

TIBCO Statistica®

Configuration for Windows Server 2019

Version 14.0

December 2020



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Product-Specific Documentation

Documentation for TIBCO Statistica® is available on the [TIBCO Statistica® Product Documentation](#) page.

The following documents for this product can be found on the TIBCO Documentation site:

- *TIBCO Statistica® Release Notes*
- *TIBCO Statistica® Installation*
- *TIBCO Statistica® Quick Reference*
- *TIBCO Statistica® Product Traceability*
- *TIBCO Statistica® Configuration for Windows Server 2019*
- *TIBCO Statistica® Data Entry Administration*
- *TIBCO Statistica® Server Administrator's Guide*
- *TIBCO Statistica® Options Configuration*
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Overview

This guide provides an overview with details and configuration steps of a number of Windows operating system settings. These settings are relevant to helping the performance with TIBCO Statistica® Server, TIBCO Statistica® Monitoring & Alerting Server (MAS Server), or Statistica® Desktop on a Citrix or Microsoft RDS Server. This document is targeted for an audience with experience in Windows server administration and is written for Microsoft Windows Server 2016.

The system requirements for Statistica® products define the amount of storage space required to install the application files. These configurations assume that an application hard drive (D:) is available and separate from the system drive and has sufficient storage space for the application files and for storing all files created and used by the application. The additional size required by the application drive is dependent on each user's sample. The use is defined by the amount of data being analyzed (temporarily extracted from external data store), data management performed, reporting being generated and stored to the server, and the number of concurrent and overall users.



Server is part of product name. **server** is a computer, hardware, or VM. For example, The user installed TIBCO Statistica Server on the Microsoft Windows Server on a Server.

Process Scheduling Caching Options - Overview

The processor scheduling caching options are set for Windows Server 2016 and these can affect the server performance.

If you are using the server for Statistica® Server product and MAS installations, adjust the best performance of background services. If you are using the server for Statistica® Desktop (Citrix or Terminal Service use), adjust the best performance of programs.

Two types of installations are available for a server operating system:

- **Author software:** You can log into the server to start Statistica application or Statistica Enterprise Manager application. You can also perform ad-hoc analysis or create analytic workspaces. They create Data Entry Setups (web forms) or other analytic objects.



Installations for client application must be done on a server rather than on stand alone PC's or laptop for confidential reasons.

- **Operations software:** This is a job server. An analytic workspace is scheduled to execute on the server or you can log into a web browser to execute the workspace and review results. For example, you can schedule Workspace X to run at fixed time, day and email it to a configured person.

Configuring Process Scheduling Caching Options

Prerequisites

You must log in as an administrator with no other users logged in.

Procedure

1. Go to the **Control Panel > System > System page**, click the **Advanced system settings** link.
2. In the System Properties dialog box, on the **Advanced** tab, click the **Settings** button under the Performance item.
3. In the Performance Options dialog box, on the **Advanced** tab, select the **corresponding Processor scheduling option** and click **OK**.
4. After all the configurations are completed, reboot the server.

Noninteractive Desktop Heap Size - Overview

For Statistica® Server and MAS Server installations, review the non-interactive desktop heap size setting on the Windows operating system to ensure that sufficient resources are available.

If the desktop heap size is too small, you might see error messages such as, `Out of memory or system resources`.

Jobs might complete normally in an interactive mode but they fail as a scheduled job. By default, Services (scheduled job) can use a small amount of resources as compared to what logged in users can use in Windows operating system.



For more information about Understanding Windows Stations, Sessions, Desktop concepts, which are helpful when troubleshooting memory issues, see [Window-stations](#) or [Desktop-heap-overview](#).

You can run the WebStatistica and MAS Service using Statistica® Server and MAS Server installations respectively. These are both run in the windows station that do not interact with the user, the non-interactive desktop heap size need to be reviewed to accommodate the available server's hardware resources targeted for the Statistica® application use.

Open regedit and the desktop heap size is located in the `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\SubSystems` key under the `Windows` value. The value is a very long string and contains the text `SharedSection=` followed by 3 comma-delimited numbers, or if using Terminal Server Edition (or Citrix), it is followed with 4 comma-delimited numbers. The 3rd numeric value is the non-interactive desktop heap size and is usually defaulted to 512 (512KB of heap size).

These values generally must not exceed 8MB (8192). Also, in order to fine-tune the performance of the system, you can increase at 512KB increments and these are only enough to alleviate identified resource problems found.



For more information on the Windows Registry Editor and how to back up and restore it, refer [Microsoft Article ID 256986 Description of the Microsoft Windows registry at Microsoft Support](#).

You can use the following table as guidance for setting this value by using Windows Server 2016 operating system when used for Statistica Server or MAS Server:

Available RAM	Non-Interactive Desktop Heap Size
4GB	3072
8GB	4078
16GB+	8192

Configuring Non-Interactive Desktop Heap Size

Procedure

1. To set the third comma delimited value to an appropriate numeric value, using 512 increments, edit the `Windows` value in the `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\SubSystems` registry key.
2. After all configurations are completed, reboot the server.

System TEMP and TMP Environment Variable - Overview

For Statistica® Server and MAS Server installations, review the system level **TEMP** and **TMP** environment variable settings on the Windows operating system to ensure that sufficient hard drive resources are available.

Statistica® Server and MAS Server installations run the **WebStatistica** and **MAS Service** in the context of the system level user. Hence, the temporary file location is defined by the **System TEMP** and **TMP** environment variable.

By default, these environment variables are set to a **TEMP** folder in the operating system's default root drive (C:\TEMP). You can use a different hard drive than the operating system drive (if a secondary application drive called D: is available, then the temporary folder must be set to D:\TEMP).

Configuring System TEMP and TMP Environment Variable

Prerequisites

You must log in as an administrator with no other users logged in.

Procedure

1. On the application hard drive, create a new folder called **TEMP**.



Ensure that the user running the WebStatistica or MAS Service (SYSTEM) has full access to the new TEMP folder.

2. Go to the **Control Panel > System > System** page, click **Advanced system settings** link.
3. In the System Properties dialog box, on the Advanced tab, click the **Environment Variables** button.
4. In the **System variables listing**, edit the **TMP** variable, and set it to **TEMP** on the application drive (D:\TEMP).
5. In the **System variables listing**, edit the **TEMP** variable, and set it to **TEMP** on the application drive (D:\TEMP).
6. After all configurations are completed, reboot the server.

User Profiles - Overview

If you are using a cloud environment (like Windows instance in AWS EC2), or specially configured profile management, do not edit the user profile as it causes the system to no longer work. These cloud environments, and other specially configured profile management systems, have options to ensure that profile space can be expanded, or have other similar options.

For example, for Windows on AWS EC2, the root volume can be expanded if required, <https://aws.amazon.com/premiumsupport/knowledge-center/expand-ebs-root-volume-windows/>.

For installations of Statistica® desktop running on a **Citrix**, or **Terminal Services** instance, review the user profile location settings on the Windows operating system to ensure that sufficient hard drive resources are available.

The Statistica® desktop application runs in the context of each logged in user and stores files containing temporary data, user settings, and other cached information into the appropriate user profile location.

By default, the profile location is located in the operating system's default root drive (C:\Users). You can use a different hard drive than the operating system drive (if a secondary application drive called D: is available, then move the profile location to D:\Profiles).



If using roaming profiles, the profile data is already stored on a separate storage location centrally located on the network (do not change this configuration).

Configuring User Profiles

Prerequisites

You must log in as an administrator on a clean Windows installation (no other applications installed that require a static location) with no other users logged in.

Procedure

1. On the application hard drive, create a new folder called **Profiles**.
Ensure that you have Full control permission to the new **Profiles** folder and its subfolders.
2. To use the new **Profiles** folder (ProfilesDirectory=D:\Profiles\Users), edit the 4 registry values under HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\ProfileList containing %SystemDrive%.
3. For any child registry keys containing user profile information (identified by keys with long names), edit ProfileImagePath registry value to use new location.
4. Move all the directories, except for the profile folder for the currently logged in administrator, under the corresponding folder in the **Profiles** folder (move all files and folders, including hidden ones, under C:\ProgramData to D:\Profiles\ProgramData).



You must have access to another administrator account (if not, then create a temporary local administrator user account).

5. Reboot the server (to release the locks on files and folders in the first administrator account) and log in as the secondary administrator.
6. Move all the files and folders (including hidden ones) for the first administrator account (under C:\Users\Administrator to D:\Profiles\Users\Administrator).

NET Framework - Overview

For installations of Statistica®, the .NET Framework 3.5 and 4.6 are required.



.NET 2.0 is also required and is part of the .NET Framework 3.5 features installed through the Windows Server 2016 server roles.

Configuring .NET Framework

Prerequisites

You must log in as an administrator.

Procedure

1. Launch the **Add Roles and Features** Wizard. Follow the Wizard prompts and select the option to install a new role on the application server.



Ensure that the options for .NET Framework 3.5. and 4.6 are selected.

2. To add the feature, click the **Next and Install** button.

IIS Configuration - Overview

For installations of Statistica® Server, Statistica® Document Management System, and Data Entry Server, IIS is used as the Web portal and must be installed and configured before running the installation process. The Statistica® installation process creates the necessary websites and configures them for use on the server.

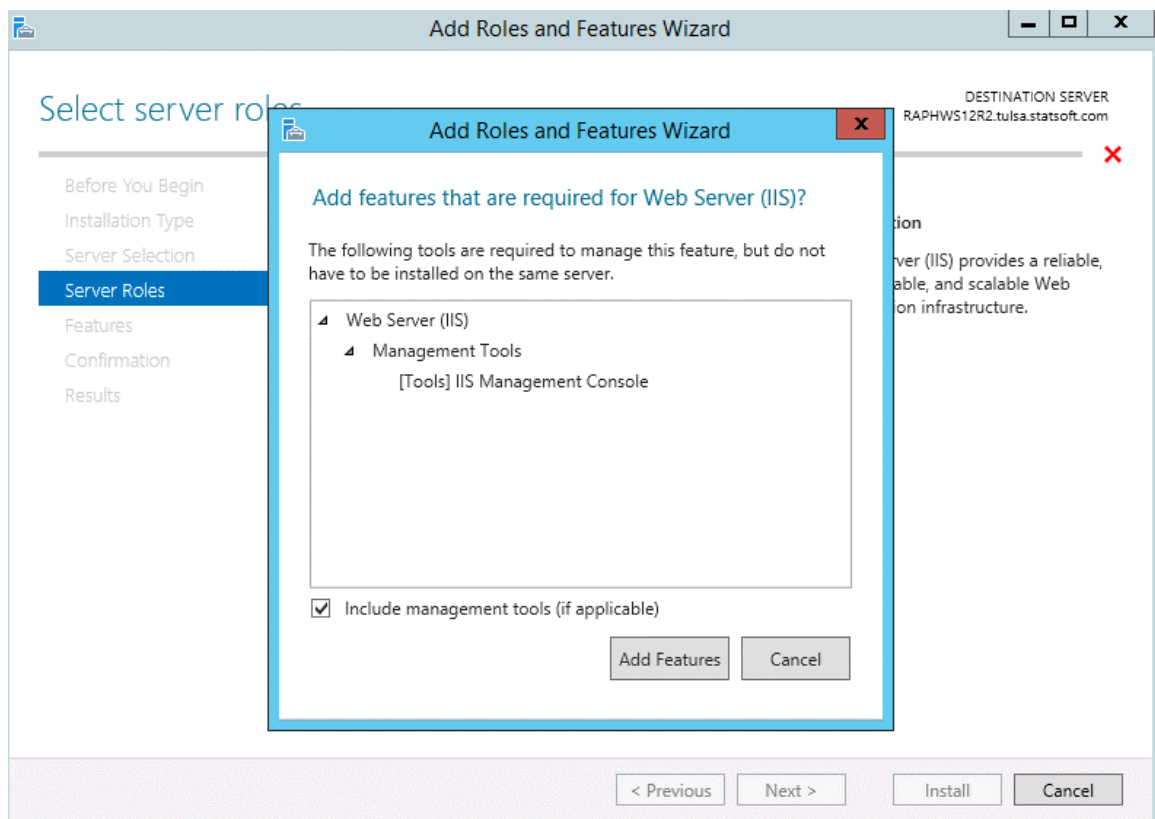
Configuring IIS

Prerequisites

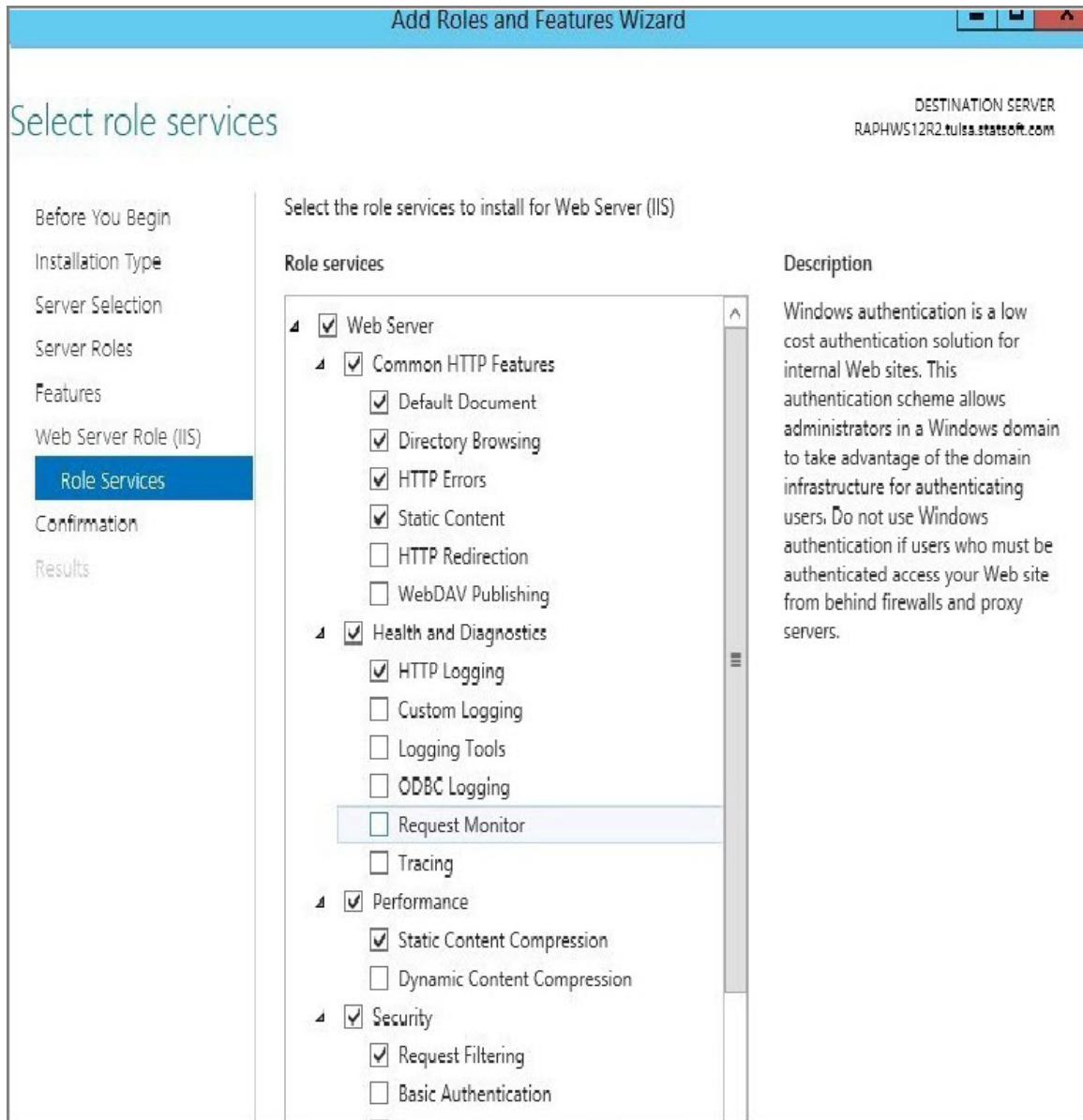
You must log in as an administrator.

Procedure

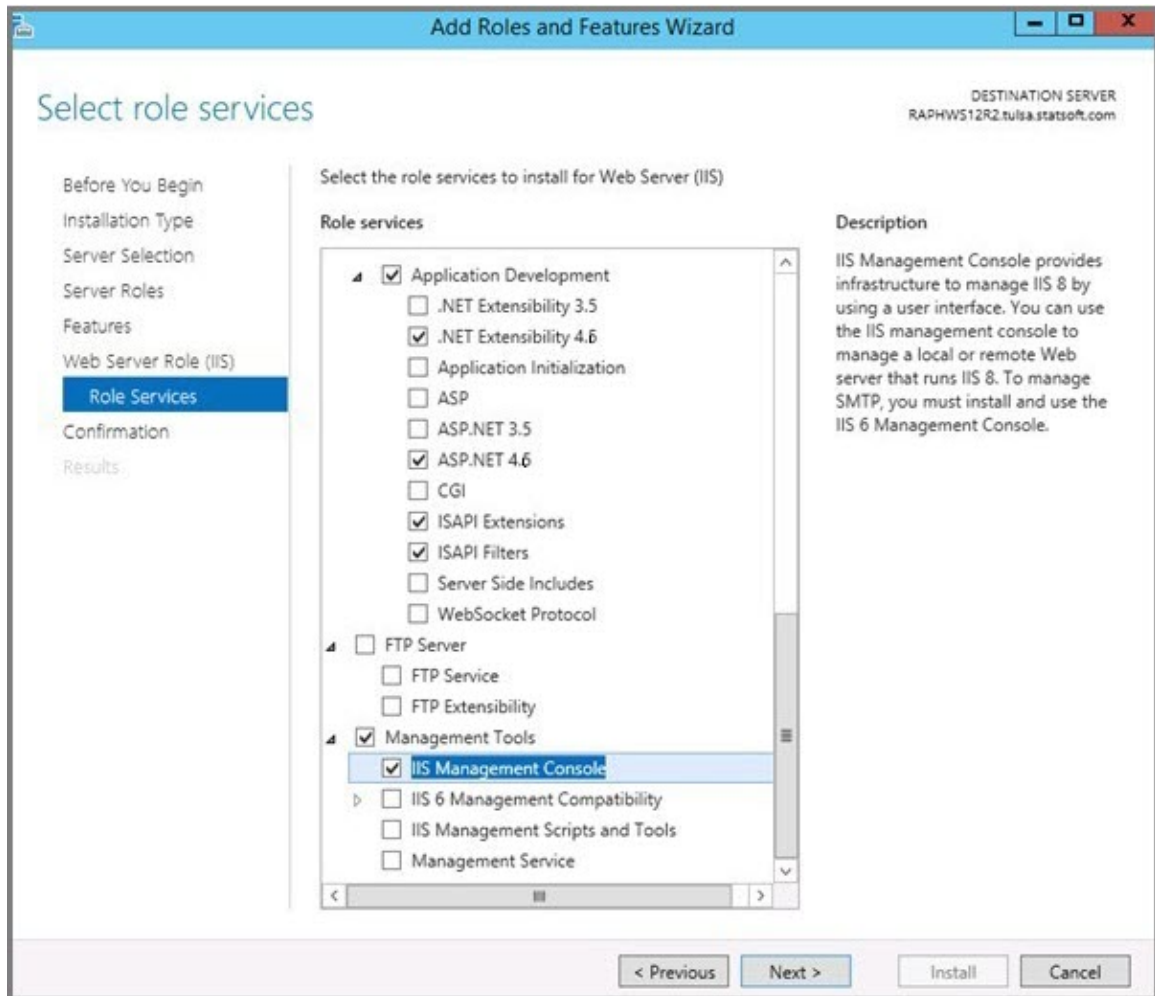
1. Launch the **Add Roles and Features** Wizard. Follow the Wizard prompts and select the option to install a new role on the application server.
2. To add the features, select the option for the **Web Server (IIS)** in the list of Roles.



3. If you are installing for Data Entry Server, expand the **.NET 4.6 Framework** features and select the **HTTP Activation** option and accept its required components.
4. Continue to click **Next** and go to **Web Server Role > Role Services** and select the items as mentioned in the following image:



5. To complete the installation of IIS, continue to click the **Next** button and then click **Install**.



Statistica Data Entry Server - Overview

For installations of Web Data Entry running on the application server, in addition to the base IIS features, additional IIS features and .NET Framework 4.6 are required too.

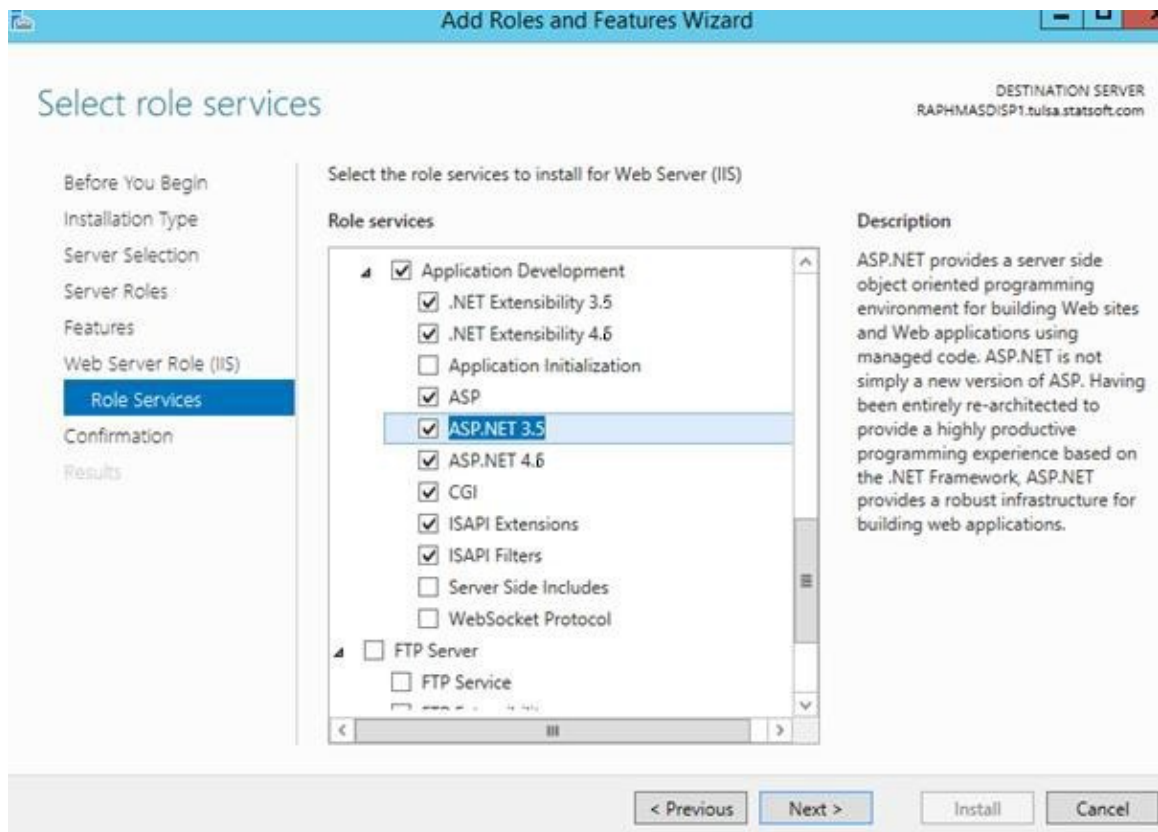
Configuring Statistica Data Entry Server

Prerequisites

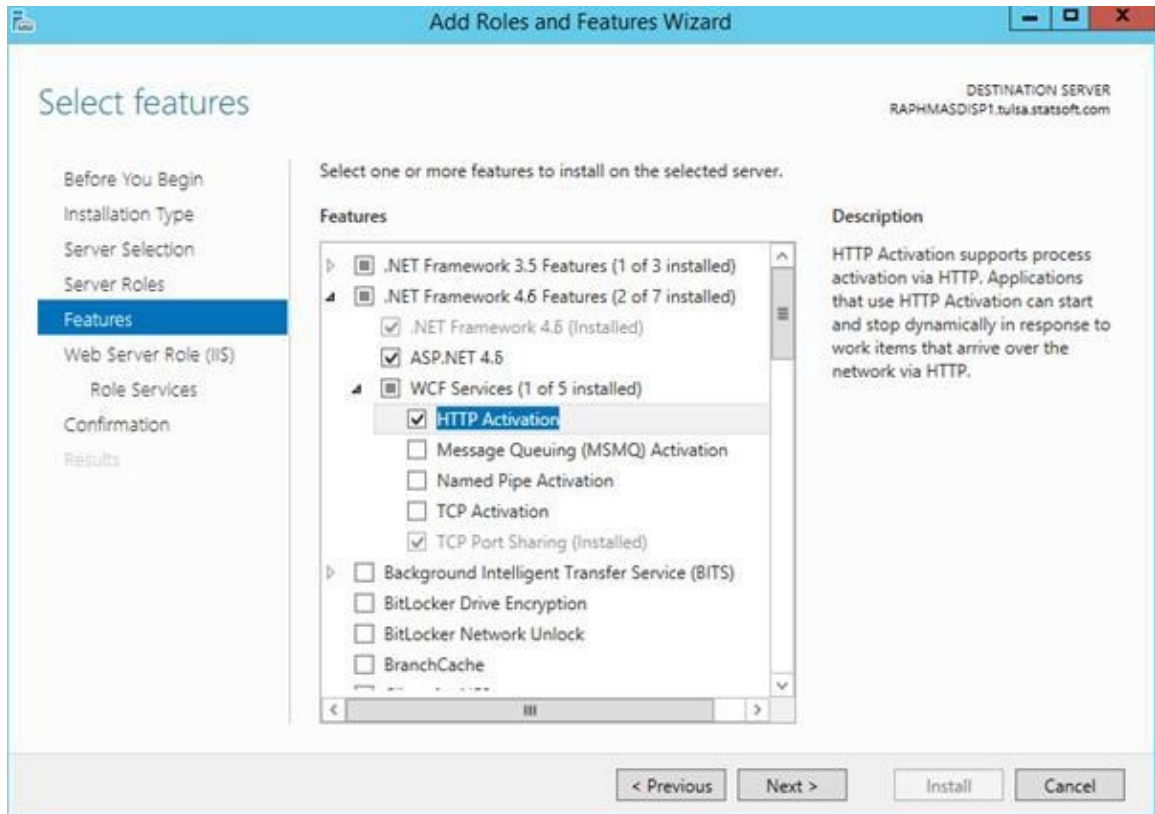
You must log in as an administrator.

Procedure

1. Launch the **Add Roles and Features** Wizard. Follow the Wizard prompts and select the option to install a new role on the application server.
2. In the Web Server (IIS) role, check the options in the Web Server\Application Development.



3. Click **Next** button. In the list of features, add the **.NET Framework 4.6** features and the listed sub features.



4. To complete the installation of the additional IIS features and **.NET Framework 4.6**, click the **Next** button and the **Install** button.

Oracle Connectivity - Overview

To connect to an Oracle database by using a server, edit the local server's hosts file to explicitly resolve the Oracle host server or edit the TNSNAMES resolution to use an explicit **IP address**.



The application requires a reliable connection to Oracle, and the Oracle host location must be static.

The issue is that when the Oracle Listener communicates with the host resolution, it can be configured to broadcast by **name** rather than **IP**. If the DNS takes a while to resolve the host, it can cause a rare (DNS Lookup Error) connectivity issue.

Configuring Oracle Connectivity

Prerequisites

You must log in as an administrator.

Procedure

1. Browse to the location where the local server hosts file is located (typically C:\Windows\System32\drivers\etc\hosts).
2. Add a new line at the bottom of the file. Enter the **IP address** of the Oracle hosts and the host name that is resolved through the TNSNAMES.ora configuration separated by a tab. Save changes to the file.
3. Optional: Confirm the resolution by opening a command prompt, type in `Ping <HostName>` (no quotes) where <HostName> is the name of the host, and confirm that the **IP address** is correctly resolved.

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