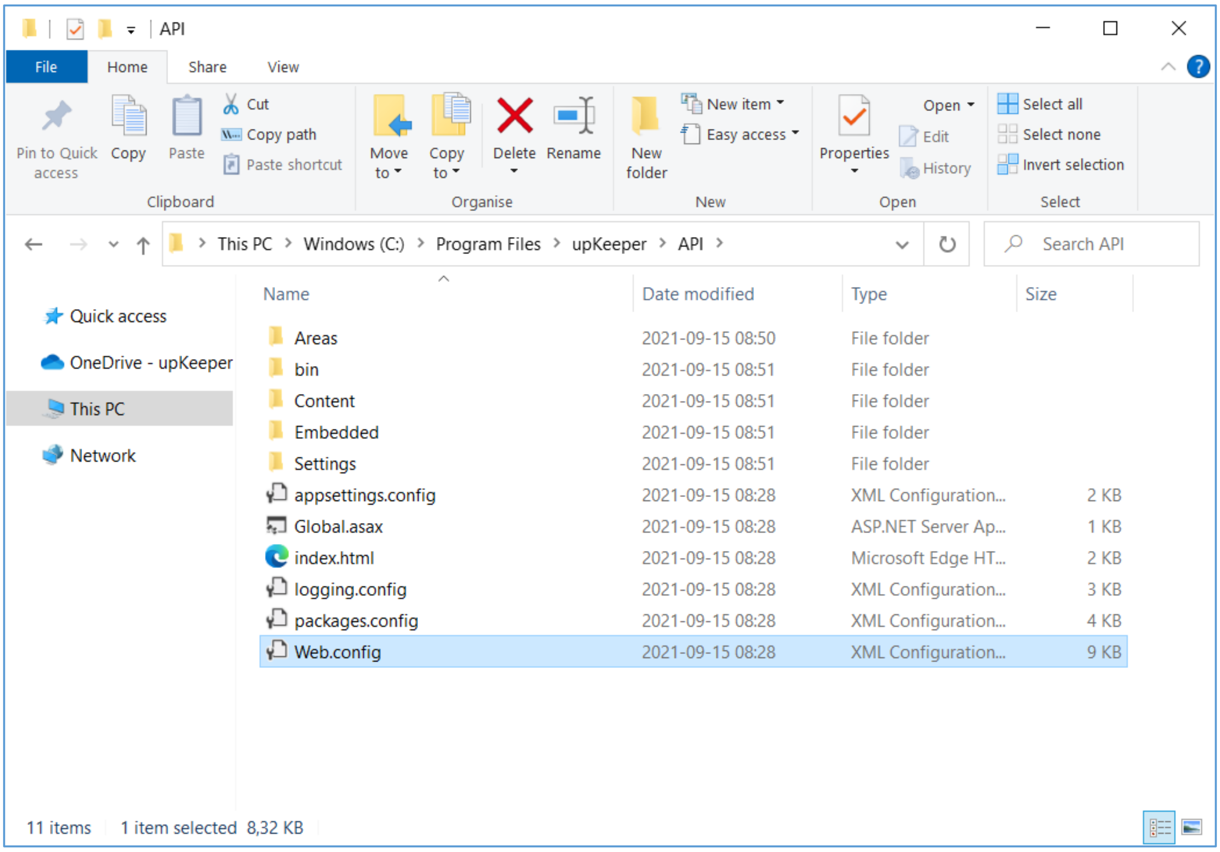
In order to use the improved security headers include this key:

```
<add key="UseHeaderAuthorization" value="true"/>
```

Configuring - upKeeper API

Edit the configuration file

Perform the following changes in the configuration files (Web.config, appsettings.config, logging.config) located in the **Destination Folder** (C:\Program Files\upKeeper\API) specified during the installation.



Name	Date modified	Type	Size
Areas	2021-09-15 08:50	File folder	
bin	2021-09-15 08:51	File folder	
Content	2021-09-15 08:51	File folder	
Embedded	2021-09-15 08:51	File folder	
Settings	2021-09-15 08:51	File folder	
appsettings.config	2021-09-15 08:28	XML Configuration...	2 KB
Global.asax	2021-09-15 08:28	ASP.NET Server Ap...	1 KB
index.html	2021-09-15 08:28	Microsoft Edge HT...	2 KB
logging.config	2021-09-15 08:28	XML Configuration...	3 KB
packages.config	2021-09-15 08:28	XML Configuration...	4 KB
Web.config	2021-09-15 08:28	XML Configuration...	9 KB

Database and Mail settings

Web.config file is main configuration file for API but upKeeper specific settings has been moved to appsettings.config and logging.config. Default mail host and database settings is specified in this config file.

```
  <system.net>
    <mailSettings>
      <smtp>
        <network host="[Mail server]" port="[Mail server port" defaultCredentials="false" />
      </smtp>
    </mailSettings>
  </system.net>
```

- **Host =** replace [Mail server] with address of your SMTP server.
- **Port =** replace [Mail server port] with network port number used by your SMTP server.

Database settings

```
<!-- Database connection settings -->
  <connectionStrings>
    <add name="UpkeeperEntities"
connectionString="metadata=res://*/Model.csdl|res://*/Model.ssdl|res://*/Model.msl;provider=System.Data
.SqlClient;provider connection string=&quot;Data Source=localhost\SQLEXPRESS;Initial
```

```
Catalog=upkeeper49;User ID=sa;Password=Trustno1!;Integrated
Security=False;MultipleActiveResultSets=True&quot;" providerName="System.Data.EntityClient" />
  </connectionStrings>
```

Note! The text in the above example has extra line breaks that are not allowed in the configuration file.

- **Data Source** = the address of your database server.
- **Initial Catalog** = database name
- **User ID** = the name of the database user that owns the upKeeper database. Replace [USERNAME] with sql user.
- **Password** = the password for the above user. Replace [PASSWORD] with password for the sql user.
- **Integrated Security** = true mean that user browsing the website will be used to connect to the upkeeper database. If specified User ID should be used you need to set this property to false.

Database settings for logging

Logging is set in the file **logging.config**. Locate the following tags:

```
<log4net>
  <appender name="ADONetAppender" type="log4net.Appender.ADONetAppender">
```

Edit the connection string properties so that they have the same values as the connection string in the previous section.

```
<!-- Database connection for logging -->
<connectionString value="Server=localhost; Initial Catalog=upkeeper; User ID=[USERNAME];
Password=[PASSWORD];" />
```

Level of logging is changed under the “<root>” section. Approved values are ERROR, WARN, INFO and DEBUG. In production we recommend WARN, but for test or troubleshoot you should use higher level of logging like INFO or DEBUG.

```
<level value=”WARN”>
```

Reporting Services settings

Report settings is set in the **appsettings.config** file. Edit these if you are to use upKeeper reporting.

Locate the tag **<appSettings>**

```
<appSettings>
      <add key="ReportServiceURL" value="http://localhost/reportserver/reportservice2005.asmx" />
      <add key="ReportServiceUser" value="[DOMAIN\USERNAME]"/>
      <add key="ReportServicePassword" value="[PASSWORD]"/>
      <add key="ReportServicePath" value="/" />
      <add key="ReportServiceReportPath"
value="http://localhost/ReportServer/Pages/ReportViewer.aspx?{0}&amp;rs:Command=Render" />
      <add key="ReportProxyEnabled" value="true"/>
      <!-- <add key="ReportViewerPath" value="{0}/embedded/report.aspx?report={1}" /> -->
```

- **ReportServiceURL** = the address of your SQL Server Reporting Services installation (you will find the name if you open the SQL Reporting Services Configuration Manager, Web Service URL)
- **ReportServiceUser** = the user name of an account that has the right to run reports
- **ReportServicePassword** = the password for the account above
- **ReportServicePath** = the path to the upKeeper folder where the reports are located (can be left default)
- **ReportServiceReportPath** = the address of the SQL Server Reporting Services reports
- **ReportProxyEnabled** = Allow to run reports offsite
- **ReportViewerPath** = if the API is configured as a web application and have a custom path this setting can be configured and used. Configuration is not normally used.

WSUS settings

Uncomment and edit if you are to use WSUS.

```
<!--
<add key="WSUSBaseUrlApi" value="http://192.168.90.19:9001" />
<add key="WSUSMaxJsonLength" value="41943040" />
-->
```

- WSUSBaseUrlApi = the address where upKeeper WSUS service is installed.
- WSUSMaxJsonLength = max size of json packages.

Two factor authentication

Uncomment and edit if you want to use two factor authentication. Observe! Before activating you should specify service users by enabling that parameter in the users view.

```
<!--
    <add key="UseTFA" value="True" />
    <add key="TFAMailFrom" value="noreply@yourcompany.se" />
    <add key="TFAMailSubject" value="upKeeper PIN code" />
    <add key="SMTP_Username" value="[Username]"/>
    <add key="SMTP_Password" value="[Password]"/>
-->
```

- UseTFA = Set to true to enable two factor authentication.
- TFAMailFrom = Address used when sending authentication emails.
- TFAMailSubject = Subject of email sent for two factor authentication.
- SMTP_Username = User name of user wit access to configured SMTP address (Address is configured in web.config).
- SMTP_Password = Password for SMTP user name.

Other Settings

- InstallationId = Value to identify a specific API if you have multiple.
- TokenExpireTime = Default is 10 minutes. This value defines the expire time of the access token to the API. When expiring a refresh token will be used to get a new one.
- MinPasswordLength = Default is 5 characters. This value defines the minimum number of characters a password can include.
- PublicKey.Modulus and PublicKey.Exponent = Used to read central encrypted information. Values should not be changed.

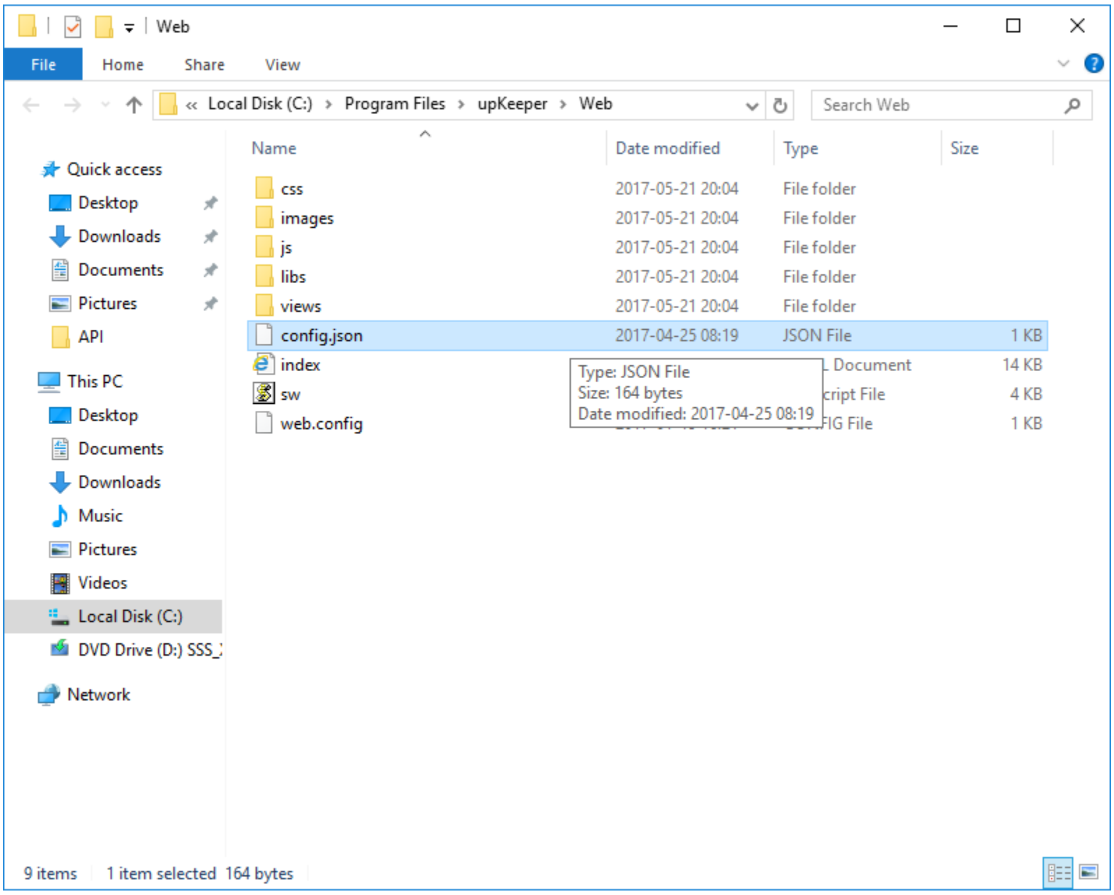
- Log4net.Internal.Debug and log4net.Config = Logging settings. Not to be changed.

Settings not documented are settings that should not be changed unless advised by upKeeper personnel.

Configuring - upKeeper Administration Web

Edit the configuration file

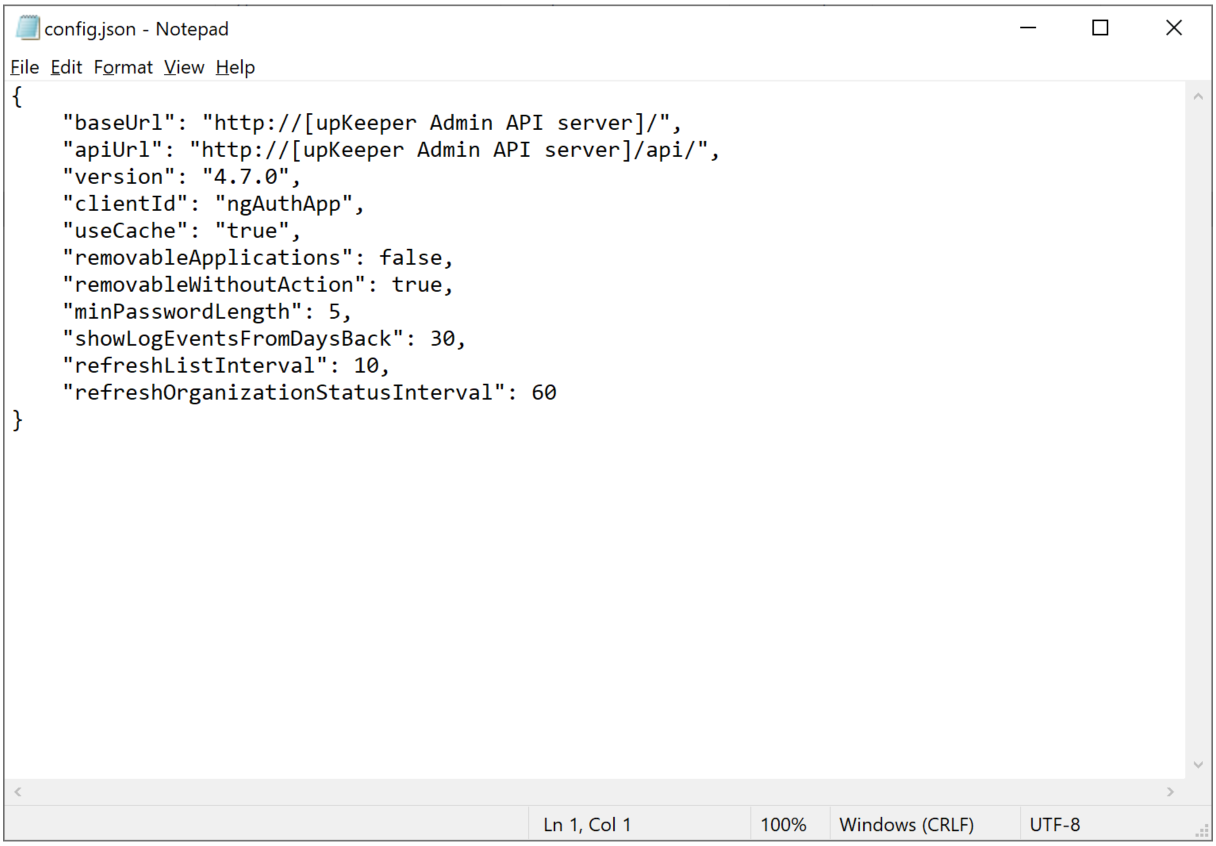
Perform the following changes in the file **config.json**,
located in the **Destination Folder** (C:\Program Files\upKeeper\Web) specified during the installation.



Name	Date modified	Type	Size
css	2017-05-21 20:04	File folder	
images	2017-05-21 20:04	File folder	
js	2017-05-21 20:04	File folder	
libs	2017-05-21 20:04	File folder	
views	2017-05-21 20:04	File folder	
config.json	2017-04-25 08:19	JSON File	1 KB
index		Document	14 KB
sw		cript File	4 KB
web.config		FIG File	1 KB

Type: JSON File
Size: 164 bytes
Date modified: 2017-04-25 08:19

9 items 1 item selected 164 bytes



```
{
    "baseUrl": "http://[upKeeper Admin API server]/",
    "apiUrl": "http://[upKeeper Admin API server]/api/",
    "version": "4.7.0",
    "clientId": "ngAuthApp",
    "useCache": "true",
    "removableApplications": false,
    "removableWithoutAction": true,
    "minPasswordLength": 5,
    "showLogEventsFromDaysBack": 30,
    "refreshListInterval": 10,
    "refreshOrganizationStatusInterval": 60
}
```

```
{
    "baseUrl": "http://upkeeperapi/",
    "apiUrl": "http://upkeeperapi/api/",
    "version": "4.2.0",
    "clientId": "ngAuthApp",
    "useCache": "true",
    "removableApplications": false,
    "removableWithoutAction": false,
    "refreshOrganizationStatusInterval": 60
}
```

- **baseURL** = the address of upKeeper API from a client perspective. The address for the API must be available in DNS for administrators accessing the upkeeper web.
- **apiUrl** = same base address as **baseUrl** with the addition of “api/”.
- **version** = current version of the web. The version number should manually be updated when upgrading to a new version of the web.
- **clientId** = tells the API what kind of client accessing. Different clientids can have different refreashtoken timeouts.
- **useCache** = set to false will force web to get new information for every request. Default is true and should only be changed if cache problems is detected.
- **removableApplications** = set to true will give administration the possibility to delete applications even when they are installed on computers (default is false).
- **removableWithoutAction** = set to true will five administrators the possibility to remove applications from computers and groups without uninstalling applications on computers (default is false).
- **refreshOrganizationStatusInterval** = interval in seconds to check organization pause status. If missing default value is 60 seconds.

Optional configuration settings

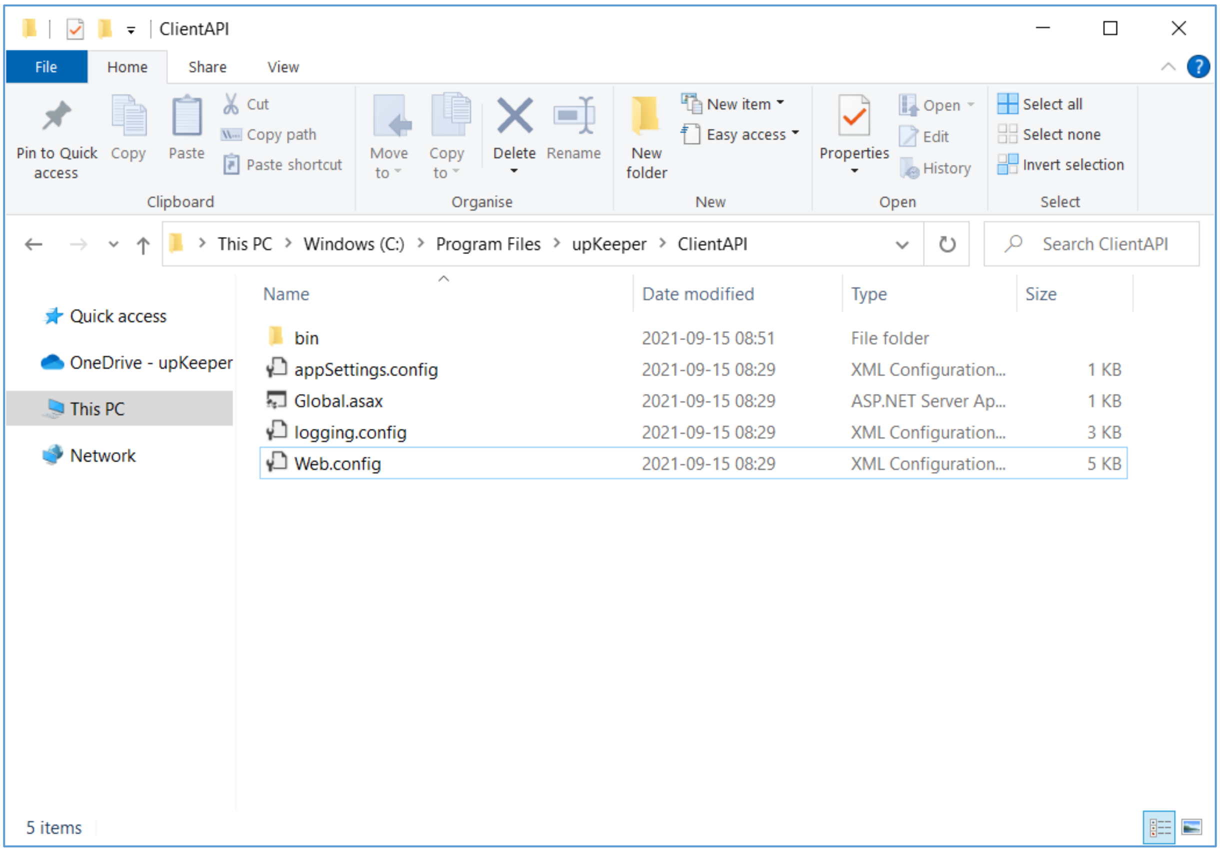
There are some optional settings that can change de behaviour of the web and they are not included by default. Optional flags can be included without any specific order.

- **reportUrlOverride** – URL point to external reporting web will override default reporting behaviour. OrganizationId and UserId of current organisation and user will be added to specified address.
- **reportOrgIdKeyOverride** – Key will replace the Id of current organization. Mostly used for testing purpose.

Configuring - upKeeper Client API

Edit the configuration file

Perform the following changes in the file **Web.config**,
located in the **Destination Folder** (C:\Program Files\upKeeper\ClientAPI) specified during the installation.



Name	Date modified	Type	Size
bin	2021-09-15 08:51	File folder	
appSettings.config	2021-09-15 08:29	XML Configuration...	1 KB
Global.asax	2021-09-15 08:29	ASP.NET Server Ap...	1 KB
logging.config	2021-09-15 08:29	XML Configuration...	3 KB
Web.config	2021-09-15 08:29	XML Configuration...	5 KB

Database settings

Locate the tag **<connectionStrings>**

```
<!-- Database connection settings -->
<connectionStrings>
  <add name="UpkeeperEntities"
    connectionString="metadata=res://*/Model.csdl|res://*/Model.ssdl|res://*/Model.msl;
provider=System.Data.SqlClient;provider connection string=&quot;Data Source=localhost;Initial Catalog=u
pkeeper;
User ID=[USERNAME];Password=[PASSWORD];MultipleActiveResultSets=True&quot;"
    providerName="System.Data.EntityClient" />
</connectionStrings>
```

Note! The text in the above example has extra line breaks that are not allowed in the configuration file.

- **Data Source** = the address of your database server.
- **Initial Catalog** = database name
- **User ID** = the name of the database user that owns the upKeeper database. Replace [USERNAME] with sql user.
- **Password** = the password for the above user. Replace [PASSWORD] with password for the sql user.

- **Integrated Security** = true mean that user browsing the website will be used to connect to the upkeeper database. If specified User ID should be used, you need to set this property to false.

Database settings for logging

Logging can be enabled but is not recommended in a production environment. Changes can be made in logging config file named “**logging.config**”

Locate the following tags:

```
<log4net>
  <appender name="ADONetAppender" type="log4net.Appender.ADONetAppender">
```

Edit the connection string properties so that they have the same values as the connection string in the previous section.

```
<!-- Database connection for logging -->
<connectionString value="Server=localhost; Initial Catalog=upkeeper; User ID=[USERNAME];
Password=[PASSWORD];" />
```

Logging level can be changed to get more or less information. Approved log levels ERROR, WARN, INFO and DEBUG. We recommend log level WARN in production, but INFO or DEBUG can be used in test or troubleshoot situations.

upKeeper specific settings

Specific upKeeper settings can be changed and set in the file “**appSettings.config**”

```
<appSettings>
   <add key="ConnectingClientsIsOnPremises" value="false" />
   <add key="ApplicationCheckInterval" value="2" />
   <add key="MaxConcurrentClientChanges" value="100" />
   <add key="UseHeaderAuthorization" value="false" />
   <add key="owin:AutomaticAppStartup" value="false" />
   <add key="log4net.Config" value="logging.config" />
   <add key="InstallationId" value="1cb64015-de61-405f-9e8b-950e59a15306" />
</appSettings>
```

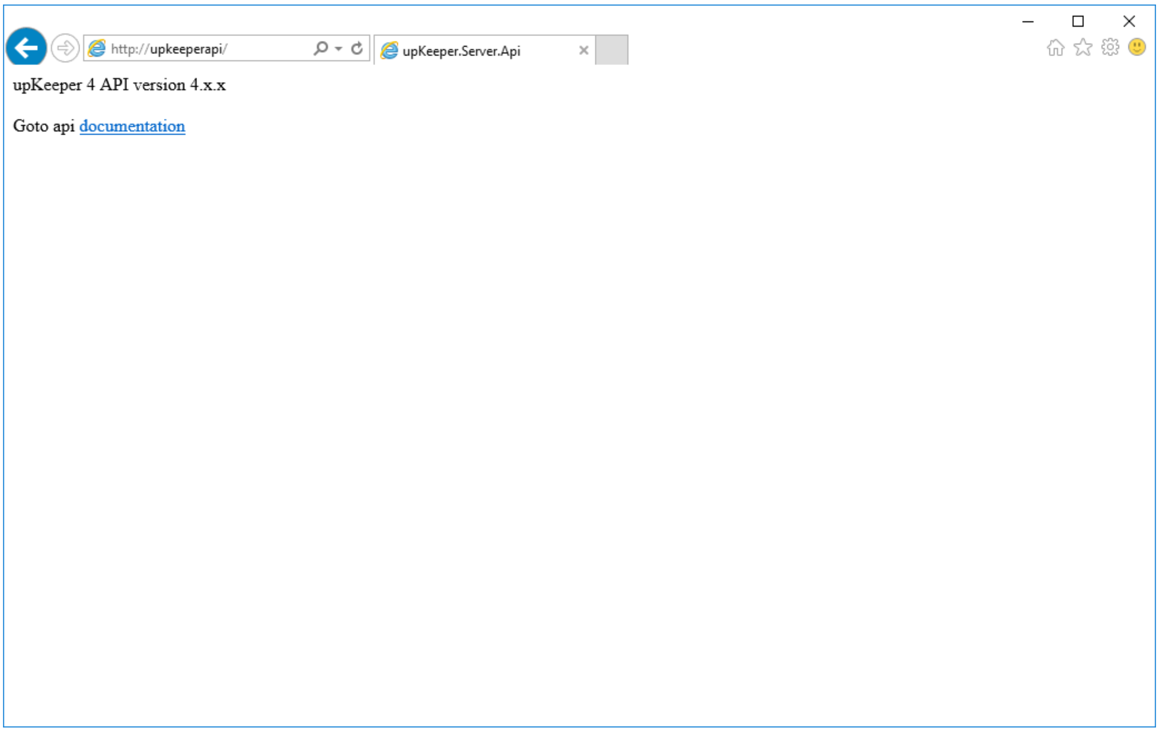
Specification for settings

- **ConnectingClientIsOnPremise** = Default value is false. If set to true, all clients connecting thru this ClientApi will be registered as on premise.
- **ApplicationCheckInterval** = Default value is 2. If lower data will be updated more frequently by will also load the database server harder. Higher value will make changes to clients less frequently but lower the load on the database server.
- **MaxConcurrentClientChanges** = Default value is 0 = no limits. This will limit the number of concurrent changes to specified number of clients. If limit is reached each new client connection will be refused. When changes are done concurrent number of clients will lower and new clients can connect. This feature lowers load on network and fileshares.
- **UseHeaderAuthorization** = Default value is false. If set to true API will require client to connect with correct requestheader information. This feature requires client version 4.7 or higher.

- **Owin.AutomaticAppStartup** = Default is false. This is a system setting and should not be changed.
- **Log4net.config** = Default is logging.config. This is a system setting and should not be changed.
- **InstallationId** = Default value is a Guid value. Value is used to identify each instance of a client API installation. This value must be changed in environment with multiple client API instances/installations.

Test – upKeeper API

Open a browser and wriet the address http://upkeeperapi . If an error is received, look in the trobleshooting section

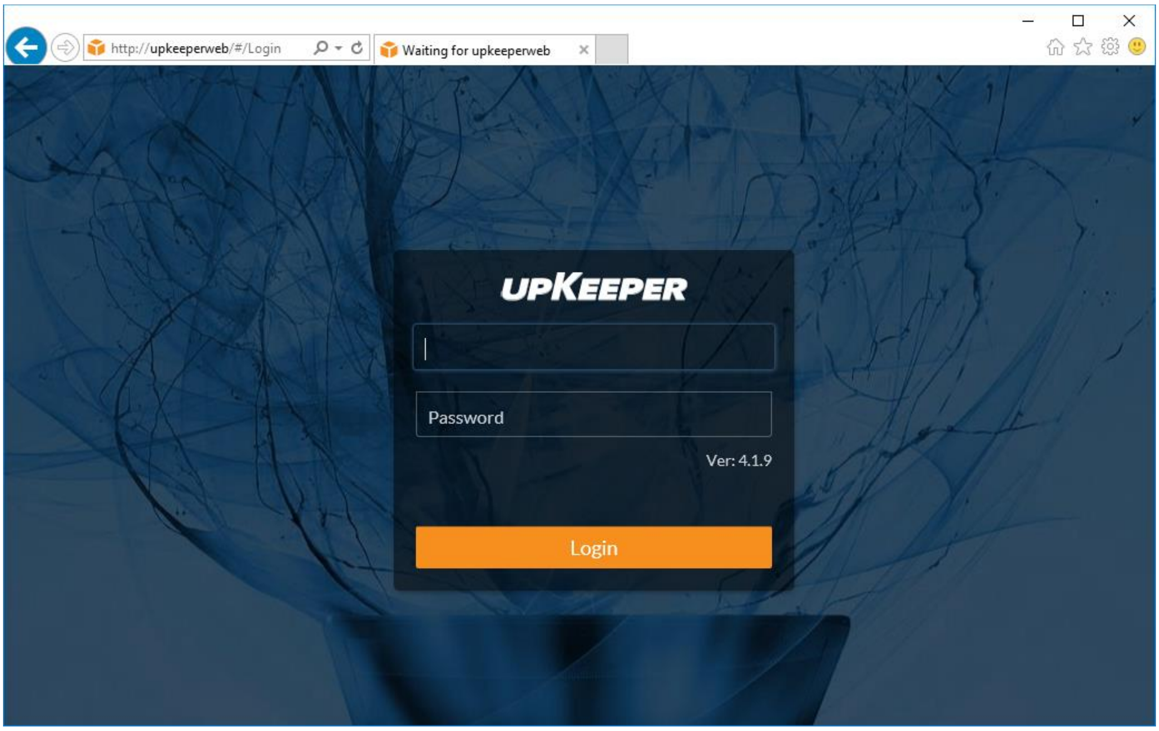


upKeeper 4 API version 4.x.x

Goto api documentation

Test – upKeeper Administration Web

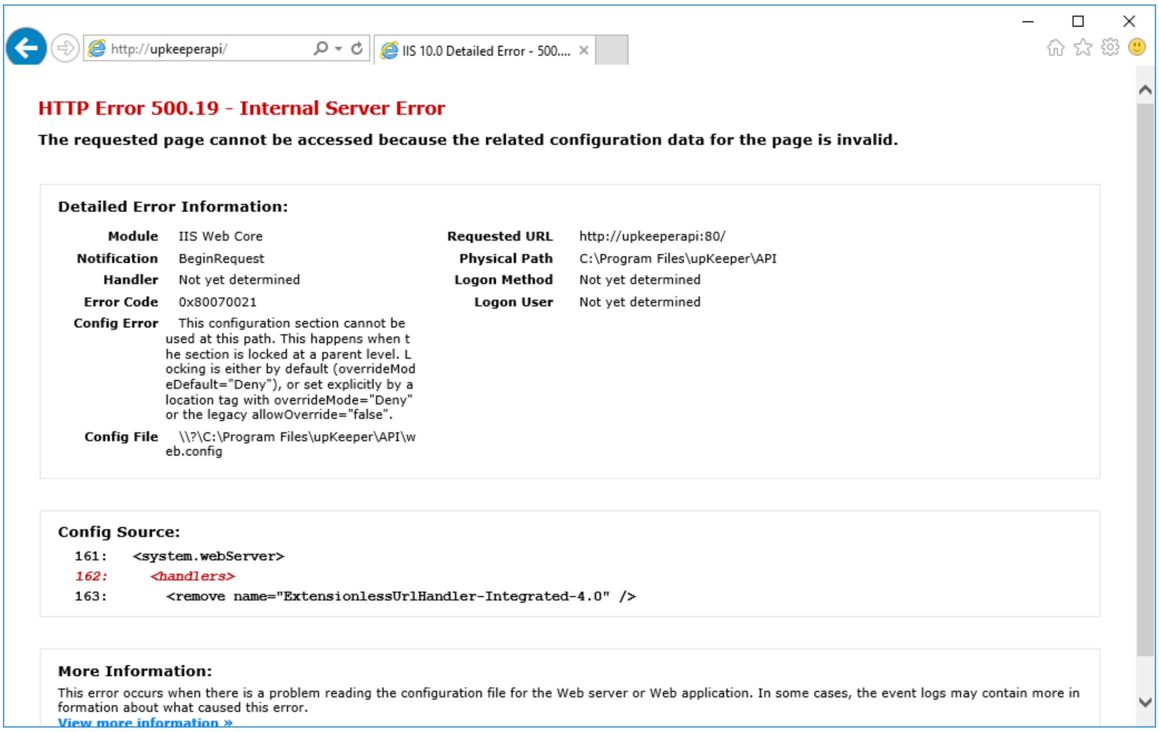
Open a browser and write http://upkeeperweb . Result should look like this



Troubleshooting

upKeeper API - Error 500.19

If you get error 500.19 when browsing to the upKeeper API you should try this.



HTTP Error 500.19 - Internal Server Error

The requested page cannot be accessed because the related configuration data for the page is invalid.

Detailed Error Information:

Module	IIS Web Core	Requested URL	http://upkeeperapi:80/
Notification	BeginRequest	Physical Path	C:\Program Files\upKeeper\API
Handler	Not yet determined	Logon Method	Not yet determined
Error Code	0x80070021	Logon User	Not yet determined
Config Error	This configuration section cannot be used at this path. This happens when the section is locked at a parent level. Locking is either by default (overrideModeDefault="Deny"), or set explicitly by a location tag with overrideMode="Deny" or the legacy allowOverride="false".		
Config File	\\?\C:\Program Files\upKeeper\API\web.config		

Config Source:

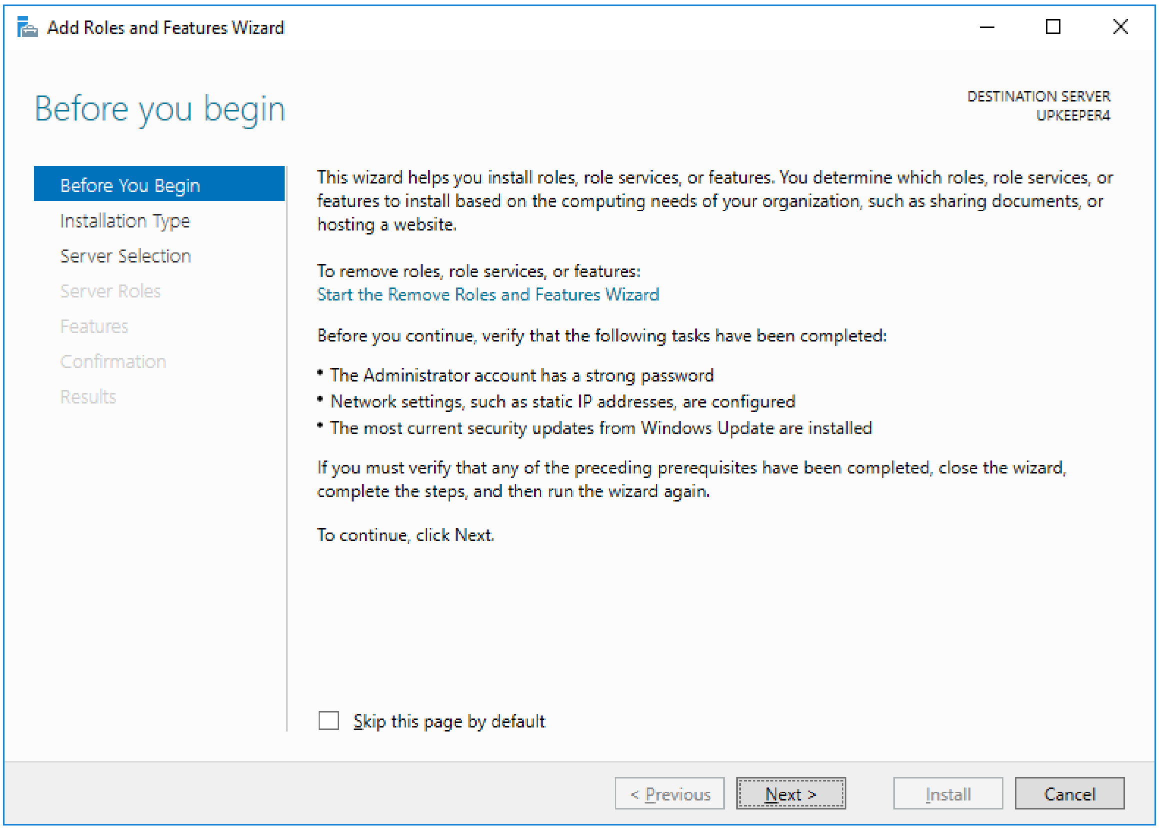
```
161:    <system.webServer>
162:      <handlers>
163:        <remove name="ExtensionlessUrlHandler-Integrated-4.0" />
```

More Information:

This error occurs when there is a problem reading the configuration file for the Web server or Web application. In some cases, the event logs may contain more information about what caused this error.

View more information »

Open “Add Roles and Features Wizard” on the server where the upKeeper API is installed. Click “Next”.



Add Roles and Features Wizard

Before you begin

DESTINATION SERVER
UPKEEPER4

This wizard helps you install roles, role services, or features. You determine which roles, role services, or features to install based on the computing needs of your organization, such as sharing documents, or hosting a website.

To remove roles, role services, or features:
Start the Remove Roles and Features Wizard

Before you continue, verify that the following tasks have been completed:

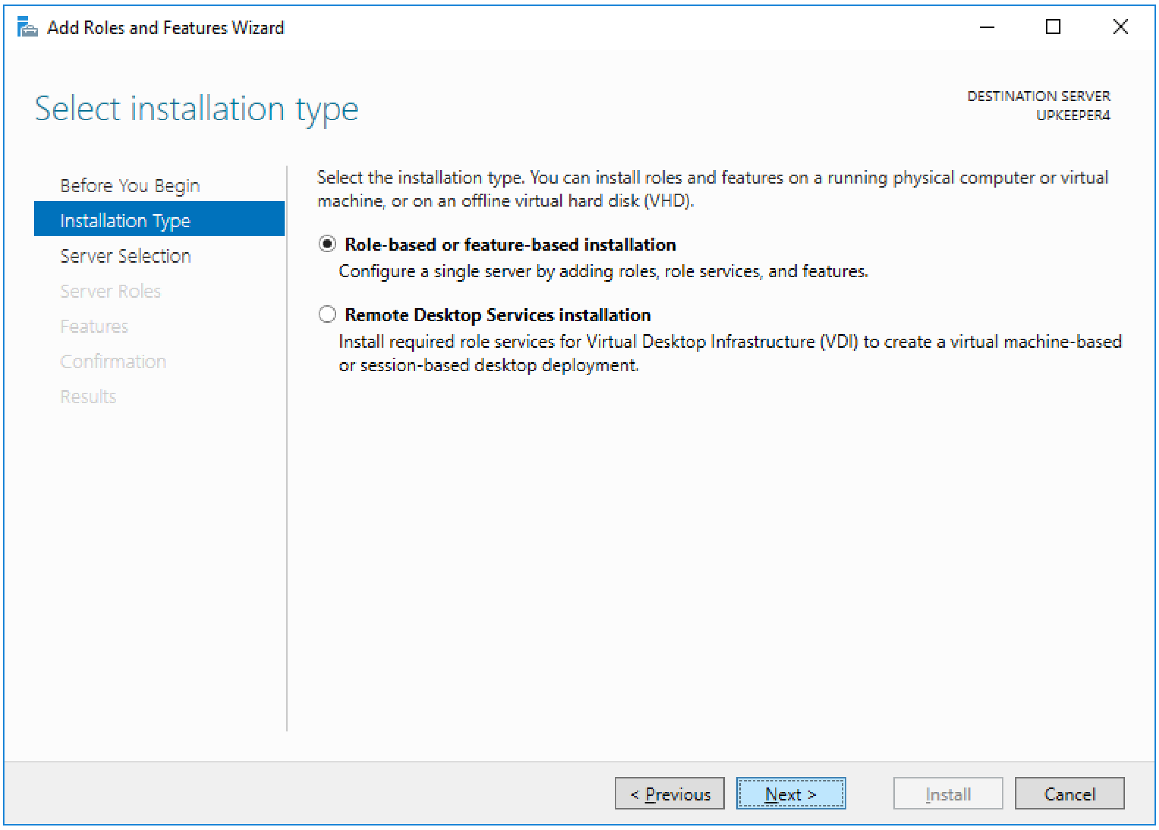
- The Administrator account has a strong password
- Network settings, such as static IP addresses, are configured
- The most current security updates from Windows Update are installed

If you must verify that any of the preceding prerequisites have been completed, close the wizard, complete the steps, and then run the wizard again.

To continue, click Next.

☐ Skip this page by default

Choose “Role based or featured-based installation”. Click “Next”.



Add Roles and Features Wizard

Select installation type

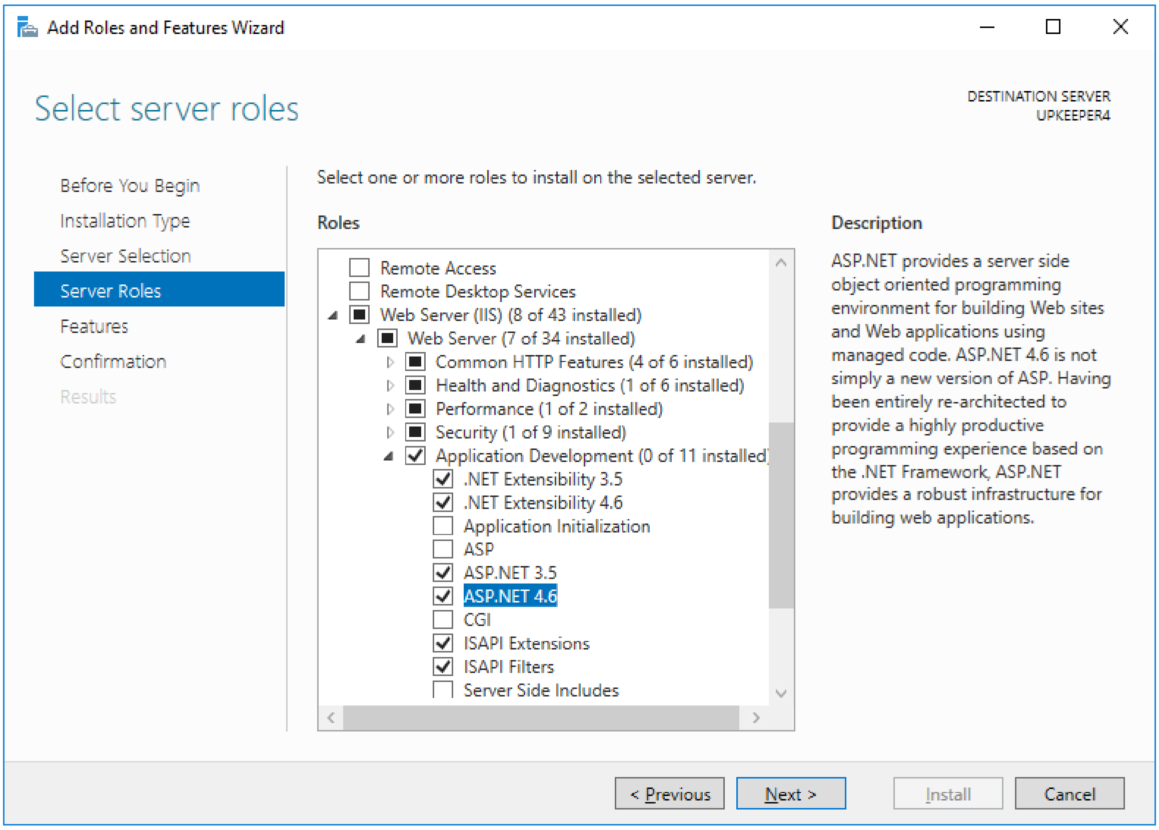
DESTINATION SERVER
UPKEEPER4

Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).

● **Role-based or feature-based installation**
Configure a single server by adding roles, role services, and features.

○ **Remote Desktop Services installation**
Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based or session-based desktop deployment.

Verify or if necessary, add .NET Extensibility 3.5, .NET Extensibility 4.6, ASP.NET 3.5, ASP.NET 4.6, ISAPI Extensions, ISAPI Filters under Application Development. Click "Next". Any dialog requesting to add features should be accepted.



Add Roles and Features Wizard

Select server roles

DESTINATION SERVER
UPKEEPER4

Select one or more roles to install on the selected server.

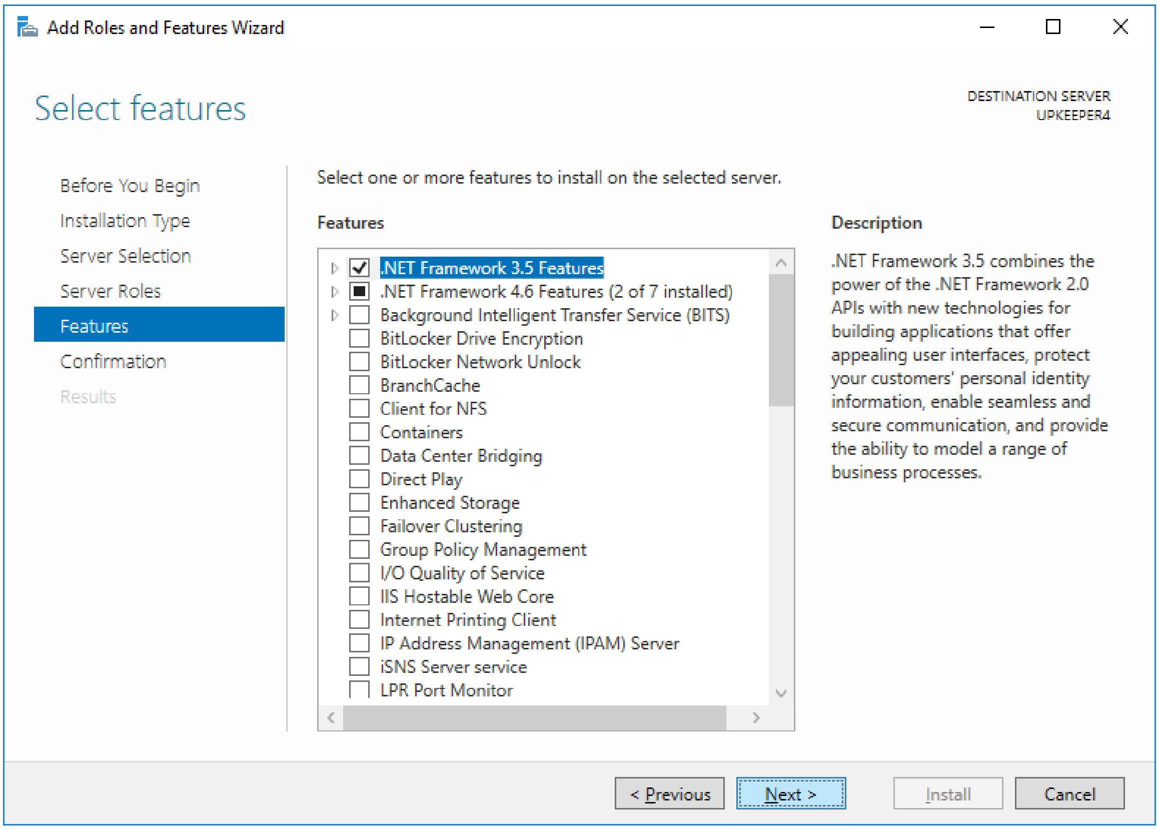
Roles

- □ Remote Access
- □ Remote Desktop Services
- ■ Web Server (IIS) (8 of 43 installed)
  - ■ Web Server (7 of 34 installed)
    - ■ Common HTTP Features (4 of 6 installed)
    - ■ Health and Diagnostics (1 of 6 installed)
    - ■ Performance (1 of 2 installed)
    - ■ Security (1 of 9 installed)
    - ☑ Application Development (0 of 11 installed)
      - ☑ .NET Extensibility 3.5
      - ☑ .NET Extensibility 4.6
      - □ Application Initialization
      - □ ASP
      - ☑ ASP.NET 3.5
      - ☑ ASP.NET 4.6
      - □ CGI
      - ☑ ISAPI Extensions
      - ☑ ISAPI Filters
      - □ Server Side Includes

Description

ASP.NET provides a server side object oriented programming environment for building Web sites and Web applications using managed code. ASP.NET 4.6 is not simply a new version of ASP. Having been entirely re-architected to provide a highly productive programming experience based on the .NET Framework, ASP.NET provides a robust infrastructure for building web applications.

Click “Next”



Add Roles and Features Wizard

Select features

DESTINATION SERVER
UPKEEPER4

Select one or more features to install on the selected server.

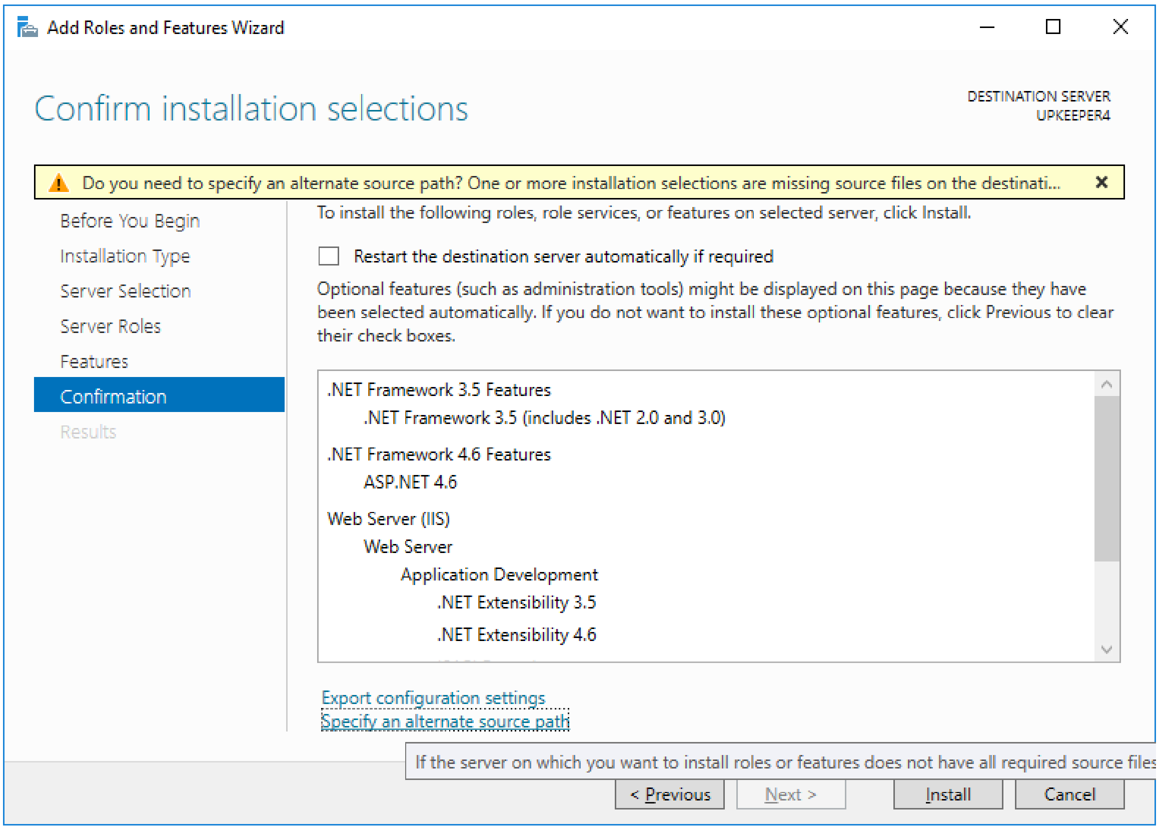
Features

- ☑ .NET Framework 3.5 Features
- ■ .NET Framework 4.6 Features (2 of 7 installed)
- □ Background Intelligent Transfer Service (BITS)
- □ BitLocker Drive Encryption
- □ BitLocker Network Unlock
- □ BranchCache
- □ Client for NFS
- □ Containers
- □ Data Center Bridging
- □ Direct Play
- □ Enhanced Storage
- □ Failover Clustering
- □ Group Policy Management
- □ I/O Quality of Service
- □ IIS Hostable Web Core
- □ Internet Printing Client
- □ IP Address Management (IPAM) Server
- □ iSNS Server service
- □ LPR Port Monitor

Description

.NET Framework 3.5 combines the power of the .NET Framework 2.0 APIs with new technologies for building applications that offer appealing user interfaces, protect your customers' personal identity information, enable seamless and secure communication, and provide the ability to model a range of business processes.

If .NET framework 3.5 features are added you must specify an alternative path to the installation files. Click on the link “Specify an alternative source path”.



Add Roles and Features Wizard

Confirm installation selections

DESTINATION SERVER
UPKEEPER4

⚠ Do you need to specify an alternate source path? One or more installation selections are missing source files on the destinati...

To install the following roles, role services, or features on selected server, click Install.

□ Restart the destination server automatically if required

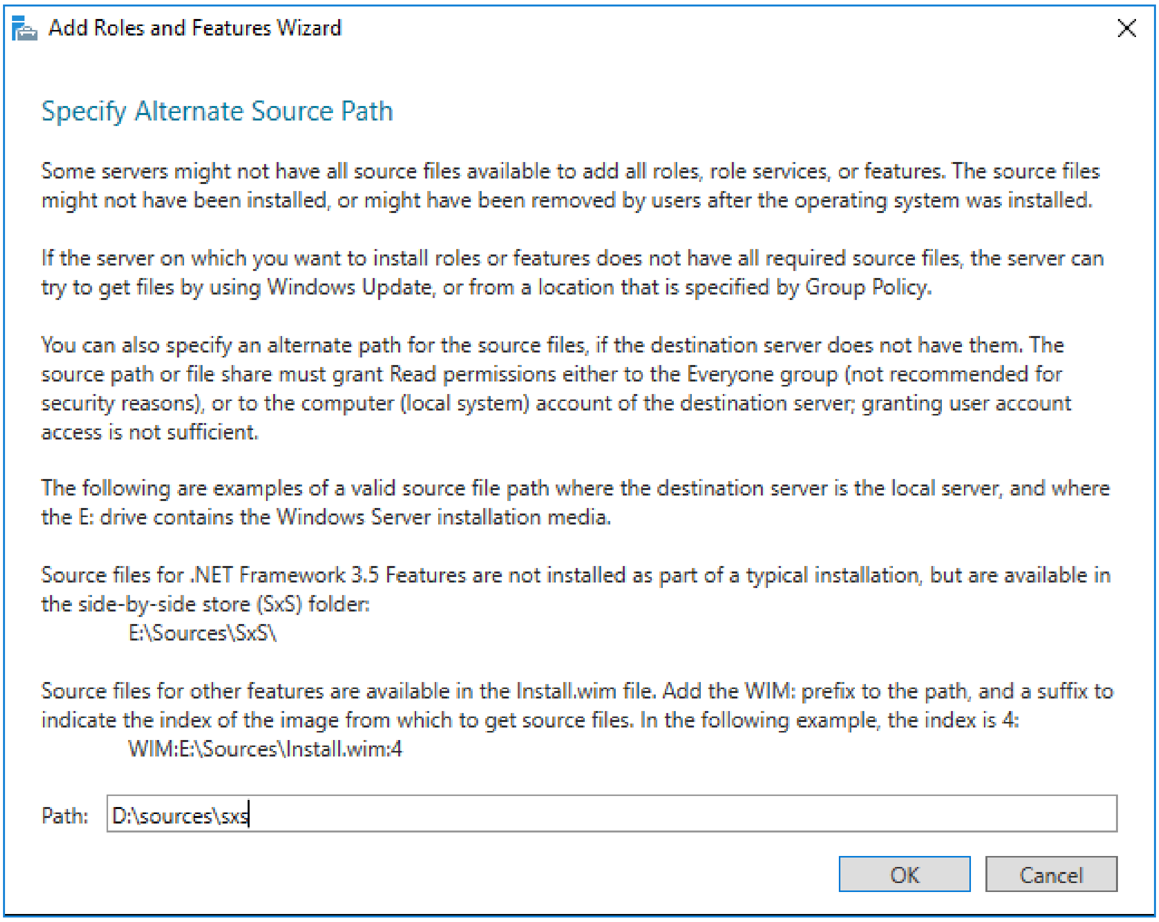
Optional features (such as administration tools) might be displayed on this page because they have been selected automatically. If you do not want to install these optional features, click Previous to clear their check boxes.

```
.NET Framework 3.5 Features
    .NET Framework 3.5 (includes .NET 2.0 and 3.0)
.NET Framework 4.6 Features
    ASP.NET 4.6
Web Server (IIS)
    Web Server
        Application Development
            .NET Extensibility 3.5
            .NET Extensibility 4.6
```

Export configuration settings
Specify an alternate source path

If the server on which you want to install roles or features does not have all required source files

Installation files for .NET framework 3.5 features can be found on the installation media. In the Path textbox write path to SxS folder on the installation media. Click “OK”.



Specify Alternate Source Path

Some servers might not have all source files available to add all roles, role services, or features. The source files might not have been installed, or might have been removed by users after the operating system was installed.

If the server on which you want to install roles or features does not have all required source files, the server can try to get files by using Windows Update, or from a location that is specified by Group Policy.

You can also specify an alternate path for the source files, if the destination server does not have them. The source path or file share must grant Read permissions either to the Everyone group (not recommended for security reasons), or to the computer (local system) account of the destination server; granting user account access is not sufficient.

The following are examples of a valid source file path where the destination server is the local server, and where the E: drive contains the Windows Server installation media.

Source files for .NET Framework 3.5 Features are not installed as part of a typical installation, but are available in the side-by-side store (SxS) folder:

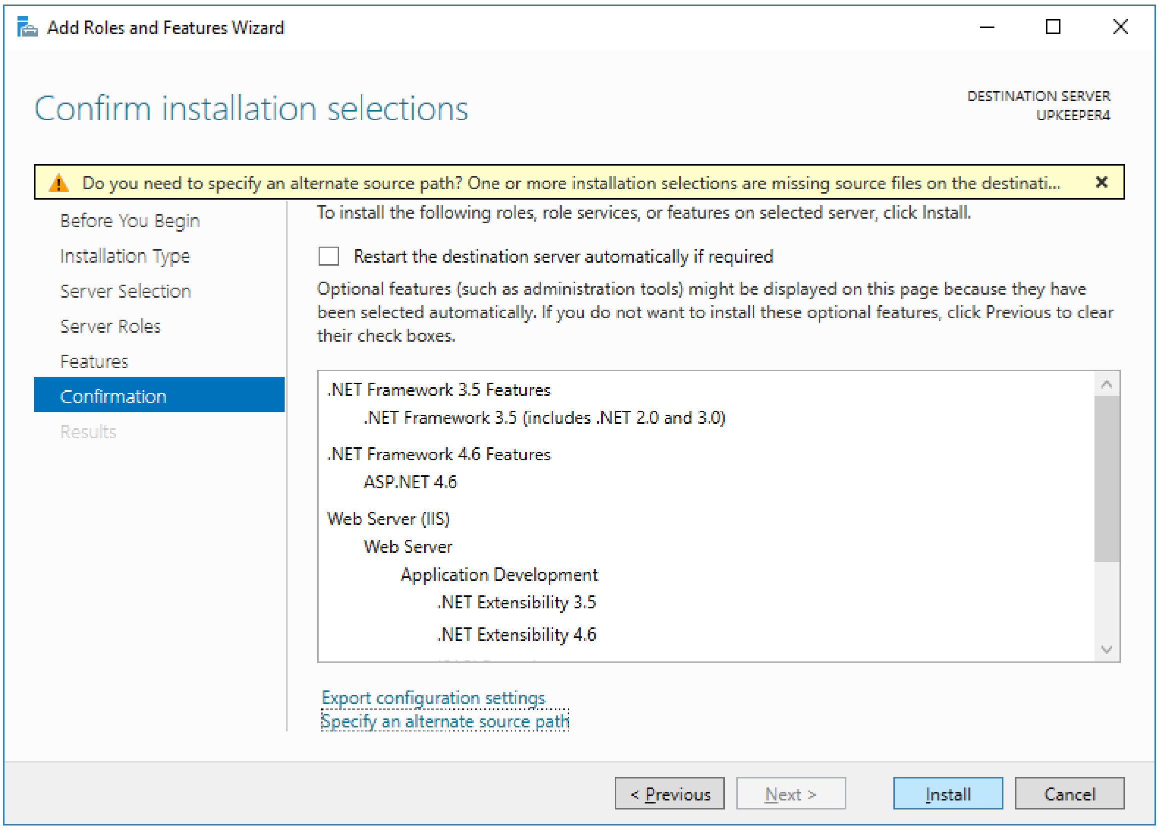
E:\Sources\SxS\

Source files for other features are available in the Install.wim file. Add the WIM: prefix to the path, and a suffix to indicate the index of the image from which to get source files. In the following example, the index is 4:

WIM:E:\Sources\Install.wim:4

Path: D:\sources\sxs

Click “Install”



Add Roles and Features Wizard

Confirm installation selections

DESTINATION SERVER
UPKEEPER4

Do you need to specify an alternate source path? One or more installation selections are missing source files on the destinati...

To install the following roles, role services, or features on selected server, click Install.

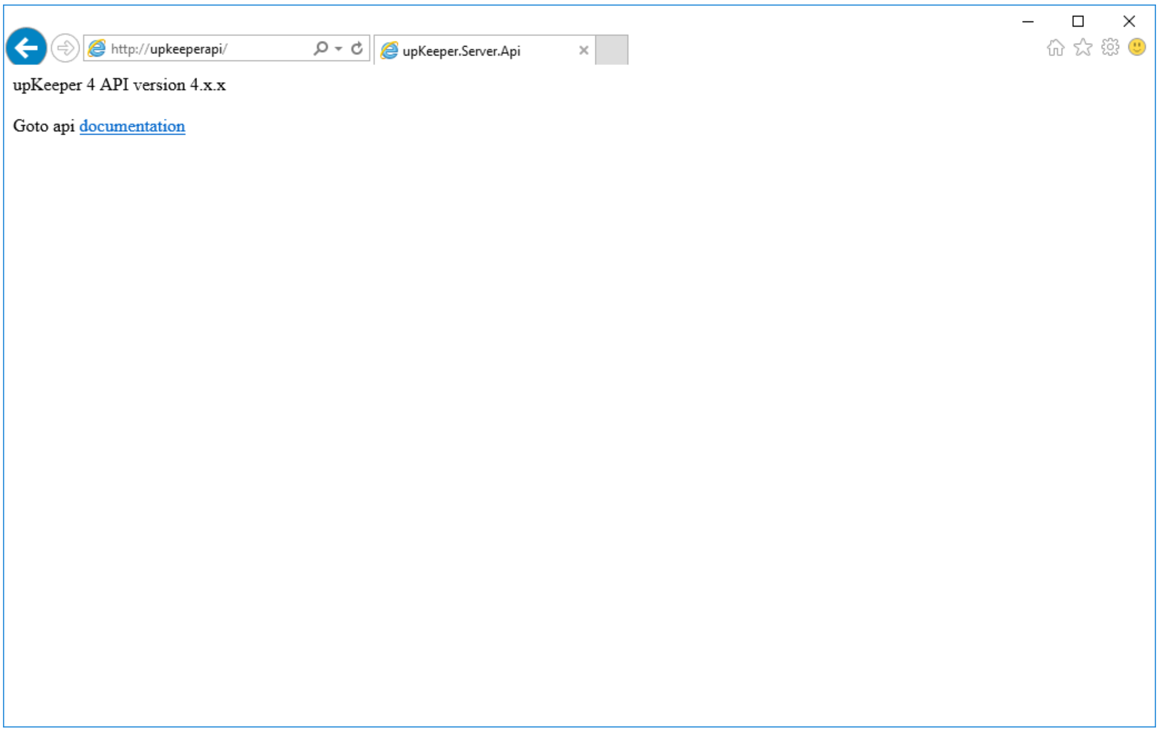
□ Restart the destination server automatically if required

Optional features (such as administration tools) might be displayed on this page because they have been selected automatically. If you do not want to install these optional features, click Previous to clear their check boxes.

- .NET Framework 3.5 Features
  - .NET Framework 3.5 (includes .NET 2.0 and 3.0)
- .NET Framework 4.6 Features
  - ASP.NET 4.6
- Web Server (IIS)
  - Web Server
    - Application Development
      - .NET Extensibility 3.5
      - .NET Extensibility 4.6

Export configuration settings
Specify an alternate source path

When finished. Open browser and write http://upkeeperapi. Result should look like the picture below.



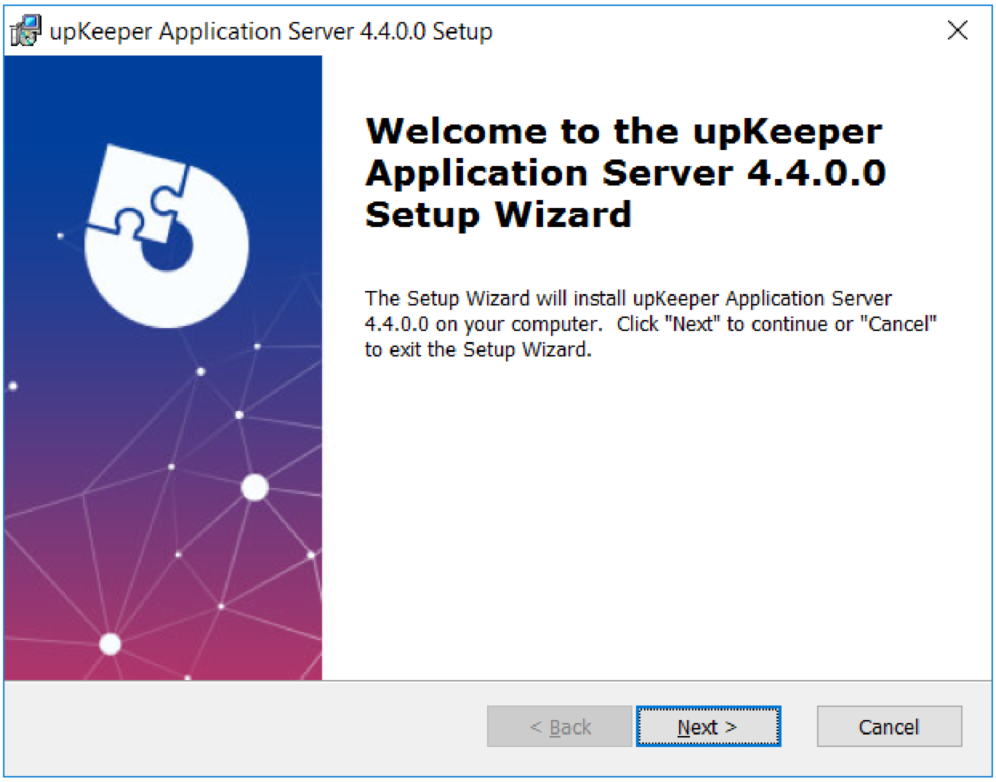
upKeeper 4 API version 4.x.x

Goto api documentation

Installation – upKeeper Application Server

The upKeeper Application Server handles the communication with the legacy clients (managed computers).

Sign in with administrative rights to the server that will be used for the upKeeper Application Server. Execute the file **upKeeper Application Server 4.X.X.X.msi**

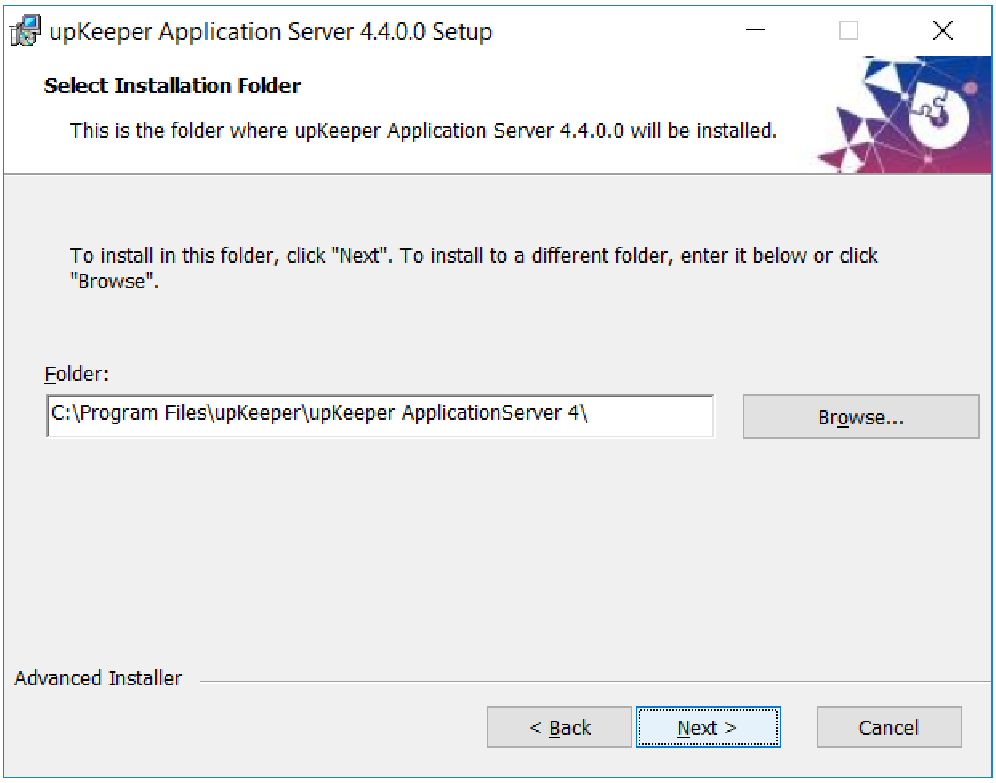


upKeeper Application Server 4.4.0.0 Setup

Welcome to the upKeeper Application Server 4.4.0.0 Setup Wizard

The Setup Wizard will install upKeeper Application Server 4.4.0.0 on your computer. Click "Next" to continue or "Cancel" to exit the Setup Wizard.

Specify the **Destination Folder** for the installation and click Next



upKeeper Application Server 4.4.0.0 Setup

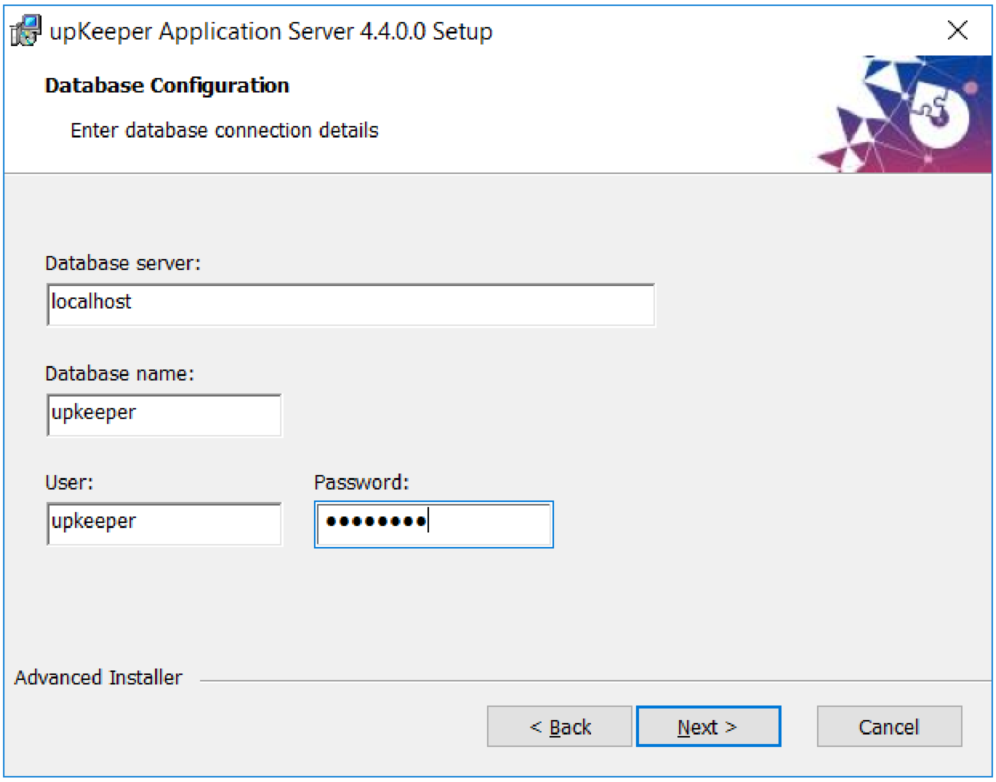
Select Installation Folder

This is the folder where upKeeper Application Server 4.4.0.0 will be installed.

To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".

Folder:
C:\Program Files\upKeeper\upKeeper ApplicationServer 4\

Fill out the form with information from database installation. Database server can be a network name or a ip address.



upKeeper Application Server 4.4.0.0 Setup

Database Configuration

Enter database connection details

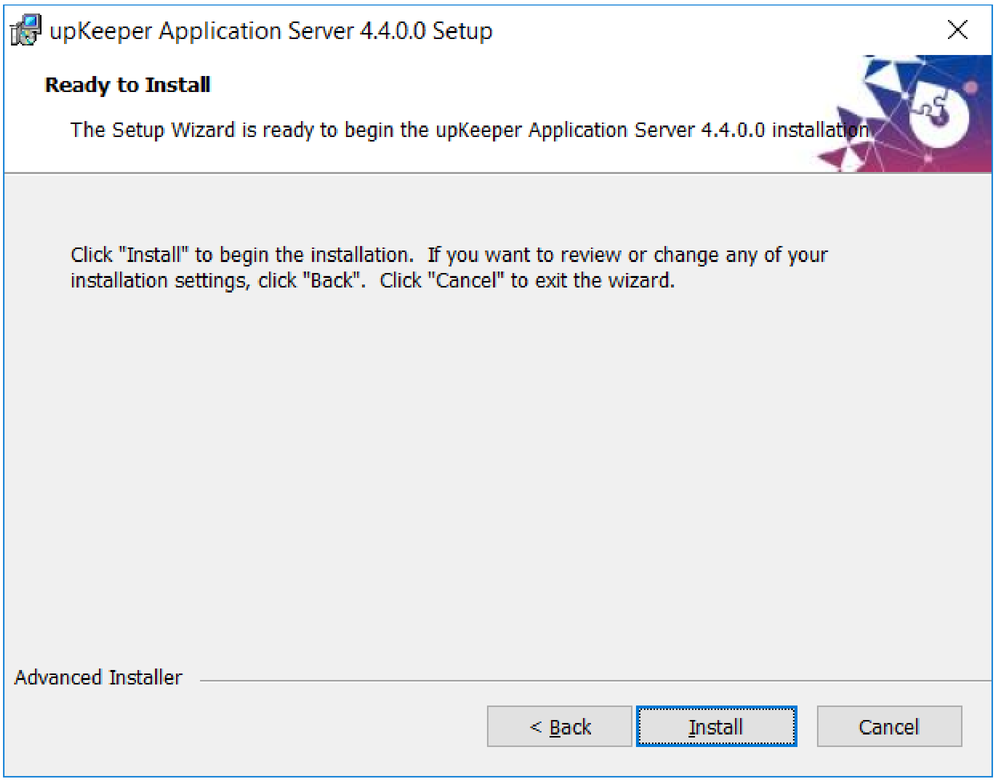
Database server: localhost

Database name: upkeeper

User: upkeeper

Password: ••••••••

Click finish to perform the installation.



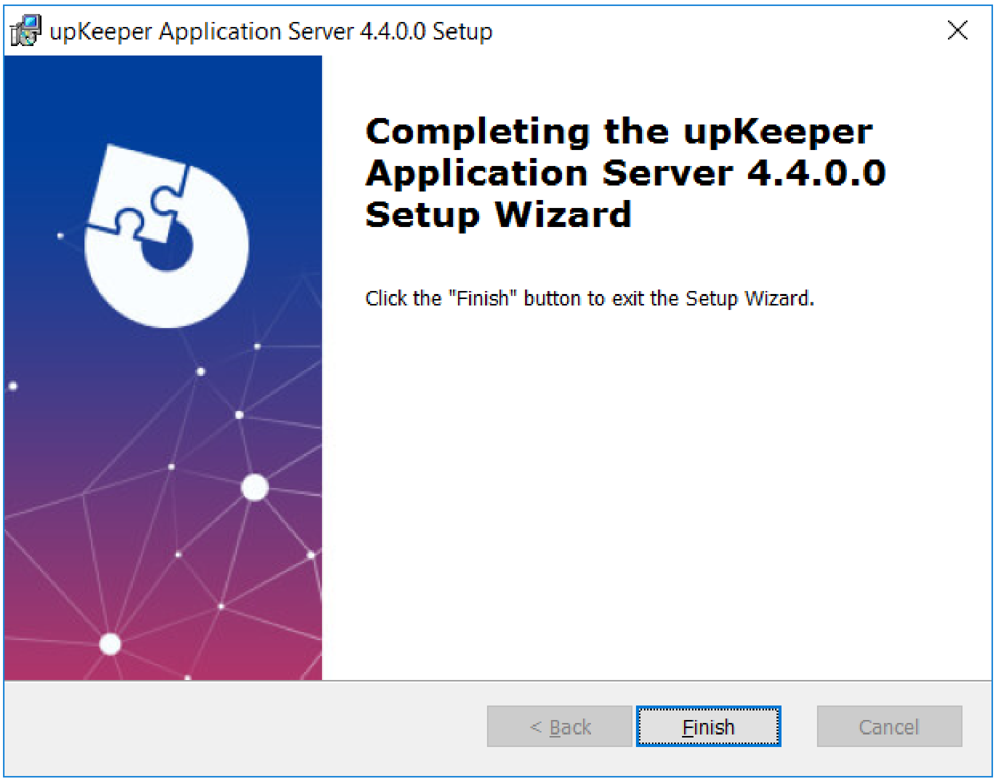
upKeeper Application Server 4.4.0.0 Setup

Ready to Install

The Setup Wizard is ready to begin the upKeeper Application Server 4.4.0.0 installation

Click "Install" to begin the installation. If you want to review or change any of your installation settings, click "Back". Click "Cancel" to exit the wizard.

Click Finish.



upKeeper Application Server 4.4.0.0 Setup

Completing the upKeeper Application Server 4.4.0.0 Setup Wizard

Click the "Finish" button to exit the Setup Wizard.

Edit the Application Server configuration file

Make the following changes to the file **Upkeeper.Server.ApplicationServer.exe.config**, located in the **Destination Folder** specified during the installation.

Locate the tag **<appSettings>**

```
<appSettings>
    <add key="IsMaster" value="true" />
    <add key="SyncAD" value="true" />
    <add key="ThreadedHandlers" value="true" />
    <add key="MasterService" value="net.tcp://localhost:8889/Server" />
    <add key="ExternalPort" value="80"/>
    <add key="ApplicationDistributionArea" value="C:\tmp\applications" />
    <!-- <add key="WorkDir" value="C:\work" /> -->
    <add key="LicenseService" value="http://license1.upkeeper.se/WebServices/Customers.svc" />
    <add key="WSBPlatforms" value="Windows.Desktop" />

    <add key="ApplicationCheckInterval" value="2" />
    <add key="MaxConcurrentClientChanges" value="100" />
    <add key="SaveLogMonths" value="6" />
    <add key="SaveComputerCountMonths" value="5" />
    <add key="SaveInventoriesPercomputer" value="10" />
    <add key="RemoveDeletedObjects" value="true" />

    <add key="WSUSBaseUrlApi" value="http://upkwsus01:9001" />
    <add key="WSUSMaxJsonLength" value="41943040" />
    <add key="WSUSNumberOfDownloadRetries" value="12" />
    <add key="WSUSDelayOnRetry" value="4000" />
    <add key="UpdateWorkDir" value="C:\temp\updatework" />

    <add key="WarrantyApiEndPointDell"
value="https://apigtwb2c.us.dell.com/PROD/sbil/eapi/v5/asset-entitlements"/>
    <add key="WarrantyApiTokenEndPointDell"
value="https://apigtwb2c.us.dell.com/auth/oauth/v2/token"/>
    <add key="WarrantyApiEndPointFujitsu"
value="https://aftersales.ts.fujitsu.com/wswcm/wsWCM.asmx"/>
    <add key="WarrantyApiEndPointLenovo" value="https://supportapi.lenovo.com/v2.5/warranty"/>

    <add key="WarrantyApiManufacturerNamesDell" value="Dell;Dell EMC;Dell Inc." />
    <add key="WarrantyApiManufacturerNamesFujitsu" value="Fujitsu;Fujitsu Siemens" />
    <add key="WarrantyApiManufacturerNamesLenovo" value="Lenovo;IBM" />

    <add key="AutopilotFactoryResetKeepEnrollmentData" value="False" />
    <add key="AutopilotFactoryResetKeepUserData" value="False" />
</appSettings>
```

- **IsMaster** = should normally be set to **true**.
  If there are multiple Application Servers in the installation only one can be master, the others should be set to **false**.
- **MasterService** = the address of the master Application Server
- **ExternalPort** = the port used for communication with clients outside the LAN.
- **ApplicationDistributionArea** = the path to the folder where the application packages generated by the Application Server are copied.
- **LicenseService** = the address of the upKeeper license server, should not be changed.
- **WarrantyApiEndPoint<manufacturer>** = Endpoint URLs to the manufacturer’s warranty lookup services.
- **WarrantyApiManufacturerNames<manufacturer>** = Manufacturer names to match a specific warranty service endpoint.

- **AutopilotFactoryResetKeepEnrollmentData** = Controls whether or not the computer will remain enrolled in Intune after an Autopilot factory reset.
- **AutopilotFactoryResetKeepUserData =** Controls whether or not the user data will be preserved after an Autopilot factory reset.

NOTE! The upKeeper Application Server must be restarted after you have made changes to the configuration file:

Optional settings

The following optional settings can be added if needed.

```
<add key="WorkDir" value="C:\work" />
```

Specifies a directory for temporary files used by the Application Server,
defaults to the folder **work** located under the installation path.

```
<add key="ApplicationCheckInterval" value="8" />
```

Specifies the interval between requests that the clients get commands for application changes.
If the clients are assigned multiple applications to install the pause between the installations will be shorter.
This setting should only be altered if the Application Server is experiencing performance problems.
The lowest allowed value is 1 and default value if not set is 8.

```
<add key="SaveLogMonths" value="36"/>
```

Specifies the number of months the upkeeper eventlog events will be saved before they are deleted.
Default value if not set is 36.

```
<add key="SaveComputerCountMonths" value="12"/>
```

Specifies the number of months the number of active computers will be saved in the local database.
Default value if not set is 12.

```
<add key="SaveInventoriesPercomputer" value="10"/>
```

Specifies the number of inventories per computer that will be saved. Default value if not set is 10.

```
<add key="MaxConcurrentClientChanges" value="0" />
```

Specified the number of concurrent client that can get application change instructions. Default there is no limit of concurrent clients that get application change instructions.

```
<add key="SyncAD" value="true" />
```

Specifies that this application server should synchronize with active directory. This setting requires the application server to be configured as master.

```
<add key="ThreadedHandlers" value="true" />
```

Specifies application server activities to be executed in separated threads and thereby not interfering with each other.

Database settings
Locate the tag **<connectionStrings>** in the **web.config** file.

Verify that information is correct.

```
<connectionStrings>
  <add name="UpkeeperEntities"
    connectionString="metadata=res://*/Model.csdl|res://*/Model.ssdl|res://*/Model.msl;
provider=System.Data.SqlClient;provider connection string=&quot;Data Source=localhost;Initial Catalog=u
pkeeper;
User ID=upKeeper;Password=password;MultipleActiveResultSets=True&quot;"
    providerName="System.Data.EntityClient" />
</connectionStrings>
```

Note! Be sure not to insert any extra line breaks.

Logging settings
Log path and level can be changed in **logging.config** file.

Path to log file is set in <file>.

<file value=".\log\appserver_log.txt" />

Log level is set in <level>. Approved values are ERROR, WARN, INFO and DEBUG. WARN is recommended for production environment, but INFO or DEBUG can be used in test- or troubleshot scenarios.

<level value="INFO" />

ServiceOS settings

Locate the section:

```
<service name="Upkeeper.Server.ServiceImplementation.SosService" behaviorConfiguration="MEXGET" >
    <host>
      <baseAddresses>
        <add baseAddress="http://localhost:80/Sos"/>
      </baseAddresses>
    </host>
```

Change **localhost** to the IP address of the server.

Optional service configuration for the upKeeper Application Server

If the upKeeper Application Server is installed on another server than the file share,
then the **upKeeper Application Server 4.X** service must run as a user account that has got the correct permissions in the domain.

Installation – upKeeper WSUS service

The upKeeper WSUS service is the interface between Microsoft WSUS and upKeeper. The upKeeper WSUS service must be installed on the WSUS server.

- Sign in with administrative rights to the WSUS server where you want the upKeeper WSUS service to be installed.
- Create folder **upKeeper** in the **Program Files** folder on system drive.
- Create folder **WSUS** in **upKeeper** folder
- Extract files from the zip file **upKeeper WSUS Service.zip** into folder **WSUS** created in the previous step.
- Double click on the file **install.bat** to register the service.
- Start Services Manager on the server and verify that upKeeper WSUS service is installed and running.
- Verify or change firewall settings on server to allow inbound traffic on port 9001.

Configure upKeeper WSUS

To start getting updates information in to upKeeper Manager you need to configure the master application server to access upKeeper WSUS service.

- Sign in with administrative rights to the server hosting the master application server.
- Open the application server configuration file **Upkeeper.Server.ApplicationServer.exe.config** for editing.
- Verify that WSUS configuration exists in the configuration file.
- Uncomment WSUS configuration if necessary.
- Edit configuration to specification found below.
- Save and restart application server service.

Locate the WSUS configuration

```
<!--
    <add key="WSUSBaseUrlApi" value="http://[WSUS server addres]:9001" />
    <add key="WSUSMaxJsonLength" value="41943040" />
    <add key="WSUSNumberOfDownloadRetries" value="12" />
    <add key="WSUSDelayOnRetry" value="4000" />
    <add key="UpdateWorkDir" value="C:\updatework" />
-->
```

- **WSUSBaseUrlApi** = address to the WSUS server where the upKeeper WSUS service is installed. Port is set to 9001 and cannot be changed.
- **WSUSMaxJsonLength** = the max package size in bytes. Should not be changed and is default set to 41943040.
- **WSUSNumberOfDownloadRetries =** max number of retries for a download
- **WSUSDelayOnRetry =** time between retries
- **UpdateWorkDir =** path where files to updates are downloaded and built into packages.

Note! First synchronization can take very long, up to 48 hours and starts between 1 and 3 am.

Troubleshot WSUS integration

On the server where upKeeper WSUS service is installed:

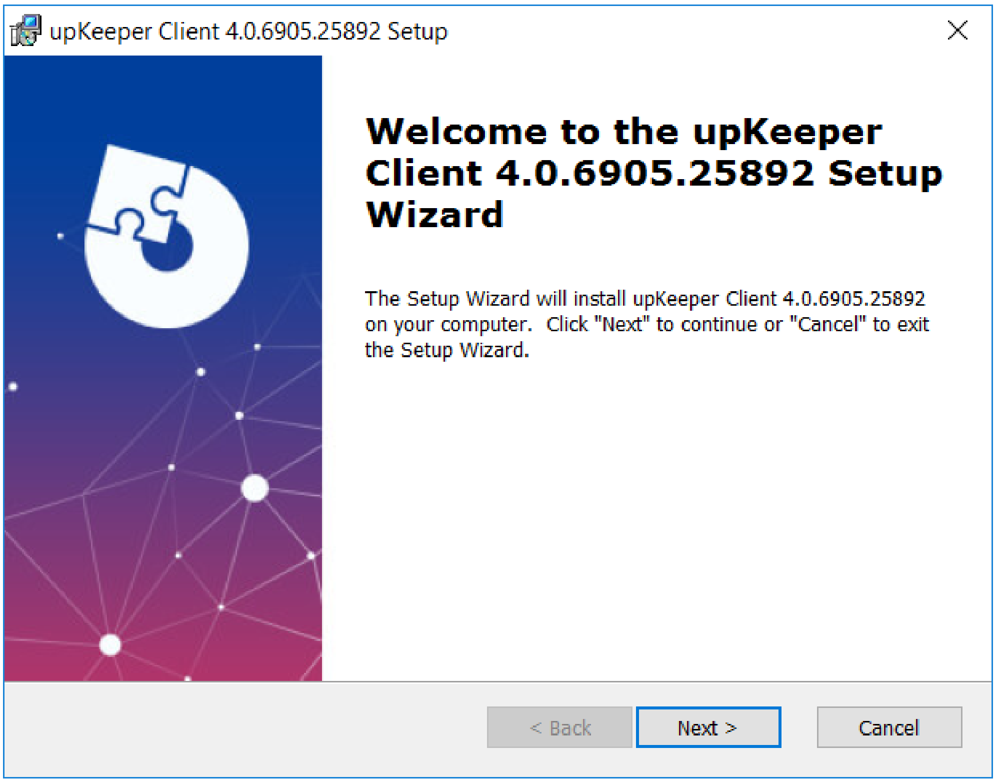
- Verify that upKeeper WSUS service is running.
- Run command netstate -a and verify that port 9001 is listening.

On the server running the upKeeper application service:

- Check log for SyncronizeWSUSAsync(): Start
- Check that there are no fail entries related to WSUS.

Installation – upKeeper Client

Sign in with administrative rights to the client that will use upKeeper Client. Execute the file **upKeeper.Client.4.x-x64.msi**.

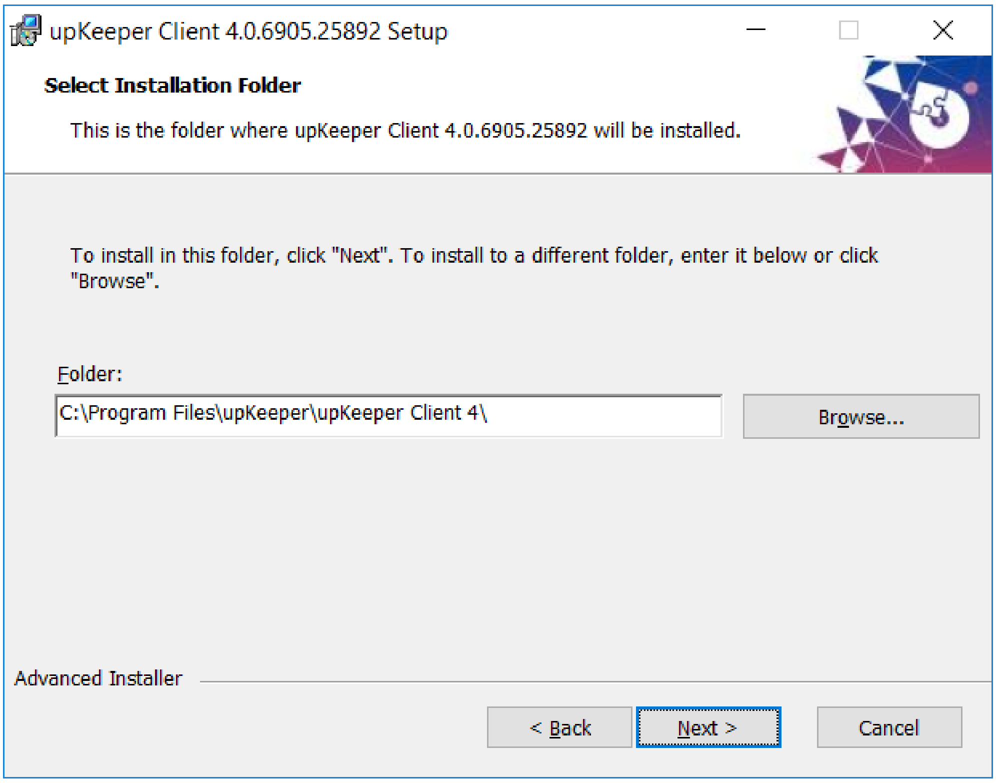


upKeeper Client 4.0.6905.25892 Setup

Welcome to the upKeeper Client 4.0.6905.25892 Setup Wizard

The Setup Wizard will install upKeeper Client 4.0.6905.25892 on your computer. Click "Next" to continue or "Cancel" to exit the Setup Wizard.

Specify the **Destination Folder** for the installation.



upKeeper Client 4.0.6905.25892 Setup

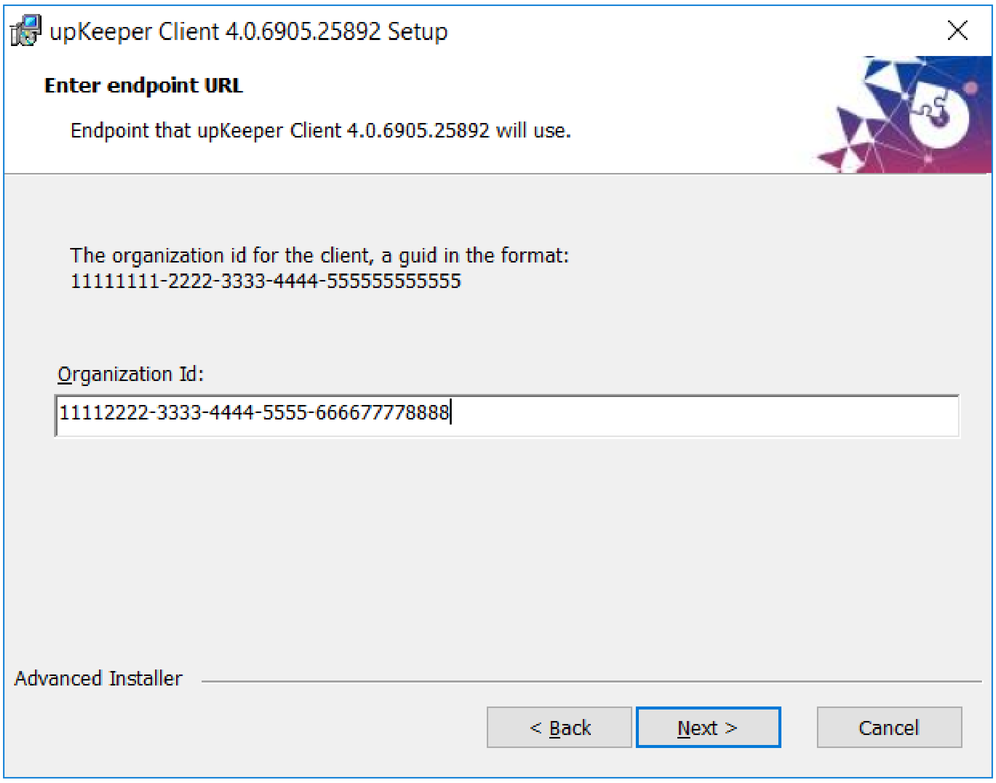
Select Installation Folder

This is the folder where upKeeper Client 4.0.6905.25892 will be installed.

To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".

Folder: C:\Program Files\upKeeper\upKeeper Client 4\

Enter **Organization Id** of the organization where the computer should belong. This is optional if your organization allow self-registration. Self-registration is not recommended in environments with multiple organizations.



upKeeper Client 4.0.6905.25892 Setup

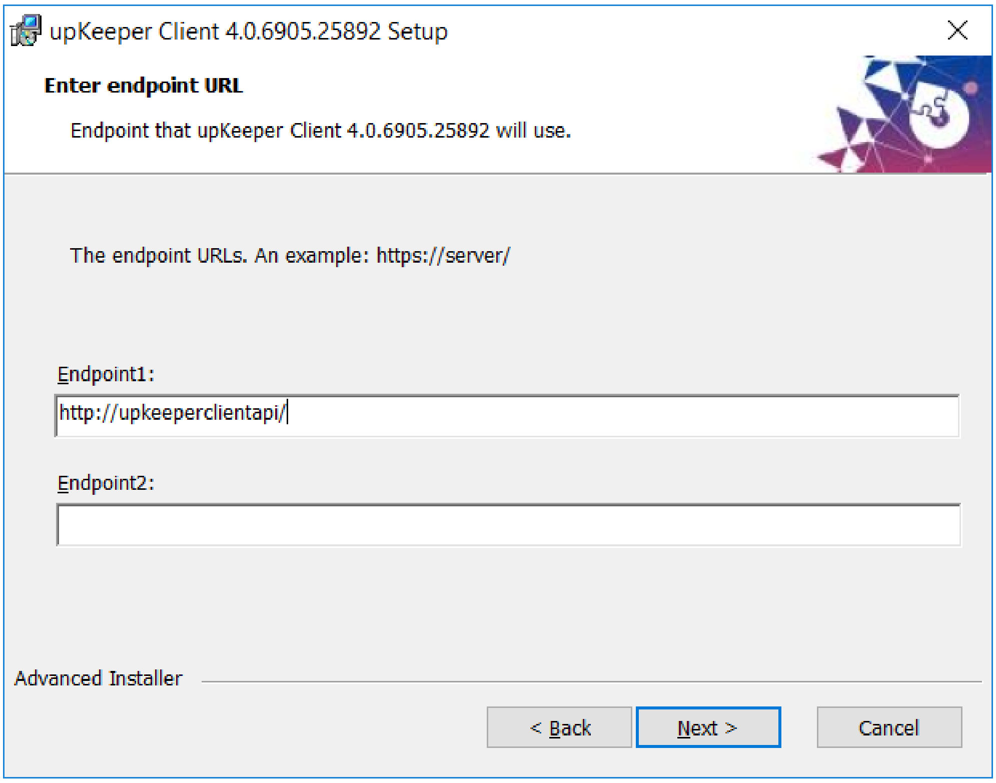
Enter endpoint URL

Endpoint that upKeeper Client 4.0.6905.25892 will use.

The organization id for the client, a guid in the format:
11111111-2222-3333-4444-555555555555

Organization Id:
11112222-3333-4444-5555-666677778888

Enter the endpoints at least **Endpoint1.** This setting is optional and can be set with registry inputs. Computer will start communicating as soon as endpoints are added and service started.



upKeeper Client 4.0.6905.25892 Setup

Enter endpoint URL

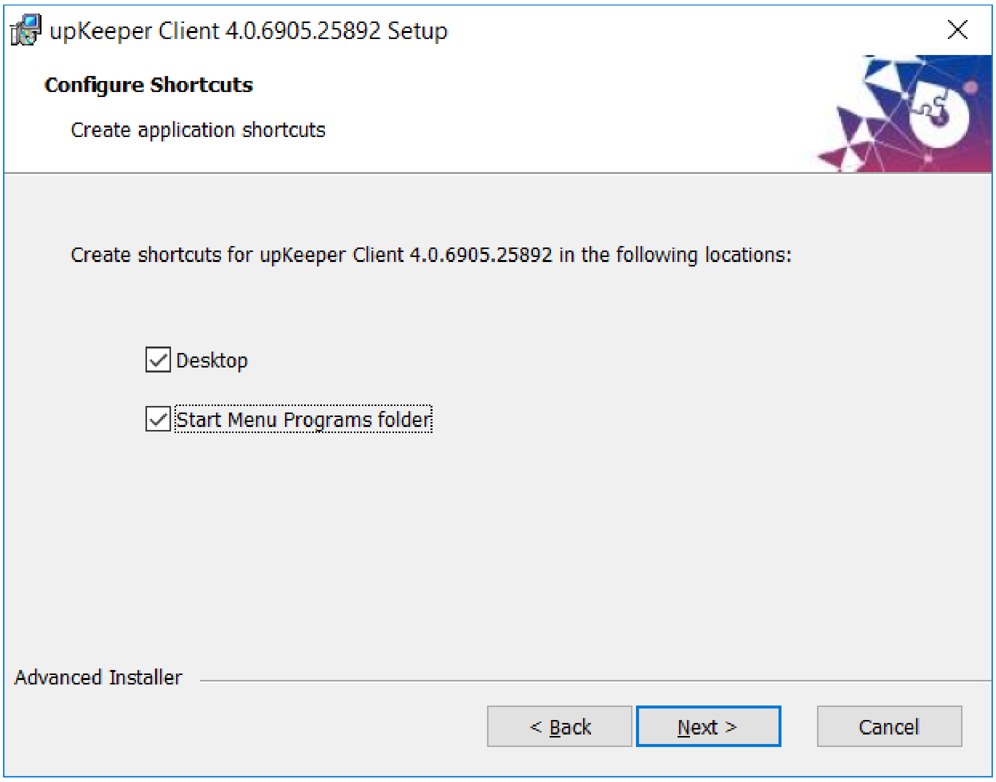
Endpoint that upKeeper Client 4.0.6905.25892 will use.

The endpoint URLs. An example: https://server/

Endpoint1:
http://upkeeperclientapi/

Endpoint2:

Specify if shortcuts should be created on desktop and/or start menu.



upKeeper Client 4.0.6905.25892 Setup

Configure Shortcuts

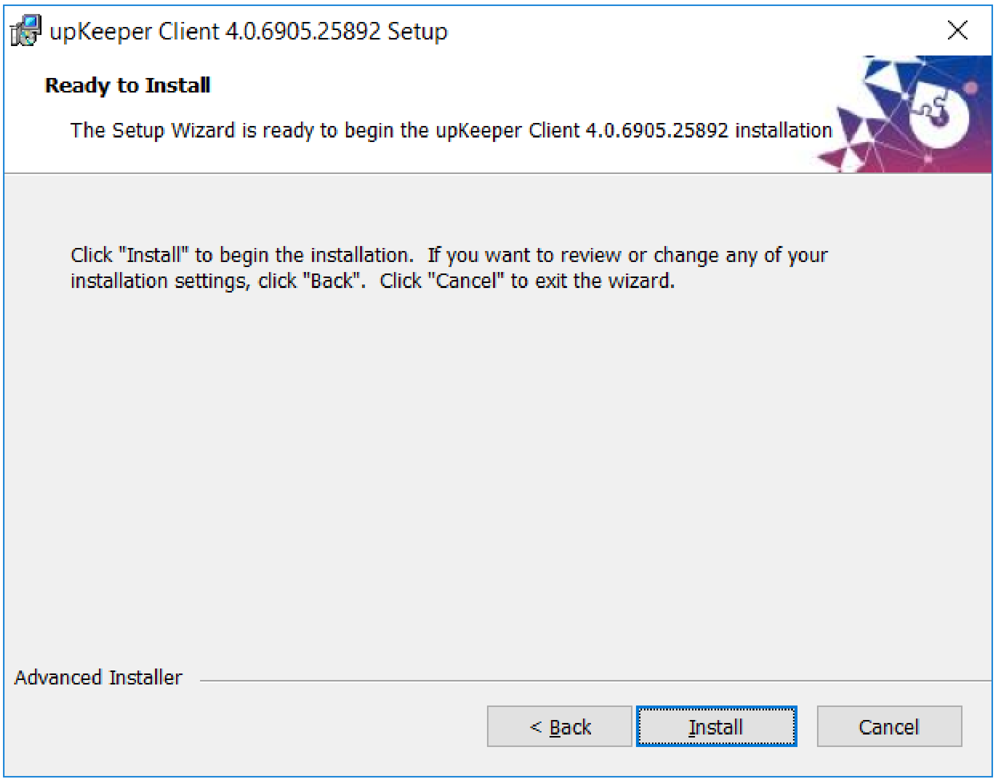
Create application shortcuts

Create shortcuts for upKeeper Client 4.0.6905.25892 in the following locations:

☑ Desktop

☑ Start Menu Programs folder

Click Install to perform installation.



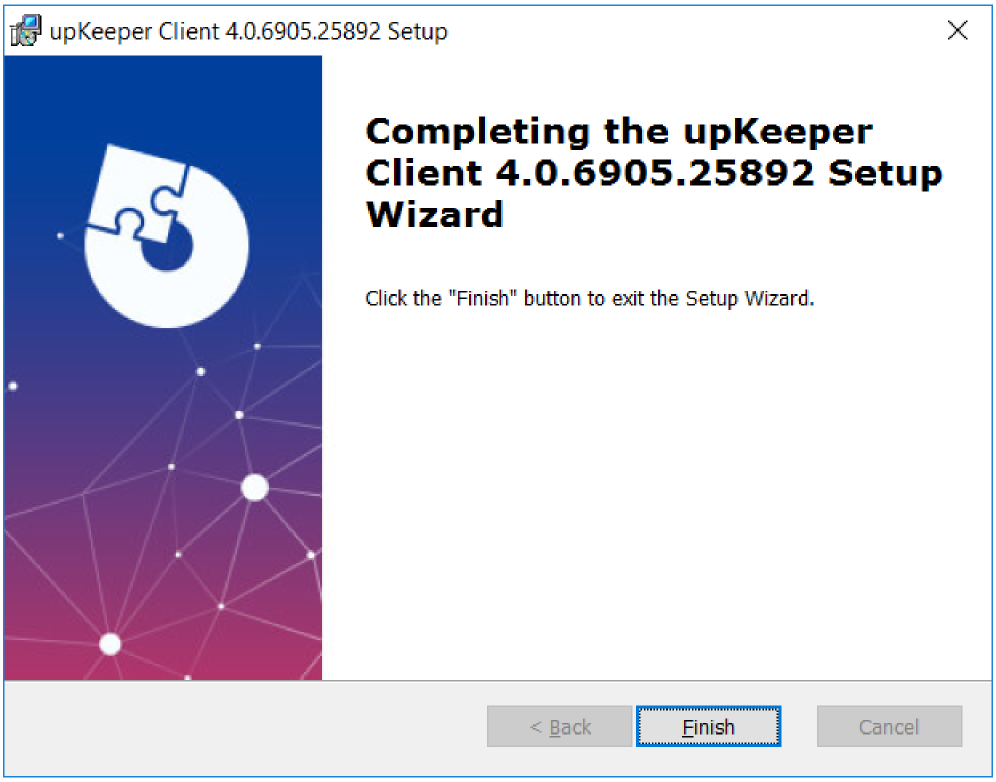
upKeeper Client 4.0.6905.25892 Setup

Ready to Install

The Setup Wizard is ready to begin the upKeeper Client 4.0.6905.25892 installation

Click "Install" to begin the installation. If you want to review or change any of your installation settings, click "Back". Click "Cancel" to exit the wizard.

Verify that installation is successful and click **Finish**.



upKeeper Client 4.0.6905.25892 Setup

Completing the upKeeper Client 4.0.6905.25892 Setup Wizard

Click the "Finish" button to exit the Setup Wizard.

Installation – upKeeper Client (silent)

Client can be installed silent setting all properties thru parameters.

upKeeper Client install parameters

- **INSTALLDIR** – Specify destination folder
- **ENDPOINT1**– Specify endpoint address used (ex ENDPOINT1=http://upkeeperclientapi/).
- **ENDPOINT2**– Specify endpoint address used (ex ENDPOINT2=http://upkeeperclientapi2/).
- **ORGANIZATIONID** – Specify which organization the client will self-register to. Only necessary if no computer object in upkeeper match the client's properties.
- **MYUPKEEPERDESKTOPSHORTCUT** – Create shortcut to My upKeeper on desktop.
- **MYUPKEEPERSTARTMENUSHORTCUT** – Create shortcut My upKeeper in start menu.
- **NOSTART** – Client service will not start during installation.

Configuring – upKeeper Client

By default, all necessary client configuration is done during installation. Settings specified below are used in special occasions or when recommended by support personal. upKeeper Client connection interval is configured on the server side (minimum interval 10 seconds).

Note! Keys specified below must be entered in the following registry path:
HKLM\Software\upKeeper\Client

- **CleanUp** – Force client to clear application download area on client computer. Key is deleted after it has been used.
- **ResetComputerApplications** – Sets all applications assign to the computer to be installed. Key is deleted after it has been used.
- **IgnoreEnvironment** – Client will not check computer environment before installing or uninstalling applications. If upkeeper does not check the environment before making application changes the computer may pending for reboot, perform application or system changes which can result in conflicts or errors.
- **InventoryStartupTask** – upKeeper client perform a inventory on next startup. Key is removed when used.

Note! Key specified below must be entered in the following registry path:
HKLM\Software\upKeeper\Client\Settings

- **MailTo** – A supportbutton will be visible in the My upKeeper if this registry key exists and an email address is entered.
- **TakeSupportScreenshot –** If this registry key is entered and the value set to True/true, attach a screenshot of all screens in mail to support.
- **Popup** – If this registry key is entered and the value is set to disable, status popups will not be shown.
- **MyupKeeper** – If this registry key is entered and the value is set to disable, my upKeeper will not be accessable.
- **ColorScheme** – Changes the way alert messages form is colored. (0 = black/yellow, 1 = red/grey and 2 = flashing red/grey)
- **ApplicationTab** – If set to string value "disable" the application tab in My upKeeper will not be accessible.
- **OperatingSystemTab** – If set to string value "disable" the operating system tab in My upKeeper will not be accessible.

- **UserTab** – If set to string value “disable” the user tab in My upKeeper will not be accessible.
- **MeteringEnabled** – If set to true the client will report computer and application usage.
- **MeteringDirectories** – If other directories then program directories should be scanned for applications, set this value to directories of your choice, separated by semicolon (;).
- **MeasureFiles** – If specific files should be scanned, enter file names separated by colon (,).
- **Button1Text** – If text is entered a button with this text will be visible in My upKeeper.
- **Button1Command** – If text is entered it will be used as command if button with text from Button1Text is pressed/clicked.
- **Button2Text** – If text is entered a button with this text will be visible in My upKeeper.
- **Button2Command** – If text is entered it will be used as command if button with text from Button2Text is pressed/clicked.
- **HandlingAssignedApplications** – If set to string value “disable” assigned applications cannot be reinstalled.
- **Driveletter** – If set to specific letter client won’t assign drive letter when mapping SMB network shares. Normally client get first free driveletter starting from Z and goes up to A.
- **RequestApplication** – If set to string value “disable” the button for request applications will be disabled.
- **InventoryMissingUpdates** – If set to string value “disable” no inventory for missing updates will be performed.

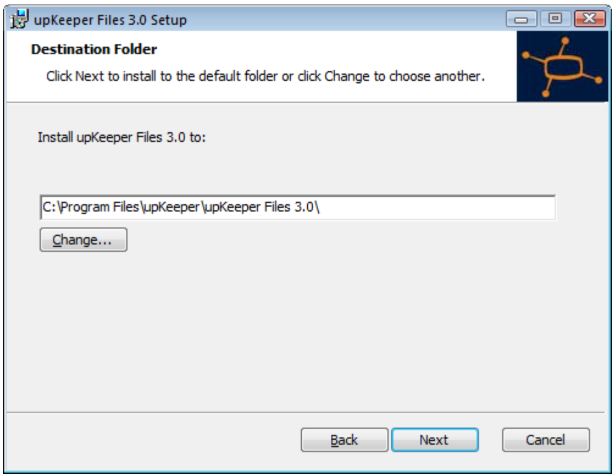
Branding – My upKeeper Client

My upKeeper Client can be branded with custom title. To change form title, popup title and menu option you can add the registry string BrandingTitle with the value you wish to be shown. Registry string most be placed under the Settings key. (HKLM\Software\upKeeper\Client\Settings)

Installation - upKeeper Files Website

The upKeeper Files Website handles distribution of application packages over HTTP.
It must be installed if you want to manage clients not located on the LAN.

- Sign in with administrative rights to the server that will be used for the upKeeper Files Website.
- Execute the file **upKeeper.Files.3.X.msi**
- Specify the **Destination Folder** for the installation.
- Enter values for **Port** and **Host Header.**
  The **Host Header** redirects requests for that hostname to this website.



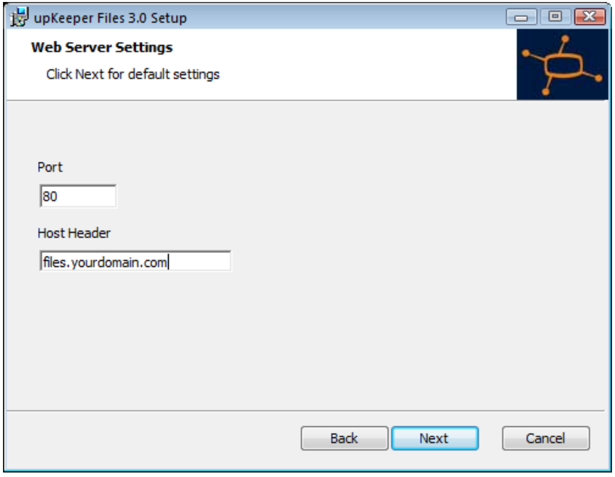
upKeeper Files 3.0 Setup

Destination Folder

Click Next to install to the default folder or click Change to choose another.

Install upKeeper Files 3.0 to:

C:\Program Files\upKeeper\upKeeper Files 3.0\



upKeeper Files 3.0 Setup

Web Server Settings

Click Next for default settings

Port: 80

Host Header: files.yourdomain.com

Edit the upKeeper Files Website configuration file

Make the following changes to the **upKeeper Files Website** configuration file: **Web.config**.

Edit the database connection settings under the tag

```
<connectionStrings>
```

The settings should be identical to the settings in the Web.config file used by the upKeeper Administration website.

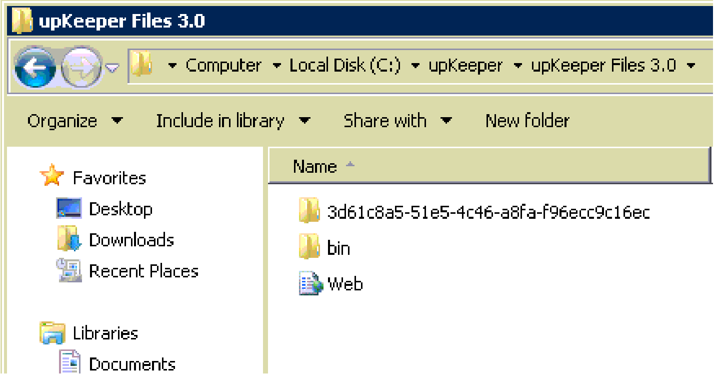
See the section **Configuring - upKeeper Administration Website** for details.

DNS

A DNS record or alias that points to this website must be created if clients are to connect from outside the LAN.

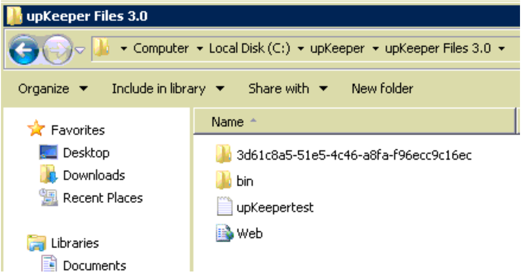
Application files

The **upKeeper Files** website will look for application packages (.wim files) to distribute to clients in the folder where it is installed. If possible, website can be installed in the folder where the application packages will be placed. Another option is to synchronize the files with a third-party product.



Test the configuration

You can test the settings by creating a text file in the folder where you installed upKeeper Files 3.X



Then test to surf to your text file, **http://sitename/fil.txt**.
You will get a login window asking for a username and a password.
Because the website is intended to be used by the upKeeper client, the required credentials are the **Computer Id** and **Organization Id** of a managed client computer.

You will find those in the registry of a installed client: HKLM\SOFTWARE\upKeeper\Client\Settings

ComputerID = login name
OrganizationId = password

If everything is correctly configured, you will see the content of your text file in the browser.

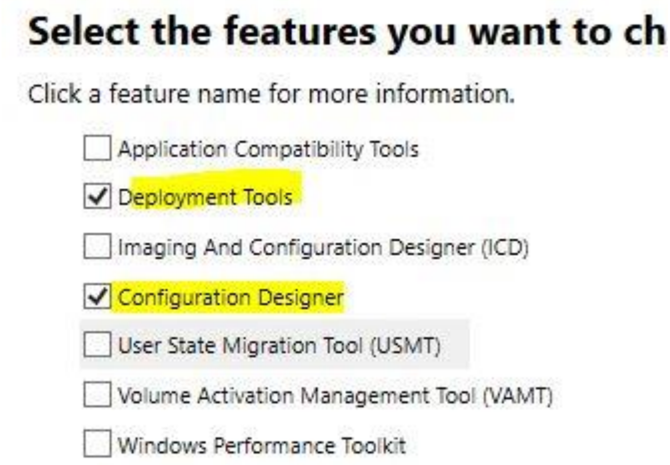
Build upKeeper SOS

To build or update upKeeper SOS we have to create a build structure including upKeeper SOS files and software from Microsoft.

Install Microsoft software

Download and install “Windows ADK” and “Windows PE add-on for the ADK” on a computer were you want to maintain your upKeeper SOS files.

1. Download “Windows ADK” for Windows 10 or later and “Windows PE add-on for the ADK” from Microsoft website.
2. Run “adksetup.exe” and choose “Deployment Tools” and “Configure Designer” and install in default location. Other components can be add.

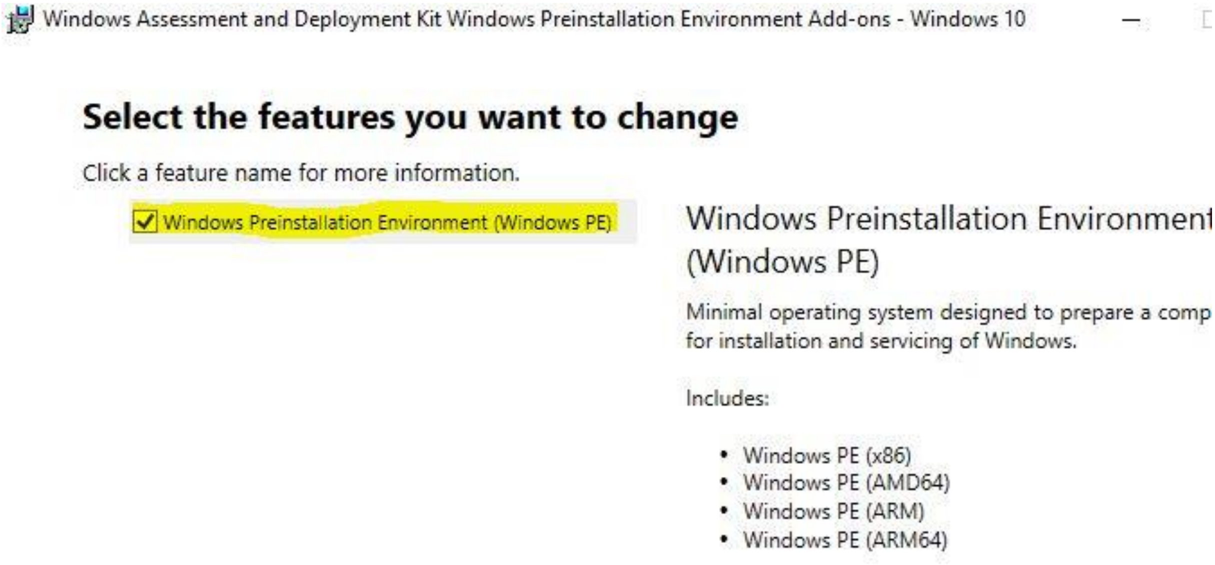


Select the features you want to ch

Click a feature name for more information.

- ☐ Application Compatibility Tools
- ☑ Deployment Tools
- ☐ Imaging And Configuration Designer (ICD)
- ☑ Configuration Designer
- ☐ User State Migration Tool (USMT)
- ☐ Volume Activation Management Tool (VAMT)
- ☐ Windows Performance Toolkit

3. Run “adkwinpesetup.exe” and install with default settings.



Windows Assessment and Deployment Kit Windows Preinstallation Environment Add-ons - Windows 10

Select the features you want to change

Click a feature name for more information.

- ☑ Windows Preinstallation Environment (Windows PE)

Windows Preinstallation Environment (Windows PE)

Minimal operating system designed to prepare a comp for installation and servicing of Windows.

Includes:

- Windows PE (x86)
- Windows PE (AMD64)
- Windows PE (ARM)
- Windows PE (ARM64)

Add upKeeper SOS files

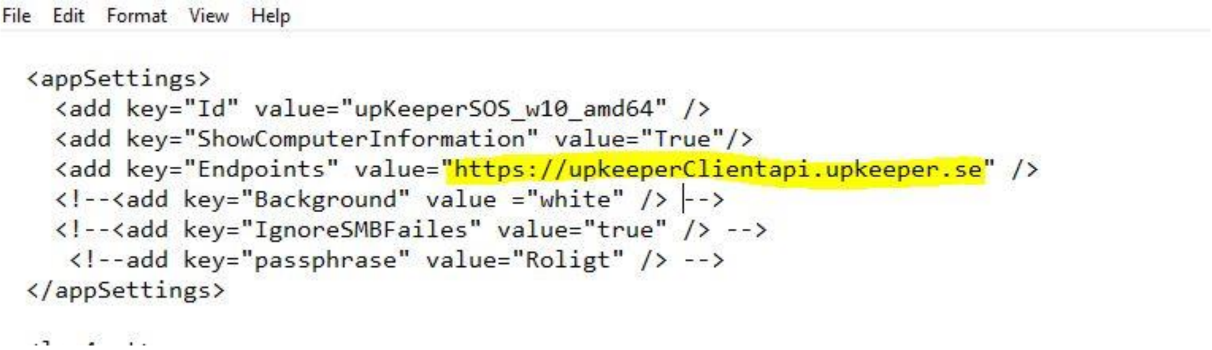
Download latest version of upKeeper SOS files and make necessary and optional configuration.

1. Download “update_sos.zip” for latest version of upKeeper Manager and extract to “C:\upKeeper\upKeeperSOS” on your computer.

2. Download “upKeeper SOS x.xx” for latest version of upKeeper Manager and extract to “C:\upKeeper\upKeeperSOS\upKeeper” on your computer.

Configure upKeeper SOS

Open C:\upKeeper\upKeeperSOS\upkeeper\Upkeeper.Sos.exe.config in a text editor and edit to match configuration for your upKeeper Manager installation.



```
<appSettings>
  <add key="Id" value="upKeeperSOS_w10_amd64" />
  <add key="ShowComputerInformation" value="True"/>
  <add key="Endpoints" value="https://upkeeperClientapi.upkeeper.se" />
  <!--<add key="Background" value ="white" /> -->
  <!--<add key="IgnoreSMBFailes" value="true" /> -->
   <!--add key="passphrase" value="Roligt" /> -->
</appSettings>
```

Settings

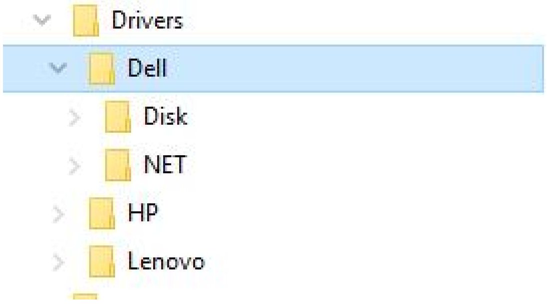
- **Id** – Set to folder name of your upKeeper SOS files on distribution point.
- **ShowComputerInformation** – If true SOS will show detailed computer information.
- **Endpoints** – address/addresses to client API endpoints of your installation. Multiple endpoint addresses are separated by comma (“,”) without any space.

Optional settings

- **Background** – set to “white” will change background to white and text to black.
- **Passphrase** – will connect to organization with specified passphrase if computer is not recognized.
- **IngoreSMBFailes** – set to “True” will force SOS to procced even if download of files from SMB distribution point failes.

Add drivers to upKeeper SOS

upKeeper SOS needs in some case unique drivers for network and/or disc to be able to run. Download drivers that are built for the version of WinPE you are using. Add drivers to a folder structure that are easy to read and update (see example below).



Update upKeeper SOS

After performed the steps above you are ready to update upKeeper SOS.

1. Run “update_sos.cmd” in “Run as administrator” mode and verify that every step are successful.
2. Copy folder “upKeeperSOS_w10_amd64” to upKeeper distribution point(s) and add the new “boot.wim” file to all USB drives and WDS server.
3. Boot client on USB drive or WDS to verify new SOS.

Known issues

Files that has been download are blocked, start powershell, go to upKeeperSOS\upkeeper and run

```
"dir | Unblock-File"
```

Run update upKeeper SOS.

Tips!

You can use WDSUTIL (See example command below) to add or update upKeeper SOS to WDS, remember to change path to image file.

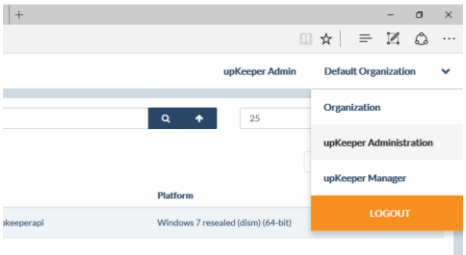
```
WDSUTIL /Replace-Image /Image:"upKeeperSOS" /ImageType:Boot /Architecture:x64
/ReplacementImage /ImageFile:"\\upKeeperDIST\upKeeperSOS_w10_amd64\Sources\boot.wim"
/Name:"upKeeperSOS" /Description:"upKeeperSOS"
```

Configuration - upKeeper 4.X

The upKeeper Administration Website http://upkeeperweb/ is where the upKeeper installation is managed.
Log on with the administrative user: **upkeeper** password: **upkeeper**.

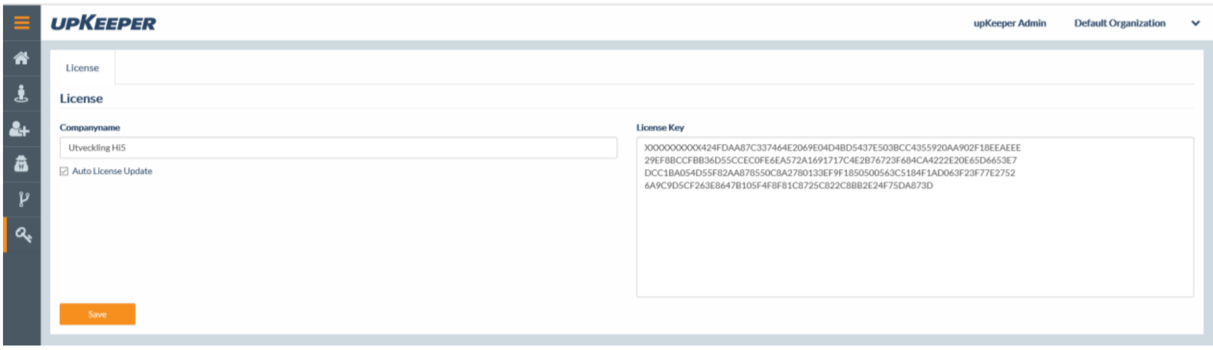
Configuration – Licence

Select **upKeeper Administration**



Open the tab **License**

Enter the name of the company holding the license for the installation under **Company Name** and click **Save.**



License

Companyname: Utveckling HI5

☑ Auto License Update

License Key:

```
XXXXXXXXXX424FDAA87C337464E2069E04D4BD5437E503BCC4355920AA902F18EEAEEE
29EF8BCCFBB36D55CCEC0FE6EA572A1691717C4E2B76723F684CA4222E20E65D6653E7
DCC1BA054D55F82AA878550C8A2780133EF9F1850500563C5184F1AD063F23F77E2752
6A9C9D5CF263E8647B105F4F8F81C8725C822C8BB2E24F75DA873D
```

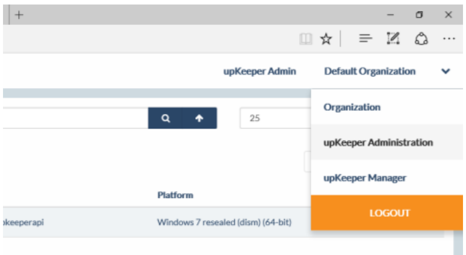
Normally the license key will be updated by the upKeeper Application Server within five minutes

If you have been given a license key you can enter it in the **LicenseKey** field.

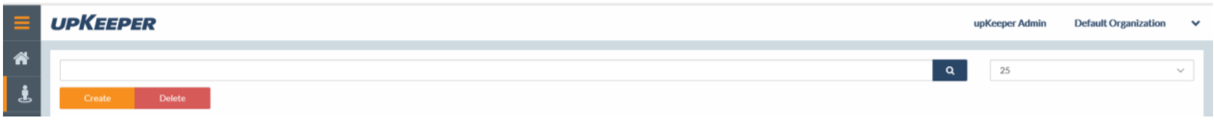
Create a new Organization

An upKeeper installation can be divided in **Organizations**. This can be used to separate users and computers from different companies or departments to simplify management or delegate permissions.
On installation one Organization named **Default Organization** is created,
this Organization can be renamed to something more descriptive.

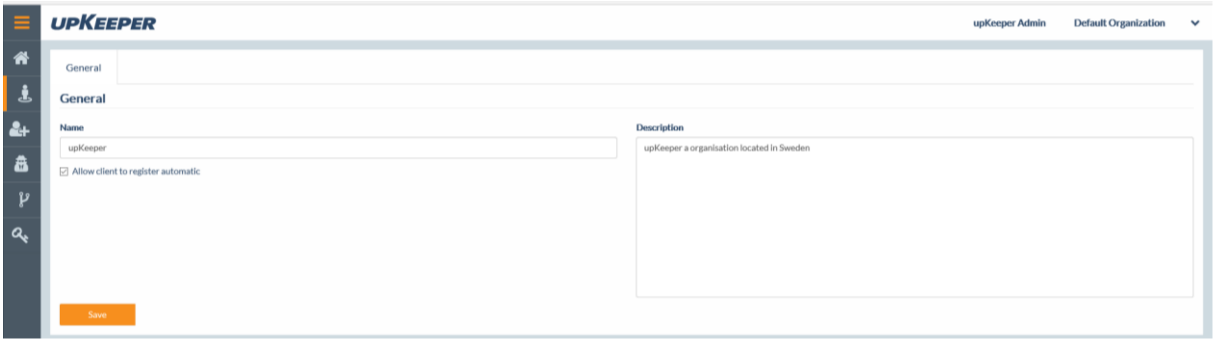
Select **upKeeper Administration**



Open the tab **Organizations** and select **Create**



Enter a name for the Organization and check the box **Allow clients ...** if you want client computers to automatically be registered.



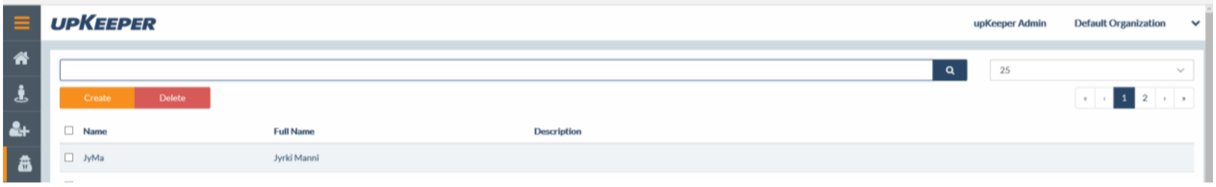
Name: upKeeper

☑ Allow client to register automatic

Description: upKeeper a organisation located in Sweden

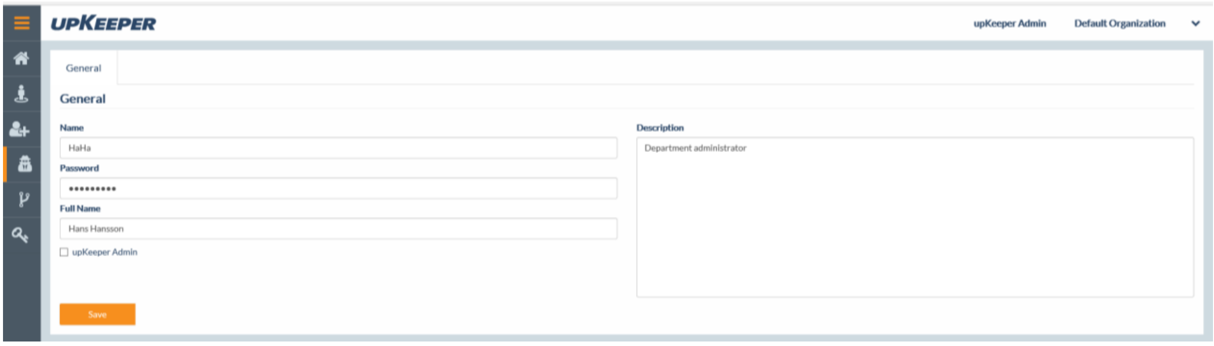
Create a User

Open the tab **Users** and select **Create**.



□ Name	Full Name	Description
□ JyMa	Jyrki Manni	

Enter the user name, password and the full name



Name: HaHa

Password: *********

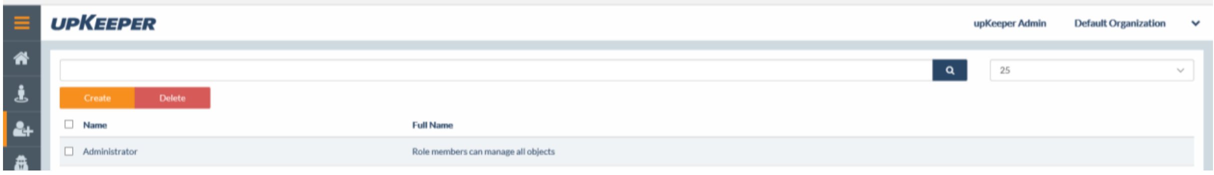
Full Name: Hans Hansson

□ upKeeper Admin

Description: Department administrator

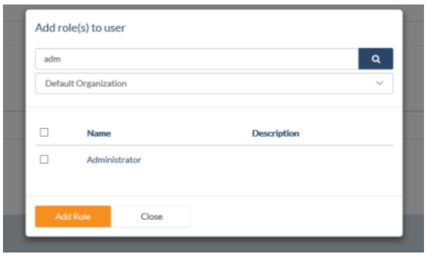
Do not check **upKeeper Admin** unless you want the user to have access to all Organizations.

Open the tab **Roles** and select **Add**



□ Name	Full Name
□ Administrator	Role members can manage all objects

There exists only two roles by default, **Administrator** and **HelpDesk**,
make sure that the right Organization is selected.
Then select the role you want the user to have and click on **Choose Roles**.
Then close the **Add roles to user** dialog.



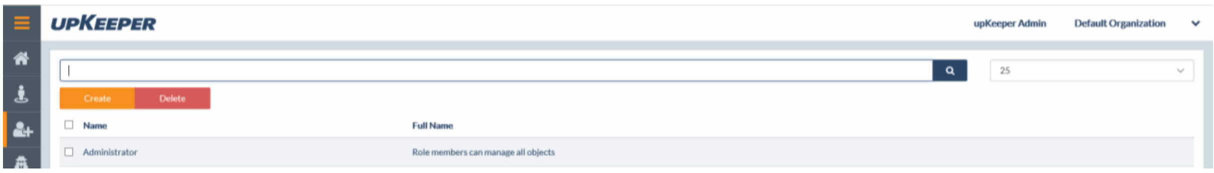
Search: adm

Default Organization

□	Name	Description
□	Administrator	

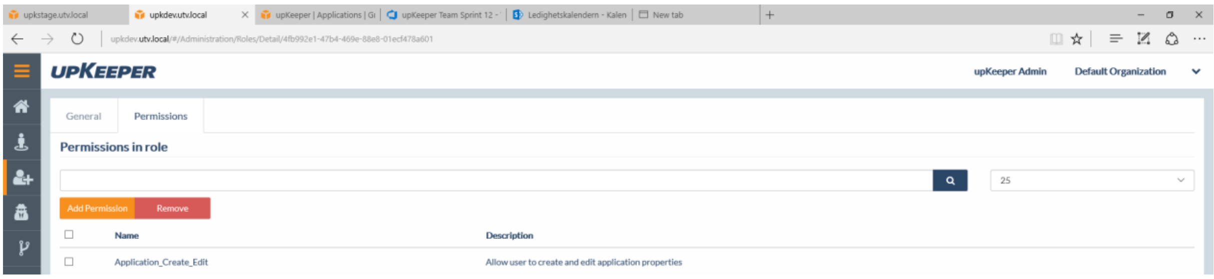
Create additional roles

Open the tab **Roles** and click the **Create** button. Enter the name of the role you want to create (think of what the role will be used for e.g., Deploy Computers, Handle Applications, etc.)



	Name	Full Name
☐	Administrator	Role members can manage all objects

Open the tab **Permissions** and click the **Add** button

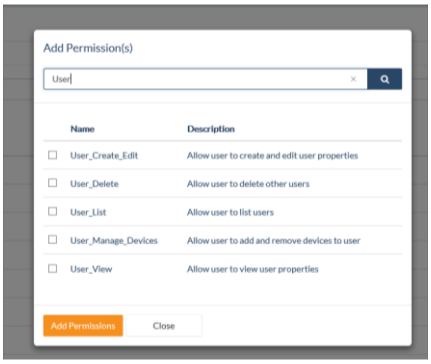


upkdev.utv.local/#/Administration/Roles/Detail/4fb992e1-47b4-469e-88e8-01ecf478a601

Permissions in role

	Name	Description
☐	Application_Create_Edit	Allow user to create and edit application properties

Select the permissions that your role should have and click on **Choose permissions**, then close the **Add permissions to role** dialog.



Add Permission(s)

User

	Name	Description
☐	User_Create_Edit	Allow user to create and edit user properties
☐	User_Delete	Allow user to delete other users
☐	User_List	Allow user to list users
☐	User_Manage_Devices	Allow user to add and remove devices to user
☐	User_View	Allow user to view user properties

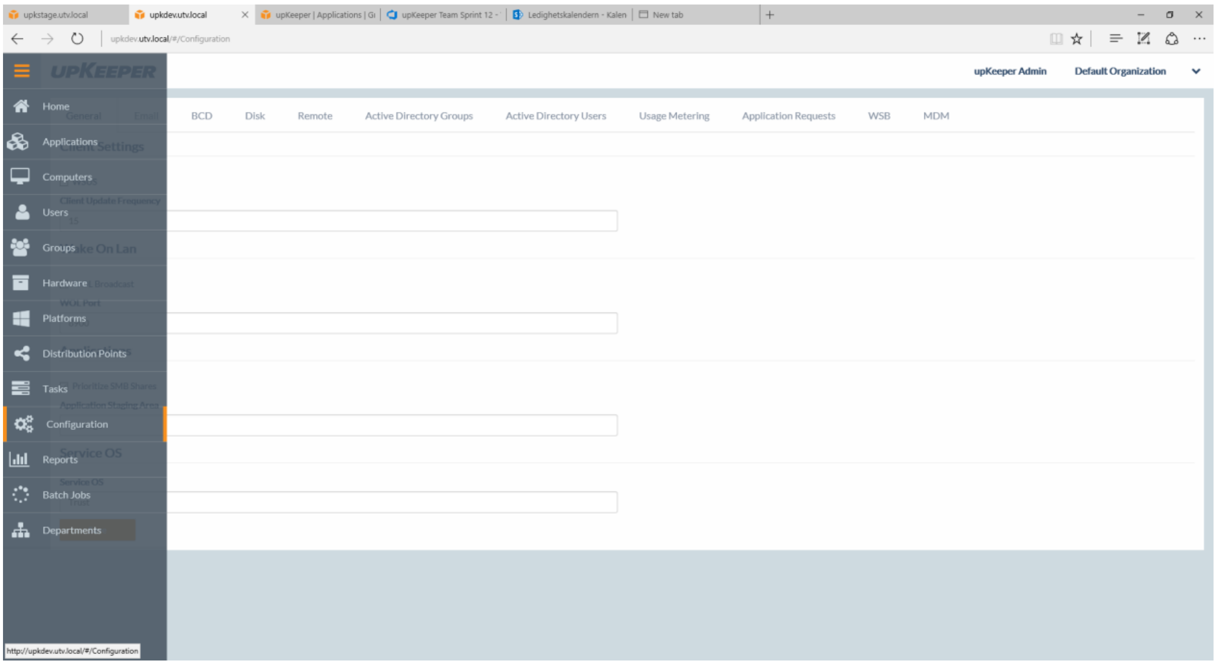
Configuration – Organization settings

If necessary, click the link **upKeeper Manager** in the upper right corner to leave the **upKeeper Administration** area.

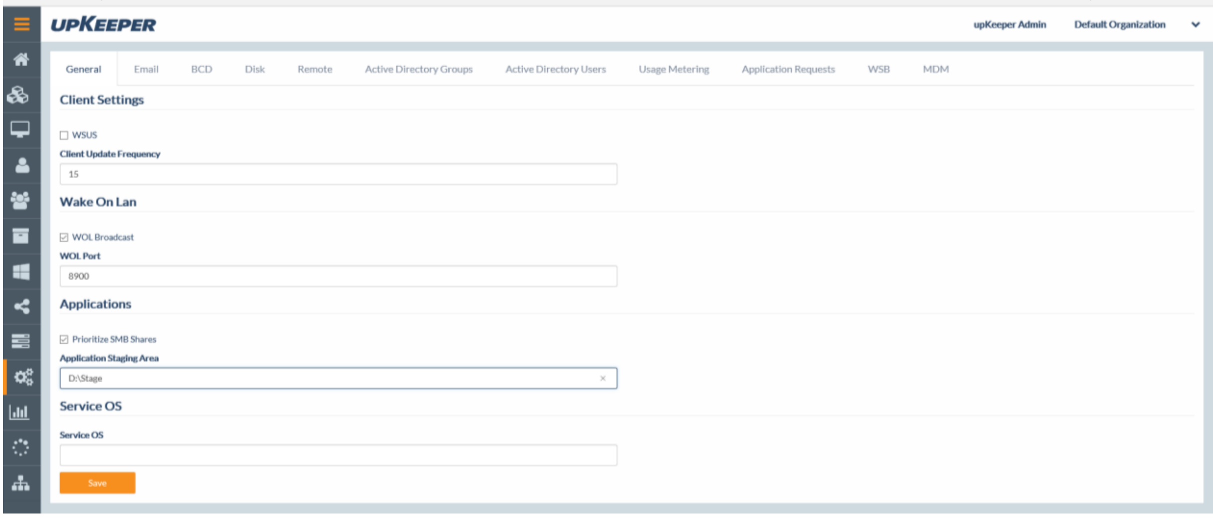
Note! The settings in this section are made for each Organization.

Configuration – General

Start by open the **Configuration** tab.



The section **General** will be visible.



Client Settings

□ WSUS

Client Update Frequency: 15

Wake On Lan

☑ WOL Broadcast

WOL Port: 8900

Applications

☑ Prioritize SMB Shares

Application Staging Area: D:\Stage

Service OS

Service OS:

WSUS = Configuring the clients to communicate with the WSUS server in the final stages of the OS installation.

WOL Broadcast = Wake On Lan requests are made with both Unicast and Broadcast.

WOL Port = the Port for Wake On Lan requests.

Client Update Frequency = The interval in seconds between client computers connection with the server, default 15 sec.

Application Staging Area = The Path where installation files for the applications are saved.
(The upKeeper Application Server then repackages the applications as .wim files that are distributed to the clients.)

Configuration – BCD

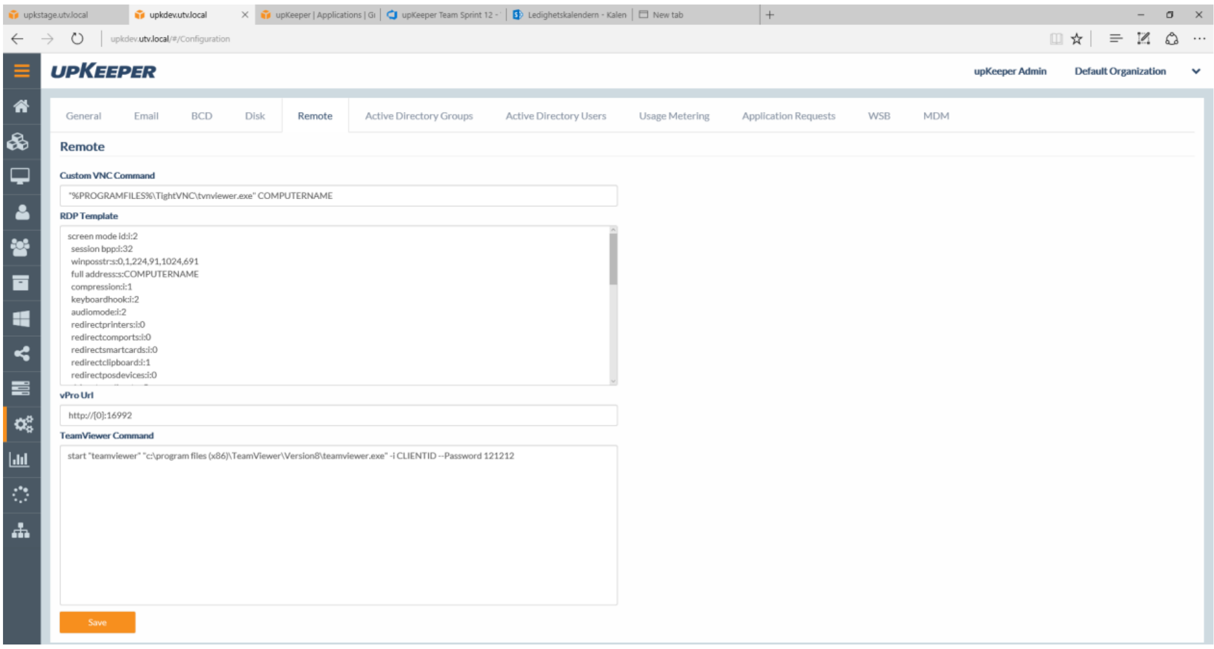
These settings should not normally be edited.

Configuration – Disk

Service Partition Size = The size of the service partition in megabytes.

Diskpart Install, **Diskpart Reinstall** and **Diskpart Drive Letters** = Determines how the client disk are partitioned and how drive letters are assigned.

Configuration – Remote



Remote

Custom VNC Command

"%PROGRAMFILES%\TightVNC\tvnviewer.exe" COMPUTERNAME

RDP Template

```
screen mode id:i:2
 session bpp:i:32
 winposstr:s:0,1,224,91,1024,691
 full address:s:COMPUTERNAME
 compression:i:1
 keyboardhook:i:2
 audiomode:i:2
 redirectprinters:i:0
 redirectcomports:i:0
 redirectsmartcards:i:0
 redirectclipboard:i:1
 redirectposdevices:i:0
```

vPro Url

http://[0]:16992

TeamViewer Command

```
start "teamviewer" "c:\program files (x86)\TeamViewer\Version8\teamviewer.exe" -i CLIENTID --Password 121212
```

Custom VNC Command = The command to remotely control clients.

RDP Template = Template for Remote Desktop connections to clients.

The variable **COMPUTERNAME** will be replaced by the computer name and **CLIENTID** will be replaced by TeamViewer Id when the commands are executed.

vPRO URL = Address to access computers with vPro activated. {0} will be replaced with computer name.

TeamViewer Command = Command to start Teamviewer on the administrator PC and used collected and predefined information to connect directly to the client. CLIENTID or COMPUTERNAME will be replaced with proper values when executed. (Exemple: start "teamviewer" "c:\program files (x86)\TeamViewer\Version8\teamviewer.exe" -i CLIENTID --Password XXXXXX)

Configuration – Active Directory Groups

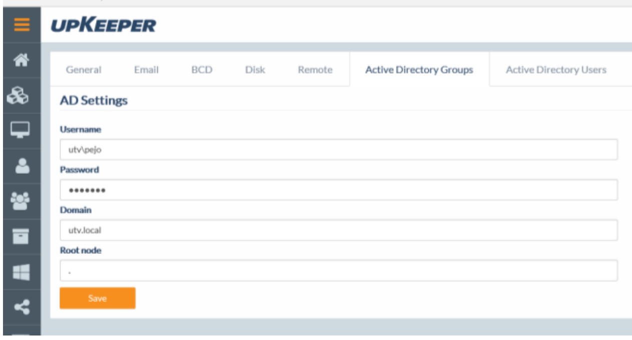
Configure synchronization of groups and computers from AD to upKeeper.

Specify the necessary information under **AD Settings** and click **Save**.

When the groups from AD has been read by upKeeper you can select the groups you want to synchronize by clicking **Add**.

Configuration – Active Directory Users

Configure synchronization of Users from AD to upKeeper. Specify the necessary information under **AD Settings** and click **Save**.



AD Settings

Username: utv\pejo

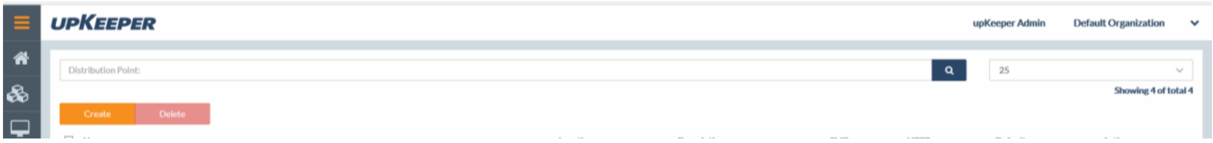
Password: •••••••

Domain: utv.local

Root node: .

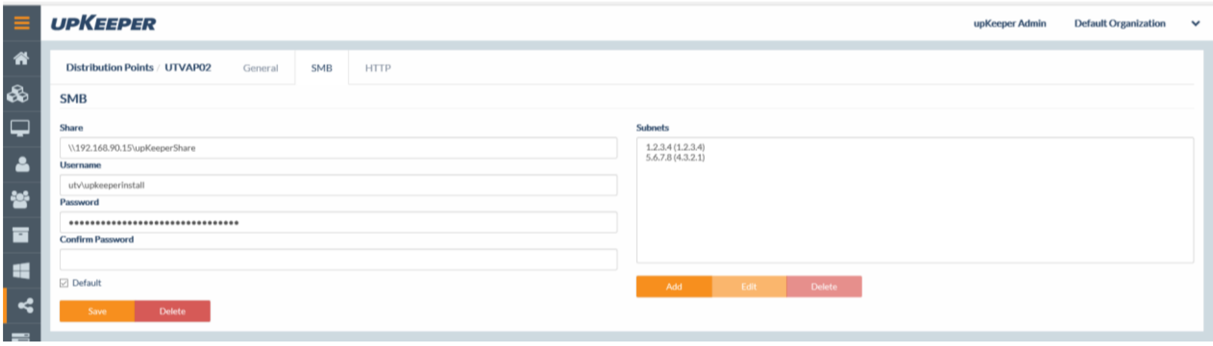
Configuration – Distribution Points

Open the tab **Distribution Points** and click on **Create**.



Enter **Name**, **Location** and **Description** and check **Active**, then click **Save**.

Open the **SMB** tab.



SMB

Share: \\192.168.90.15\upKeeperShare

Username: utv\upkeeperinstall

Password: ••••••••••••••••••••••••••••••••

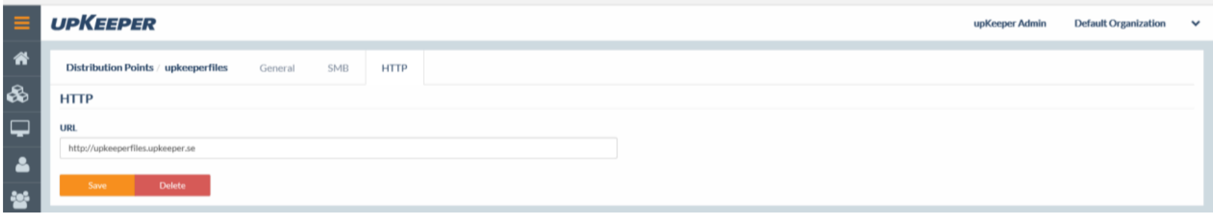
Confirm Password:

☑ Default

Subnets:
1.2.3.4 (1.2.3.4)
5.6.7.8 (4.3.2.1)

Enter the address of your file share, specify which account you want to use,
enter the subnets involved and select if it should be the default Distribution Point. Then click **Save**.

Open the **HTTP** tab.



HTTP

URL: http://upkeeperfiles.upkeeper.se

This setting is used to deploy applications to computers that are included in the upKeeper database and have a connection with upKeeper over the Internet.
Enter the web address for the site used by upKeeper to distribute applications.
Remember that you have to configure your DNS so that the clients can find it.

Appendix A – Using upKeeper Application Server over HTTPS

When installing applications over the Internet, you can use HTTP or HTTPS.
Before HTTPS can be used, additional configuration is necessary.

Create/install a certificate for the server

Register the certificate:

```
> netsh http add sslcert ipport=0.0.0.0:443
certhash=6f69a65d39a5b6a67e7b2c5a65eb2de181f938b8 appid={2bd46527-0d0d-4de0-b2aa-
2c4f7d229947}
```

(Replace the string **certhash** to your certificate’s Thumbprint)

Make the following changes in the Applications Server configuration file:

- Add a service behavior (as it appears below):

  ```
  <behavior name="clientBehavior">
    <serviceCredentials>
      <serviceCertificate findValue="YourIssuerName" x509FindType="FindByIssuerName" />
    </serviceCredentials>
  </behavior>
  ```

- Add a binding behavior (as it appears below):

  ```
  <wsHttpBinding>
    <binding name="wsHttps">
      <security mode="Transport">
        <transport clientCredentialType="None" />
        <message />
      </security>
    </binding>
  </wsHttpBinding>
  ```

- Add an attribute on the ClientService (as it appears below):

  ```
  behaviorConfiguration="clientBehavior"
  ```

- Add an attribute on the endpoint elementet for wsHttp (as it appears below):

  ```
  bindingConfiguration="wsHttps"
  ```

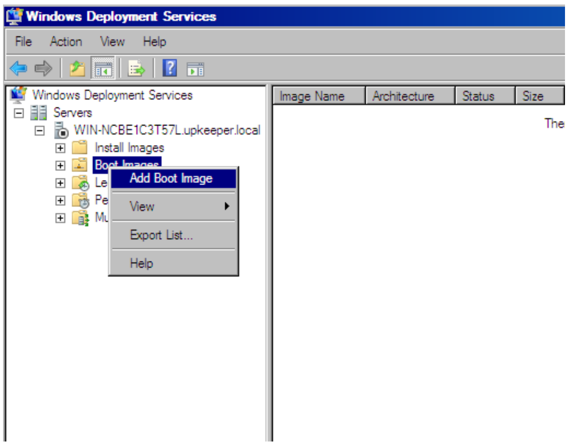
  Change the endpoint address to https://yourhostname/Client

Note! Do not forget to change the endpoint protocol to https for the clients.

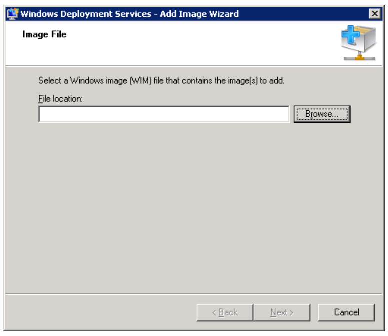
Appendix B - Configuration of Windows Deployment Services

- Sign in with administrative rights to the server that will be used for Windows Deployment Services.
- Start Windows Deployment Services.

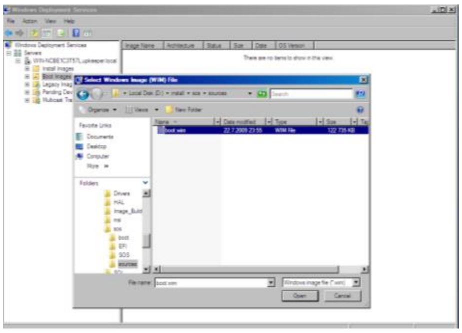
Expand the tree on the left side, find the current server and right click on **Boot Images**.
Select **Add Boot Image**.



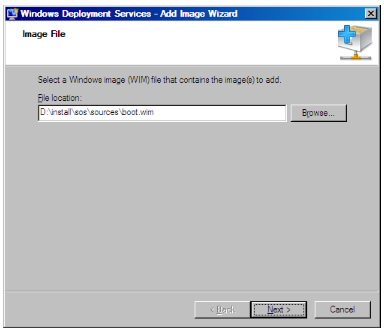
Click **Browse** and browse to the folder where your upKeeper ServiceOS files are located.
Select the file **Boot.wim**.



Select a Windows image (WIM) file that contains the image(s) to add.


Select Windows Image (WIM) File
Local Disk (D:) ▸ install ▸ sos ▸ sources
boot.wim
WIM File
File name:
Open
Cancel

File name: boot.wim



Select a Windows image (WIM) file that contains the image(s) to add.

File location: D:\install\sos\sources\boot.wim

Enter an appropriate description and then import the file into WDS.

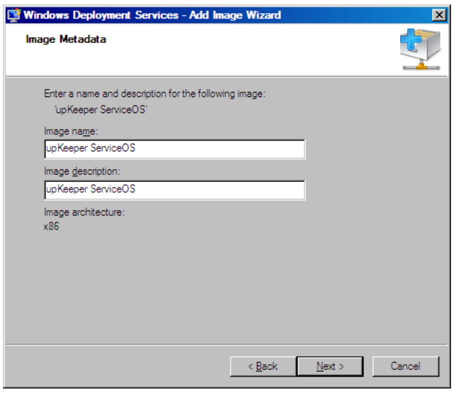


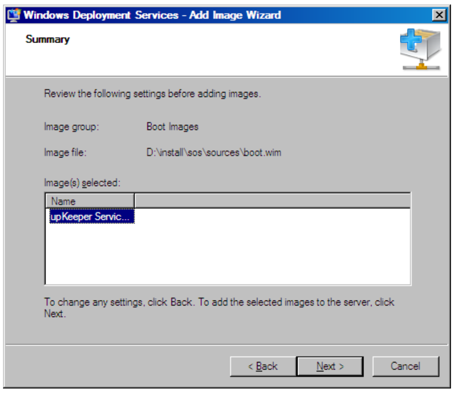
Image Metadata

Enter a name and description for the following image:
'upKeeper ServiceOS'

Image name:
upKeeper ServiceOS

Image description:
upKeeper ServiceOS

Image architecture:
x86



Summary

Review the following settings before adding images.

Image group: Boot Images

Image file: D:\install\sos\sources\boot.wim

Image(s) selected:

Name
upKeeper Servic...

To change any settings, click Back. To add the selected images to the server, click Next.

Appendix C – upKeeper white label

You are now able to change images and other elements in upKeeper for branding your product. By adding images with file names ending with -custom, these files will be chosen instead of the default images. This is to make sure they are not overwritten when there is an update. Default images may be overwritten. Only the files that are specified in this document support the -custom suffix.

ADMIN WEB:
Admin web images are added to ../images/

The logo shown at login:
Default: ../images/logowhite.png
Custom: ../images/logowhite-custom.png
Recommended size: 169 x 26 px

The background shown at login:
Default: ../images/bg.jpg
Custom: ../images/bg-custom.jpg
Recommended size: 1920 x 1280 px

The logo shown in the top-bar when logged in:
Default: ../images/logo.png
Custom: ../images/logo-custom.png
Recommended size: 169 x 27 px

The favourite icon shown in the browser field:
Default: ../images/favicon.ico
Custom: ../images/favicon-custom.ico
Recommended size: 16 x 16 px, 24 x 24 px or 32 x 32 px.
Make sure to clear your browser cache after switching this logo, or the old one might be shown instead.

MY UPKEEPER:
You are able to change the My upkeeper text that is shown as the title of the client window, etc. This can be done by running a registry script when installing the client. To change the title, add the key BrandingTitle to HKEY_LOCAL_MACHINE/SOFTWARE/upKeeper/Settings and change its value.

Sos:
You can change the background image in the Sos:
Default: ../Sos/Upkeeper.Sos/Upkeeper.Sos.Manager/upkeeper.png
Custom: ../Sos/Upkeeper.Sos/Upkeeper.Sos.Manager/upkeeper-custom.png
Recommended size: 1500 x 911 px.

Sos (Debug):
Default: ../Sos/Upkeeper.Sos/Upkeeper.Sos.Manager/bin/Debug/upkeeper.png
Custom: ../Sos/Upkeeper.Sos/Upkeeper.Sos.Manager/bin/Debug/upkeeper-custom.png
Recommended size: 1500 x 911 px.

Appendix D – Azure app registration for OneDrive access from distribution points

To enable OneDrive from distribution points a valid Azure app must be created. Ensure that the following steps are followed to make sure that it works flawlessly.

1. Register a new Azure app under Azure portal/Home/App registration
2. In the registration interface set the following values:
   2.1. Set a valid, appropriate name for the app, remember that this will be visible for the client when connecting a distribution point to an app.
   2.2. Select the appropriate account types that should be able to access this app.
   2.3. Ignore RedirectUrl for now. We will get configure it later.
3. The application registration is done, click Quickstart (in the left pane) to configure it.
4. (Optional) Set the appropriate values in branding, it makes it easier for users to trust the submitted app trust request when connecting a distribution point to an OneDrive App.
5. Click Authentication in the left pane and adjust:
   5.1. Add a new platform and set the type as "Mobile and desktop application".
   5.2. Select the pre-generated login URL:
   "https://login.microsoftonline.com/common/oauth2/nativeclient "
   5.3.1. Configure the correct redirect URLs depending on the upKeeper admin UI installation. (Make sure to add http://localhost:7000 if this is a development instance)
   5.3.2. HTTPS bindings needs to be used if you want to set up onedrive from another device than the server running admin web UI.
   5.3.2 If HTTPS is not used, a http binding for "localhost" needs to be created and set to port 7000 for example. Then match this in the redirect URLs for the App and configure the distributionpoint from the browser on your server.
   5.4. Setup "Supported account types" according to the appropriate settings.
6. Under "Certificates & secrets", create a new secret. These aren't used in Upkeeper at the moment, but they are needed for the integration to work.
7. Make a note of the client id GUID.
8. Login to the Upkeeper Admin UI and under Organisation settings/Azure/Onedrive enter the GUID from 7. under client id.

There, now you should be able to configure OneDrive connection for distribution points.