

# THINSCALE

## ThinScale Management Server Administrator's Guide





## Table of Content

<b>Table of Content.....</b>	<b>1</b>
<b>1. ThinScale Management Server .....</b>	<b>2</b>
<b>2. Installation .....</b>	<b>3</b>
<b>3. Uninstalling ThinScale Management Server.....</b>	<b>6</b>
<b>4. Management Server Deployment Types .....</b>	<b>7</b>
Primary.....	7
Hub.....	7
<b>5. Management Server Setup Wizard .....</b>	<b>8</b>
New Deployment .....	9
<b>6. New Primary Server .....</b>	<b>15</b>
<b>7. New Hub Server.....</b>	<b>22</b>
<b>8. Configuration Changes.....</b>	<b>29</b>
<b>9. Internet Information Services Configuration .....</b>	<b>30</b>
<b>10. Configuring SSL.....</b>	<b>30</b>
<b>11. Logging .....</b>	<b>30</b>
<b>12. Licensing.....</b>	<b>30</b>



## 1. ThinScale Management Server

The ThinScale Management Server allows you to centrally manage your ThinKiosk devices. Providing profile management, device grouping, device management and centralised software updates.

The Management Server is web-based, accessed via HTTP or HTTPS, allowing you to secure all communications with industry-standard SSL encryption, ideal for publishing over your internal network or externally facing over the internet.

**The ThinScale Management Server is optional but highly recommended** as your implementation choice due to the value and simplicity it adds to the management of your endpoints.

### Requirements

The Management Server requires the following:

- Windows Server 2012 or above
  - At least 2 GB of RAM
  - At least 500 MB free space
- .NET Framework 4.8.0 or above
- Web Sockets Protocol
- Internet Information Services (IIS) 8.0 or above
- SQL Server 2012 or above
- .NET Core 6.0 Runtime specific

<https://dotnet.microsoft.com/download/dotnet/6.0>

*Note: it will be asked to install it during installation, if not present*

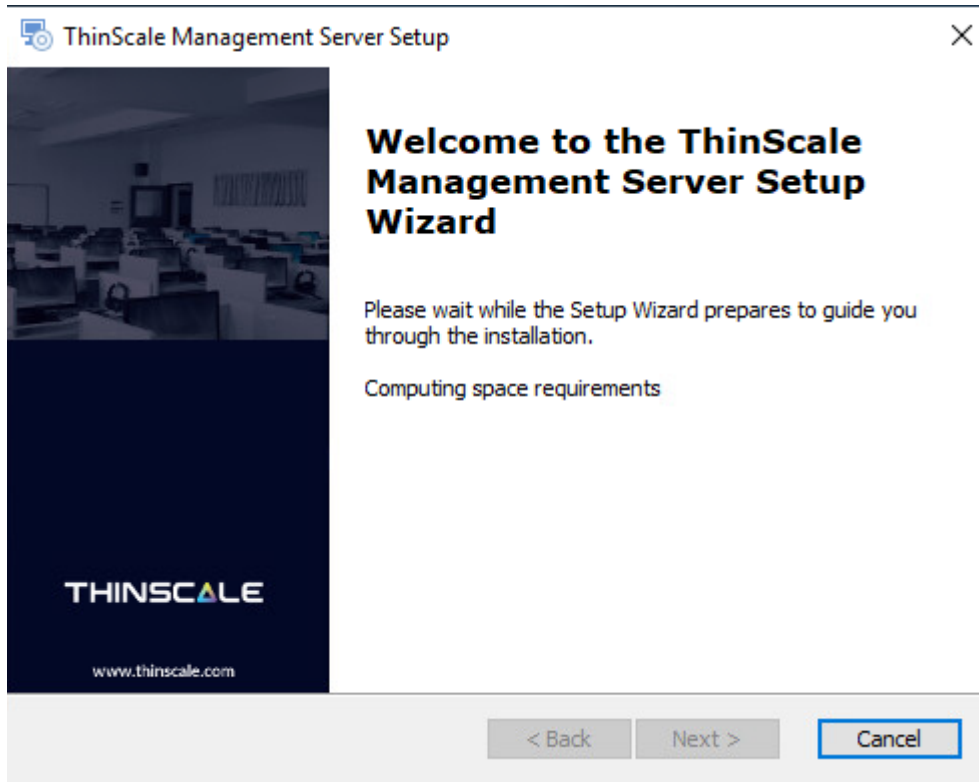
The user used in the SQL Database must be the **db.owner** during installation/ upgrade. After installation, it only needs read and writes and no execute permissions  
SQL Express is also supported



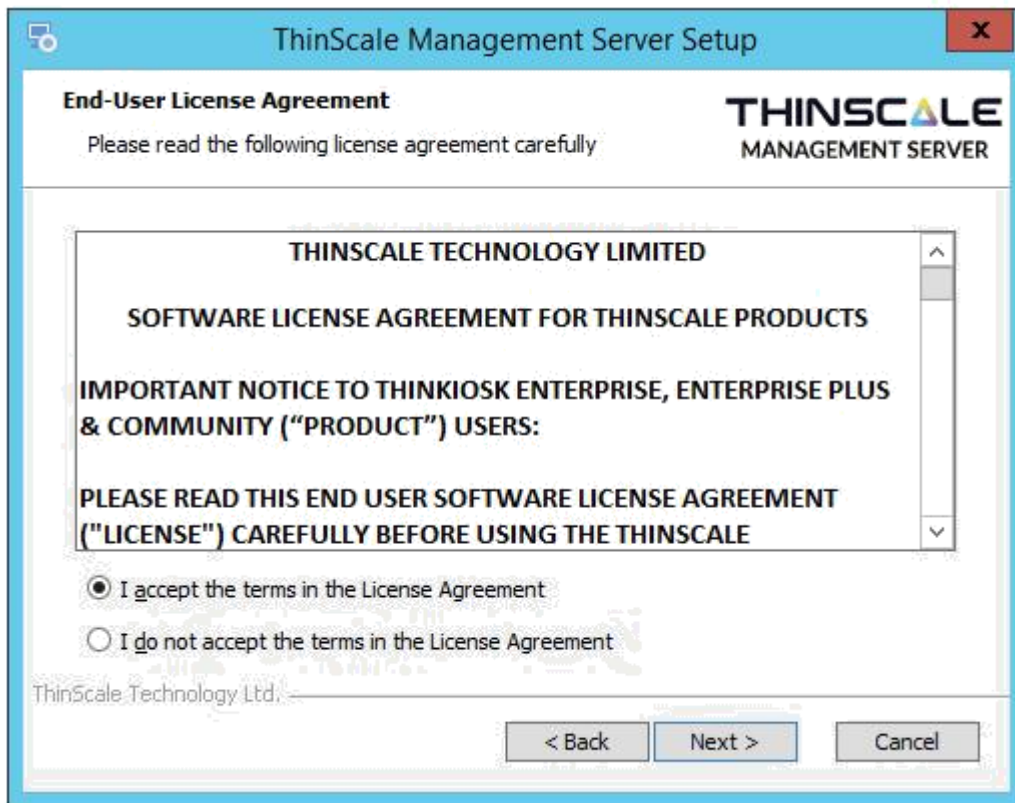
## 2. Installation

**Note:** Installation must be performed by a user with administrator privileges.

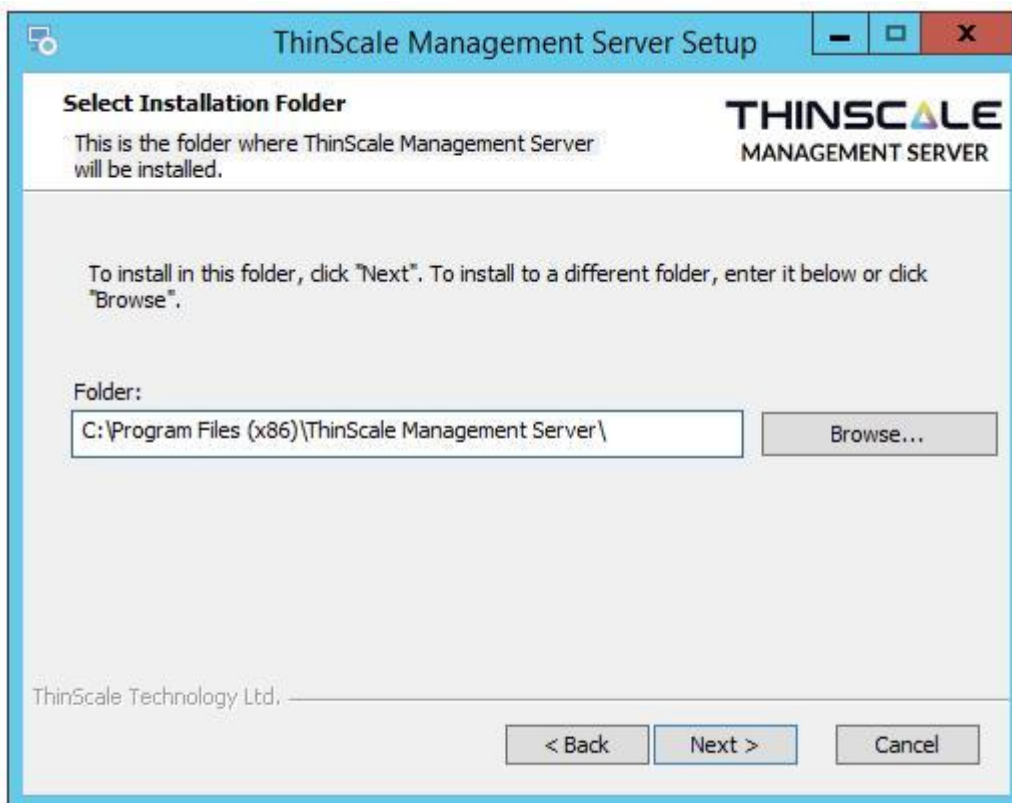
Copy the installation media to a temporary folder on a local drive on the server and run the installation media (ThinScaleManagementServer-8.0.x.exe)



Click 'Next'

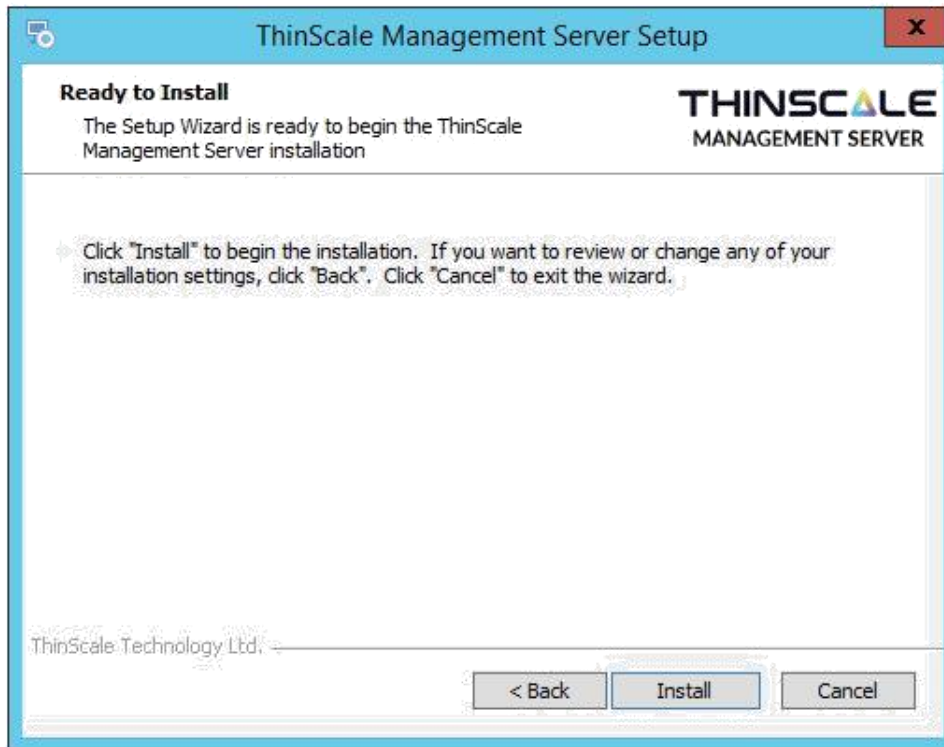


Accept the License Agreement and click 'Next'



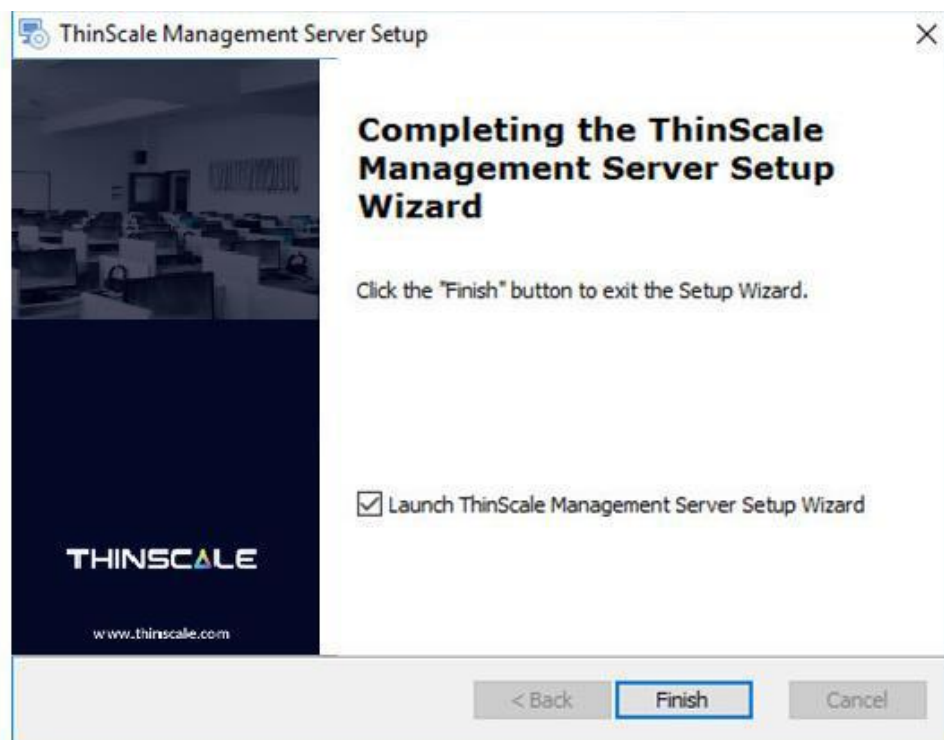


Select the installation folder and click 'Next'



Click 'Install'

The installation will install any required Windows Components and configure Internet Information Services.





After installation, the 'ThinScale Management Server Setup Wizard' (if selected) will launch to complete the configuration of the Management Server.  
This setup wizard can also be launched from the Start Menu

### 3. Uninstalling ThinScale Management Server

**Note:** The Uninstall must be performed by a user with administrator privileges

The ThinScale Management Server is an MSI based installation and will appear in Program and Features within Windows Control Panel.

To uninstall:

- Open Control Panel
- Select Programs -> Program and Features
- Right-click ThinScale Management Server and select 'Uninstall'
- Follow the uninstall instructions

A reboot may be required once the uninstall has been completed.



## 4. Management Server Deployment Types

The Management Server can be configured as a Primary or Hub server.

### Primary

- Primary servers require a direct connection to the Local or SQL database
- Primary servers need to communicate directly with all other Primary servers in the deployment
- The first server added to deployment must be a Primary server

### Hub

- Hub Servers do **not** require a connection to the Local or SQL database
- Hub Server communication is proxied via a Primary server and therefore requires access to a Primary server in the deployment
- Hub Servers are ideal for branch offices where direct access to the SQL database may not be possible.
- Hub Servers also act as software deployment points which will reduce the amount of data sent between offices when deploying software packages to clients

Hub to Primary server communication is all via HTTP/S





## 5. Management Server Setup Wizard

After the initial installation, you need to run the 'ThinScale Management Server Setup Wizard' to complete the configuration of the Management Server.

The setup wizard will allow you to:

- Create a new deployment
- Add Management Server to an existing deployment

(Note: If this is the first Management Server you are configuring you will need to create a new deployment)

When adding Management Server, you are prompted to select either a Primary or Hub server.

The three sections below will take you through the configuration wizard based on your required deployment type for this Management Server:

- New deployment
- New Primary server (in existing deployment)
- New Hub server (in existing deployment)



## New Deployment

During the configuration of a new deployment, the setup wizard will install and configure the management server deployment database.

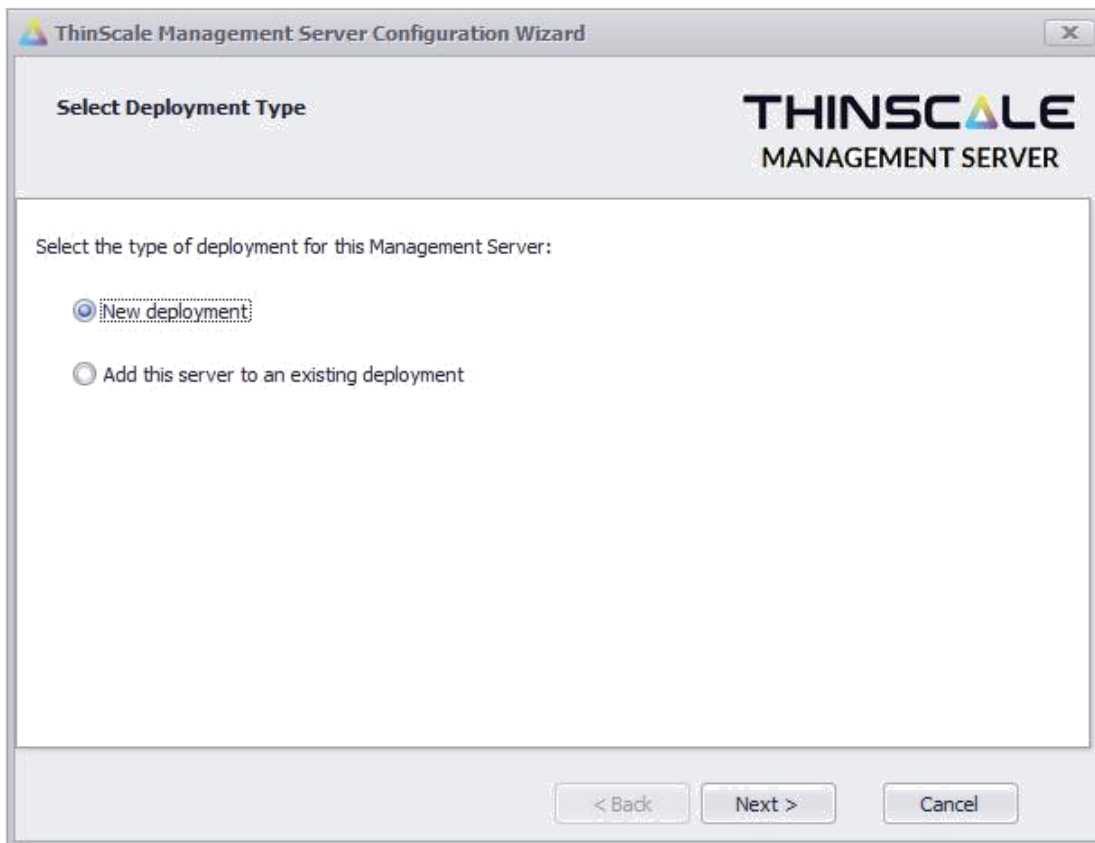
If you are using SQL Server before you create a new deployment you will need the following:

A new, empty database on your SQL Server

A SQL or DOMAIN user account that has SELECT, INSERT, UPDATE and DELETE permissions as well as permissions to create tables in the database

If you are using a Local Database, there are no additional requirements

Launch the setup wizard



Select 'New deployment' and click 'Next



SQL Server Authentication – Select this option if you want to use a local SQL server account for authentication to your database.

Additionally:

Windows Authentication – Select this option to use a domain account that has access to your SQL database.

Use IIS application pool authentication credentials – Select this option if you want to connect to the SQL database using the identity that the IIS Application Pool is running under.

Click 'Test Connection'



If the setup wizard can successfully connect to your database a 'SQL Server connection verified' message will appear. If the connection is not successful a message detailing the failure reason will be shown.

When successfully verified click 'Next'

ThinScale Management Server Configuration Wizard

**Primary URI Details**

**THINSCALE**  
MANAGEMENT SERVER

All Primary servers in a deployment need to communicate with each other.  
Enter the URI that other Primary servers will use to contact this server:

< Back    Next >    Cancel

Enter the URI that other Primary servers in this deployment will use to communicate with this server.



**The URI must point at this server and cannot be a load-balanced address.**

(the wizard will show a default URI based on the installation and should not need to be altered unless you want to configure HTTPS communication between brokers)

Click 'Next'

ThinScale Management Server Configuration Wizard

**Local Administrator Password** **THINSCALE**  
MANAGEMENT SERVER

Enter the password you want to use for the local Administrator account that is created with every new deployment.

Password

Confirm Password

(This password can be changed once you have logged onto the Management Console)

< Back    Next >    Cancel

Enter the Password you want to use to log in to the Management Console using the auto-generated Administrator account. This can be modified later if needed, using the Management Console.



Click 'Next'

ThinScale Management Server Configuration Wizard

**Software Repository Configuration** THINSCALE MANAGEMENT SERVER

Software Packages are stored locally on each management server.

Enter the location where you would like to store the Software Packages:

C:\Program Files (x86)\ThinScale Management Server\PackageRepository

Temp File Location:

C:\Program Files (x86)\ThinScale Management Server\Temp

< Back Next > Cancel

Enter a location for the software packages and temporary file storage and click 'Next'

ThinScale Management Server Configuration Wizard

**Advanced Configuration** THINSCALE MANAGEMENT SERVER

Enable Logging

Logging Level:

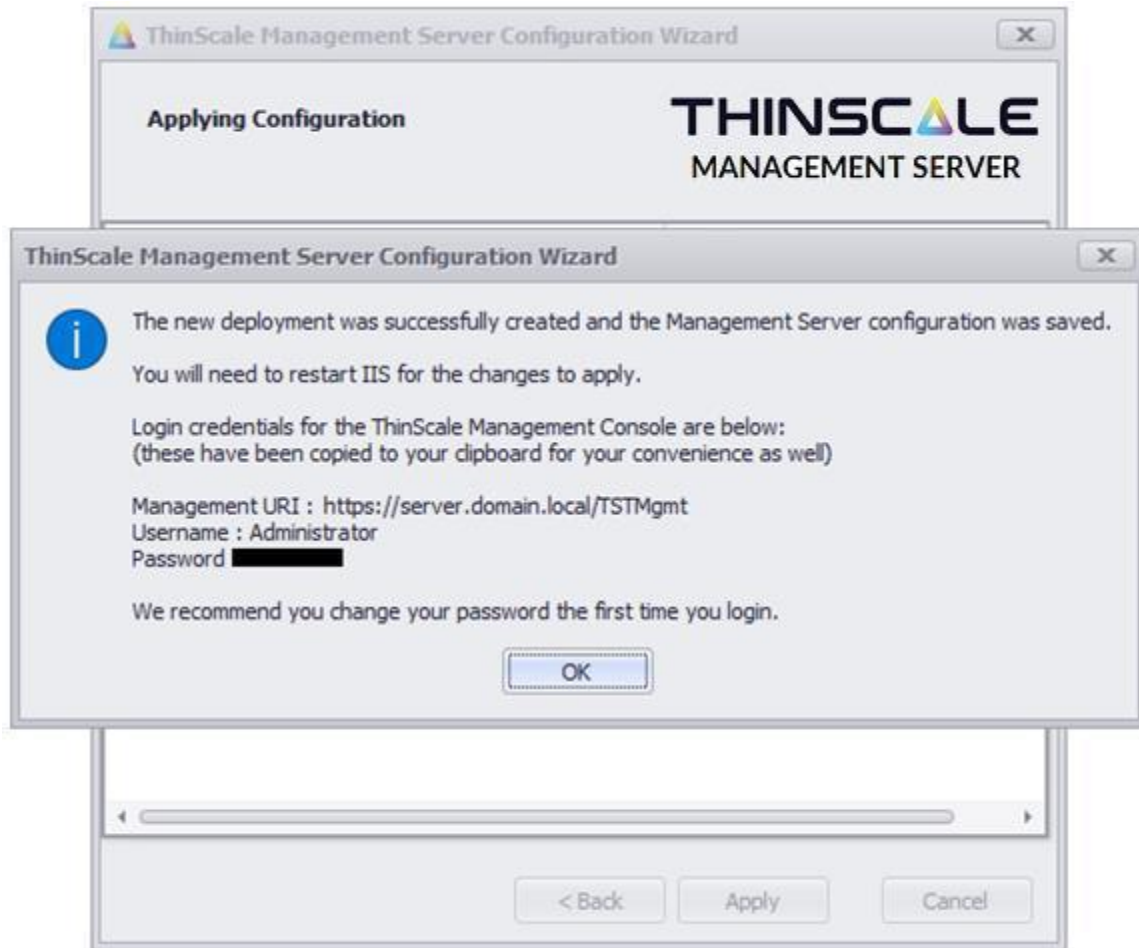
- None
- Error
- Warning
- Information

< Back Apply Cancel

Select the required logging level and click 'Apply'



(Warning is the recommended level, but a more verbose setting (Information) may be required by ThinScale Support)



The wizard will complete the following tasks:

- Create the software package and temporary folders
- Create the deployment database schema
- Save the Management Server configuration file

When the setup has been completed you will be prompted to restart IIS for the changes to take effect.

When the deployment database is configured the default logon credentials will be displayed.

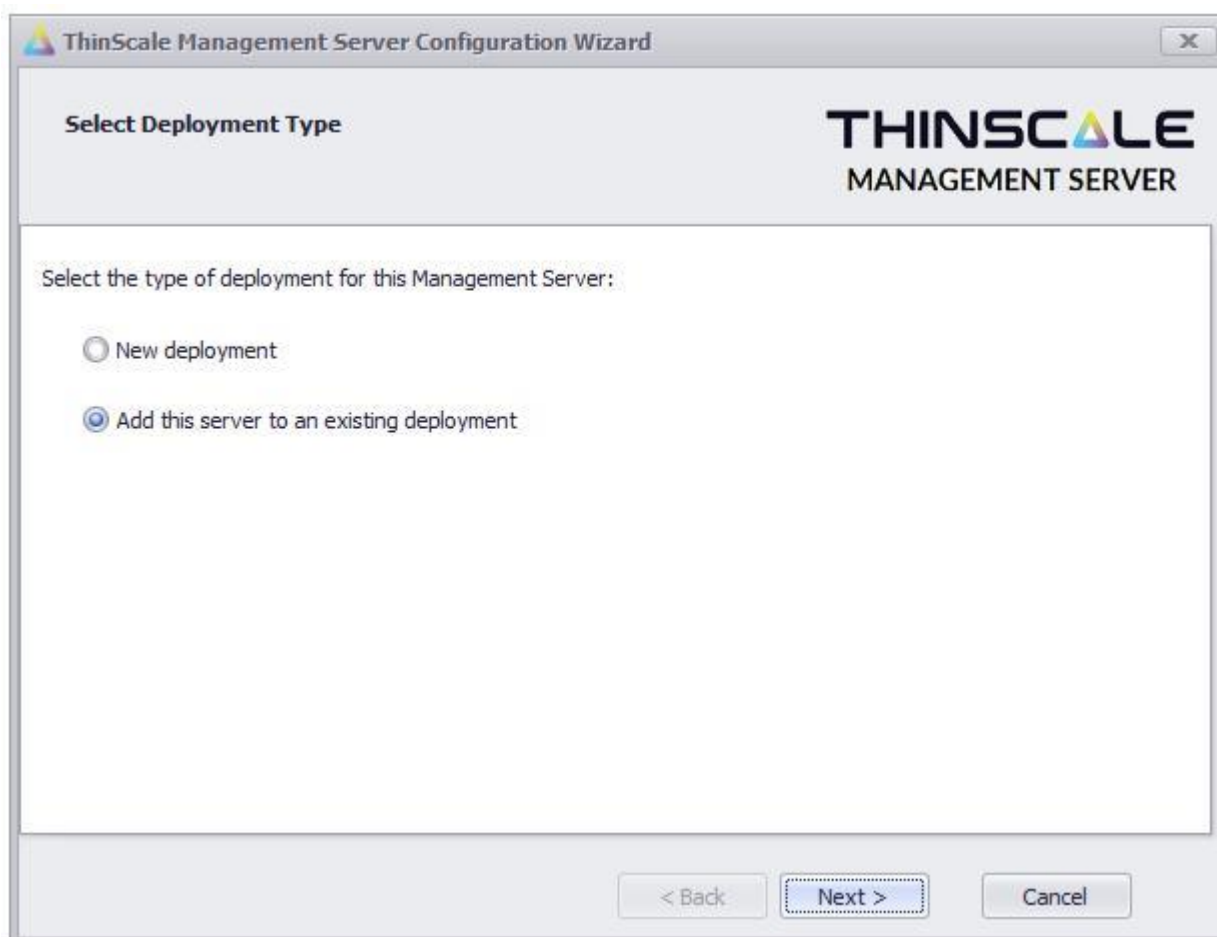


## 6. New Primary Server

Before you add a new Primary server to an existing deployment, you will need the following:

- SQL Server connection details
- The URI of an existing server in the deployment to authenticate this new server
- Login credentials to the existing deployment that has permissions to add management servers

Launch the setup wizard



Select 'Add this server to an existing deployment' and click 'Next'





The screenshot shows a window titled "ThinScale Management Server Configuration Wizard" with a close button in the top right. The main heading is "Select Management Server Type" and the ThinScale logo is in the top right. Below the heading, it says "Select the type of Management Server:". There are two radio button options: "Primary" (which is selected) and "Hub". At the bottom, there are three buttons: "< Back", "Next >", and "Cancel".

Select 'Primary' and click 'Next'

The screenshot shows a window titled "ThinScale Management Server Configuration Wizard" with a close button in the top right. The main heading is "Deployment Database Details" and the ThinScale logo is in the top right. Below the heading, it says "Enter the SQL Server connection details for your deployment database. For new deployments this must be an empty database and the user account must have permissions to create tables." There are two text input fields: "SQL Server Name \ Instance:" with the value "SERVERNAME.DOMAIN" and "Database Name" with the value "DBNAME". To the right of the "Database Name" field is a "Custom Properties" button. Below these fields are two radio button options: "SQL Server Authentication" (which is selected) and "Windows Authentication". There are two more text input fields: "Username" with the value "THINKIOSK" and "Password" with a masked value of "\*\*\*\*\*". Below these fields is a checkbox labeled "Use IIS application pool authentication credentials" which is unchecked. To the right of the checkbox is a "Test Connection" button. At the bottom, there are three buttons: "< Back", "Next >", and "Cancel".



SQL Server Authentication – Select this option if you want to use a local SQL server account for authentication to your database.

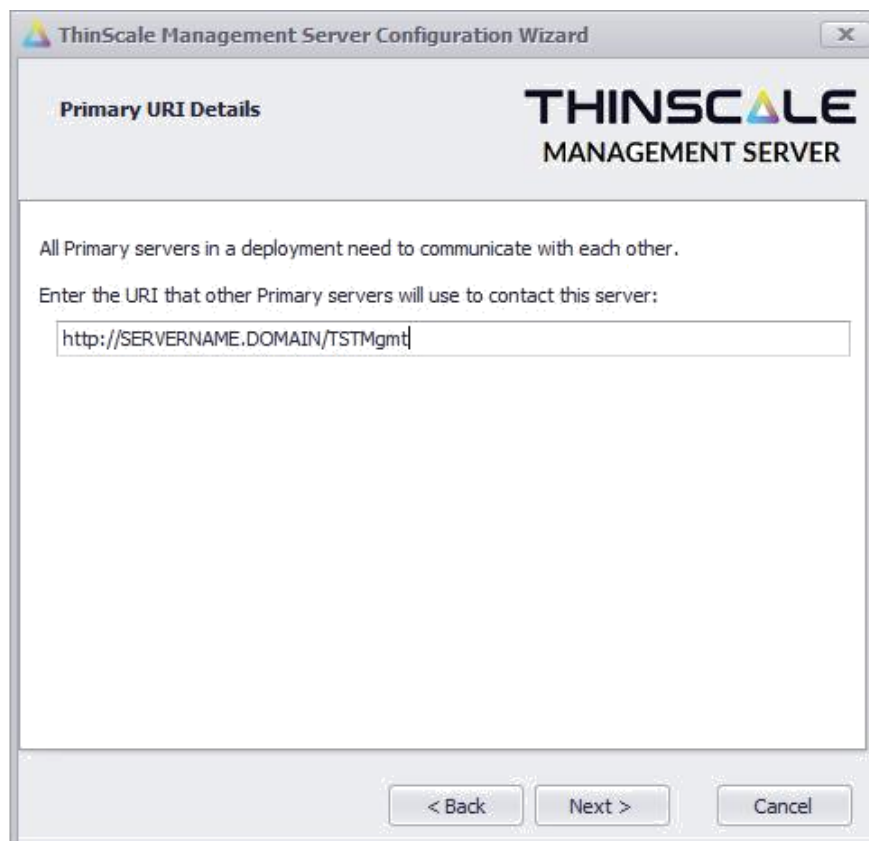
Windows Authentication – Select this option to use a domain account that has access to your SQL database.

Use IIS application pool authentication credentials – Select this option if you want to connect to the SQL database using the identity that the IIS Application Pool is running under.

Click 'Test Connection'

If the setup wizard can successfully connect to your database a 'SQL Server connection verified' message will appear. If the connection is not successful a message detailing the failure reason will be shown.

When successfully verified click 'Next'





Enter the URI that other Primary servers in this deployment will use to communicate with this server. The URI must point at this server and cannot be a load-balanced address.

*(Note: the wizard will show a default URI based on the installation and should not need to be altered unless you want to configure HTTPS communication between brokers)*

Click 'Next'

To join a deployment, you must authenticate with a Management Server that is part of the deployment you are joining.

Enter the URI of an existing server and credentials of a user within the deployment that has permission to add Management Servers.

Click 'Verify Management Server'



ThinScale Management Server Configuration Wizard
X

THINSCALE  
MANAGEMENT SERVER

**Enter existing Management Server details**

To join your existing deployment we need to register this new server with an existing management server. Enter the URI of an existing server within your deployment:

http://ser .local/tstmgmt

**Management Authentication**

Native Login     Domain Login

Username

Password

Domain

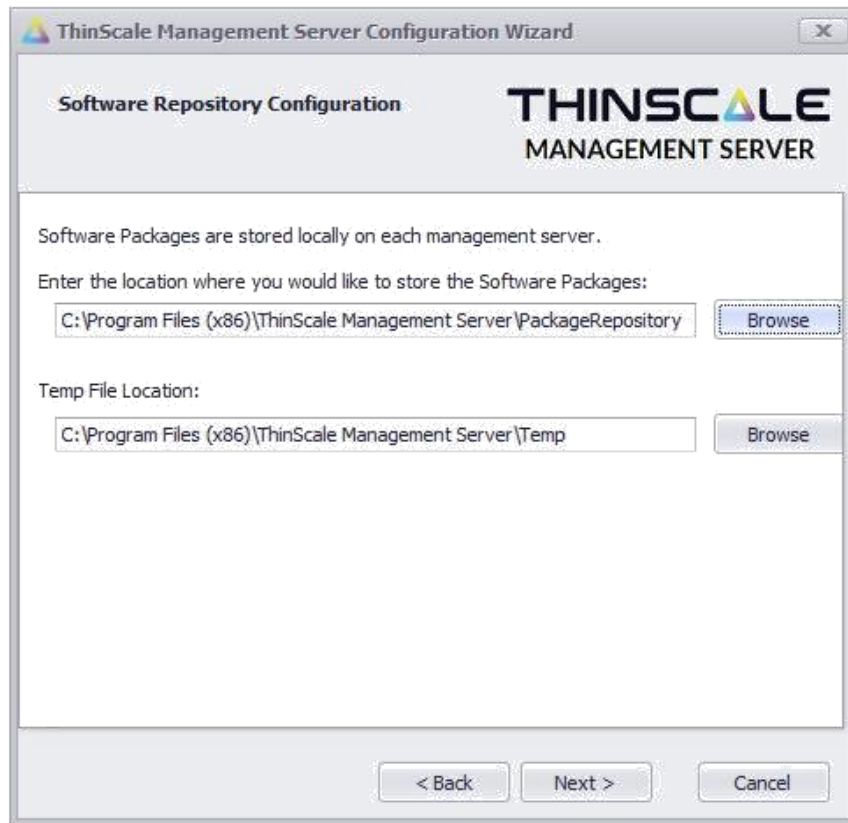
(the user must have permissions to add Management Servers)

Management Server verified

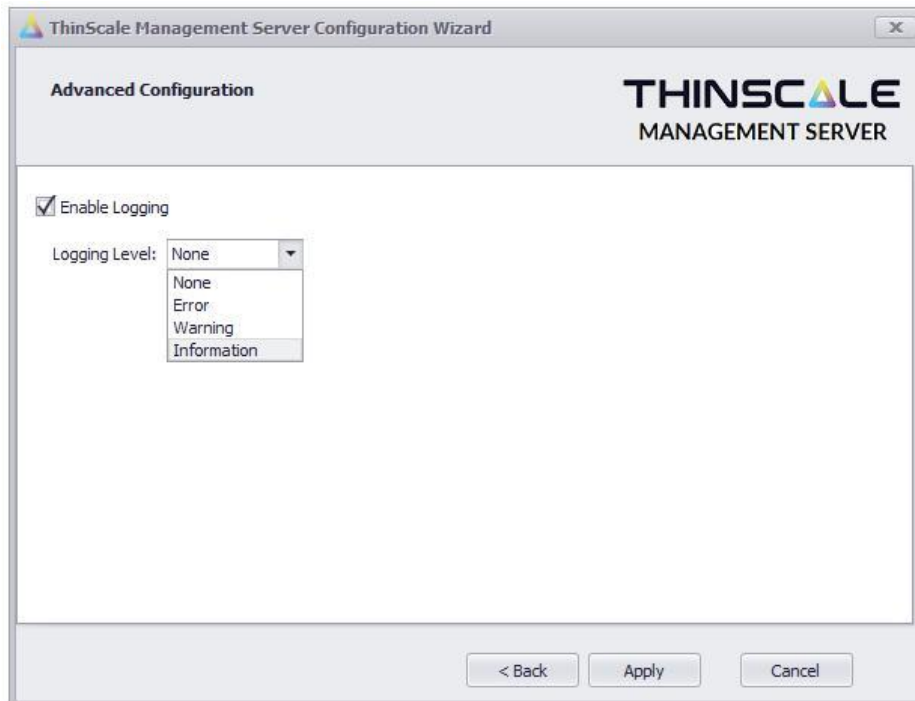
If the setup wizard can successfully connect to the existing Management Server a 'Management Server verified' message will appear. If the connection is not successful a message detailing the failure reason will be shown.

*(Note: Verifying the Management Server does not validate if the credentials have permission to add Management Servers, just that they are correct)*

When successfully verified click 'Next'

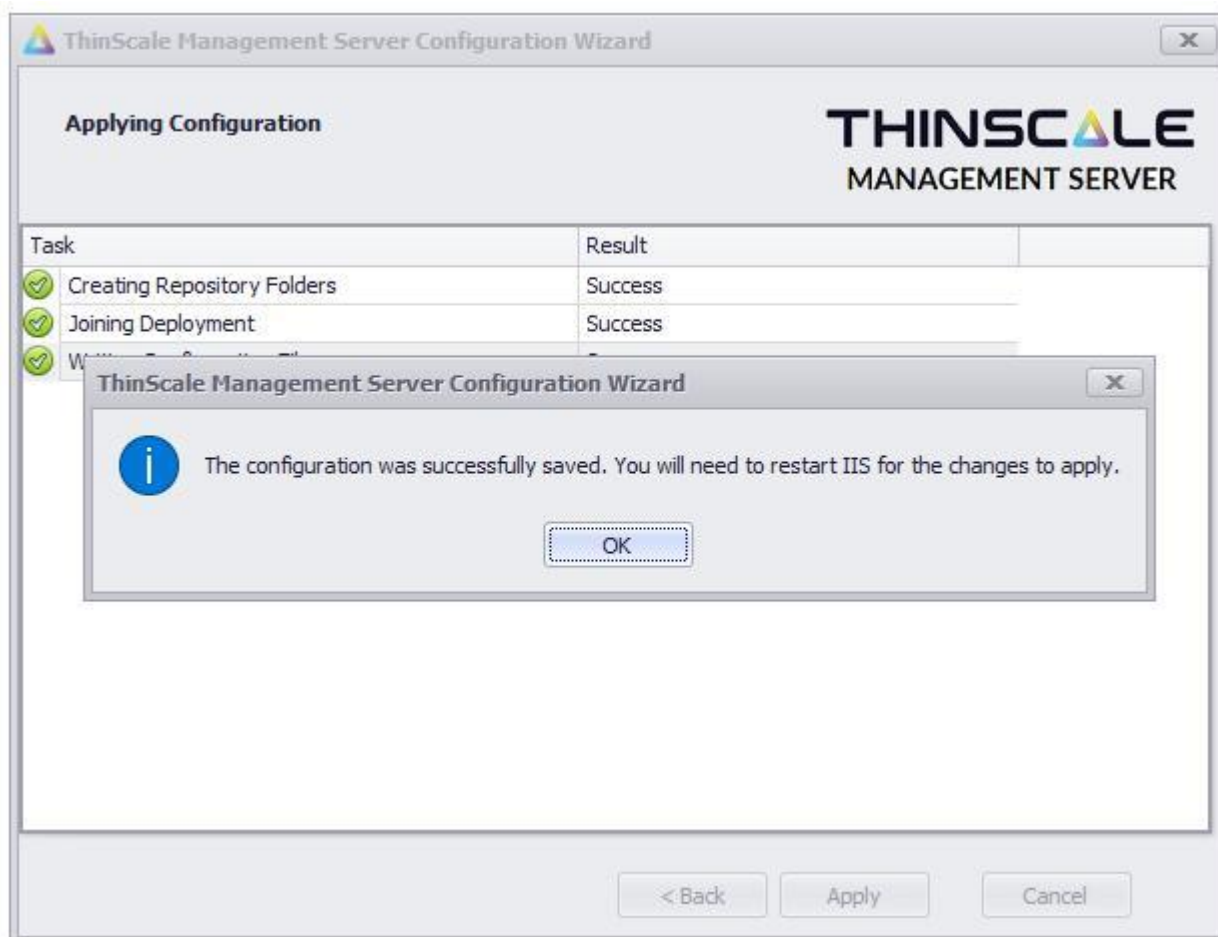


Enter a location for the software packages and temporary file storage and click 'Next'



Select the required logging level and click 'Apply'

(Warning is the recommended level, but a more verbose setting (Information) may be required by ThinScale Support when asked for)



The wizard will complete the following tasks:

- Create the software package and temporary folders
- Join the Management Server to the deployment
- Save the Management Server configuration file

When the setup has been completed you will be prompted to restart IIS for the changes to take effect.

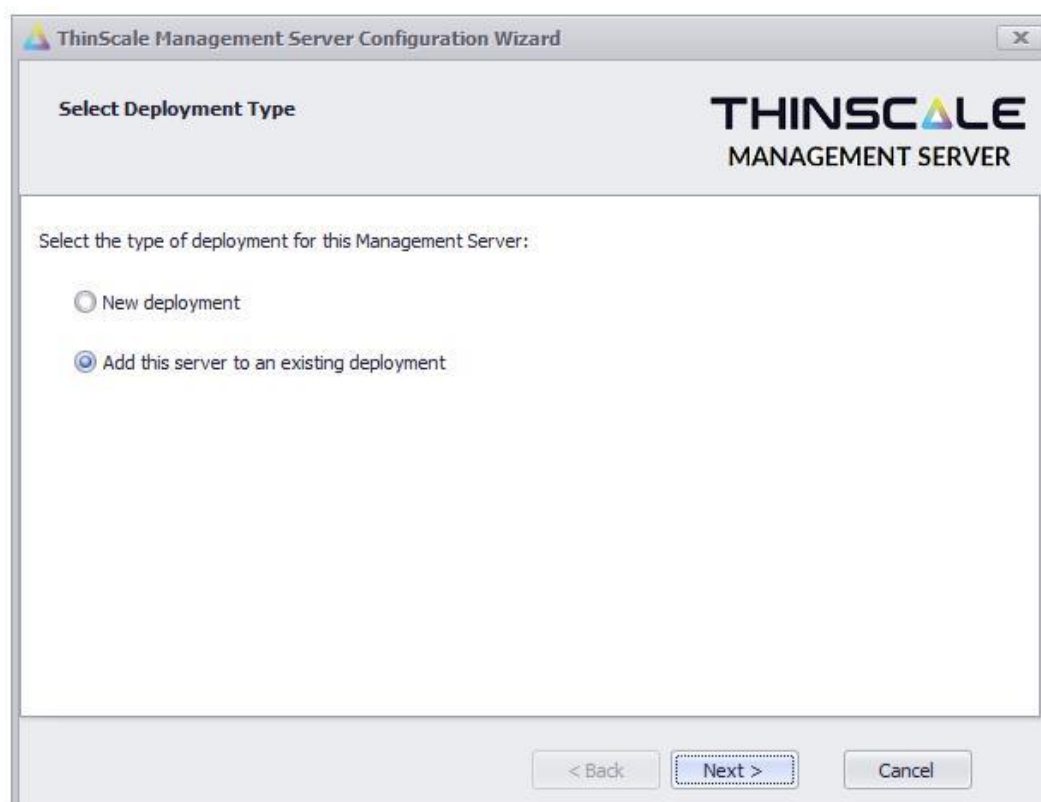


## 7. New Hub Server

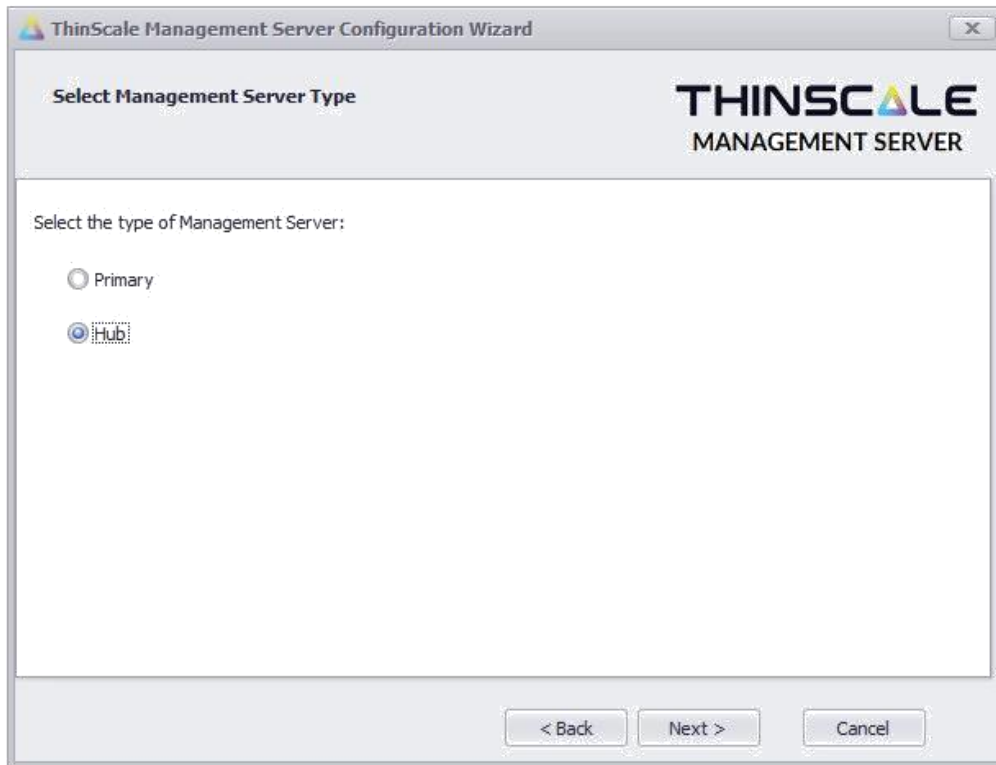
Before you add a new Hub server to an existing deployment, you will need the following:

- The URI of an existing Primary server in the deployment
- The URI of an existing server in the deployment to authenticate this new server
- Login credentials to the existing deployment that has permissions to add management servers

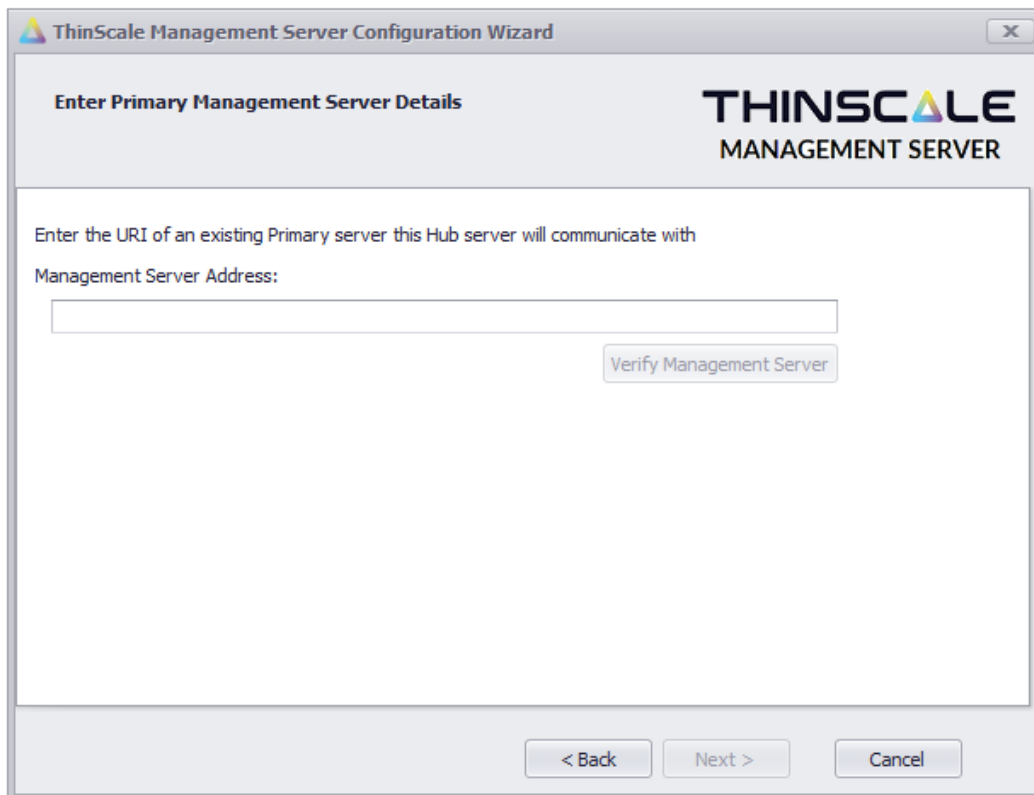
Launch the setup wizard



Select 'Add this server to an existing deployment' and click 'Next'



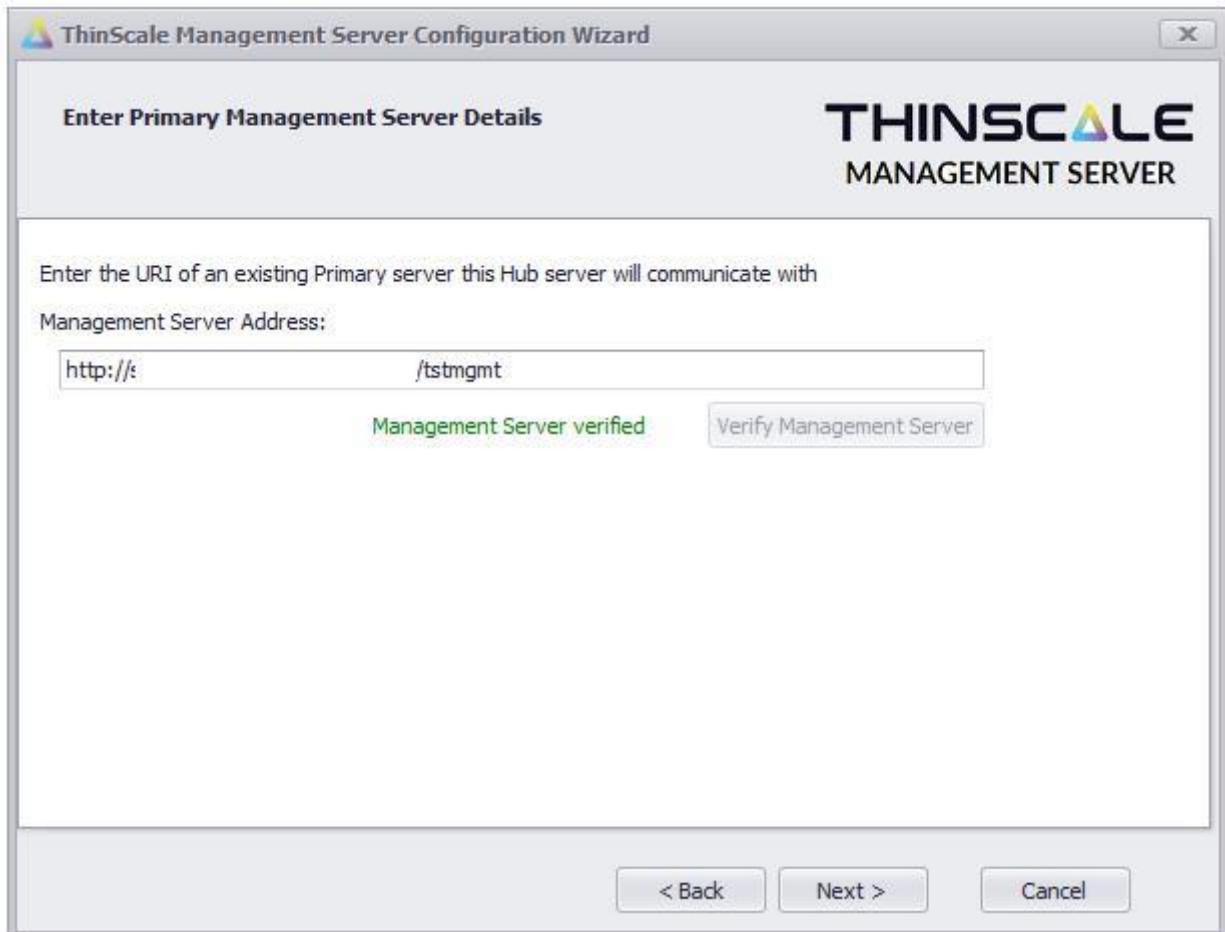
Select 'Hub' and click 'Next'







Enter the URI of an existing Primary server that this Hub server will communicate with.  
Click 'Verify Management Server'



If the setup wizard can successfully connect to the existing Primary Management Server a 'Management Server verified' message will appear. If the connection is not successful a message detailing the failure reason will be shown.

When successfully verified click 'Next'



ThinScale Management Server Configuration Wizard
✕

THINSCALE  
MANAGEMENT SERVER

**Enter existing Management Server details**

To join your existing deployment we need to register this new server with an existing management server. Enter the URI of an existing server within your deployment:

http: / /tstmgmt

**Management Authentication**

Native Login   
  Domain Login

Username

Password

Domain

(the user must have permissions to add Management Servers)

To join a deployment, you must authenticate with a Management Server that is part of the deployment you are joining.

Enter the URI of an existing server and credentials of a user within the deployment that has permission to add Management Servers.

Click 'Verify Management Server'



ThinScale Management Server Configuration Wizard
X

## THINSCALE

MANAGEMENT SERVER

**Enter existing Management Server details**

To join your existing deployment we need to register this new server with an existing management server. Enter the URI of an existing server within your deployment:

http:
/tstmgmt

**Management Authentication**

Native Login   
  Domain Login

Username

Password

Domain

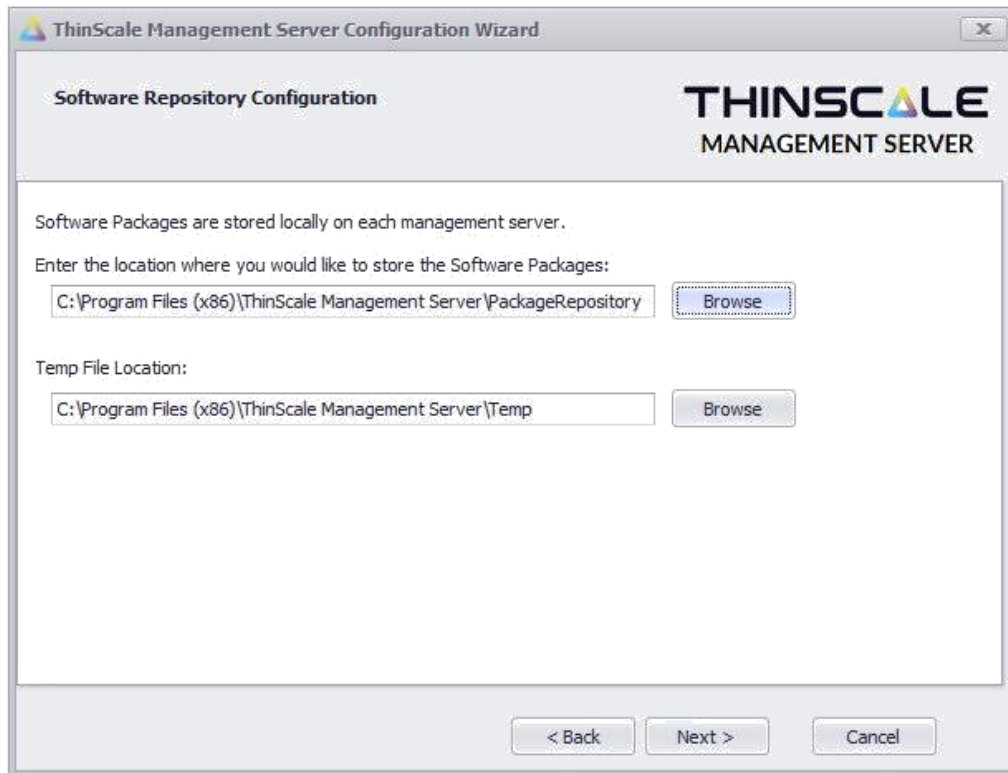
(the user must have permissions to add Management Servers)

Management Server verified

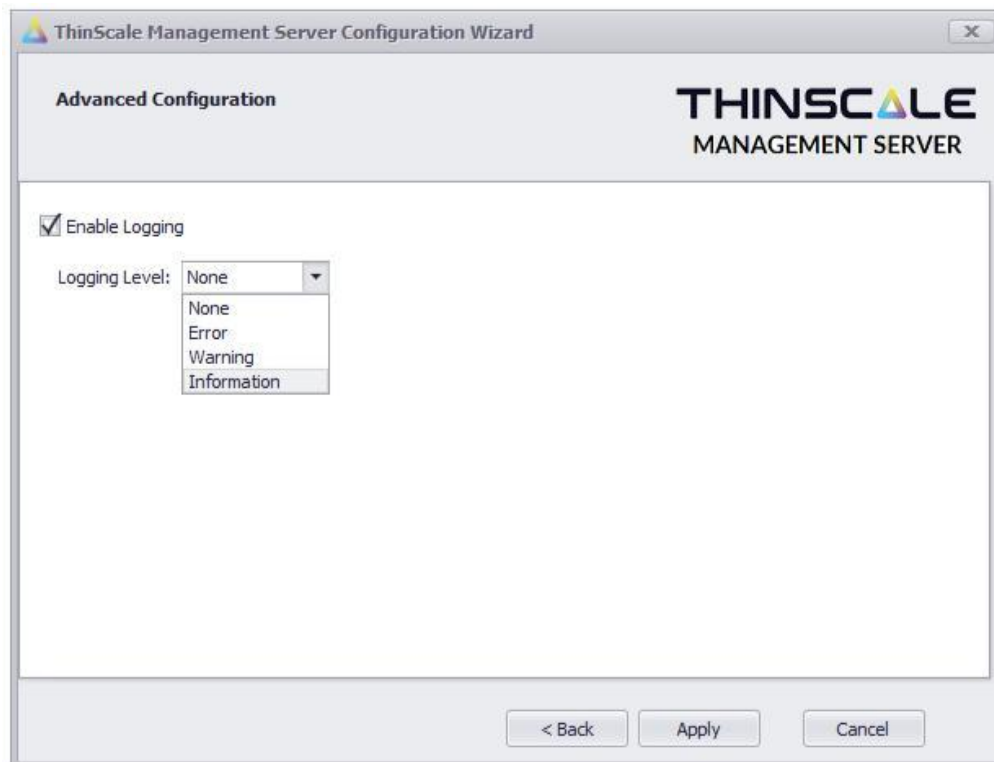
If the setup wizard can successfully connect to the existing Management Server a 'Management Server verified' message will appear. If the connection is not successful a message detailing the failure reason will be shown.

*(Note: Verifying the Management Server does not validate if the credentials have permission to add Management Servers, just that they are correct)*

When successfully verified click 'Next'



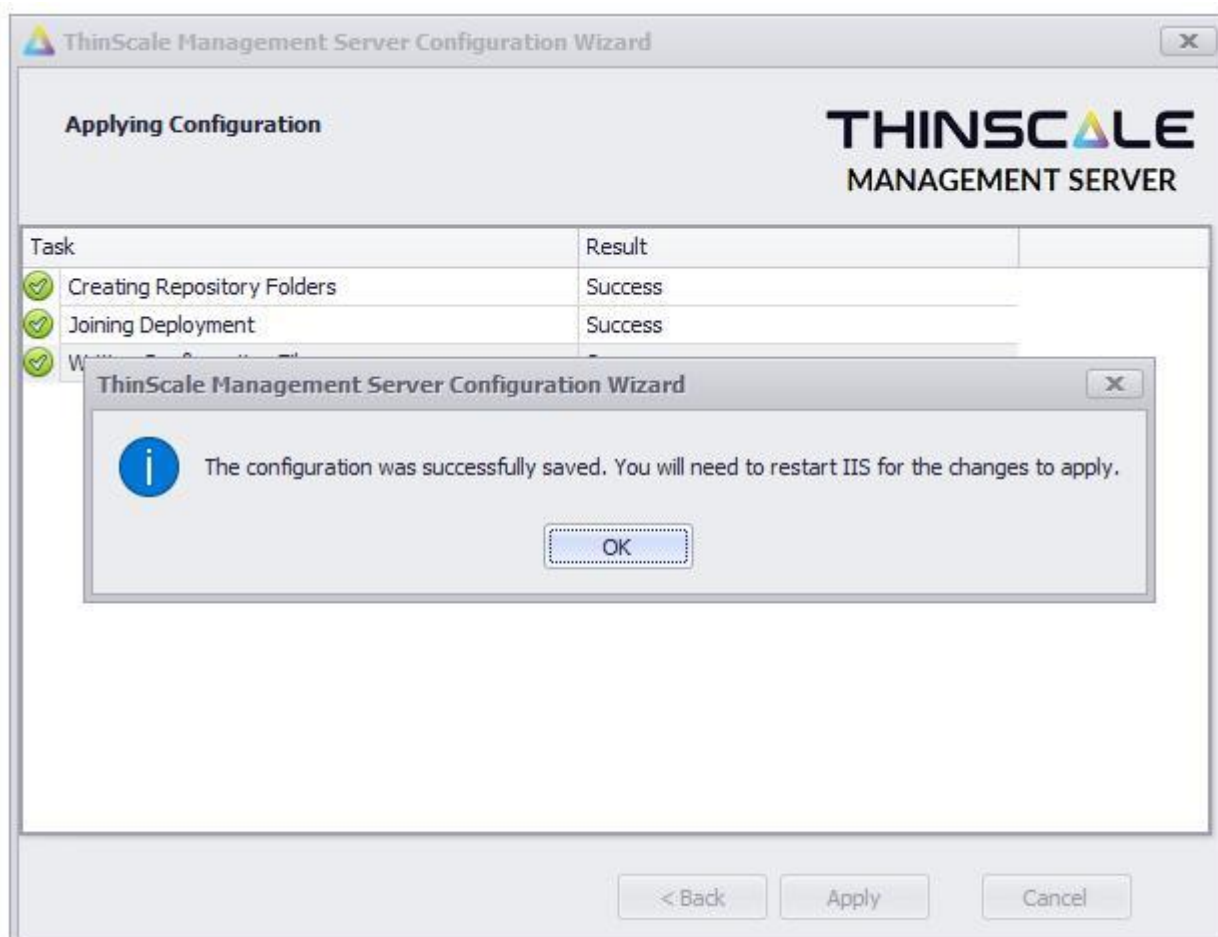
Enter a location for the software packages and temporary file storage and click 'Next'



Select the required logging level and click 'Apply'



(Warning is the recommended level, but a more verbose setting (Information) may be required by ThinScale Support when asked for)



The wizard will complete the following tasks:

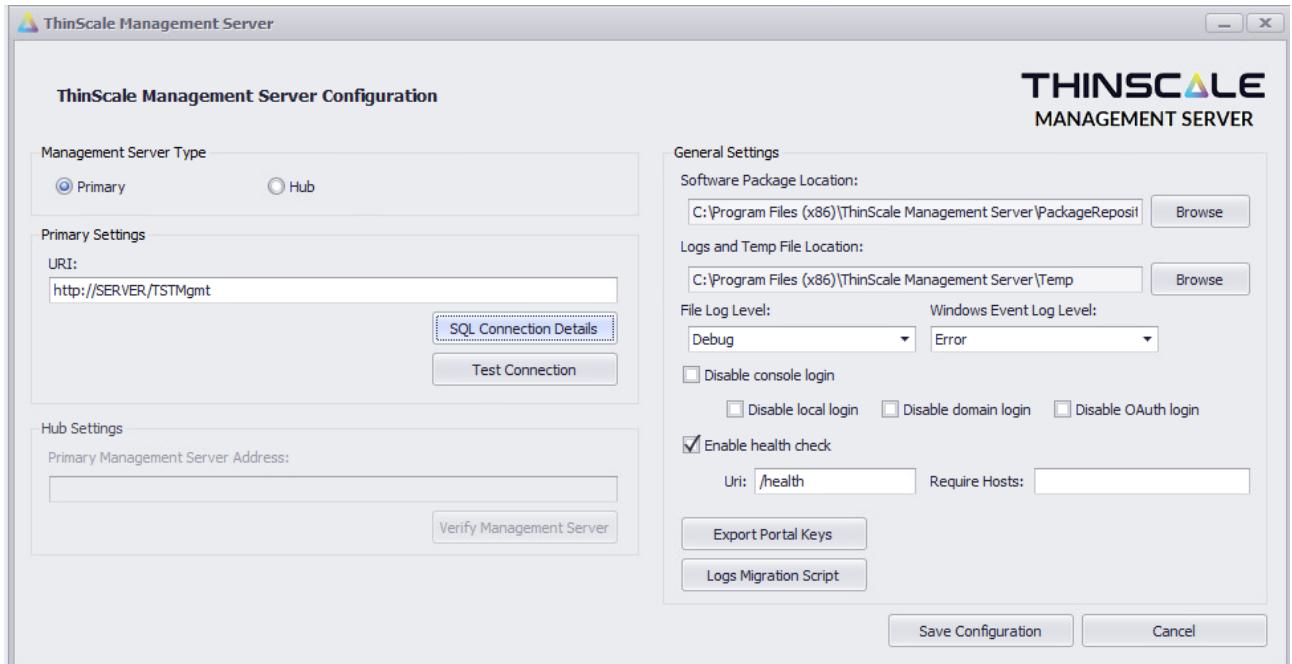
- Create the software package and temporary folders
- Join the Management Server to the deployment
- Save the Management Server configuration file

When the setup has been completed you will be prompted to restart IIS for the changes to take effect.



## 8. Configuration Changes

After the configuration wizard has been run you can use the same configuration wizard to alter the active Management Server configuration. Launch the 'ThinScale Management Configuration' from the Management Server start menu.



The following Management Server settings can be modified:

- Management Server Type
- Primary URI
- Database Type
- SQL Connection Details
- Hub Servers Settings
- Software Package Repository Location
- Temp File Location
- Logging Level
- Custom Properties

All changes will require a restart of IIS to take effect.

If you need to reconfigure this server completely you can run the following command to start the Setup Wizard:

```
C:\Program Files (x86)\ThinScale Management
Server\ThinScale.Management.MgmtServer.Setup.exe /reconfigure
```



## 9. Internet Information Services Configuration

The ThinScale Management Server is configured as an application / virtual directory within the 'Default Web Site'

It can be accessed at `http(s)://servername/TSTMgmt`

## 10. Configuring SSL

As the ThinScale Management Server is installed within the 'Default Web Site' it also inherits the 'Default Web Site' bindings.

Using the Internet Information Services Snap-in you can add an HTTPS binding to the 'Default Web Site' and select the required SSL certificate.

## 11. Logging

The ThinScale Management Server will log any changes/actions to a log file located in the Temp File location configured during the Management Server Setup Wizard. The log file's name is **ManagementServerLog.log** and is largely only used by ThinScale support.

If the ThinScale Management Server is restarted it will back up to this log file to **ThinScaleManagementLog.log\_old**

## 12. Licensing

The ThinScale Management Server can only be used with Enterprise Licensing. The community edition(s) cannot be used.

Contact [sales@thinscaletechnology.com](mailto:sales@thinscaletechnology.com) for a quote on licensing or an extension of your trial license.