



# Orchestrator Installation Guide v2016.1

# Revision History

Date	Version	Author	Description
1st June 2016	2016.1	M.B.	Applied template
1st August 2016	2016.1	Andrei Bogdan	Add instructions for application pools authorization mechanism, folder permissions

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## [Appendix 1 - Find the installed .NET version](#)

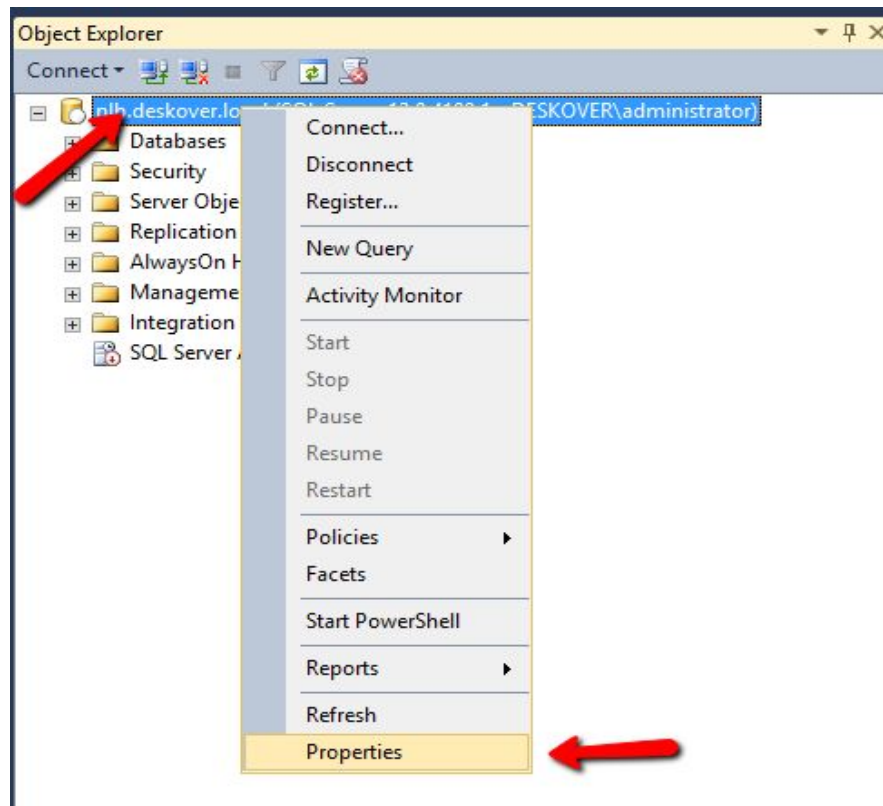
[Find .NET Framework versions by viewing the registry \(.NET Framework 1-4\)](#)

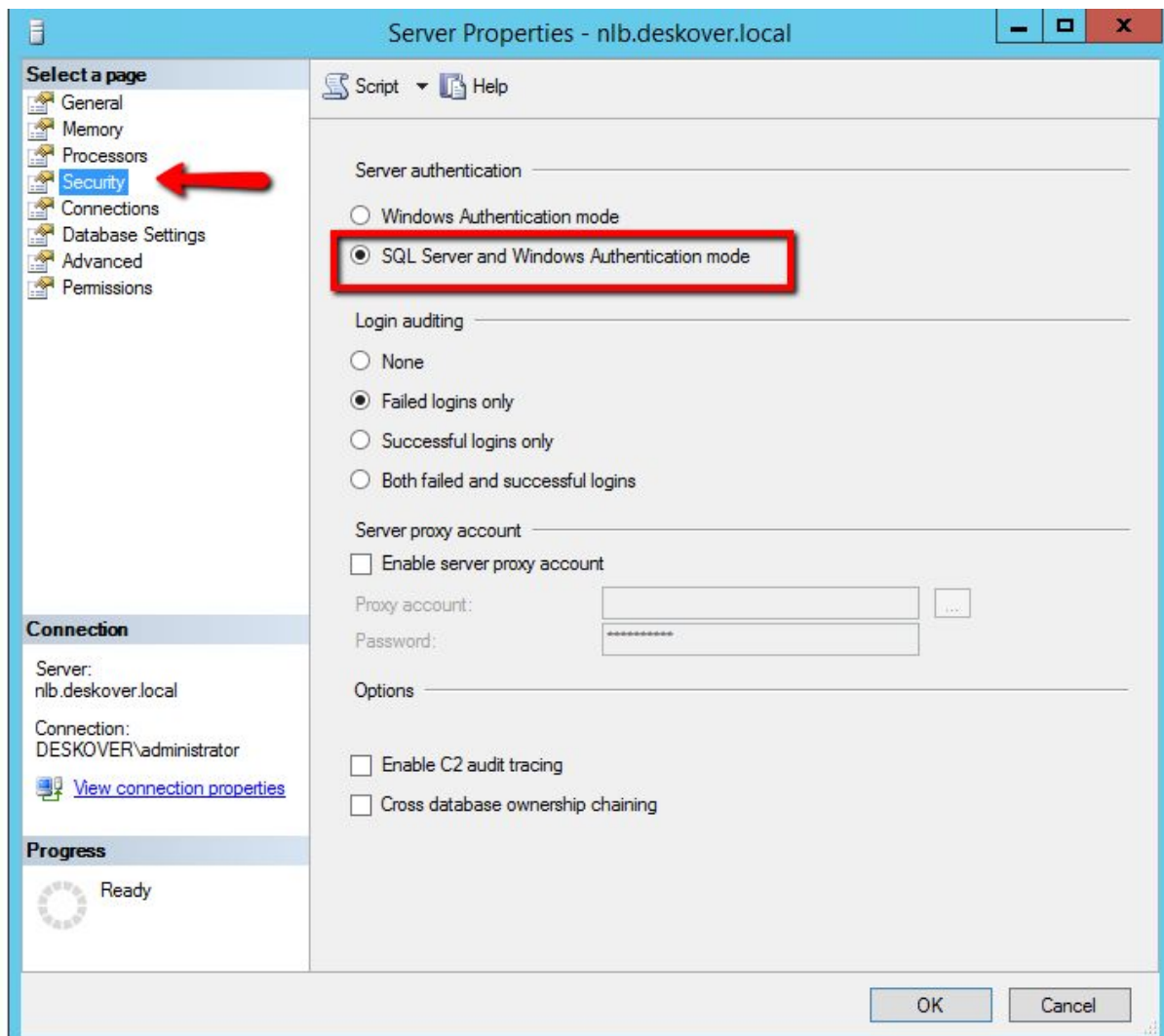
[Find .NET Framework versions by viewing the registry \(.NET Framework 4.5 and later\)](#)

## [Appendix 2 - Creating an Index Pattern to Connect to Elasticsearch](#)

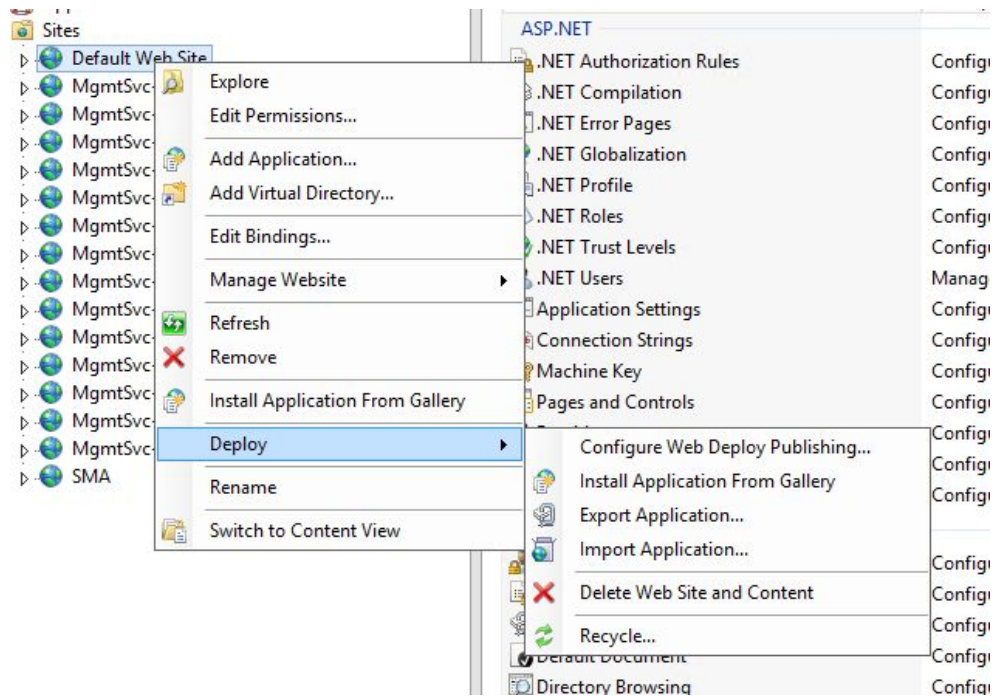
## Prerequisites

- Windows Server Operating System, version 2008 R2, 2012 or 2014.
- .NET 4.6.1 (minimum). To find out what is the .NET version installed on the computer, please see Appendix 1
- SQL server installed, one of the following versions: 2008R2 with at least SP1, 2012 Standard, 2014 Standard.
  - If you want to have the AlwaysOn feature, then 2012R2 Enterprise Edition or 2014 Standard; the SQL Server product can be installed on the same machine with the Application Server or can be provided as a separate machine.
- SQL Server should have the mixed mode authentication enabled (SQL Server authentication and Windows authentication). If it's already installed, please check this option as shown in the pictures below:





- SQL Server Management Studio - it's necessary in order to configure the login for the domain user that will access the SQL Server and under whose name will run the services on the application server.
- IIS 7.0 +
- Web-Deploy extension: Allows you to deploy a website. Check that the following context menu item is available: Right click on the default website -> from the contextual menu choose Deploy -> Import Application.
  - Note: If the menu option Deploy > Import Application is not available, as shown in the screenshot above, then download and install Web Deploy Extension 3.5 from here <http://www.iis.net/downloads/microsoft/web-deploy>.



- If the computers are in a domain ensure that they are added in section “Computers” in the domain server, in “Active Directory users and computers” because the computer name is used in installation process. (For example: <http://computername.domain.name/UiPath.Server.Web> instead of <http://localhost/UiPath.Server.Web>).  
If this is not possible computername/IP should be used in installation process. Please see step 4 from chapter “Preparing packages and script for Installation”.
- The following server roles should be installed (see the picture below): expand Web Server (IIS), expand Web Server, expand Common HTTP Features.
  - o Default Document
  - o HTTP Errors
  - o Static Content

## Select server roles

Before You Begin

Installation Type

Server Selection

**Server Roles**

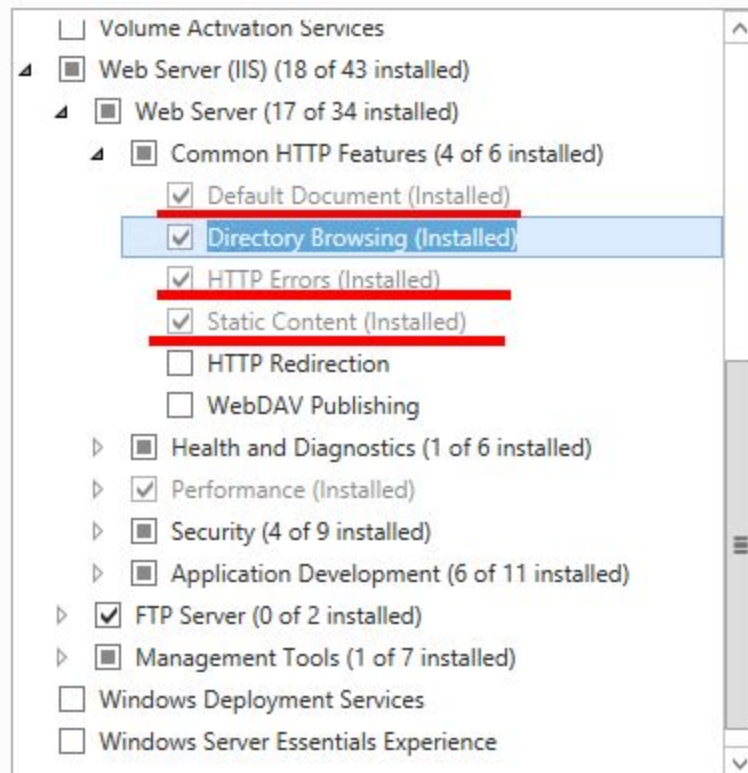
Features

Confirmation

Results

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

### Roles



- ☐ Volume Activation Services
- ☒ Web Server (IIS) (18 of 43 installed)
  - ☒ Web Server (17 of 34 installed)
    - ☒ Common HTTP Features (4 of 6 installed)
      - ☒ Default Document (Installed)
      - ☒ Directory Browsing (Installed)
      - ☒ HTTP Errors (Installed)
      - ☒ Static Content (Installed)
      - ☐ HTTP Redirection
      - ☐ WebDAV Publishing
    - ☐ Health and Diagnostics (1 of 6 installed)
    - ☒ Performance (Installed)
    - ☐ Security (4 of 9 installed)
    - ☐ Application Development (6 of 11 installed)
    - ☒ FTP Server (0 of 2 installed)
    - ☐ Management Tools (1 of 7 installed)
  - ☐ Windows Deployment Services
  - ☐ Windows Server Essentials Experience

- The following server roles should be installed (see the picture below): expand Web Server (IIS), expand Web Server, expand Security:
  - o Request Filtering
  - o Basic Authentication
  - o Centralized SSL Certificate Support
  - o Client Certificate Mapping Authentication
  - o IP and Domain Restrictions
  - o URL Authorization
  - o Windows Authentication



## Select server roles

Before You Begin

Installation Type

Server Selection

**Server Roles**

Features

Confirmation

Results

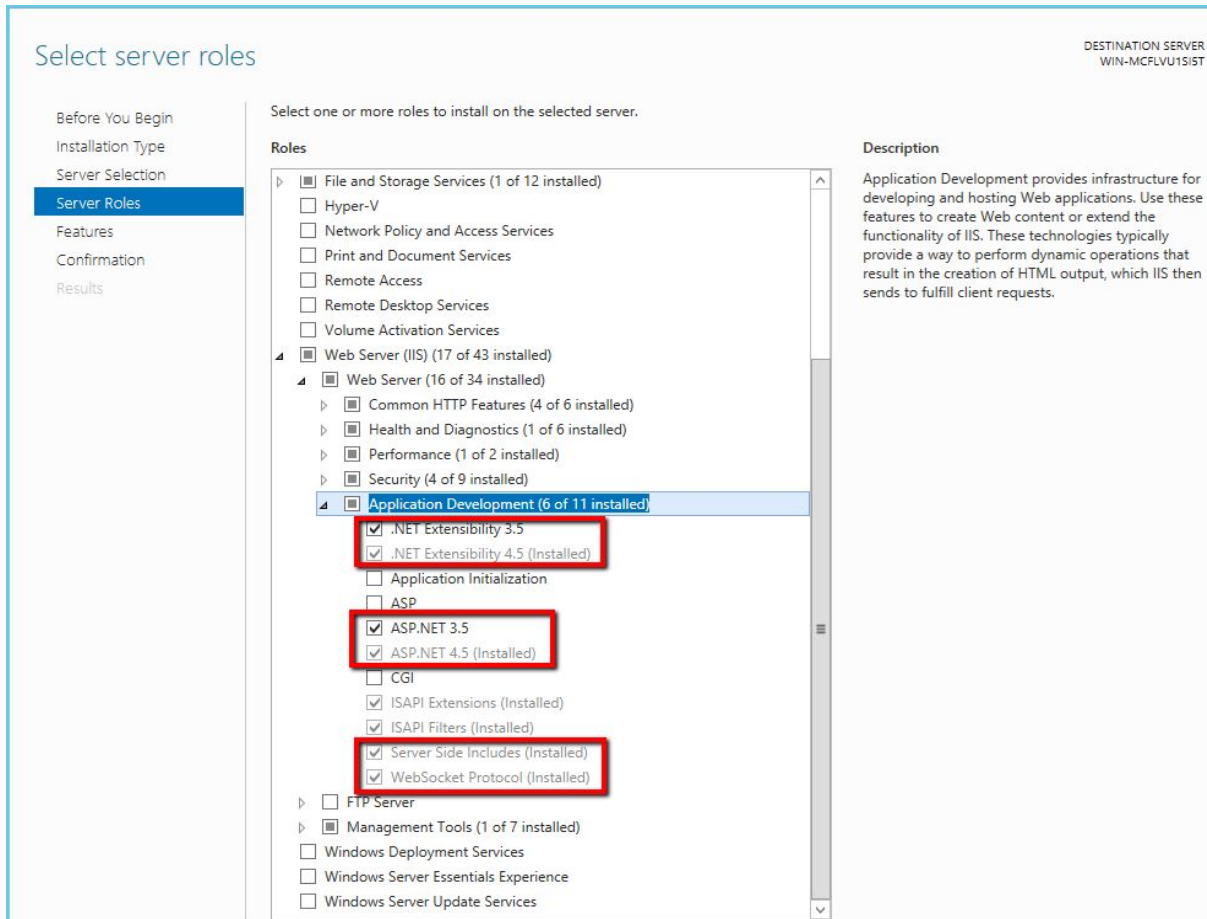
Select one or more roles to install on the selected server.

### Roles

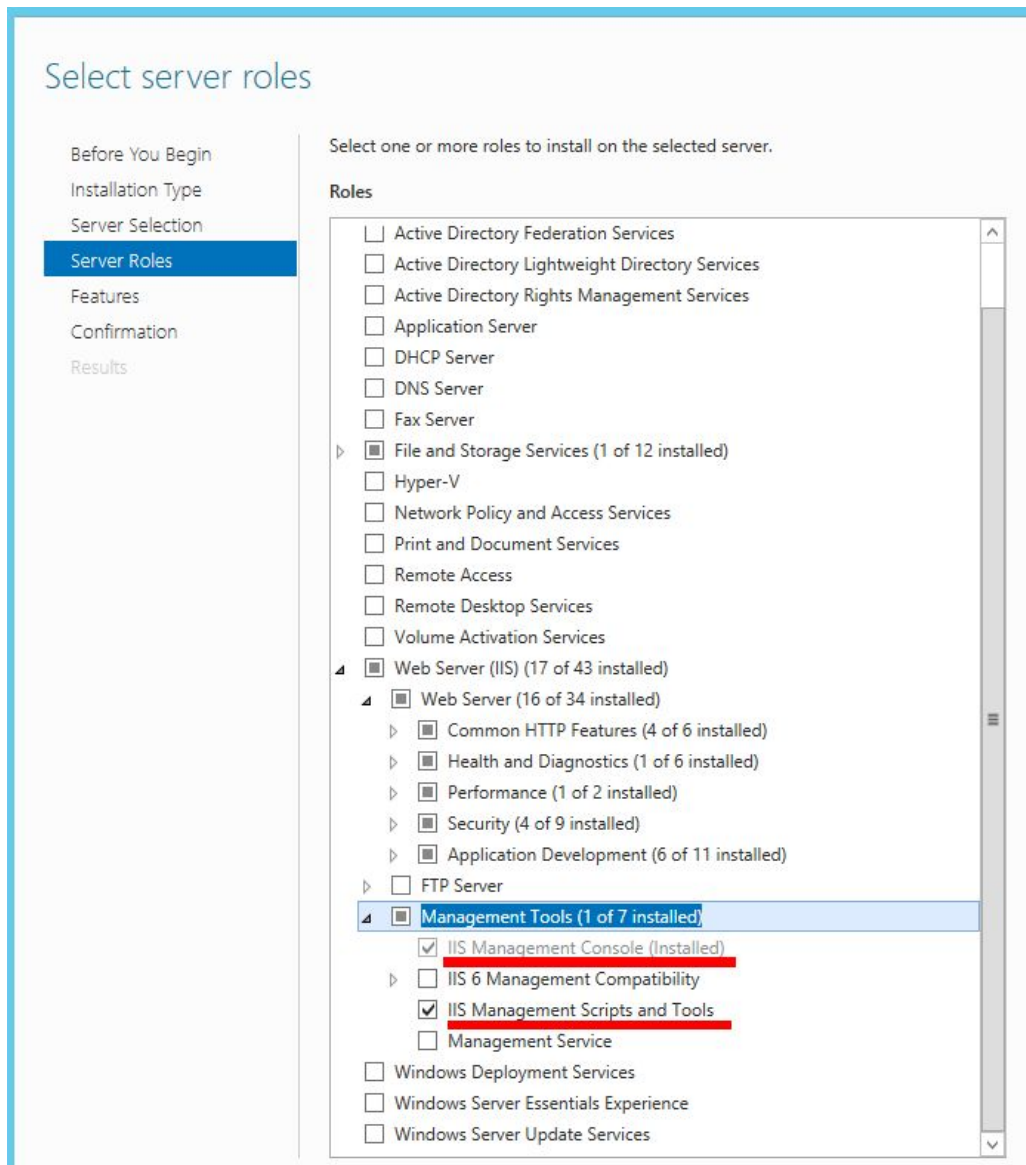
- ☐ Hyper-V
- ☐ Network Policy and Access Services
- ☐ Print and Document Services
- ☐ Remote Access
- ☐ Remote Desktop Services
- ☐ Volume Activation Services
- ☒ Web Server (IIS) (18 of 43 installed)
  - ☒ Web Server (17 of 34 installed)
    - ☒ Common HTTP Features (4 of 6 installed)
    - ☒ Health and Diagnostics (1 of 6 installed)
    - ☒ Performance (Installed)
    - ☒ Security (4 of 9 installed)
      - ☒ Request Filtering (Installed)
      - ☒ Basic Authentication (Installed)
      - ☒ Centralized SSL Certificate Support
      - ☒ Client Certificate Mapping Authentication
      - ☐ Digest Authentication
      - ☐ IIS Client Certificate Mapping Authentication
      - ☒ IP and Domain Restrictions
      - ☒ URL Authorization (Installed)
      - ☒ Windows Authentication (Installed)
    - ☒ Application Development (6 of 11 installed)
  - ☒ FTP Server (0 of 2 installed)
  - ☒ Management Tools (1 of 7 installed)
- ☐ Windows Deployment Services
- ☐ Windows Server Essentials Experience
- ☐ Windows Server Update Services

- The following server roles should be installed (see the picture below): expand Web Server (IIS), expand Web Server, expand Application Development
  - o .NET Extensibility 3.5
  - o .NET Extensibility 4.5
  - o ASP.NET 3.5
  - o ASP.NET 4.5
  - o Server Side Includes

## o WebSocket Protocol

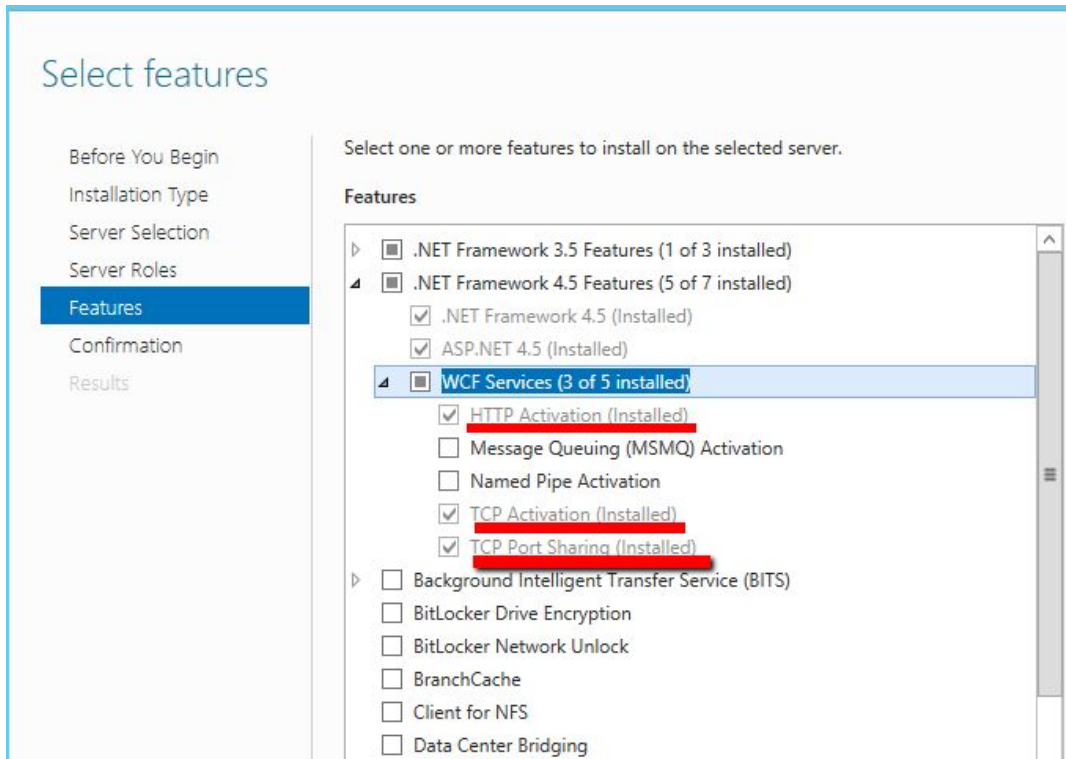


- The following server roles should be installed (see the picture below): expand Web Server (IIS), expand Web Server, expand Management Tools
  - o IIS Management Console
  - o IIS Management Scripts and Tools

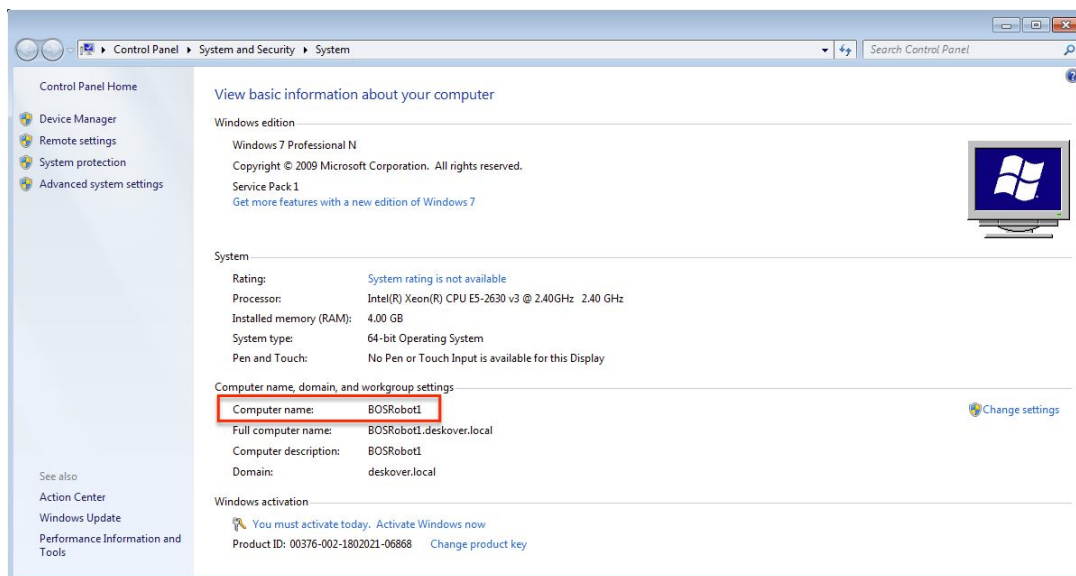


Click Next to go to Server Features.

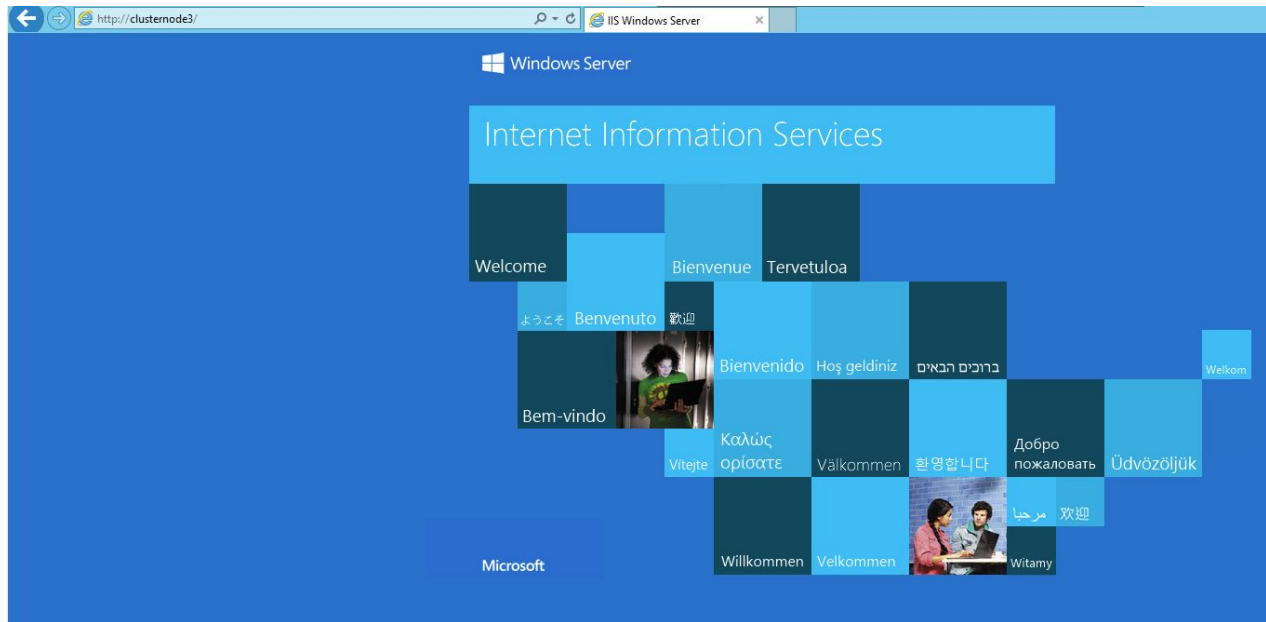
- The following server features should be installed (see the picture below): expand .NET Framework 4.5 Features, expand WCF Services
  - o HTTP Activation
  - o TCP Activation
  - o TCP Port Sharing



After the installation is done, open browser and go to <http://computename/>. (If you don't know your computer name open a command prompt and type "hostname" or open System and look for Computer Name).



The result of opening the address <http://computename/> should be the default page of IIS.



In case you are not seeing a page as in the above image you need to ensure that IIS server is running and port 80 is open. By default IIS will listen for connections on port 80 for any IP bound to the server.

This happens even if there are no host headers or bindings set for a specific IP. This can be a problem when trying to run multiple web servers on port 80.

To set IIS to listen on specific IPs follow the instructions below. Windows Server 2008/IIS 7 (at least):

1. Open an elevated command prompt and type "netsh".

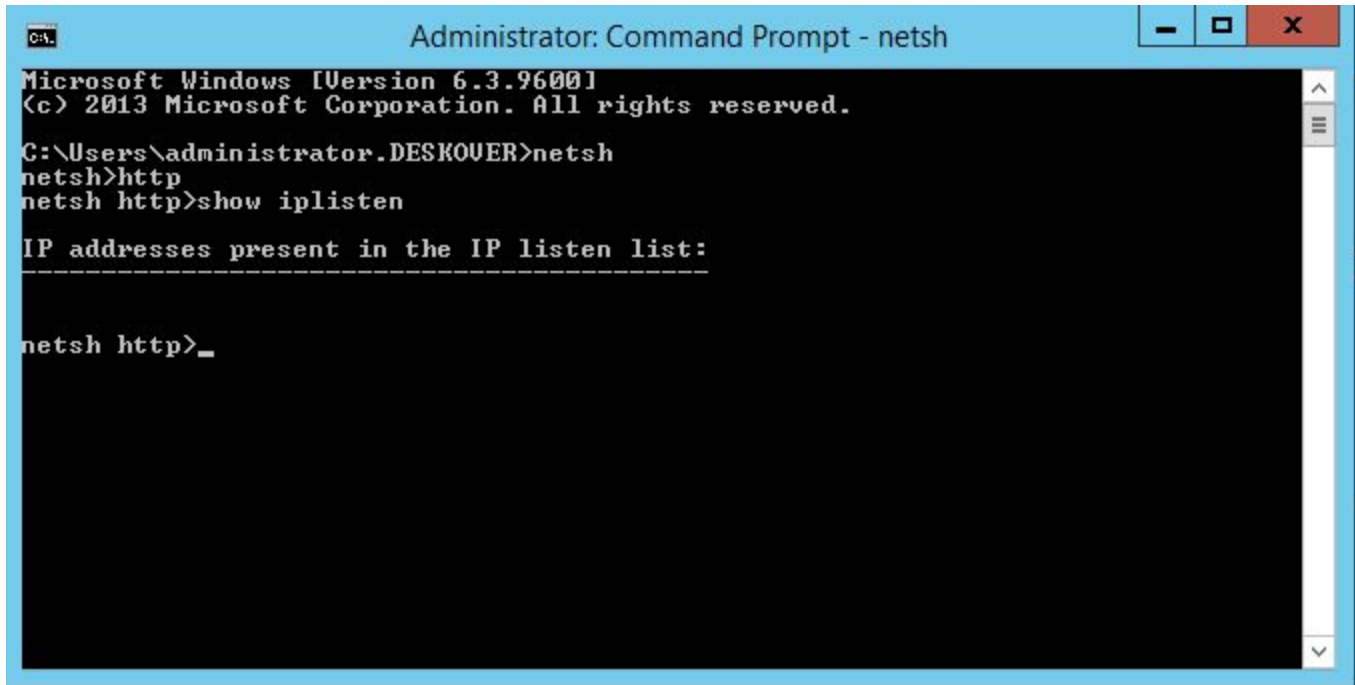
```
netsh
```

2. Type "http".

```
http
```

3. Enter the following command to display the current list of IPs to listen on. Note if no IPs are displayed like in the below image, IIS will listen on all IPs (default).

```
show iplisten
```



```
Administrator: Command Prompt - netsh
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\administrator.DESKOUER>netsh
netsh>http
netsh http>show iplisten

IP addresses present in the IP listen list:
-----

netsh http>_
```

4. Use the command below to set IIS to listen on a specific IP. Make sure to replace 0.0.0.0 with the correct IP and run the command again for any additional addresses. Type "exit" if you want to exit.

```
add iplisten ipaddress=0.0.0.0
```

```
netsh http>add iplisten ipaddress=0.0.0.0
IP address successfully added
netsh http>show iplisten
IP addresses present in the IP listen list:
-----
0.0.0.0
netsh http>_
```

5. In case you need to delete an IP from this list, use the following command.

```
delete iplisten ipaddress=0.0.0.0
```

6. Restart IIS to apply these changes.

```
iisreset
```

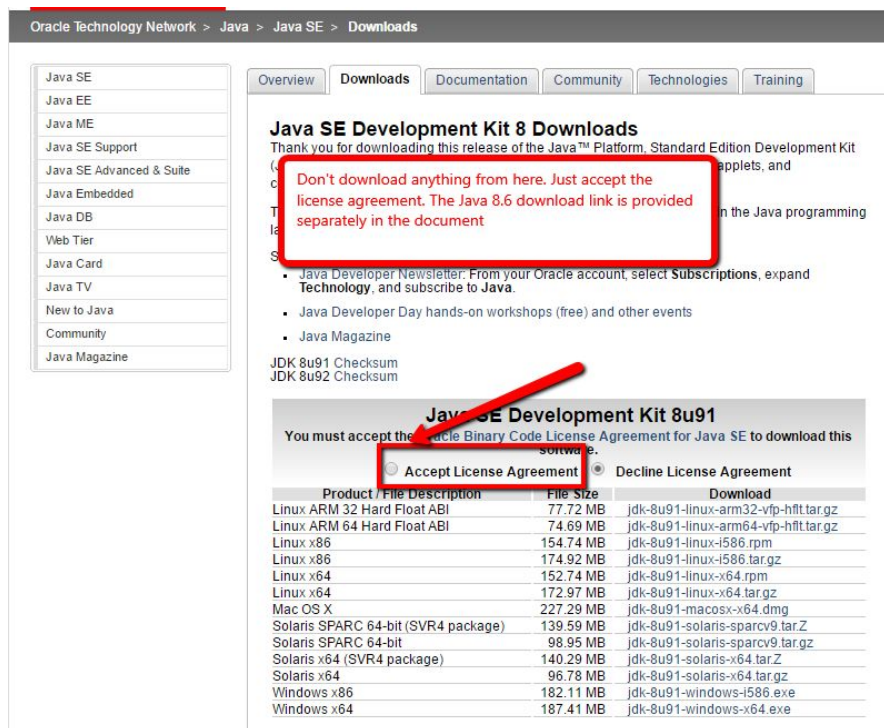
# Resources

## Java Runtime

In order to download Java from the Oracle Technology Network website, you need to go to the Oracle download page, select any product, then Accept License Agreement.

After that, you can use in another browser tab the exact URL that we provide below the next picture for Java 8.6.

For example, go to this URL just to accept the license terms. Don't download anything from here:  
<http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html>.



Oracle Technology Network > Java > Java SE > Downloads

Overview Downloads Documentation Community Technologies Training

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Thank you for downloading this release of the Java™ Platform, Standard Edition Development Kit (JDK 8u91). This release includes the Java Virtual Machine (JVM), Java Platform API classes, applets, and JavaFX classes.

**Don't download anything from here. Just accept the license agreement. The Java 8.6 download link is provided separately in the document**

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- Java Magazine

JDK 8u91 Checksum  
JDK 8u92 Checksum

### Java SE Development Kit 8u91

You must accept the Oracle Binary Code License Agreement for Java SE to download this software.

☒ Accept License Agreement ☐ Decline License Agreement

Product / File Description	File Size	Download
Linux ARM 32 Hard Float ABI	77.72 MB	jdk-8u91-linux-arm32-vfp-hflt.tar.gz
Linux ARM 64 Hard Float ABI	74.69 MB	jdk-8u91-linux-arm64-vfp-hflt.tar.gz
Linux x86	154.74 MB	jdk-8u91-linux-i586.rpm
Linux x86	174.92 MB	jdk-8u91-linux-i586.tar.gz
Linux x64	152.74 MB	jdk-8u91-linux-x64.rpm
Linux x64	172.97 MB	jdk-8u91-linux-x64.tar.gz
Mac OS X	227.29 MB	jdk-8u91-macosx-x64.dmg
Solaris SPARC 64-bit (SVR4 package)	139.59 MB	jdk-8u91-solaris-sparcv9.tar.Z
Solaris SPARC 64-bit	98.95 MB	jdk-8u91-solaris-sparcv9.tar.gz
Solaris x64 (SVR4 package)	140.29 MB	jdk-8u91-solaris-x64.tar.Z
Solaris x64	96.78 MB	jdk-8u91-solaris-x64.tar.gz
Windows x86	182.11 MB	jdk-8u91-windows-i586.exe
Windows x64	187.41 MB	jdk-8u91-windows-x64.exe

Download link: after you accepted the license agreement, you can click this link:  
<http://download.oracle.com/otn-pub/java/jdk/8u60-b27/jdk-8u60-windows-x64.exe>.

## ElasticSearch

- Elasticsearch version 2.3.2
- Elasticsearch package:  
<https://download.elastic.co/elasticsearch/release/org/elasticsearch/distribution/zip/elasticsearch/2.3.2/elasticsearch-2.3.2.zip>

## Kibana

- Kibana version 4.5.0
- Kibana plugin download page: <https://download.elastic.co/kibana/kibana/kibana-4.5.0-windows.zip>

## Configure Windows Firewall

UiPath Orchestrator uses only port 80 to communicate with the Robots (default port).

To access ElasticSearch & Kibana from other machines then you need to open the 9200 (ElasticSearch) and 5601 (Kibana) ports.



# UiPath Server Installation

## Preparing Packages and Script for Installation

1. Create a folder on your server.
2. Copy the packages in the folder.
3. Copy the script OrchestratorInstaller.ps1 in the same folder (like in the above screenshot).
4. In order to get more details about the script, open powershell console (ensure that you have rights to run scripts, if not run: Set-ExecutionPolicy Unrestricted) and enter: Get-Help .\OrchestratorInstaller.ps1.

```
PS C:\Users\andreibogdan\develop\Orchestrator\DeploymentArtifacts> Get-Help .\UiPathServerInstall.ps1

NAME
    C:\Users\andreibogdan\develop\Orchestrator\DeploymentArtifacts\UiPathServerInstall.ps1

SYNOPSIS
    This is a simple Powershell script to explain how to create help

SYNTAX
    C:\Users\andreibogdan\develop\Orchestrator\DeploymentArtifacts\UiPathServerInstall.ps1
    [[-iisWebSiteName] <String>] [[-iisWebSitePort] <String>] [-useAppPoolIdentity] [[-iisHostname]
    <String>] [[-directoryPath] <String>] [-useSQLAuthentication] [[-dbServerInstance] <String>]
    [[-mainDatabase] <String>] [[-monitoringPersistenceDB] <String>] [[-queuesDB] <String>]
    [[-elasticSearchHost] <String>] [[-elasticSearchPort] <String>] [[-kibanaPort] <String>]
    [-insecureHTTP] [-partialInstall] [[-environmentName] <String>] [<CommonParameters>]

DESCRIPTION
    Description: Publishes the UiPath FrontServer website and webapps, using prebuilt MSDeploy
    packages

    Prerequisites:
        1. Have installed Web Deploy 3+ and 'IIS Management Scripts and Tools'(Windows Features)
        2. Place the MSDeploy packages in the same folder with this script
        3. Run this script as administrator

RELATED LINKS
    http://www.uipath.com

REMARKS
    To see the examples, type: "get-help
    C:\Users\andreibogdan\develop\Orchestrator\DeploymentArtifacts\UiPathServerInstall.ps1
    -examples".
    For more information, type: "get-help
    C:\Users\andreibogdan\develop\Orchestrator\DeploymentArtifacts\UiPathServerInstall.ps1
    -detailed".
    For technical information, type: "get-help
    C:\Users\andreibogdan\develop\Orchestrator\DeploymentArtifacts\UiPathServerInstall.ps1 -full".
    For online help, type: "get-help
    C:\Users\andreibogdan\develop\Orchestrator\DeploymentArtifacts\UiPathServerInstall.ps1 -online"
```

5. Take a look at the script using any text editor (PowerShell ISE is better for syntax coloring):

```

OrchestratorInstaller.ps1 X
21
22 param(
23     # The name of the Orchestrator website, as seen in IIS
24     [String] $iisWebSiteName = 'UiPathOrchestrator',
25
26     # The port used by the Orchestrator website. If left 0, the default value will be used - 80 for HTTP, 443 for HTTPS
27     [String] $iisWebSitePort = 0,
28
29     # Flag to run the app pools with AppPoolIdentity; otherwise a Windows/AD credential will be requested
30     [Switch] $useAppPoolIdentity,
31
32     # The hostname used to access Orchestrator. Customize if you are not accessing the server with the computer name (the
33     [String] $iisHostname = $env:computername,
34
35     # The path where the application will be installed. The default is C:\Inetpub\UiPathOrchestrator
36     [String] $directoryPath = "C:\Inetpub\UiPathOrchestrator",
37
38     # Flag for using SQL Authentication
39     [Switch] $useSQLAuthentication,
40
41     # The name of the SQL Server Instance (eg: MyServer, MyServer.local, MyServer\SQLEXPRESS)
42     [String] $sqlServerInstance,
43
44     # The name of the main database
45     [String] $mainDatabase = 'UiPathPlatform',
46
47     # The name of the monitoring database
48     [String] $monitoringPersistenceDB = 'MonitoringPersistence',
49
50     # The name of the queues database
51     [String] $queuesDB = 'Queues',
52
53     # Flag for not using Elastic Search & Kibana logging
54     [Switch] $noElasticSearch,
55
56     # The URL of the ElasticSearch web service
57     [String] $elasticSearchUrl,
58
59     # The Url for thse Kibana web service
60     [String] $kibanaUrl,
61
62     # Flag for disabling HTTPS
63     [Switch] $unsecureHTTP,
64
65     # Flag for partial install. When present, you'll be able to choose which Orchestrator applications to install
66     [Switch] $partialInstall,
67
68     # If installing multiple instances on the same machine, choose different environment names
69     [String] $environmentName = ''
70 )
71

```

Note: In general, you do not have to change anything in the script. The most commonly used command line to install Orchestrator is:

.\OrchestratorInstaller.ps1 -unsecureHTTP

Parameters description:

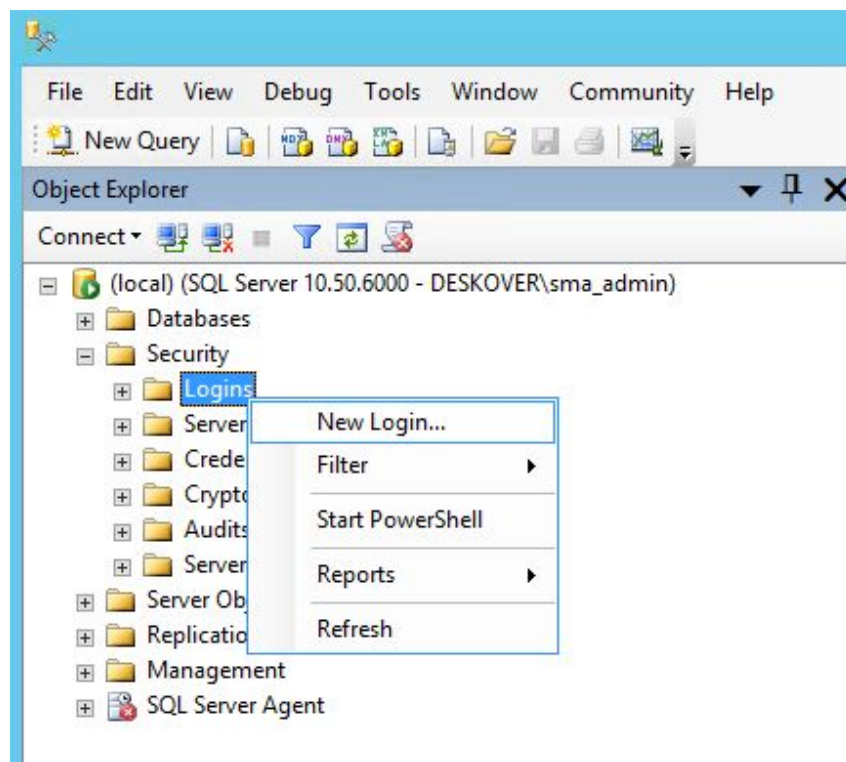
- [String] \$iisWebSiteName = 'UiPathOrchestrator', # IIS Website Name (example UiPathServer)
- [String] \$iisWebSitePort = 0, # The default value will be used - 80 for HTTP, 443 for HTTPS. If you change it make sure you open the new port in your firewall as well
- [Switch] \$useAppPoolIdentity, # Use default AppPoolIdentity or not
- [String] \$iisHostname = \$env:computername, # Customize if you access the server with other name than the one from Computer Properties
- [String] \$directoryPath = "C:\Inetpub\UiPathOrchestrator", # Default path where the application will be installed.(e.g. C:\Inetpub\UiPathOrchestrator') Change it only if you have "Inetpub" in another location.

- [Switch] \$useSQLAuthentication, # Flag for using SQL Authentication
- [String] \$dbServerInstance, # Name of SQL Instance. (eg: MyServer, MyServer.local, MyServer\SQLEXPRESS). leave it as '.' if the same machine is used for web application and SQL Server and the default port (1433) and default instance is used; otherwise use the format:
  - o 'machine\instance,port', like 'XSDB01\UiPath,1533' if another SQL Server machine, not default port, not default SQL Server instance
  - o 'machine,port', like 'XSDB01,1533' if another SQL Server machine, not default port (default is 1433)
  - o 'machine', like 'XSDB01' if another SQL Server machine, but using default port 1433 and default SQL Server instance
- [String] \$mainDatabase = 'UiPathPlatform' , # Name of main Database
- [String] \$monitoringPersistenceDB = 'MonitoringPersistence', # Name of Monitor Persistence Database
- [String] \$queuesDB = 'Queues', # Name of Queue Database
- [Switch] \$noElasticSearch, # if specified, will not set the configuration for ElasticSearch logging
- [String] \$elasticSearchUrl, # The URL of the ElasticSearch web service, including port; you can keep the default value <http://localhost:9200>; don't put computer name instead of localhost, it is not accessed from another computer
- [String] \$kibanaUrl, # URL for Kibana; don't keep the default value <http://localhost:5601>, but please provide the computer name instead of localhost; example: <http://ORCHSRV:5601>
- [Switch] \$unsecureHTTP, # if specified, will use HTTP; if not specified, will use HTTPS and will ask for the certificate
- [Switch] \$partialInstall, # Flag for partial install. When is present it will let you choose what applications to install
- [String] \$environmentName = " # Environment name. Should be used only when there is already an Orchestrator installed and you want to install another instance - another Orchestrator. For example if you want to create a "test" environment. The prefix is used in the following names:
  - o Database names for all 3 databases
  - o Application Pool names
  - o Web Site name

The following parameters are important in relation to authentication to SQL Server database:

- `useAppPoolIdentity`, default `FALSE` - The web services and web application will run under the default application pool identity (if `$true`) or under a custom identity which represents a domain account (a regular domain user) if `$false`.

The first case (`$useAppPoolIdentity = $true`) is applicable only if SQL Server machine is the same as the web application machine. After running this script, the SQL Server administrator should add the following users under Security -> Logins, with the Server Role `dbcreator`.



**Login - New**

Select a page

- General
- Server Roles
- User Mapping
- Securables
- Status

Script Help

Login name: IIS APPPOOL\UiPath.Server.Configuration Search...

☒ Windows authentication

☐ SQL Server authentication

Password:

Confirm password:

☐ Specify old password

Old password:

☒ Enforce password policy

☒ Enforce password expiration

☒ User must change password at next login

☐ Mapped to certificate

☐ Mapped to asymmetric key

☐ Map to Credential  Add

Mapped Credentials

Credential	Provider
------------	----------

Remove

Default database: master

Default language: <default>

OK Cancel

**Connection**

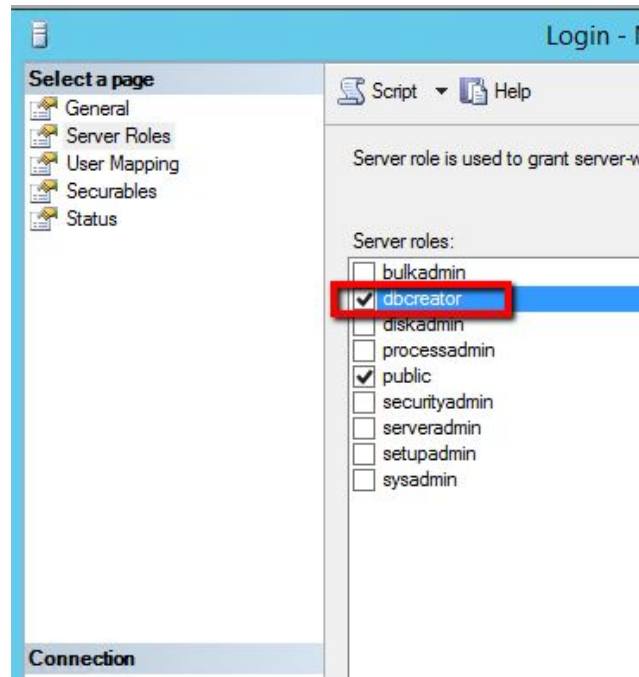
Server: (local)

Connection: DESKOVER\sma\_admin

[View connection properties](#)

**Progress**

Ready



Following the method described above, the following users should be added:

- IIS APPPOOL\UiPath.Server.Configuration
- IIS APPPOOL\UiPath.Server.Deployment
- IIS APPPOOL\UiPath.Server.Logging
- IIS APPPOOL\UiPath.Server.Monitoring
- IIS APPPOOL\UiPath.Server.Web
- IIS APPPOOL\UiPath.Server.Queues

As stated in the information displayed by the script (OrchestratorInstaller.ps1), after the UiPathPlatform database is created you need to give read and write access to this database to the following users:

- IIS APPPOOL\UiPath.Server.Configuration
- IIS APPPOOL\UiPath.Server.Monitoring



Ensure that the following users have these permissions on the databases:

User	Database	Permission
IIS APPPOOL\UiPath.Server.Configuration	UiPathPlatform	Create, Write, Read
IIS APPPOOL\UiPath.Server.Monitoring	UiPathPlatform	Write, Read
IIS APPPOOL\UiPath.Server.Monitoring	MonitoringPersistence	Create, Write, Read
IIS APPPOOL\UiPath.Server.Queues	Queues	Create, Write, Read

For each of these 2 users (IIS APPPOOL\UiPath.Server.Monitoring and IIS APPPOOL\UiPath.Server.Configuration), double-click to edit the properties, go to “User Mapping”, select the UiPathPlatform database and give the user the dbowner role on this database:

**Login Properties - IIS APPPOOL\UiPath.Server.Monitoring**

Select a page: General, Server Roles, **User Mapping**, Securables, Status

Script Help

Users mapped to this login:

Map	Database	User	Default Schema
<input type="checkbox"/>	master		
<input type="checkbox"/>	model		
<input type="checkbox"/>	msdb		
<input type="checkbox"/>	Queues		
<input type="checkbox"/>	tempdb		
<input checked="" type="checkbox"/>	UiPathPlatform	IIS APPPOOL\UiPath.S...	...

☐ Guest account enabled for: UiPathPlatform

Database role membership for: UiPathPlatform

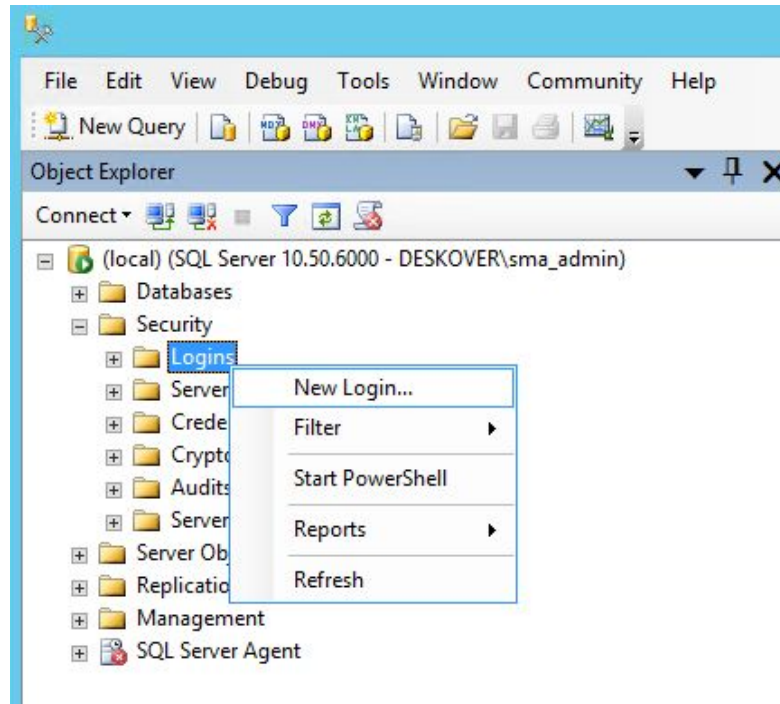
- ☐ db\_accessadmin
- ☐ db\_backupoperator
- ☐ db\_datareader
- ☐ db\_datawriter
- ☐ db\_ddladmin
- ☐ db\_denydatareader
- ☐ db\_denydatawriter
- ☒ db\_owner
- ☐ db\_securityadmin
- ☒ public

Connection: Server: localhost, Connection: ORCHWK1\Administrator, View connection properties

Progress: Ready

OK Cancel

In the second case (\$useAppPoolIdentity = \$false), because of \$useSQLAuthentication=\$true, after running this script, the SQL Server administrator should add the dedicated domain user under Security > Logins, with the Server Role dbcreator.





### Login - New

Select a page

- General
- Server Roles
- User Mapping
- Securables
- Status

Script Help

Login name:  Search...

☒ Windows authentication  
☐ SQL Server authentication

Password:   
 Confirm password:   
☐ Specify old password  
 Old password:

☒ Enforce password policy  
☒ Enforce password expiration  
☒ User must change password at next login

☐ Mapped to certificate   
☐ Mapped to asymmetric key   
☐ Map to Credential  Add

Credential	Provider

Remove

Default database:   
 Default language:

OK Cancel

Connection

Server: (local)  
 Connection: DESKOVER\sma\_admin  
[View connection properties](#)

Progress

Ready

### Login - Server Roles

Select a page

- General
- Server Roles
- User Mapping
- Securables
- Status

Script Help

Server role is used to grant server-wide permissions to the login.

Server roles:

- ☐ bulkadmin
- ☒ dbcreator
- ☐ diskadmin
- ☐ processadmin
- ☒ public
- ☐ securityadmin
- ☐ serveradmin
- ☐ setupadmin
- ☐ sysadmin

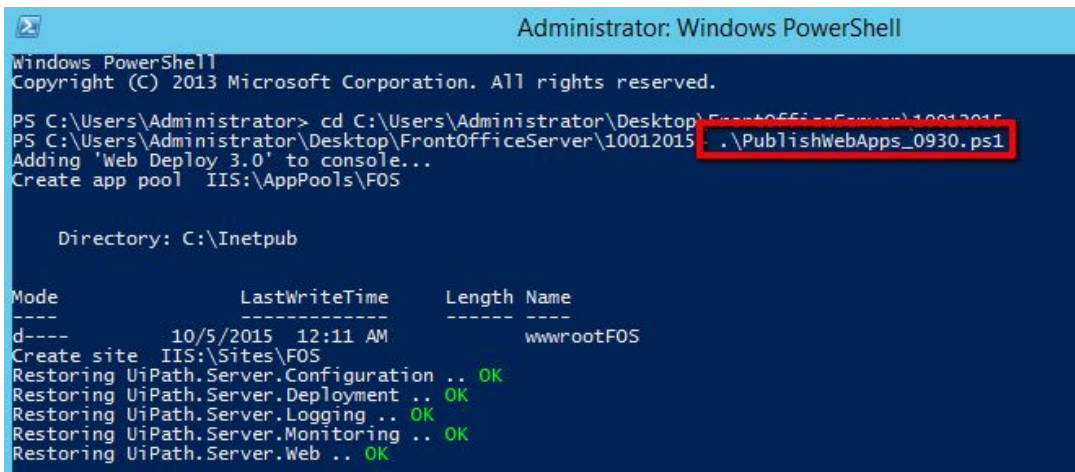
Connection

## Installation

1. Open Windows PowerShell as administrator.
2. Navigate to your folder (created on step 1).
3. Before running the script, decide:
  - whether you want to use the Application Pool identity or Windows identity (flag `useAppPoolIdentity` to be specified only if you want to use the Application Pool identity ).
  - whether you want to use SQL authentication or Windows Integrated Authentication (flag `useSQLAuthentication` to be specified only if you want to use SQL authentication).
  - be sure you know the name of the SQL server machine, the name of the instance (if it's not the default one) and the SQL Server TCP port (if it's not the default one 1433) (you will be asked to provide the value for `dbServerInstance`).
4. Run `.\OrchestratorInstaller.ps1 -unsecureHTTP`.

If asked, enter the password for database.

5. Press Enter.



```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) 2013 Microsoft Corporation. All rights reserved.

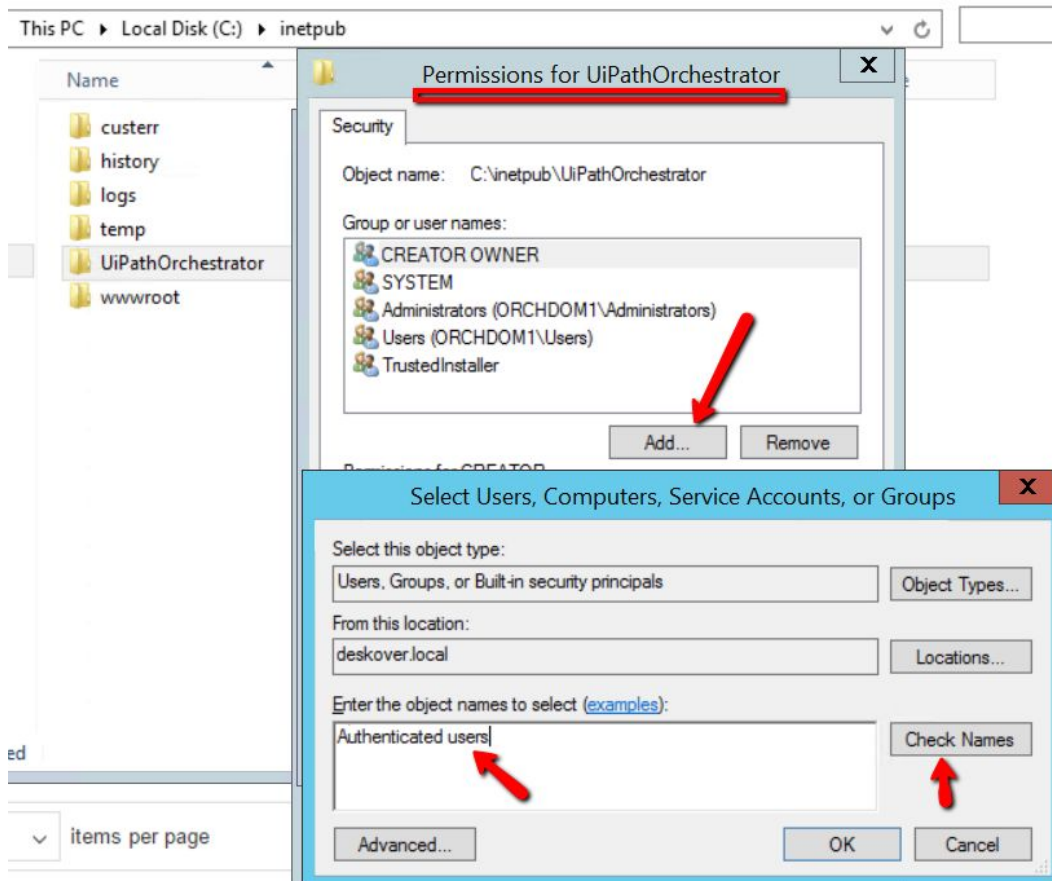
PS C:\Users\Administrator> cd C:\Users\Administrator\Desktop\FrontOfficeServer\10012015
PS C:\Users\Administrator\Desktop\FrontOfficeServer\10012015> .\PublishWebApps_0930.ps1
Adding 'Web Deploy 3.0' to console...
Create app pool IIS:\AppPools\FOS

Directory: C:\inetpub

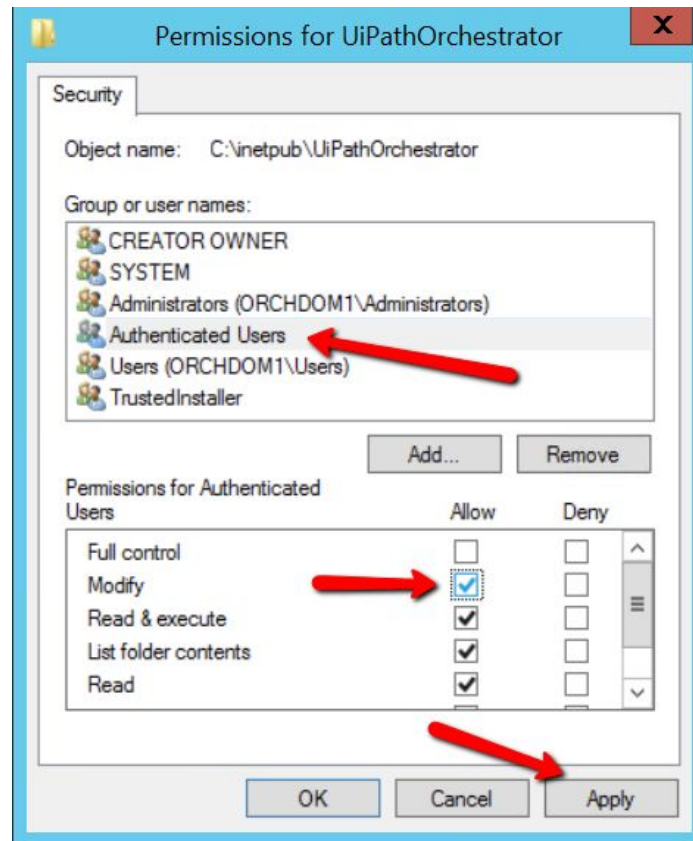
Mode                LastWriteTime         Length Name
----                -
d-----          10/5/2015 12:11 AM             wwwrootFOS
Create site IIS:\Sites\FOS
Restoring UiPath.Server.Configuration .. OK
Restoring UiPath.Server.Deployment .. OK
Restoring UiPath.Server.Logging .. OK
Restoring UiPath.Server.Monitoring .. OK
Restoring UiPath.Server.Web .. OK
```

6. Open IIS and refresh the Sites.
7. Select UiPathOrchestrator site and restart the IIS.
8. Open powershell as administrator and restart iis service (iisreset)
9. Give "Modify" permission to "Authenticated users" on `c:\inetpub\UiPathOrchestrator`:

- Right on folder `c:\inetpub\UiPathOrchestrator` and select Properties
- Go to the Security tab and click Edit
- Click “Add” and then type “Authenticated users” in the field as shown below:

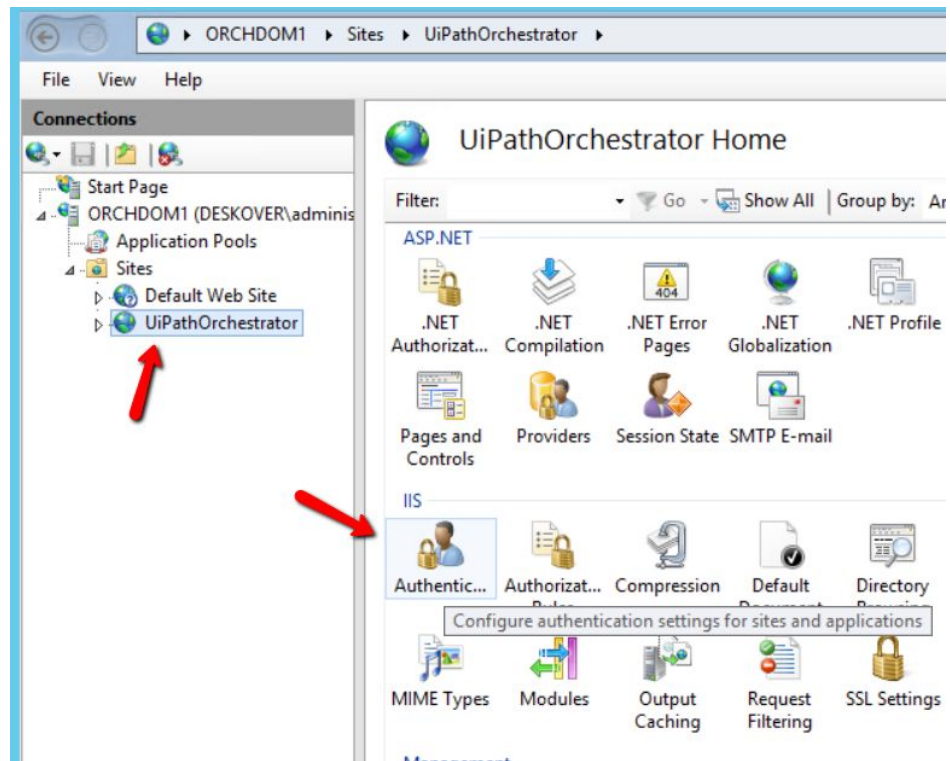


- Click on Check Names and then on OK
- Check (activate) the Modify permission and click Apply

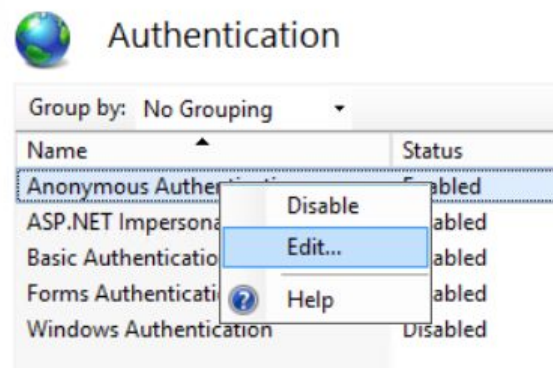


10. Set the application pool identity for Anonymous Authentication for each web application/

- In IIS, expand the web site UiPathOrchestrator click on UiPath.Server.Configuration and double click on Authentication.



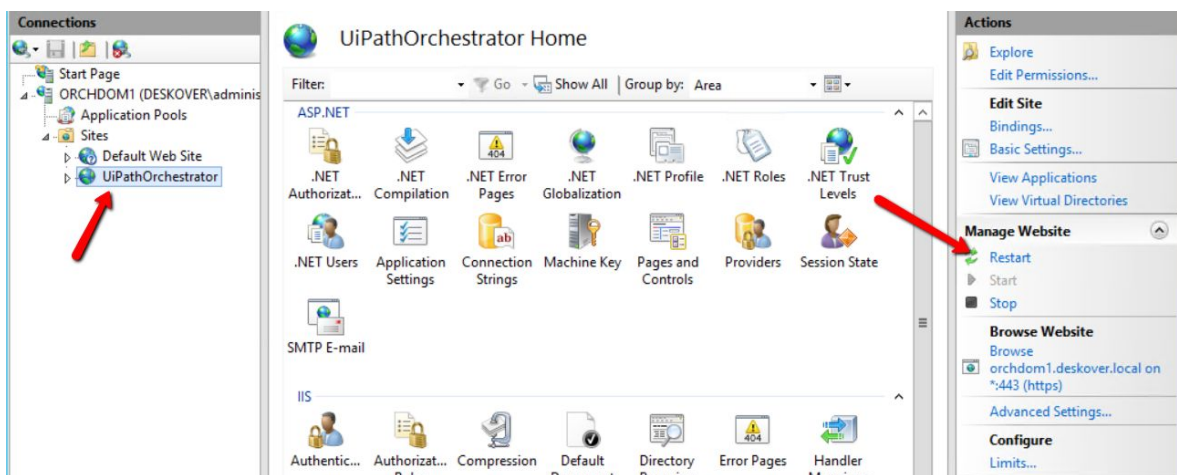
- Right click on Anonymous Authentication and select "Edit".



- Select the option "Application pool identity" and click OK.



- Restart the site – select the site on the left and then click the “Restart” link on the right, under “Manage Website”

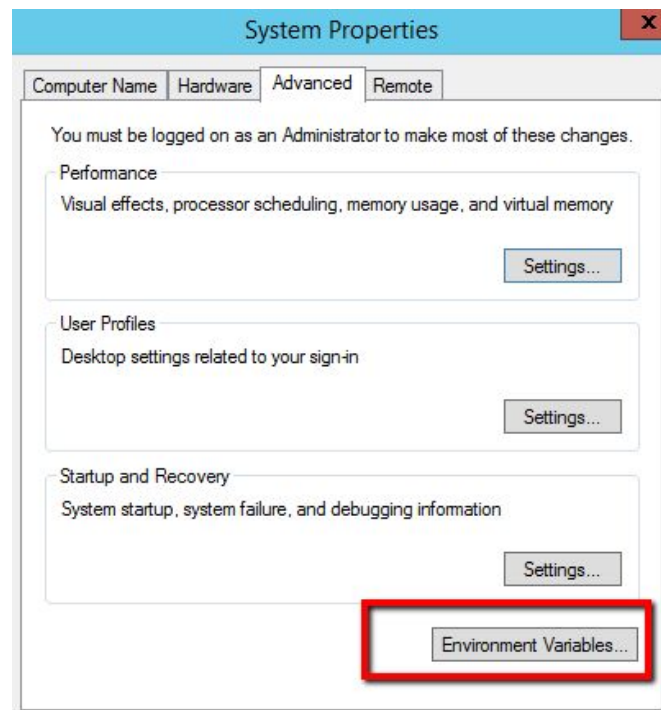


# ElasticSearch and Kibana

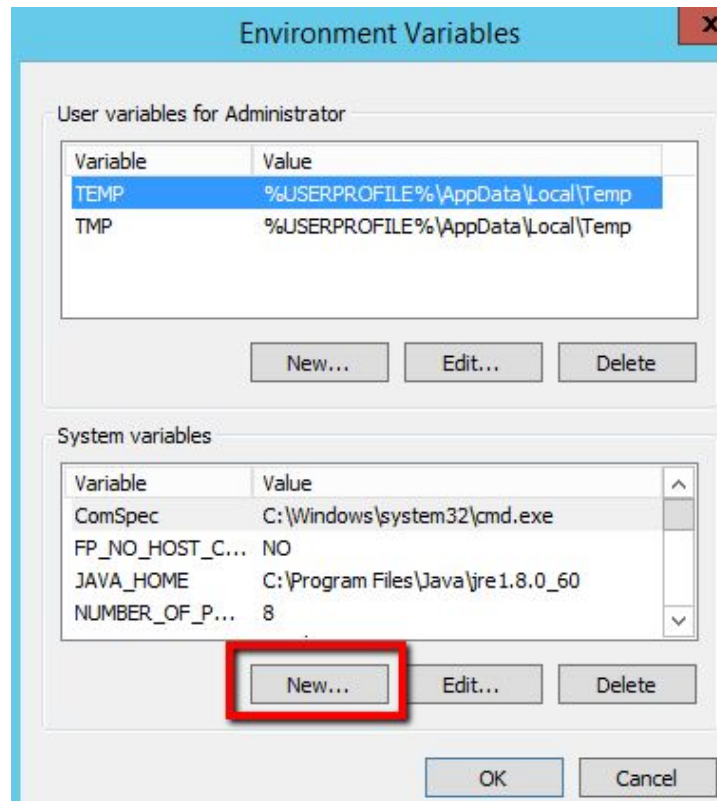
## Setting Up JAVA\_HOME

If the JAVA\_HOME variable is not set, please follow the next steps:

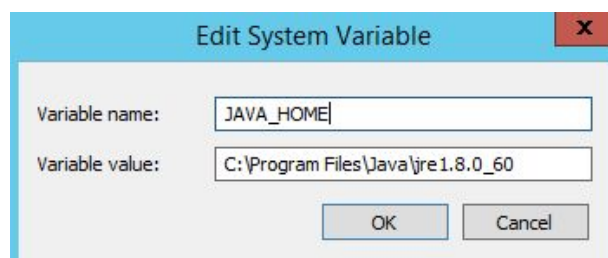
1. Edit environment variables > select "Edit the system environment variables"
2. On the Advanced tab, click Environment Variables.



3. Under the System Variables section, click New.



4. Set the variable and click OK.



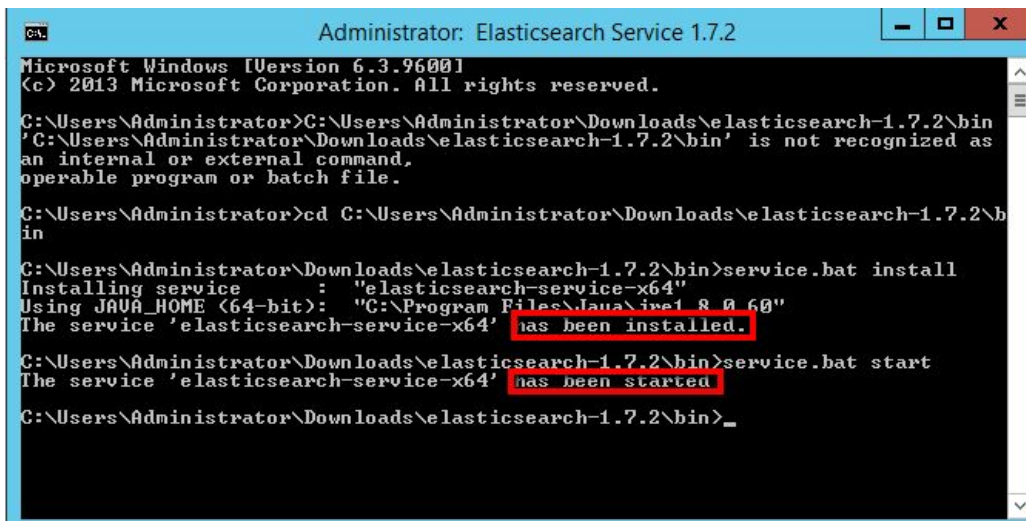


## Installing Elasticsearch

1. Unzip the elasticsearch package.

**Note:** When unzipping, do not create a new folder “elasticsearch-x.y.z” because the archive already contains the folder called “elasticsearch-x.y.z”.

2. Open a command prompt (Run as administrator) and go to the folder c:\elasticsearch-2.3.2\bin
3. Run “service.bat install” (install elasticsearch as service).
4. Run: “service.bat start”.



```
Administrator: Elasticsearch Service 1.7.2
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>C:\Users\Administrator\Downloads\elasticsearch-1.7.2\bin
'C:\Users\Administrator\Downloads\elasticsearch-1.7.2\bin' is not recognized as
an internal or external command,
operable program or batch file.

C:\Users\Administrator>cd C:\Users\Administrator\Downloads\elasticsearch-1.7.2\bin

C:\Users\Administrator\Downloads\elasticsearch-1.7.2\bin>service.bat install
Installing service : "elasticsearch-service-x64"
Using JAVA_HOME (64-bit): "C:\Program Files\Java\jre1.8.0_60"
The service 'elasticsearch-service-x64' has been installed.

C:\Users\Administrator\Downloads\elasticsearch-1.7.2\bin>service.bat start
The service 'elasticsearch-service-x64' has been started

C:\Users\Administrator\Downloads\elasticsearch-1.7.2\bin>
```

For test, open: <http://localhost:9200/>.



```
{
  "status" : 200,
  "name" : "Stevie Hunter",
  "cluster_name" : "elasticsearch",
  "version" : {
    "number" : "1.7.2",
    "build_hash" : "e43676b1385b8125d647f593f7202acbd816e8ec",
    "build_timestamp" : "2015-09-14T09:49:53Z",
    "build_snapshot" : false,
    "lucene_version" : "4.10.4"
  },
  "tagline" : "You Know, for Search"
}
```

## Installing Kibana

1. Unzip “kibana-x.y.z-windows.zip” archive.

**Note:** When unzipping, do not create a new folder “kibana-x.y.z-windows” because the archive already contains the folder called “kibana-x.y.z-windows”.

2. Start KIBANA: in a command prompt go to the folder C:\kibana-4.5.0-windows\bin and run kibana.bat.
3. Test: <http://servername:5601>.

## Setting Kibana as Windows Service

Open a command prompt as administrator and type:

```
sc create "ElasticSearch Kibana 4.5.0" binPath= "C:\kibana-4.5.0-windows\bin\kibana.bat" depend=
"elasticsearch-service-x64" start= auto
```

**Note:** Be careful that each parameter has the “=” sign collated at the end without a space, then there is a space before the value of the parameter.

Do not expect to see the Kibana service running. Because the underlined executable of the service is a BAT file, it will not appear as Running.

However, the BAT file will start a program called “node.exe”. If that process is running, the Kibana service and web site is working. Test with this URL: <http://servername:5601>.

## Appendix 1 - Find the installed .NET version

### Find .NET Framework versions by viewing the registry (.NET Framework 1-4)

1. On the Start menu, choose Run.
2. In the Open box, enter regedit.exe. (You must have administrative credentials to run regedit.exe.)
3. In the Registry Editor, open the following subkey:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\NET Framework Setup\NDP

The installed versions are listed under the NDP subkey. The version number is stored in the Version entry. For the .NET Framework 4 the Version entry is under the Client or Full subkey (under NDP), or under both subkeys.

**Note:** The "NET Framework Setup" folder in the registry does not begin with a period.

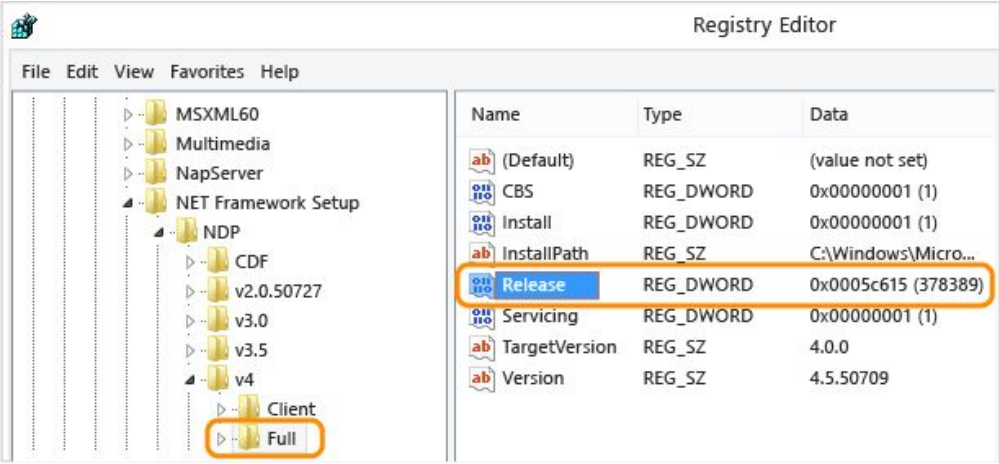
### Find .NET Framework versions by viewing the registry (.NET Framework 4.5 and later)

1. On the Start menu, choose Run.
1. In the Open box, enter regedit.exe. (You must have administrative credentials to run regedit.exe.)
2. In the Registry Editor, open the following subkey:

HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\NET Framework Setup\NDP\v4\Full. Note that the path to the Full subkey includes the subkey Net Framework rather than .NET Framework.

**Note:** If the Full subkey is not present, then you do not have the .NET Framework 4.5 or later installed.

Check for a DWORD value named Release. The existence of the Release DWORD indicates that the .NET Framework 4.5 or newer has been installed on that computer.



The value of the Release DWORD indicates which version of the .NET Framework is installed.

Version of the Release DWORD	Version
378389	.NET Framework 4.5
378675	.NET Framework 4.5.1 installed with Windows 8.1 or Windows Server 2012 R2
378758	.NET Framework 4.5.1 installed on Windows 8, Windows 7 SP1, or Windows Vista SP2
379893	.NET Framework 4.5.2
On Windows 10 systems: 393295 On all other OS versions: 393297	.NET Framework 4.6
On Windows 10 November Update systems: 394254 On all other OS versions: 394271	.NET Framework 4.6.1
On Windows 10 Insider Preview Build 14295: 394747 On all other OS versions: 394748	.NET Framework 4.6.2 Preview

## Appendix 2 - Creating an Index Pattern to Connect to Elasticsearch

1. Go to the Settings > Indices tab.
2. Specify an index pattern that matches the name of one or more of your Elasticsearch indices. By default, Kibana guesses that you're working with log data being fed into Elasticsearch by Logstash. For example you can enter: logs\*

### Configure an index pattern

In order to use Kibana you must configure at least one index pattern. Index patterns are used to identify the Elasticsearch index to run search and analytics against. They are also used to configure fields.



☒ Index contains time-based events  
☐ Use event times to create index names [DEPRECATED]

**Index name or pattern**  
Patterns allow you to define dynamic index names using \* as a wildcard. Example: logstash-\*

log\*

☐ Do not expand index pattern when searching (Not recommended)  
By default, searches against any time-based index pattern that contains a wildcard will automatically be expanded to query only the indices that contain data within the currently selected time range. Searching against the index pattern logstash-\* will actually query elasticsearch for the specific matching indices (e.g. logstash-2015.12.21) that fall within the current time range.

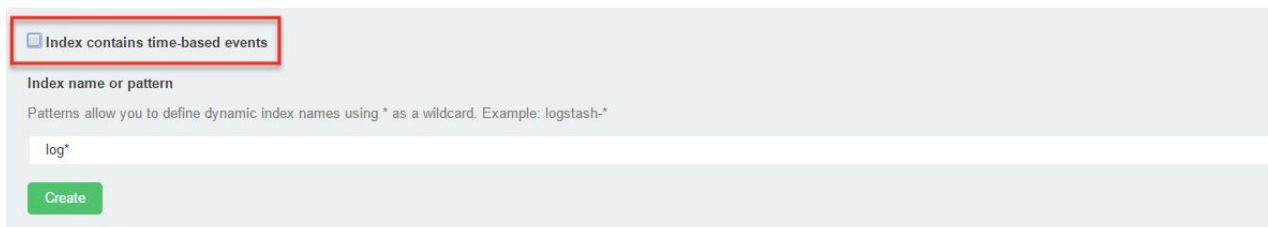
Time-field name  refresh fields

Create

3. If your index contains a timestamp field that you want to use to perform time-based comparisons, select the Index contains time-based events option and select the index field that contains the timestamp. Kibana reads the index mapping to list all of the fields that contain a timestamp.

### Configure an index pattern

In order to use Kibana you must configure at least one index pattern. Index patterns are used to identify the Elasticsearch index to run search and analytics against. They are also used to configure fields.



☐ Index contains time-based events

**Index name or pattern**  
Patterns allow you to define dynamic index names using \* as a wildcard. Example: logstash-\*

log\*

Create

4. By default, Kibana restricts wildcard expansion of time-based index patterns to indices with data within the currently selected time range. Click Do not expand index pattern when search to disable this behavior.
5. Click Create to add the index pattern.