

## Installation Guide

## Table of Contents

<b>INTRODUCTION.....</b>	<b>2</b>
<b>SYSTEM REQUIREMENTS.....</b>	<b>3</b>
<b>SERVICEDesk PLUS - MSP EDITIONS .....</b>	<b>5</b>
<b>INSTALL SERVICEDesk PLUS - MSP .....</b>	<b>6</b>
Installation on Windows.....	7
Installation on Linux.....	13
<b>UPGRADE SERVICE PACK .....</b>	<b>19</b>
<b>START SERVICEDeskPLUS - MSP SERVER .....</b>	<b>21</b>
<b>REGISTER SERVICEDesk PLUS - MSP .....</b>	<b>22</b>
<b>SHUTDOWN SERVICEDeskPLUS - MSP SERVER .....</b>	<b>23</b>
<b>CONFIGURE THE DATABASE.....</b>	<b>24</b>
<b>CHANGE WEB SERVER PORT.....</b>	<b>29</b>
<b>INSTALLING SSL CERTIFICATE .....</b>	<b>30</b>
<b>RENEW SSL CERTIFICATE .....</b>	<b>44</b>
<b>INSTALLING .PFX CERTIFICATE .....</b>	<b>45</b>
<b>UNINSTALLING SERVICEDesk PLUS - MSP .....</b>	<b>47</b>
<b>CONTACTING MANAGEENGINE.....</b>	<b>48</b>

## Introduction

The **ServiceDesk Plus - MSP Installation Guide** help you overcome the initial hiccups of installing ServiceDesk Plus - MSP successfully and starting ServiceDesk Plus - MSP as a service. This guide also provides step-by-step instructions for **setting up your database, performing a manual backup, restoration of the backup data, changing your server port to HTTPS and installing SSL Certificate.**

After installing ServiceDesk Plus - MSP, the Administrator Guide helps you configure ServiceDesk Plus - MSP to make it available for real time usage.

# System Requirements

## Hardware

The following table list the hardware installation according to the number of Technician Logins.

Technician Logins	No of Nodes	Processor Type	Processor Speed	RAM	Free Hard Disk
5-20	50-200	Intel Core Duo	1.7 GHz	1GB	20GB
20-50	200-500		3.4 GHz	2GB	40GB
50-100	500-2000		2*3.4 GHz	4GB	40GB
100-200	1000-5000		4*3.4 GHz	4GB	80GB

## Operating System

### Windows

- Windows vista
- Windows 2008 Server
- Windows 2008 Server (servicepack 2)
- Windows 2008 Server 64-bit
- Windows 2003 Server 64-bit
- Windows 2000 + SP4
- Windows 2000 / 2003 Server
- Windows XP Professional

### Linux

- Cent OS
- Suse
- Fedora
- Ubuntu
- Mandriva
- Red Hat Linux 7.2 and above
- Linux Debian 3.0

## Supported Database

- MySQL 4.1.18
- MySQL 5.1
- MS SQL 2000, MS SQL 2005, MS SQL 2008

## **Supported Browsers**

- Internet Explorer: v7, v8 and v9
- Firefox: v3.6 up to v10
- Google Chrome

## ServiceDesk Plus - MSP Editions

ServiceDesk Plus - MSP is available in three editions namely,

- **Standard Edition** - comprises of Incident Management alone.
- **Professional Edition** - includes Asset Management, Purchase Management and Contract Management
- **Enterprise Edition** - includes Incident Management, Asset Management, Purchase and Contract Management along with Problem and Change Management.

The tabular below gives a quick view of the features available in the editions,

Modules/Features	Standard Edition	Professional Edition	Enterprise Edition
Incident Management	YES	YES	YES
Priority Matrix	-	-	YES
Problem Management	-	-	YES
Asset Management	-	YES	YES
Software License Management	-	YES	YES
Purchase Management	-	YES	YES
Contract Management	-	YES	YES
Desktop Central Integration	-	-	YES
Billing	YES	YES	YES
Account Management	YES	YES	YES

# **Install ServiceDesk Plus - MSP**

## **Install ServiceDesk Plus - MSP**

### **Installation Files**

The types of installation files for ServiceDesk Plus - MSP are,

- ManageEngine\_ServiceDesk\_Plus\_MSP.exe (for Windows OS)
- ManageEngine\_ServiceDesk\_Plus\_MSP.bin (for Linux OS)

### **Upgrade Service Pack**

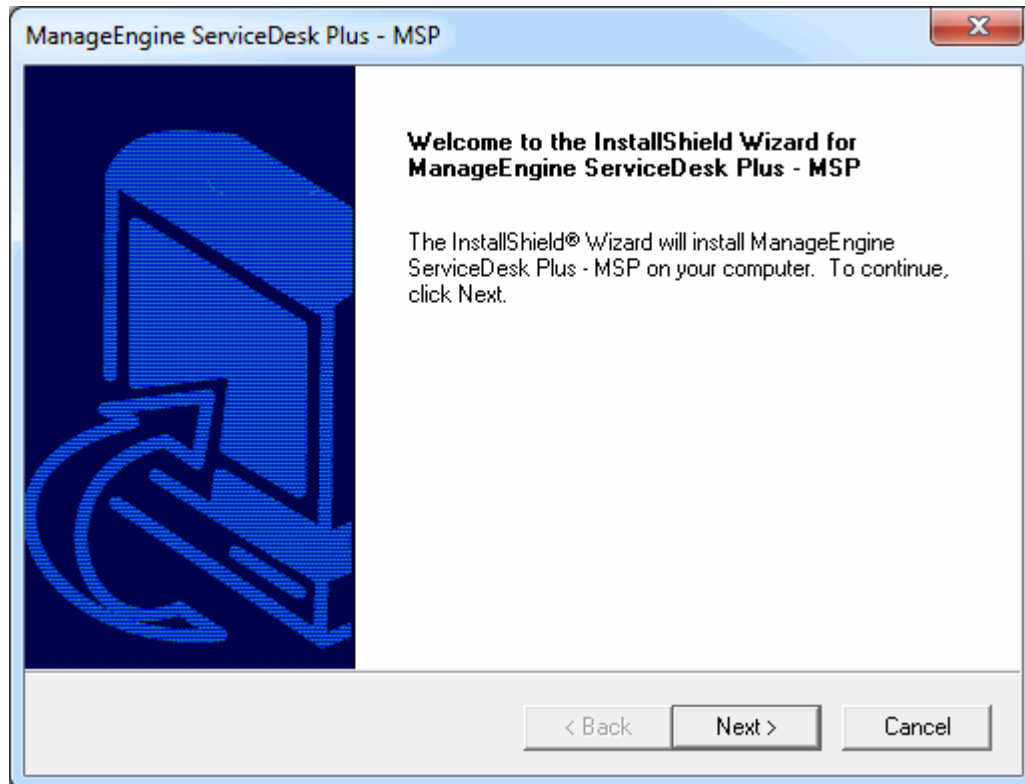
- ManageEngine\_ServiceDesk\_Plus\_-\_MSP\_<latest\_version>\_SP-<build\_number>.ppm

[Click here](#) to download your appropriate installation file.

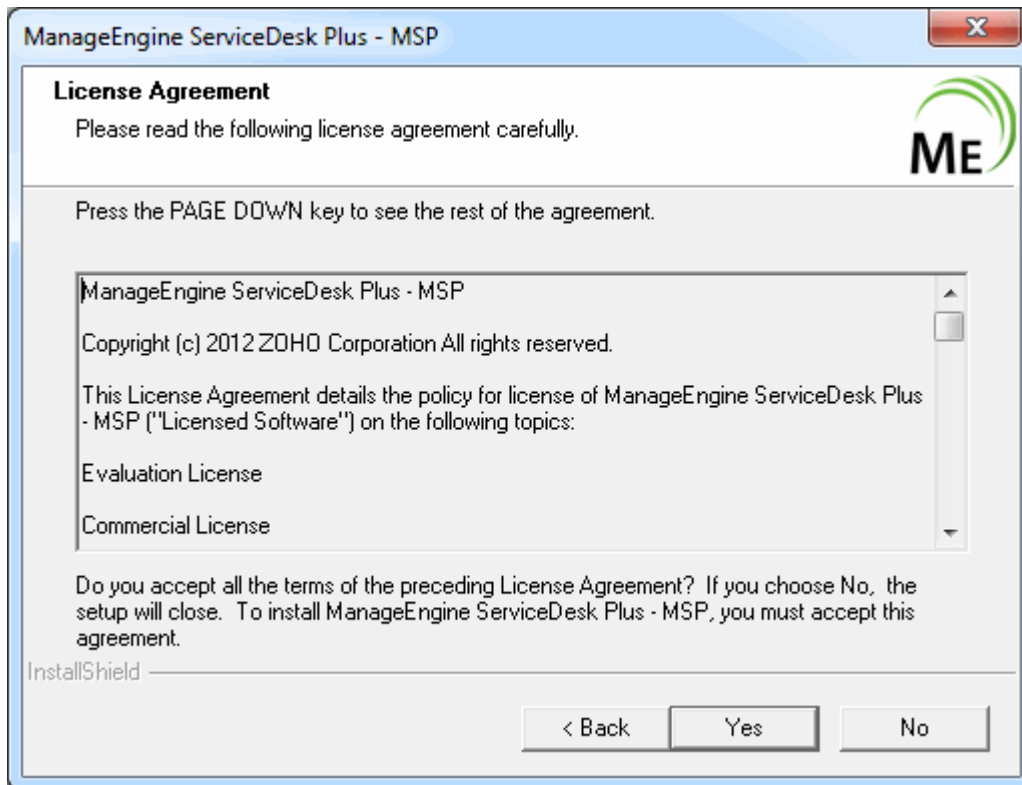
## Installation on Windows

Follow the steps given below to install and set up the ManageEngine ServiceDesk Plus - MSP application:

1. Download the **ManageEngine\_ServiceDeskPlus\_MSP.exe** file.
2. Click the exe file to start the installation. The ServiceDesk Plus - MSP installation wizard appears as shown below,

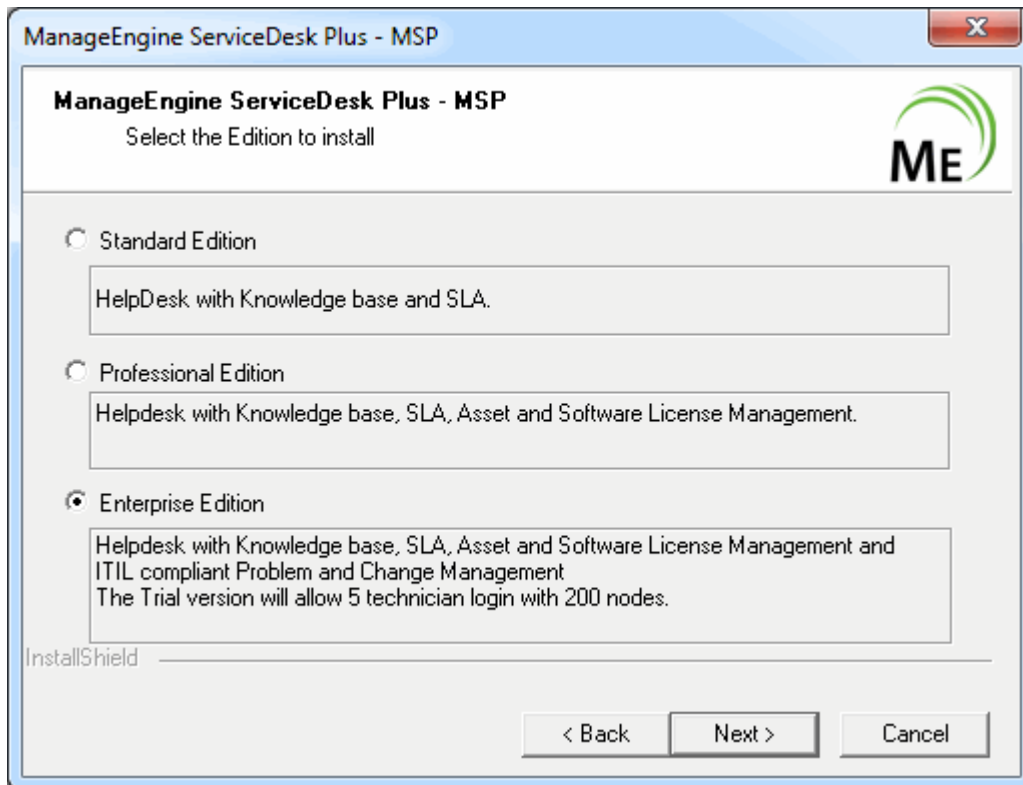


3. Click **Next** to proceed with the installation.
4. The second screen displays the License Agreement. You need to accept the license agreement to proceed with the installation. Click **Yes** to accept.



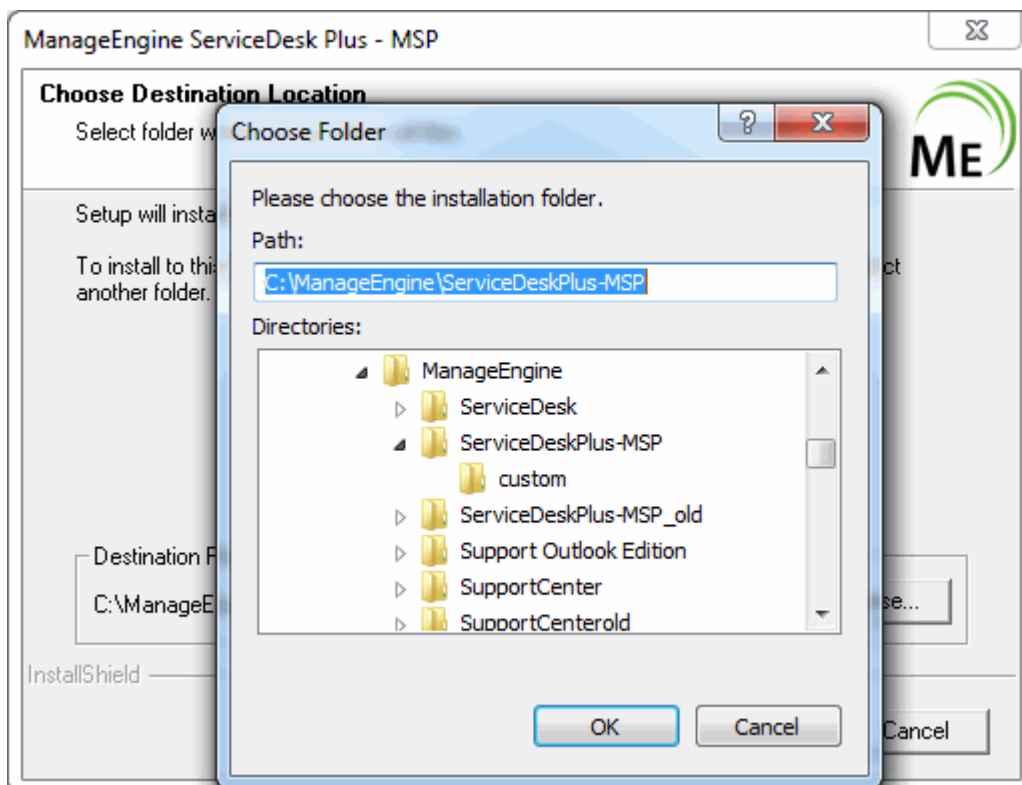
5. Select the **ServiceDesk Plus - MSP Edition** to install.
  - Standard Edition - This edition offers Account Management, Billing, Help Desk Management, Self-Service Portal, Knowledge Base, SLA Management and Help Desk Report to help you manage and track your requests.
  - Professional Edition - This edition offers Account Management, Billing, Software Compliance & License Tracking, Product Catalog, NMS Integration, Asset Reports and few other asset related process along with the features of Standard Edition.
  - Enterprise Edition - This is an ITIL ready help desk. It includes all features of Professional Edition plus Incident Management, Problem Management, Change Management and Service Catalog.

You can also refer the document ServiceDesk Plus - MSP Edition Comparison to choose your required edition.



6. By default, the application is installed in *C:\ManageEngine\ServiceDeskPlus-MSP* directory.

If you want to change the installation directory, then, click the **Browse** button beside the directory path. From the file chooser window, choose the directory of your choice and click **OK**.





**Note:** The installation directory or its parent directories must not have any space character in its name.

6. In the next screen, enter the folder name that will be displayed in *Programs* in your windows menu. By default it is *ManageEngine ServiceDesk Plus - MSP* Click **Next** to continue.
7. Enter the port number that has to be used to run the web server. The default port number provided is **8080**. If you already have any application running in that port, then enter the number of the port that is free and can be used by the web server to run the ServiceDesk Plus - MSP application server and click **Next**.

8. Choose the Database between MY SQL and MS SQL. By default ServiceDesk Plus - MSP supports **My SQL database**. If you wish to use **MS SQL database** you need to provide additional information.
  - **Host Name:** Enter the IP Address/host name in which the database is available. The default host name is 'localhost'.
  - **Port:** Specify the port in the given text field. The default value is 1433.
  - **Database :** By default the database name will be Servicedesk in non-editable format.
  - **User Name:** Specify the user name to login to the server in the given text field.
  - **Password:** Specify the password for the username in the given text field. Click **Next**.



**Note:** To switch over to SQL database, you need to enable SQL authentication. Window authentication will not work.

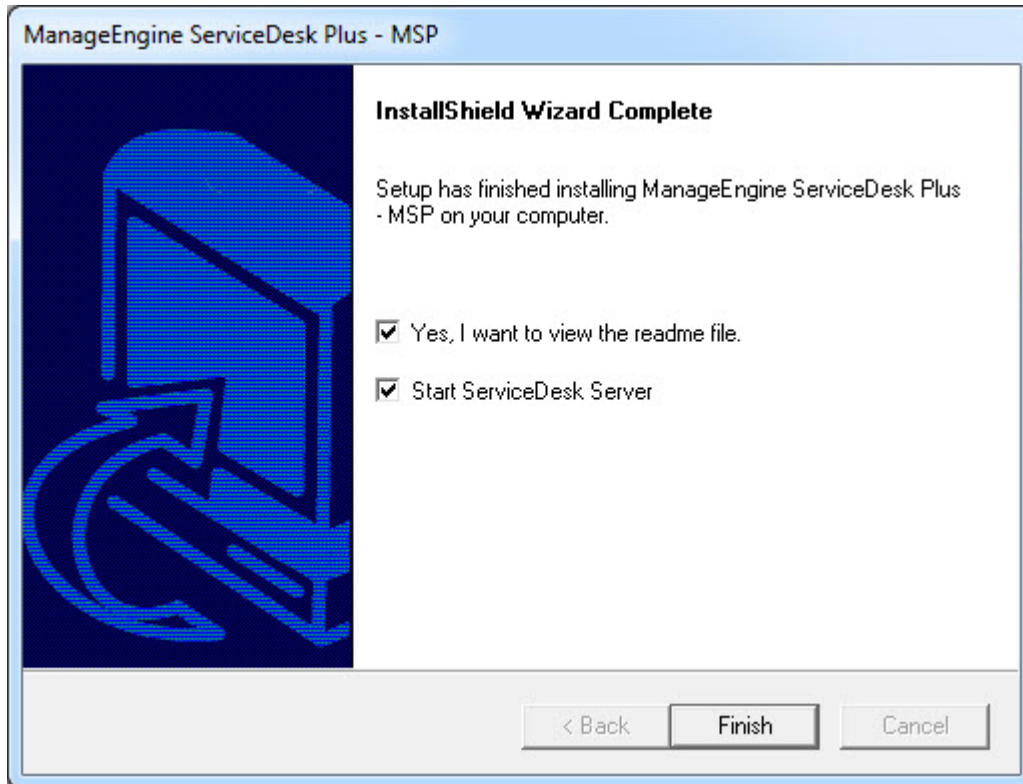
9. The **Registration for Technical Support** form is displayed. This is an optional form and it enables you to register for technical assistance. By registering, it helps the technical support team to be better informed about your organization and its specific needs and hence provide

a more focused support. Enter the details such as **Name**, contact **E-mail ID**, **Phone Number** (helps in making calls for immediate support), **Company Name**, and **Country**. Click **Next**.

9. The details that you have provided till now will be displayed as below for your confirmation:  
**Installation Directory : C:\ManageEngine\ServiceDeskPlus-Msp**  
**Folder Name : ManageEngine ServiceDesk Plus - MSP**  
**WebServer Port : 8080**

If the displayed information is correct, then click the **Next** button, or else click the **Back** button and make the necessary changes and proceed with the installation.

10. After you confirm the above details, the application is installed. On successful installation, the following screen is displayed.



If you choose to start the ServiceDeskPlus - MSP as Service, then the ServiceDeskPlus - MSP Server is started automatically and the client window opens. If you do not wish to view the readme file or start ServiceDesk as a windows service, de-select the options provided.

13. Click **Finish** to complete the installation. The **ReadMe** document is displayed in a pop up window.

If you had followed the instructions in the wizard and installed the application with the default settings suggested by the wizard, the **ManageEngine ServiceDeskPlus - MSP** program group is created in the **Start** menu. Also, the ServiceDesk server will be started and the client window opens with the login page. Enter the user name and password to log in to the application.

#### To manually start the ServiceDesk Plus - MSP application

1. Click **Start -> Programs -> ManageEngine ServiceDesk Plus - MSP -> ServiceDeskPlus - MSP Server** to start the web server. This takes approximately 2 minutes in a Windows XP, 512 MB RAM, and 1.0 GHZ processor. Generally, the server is started and the web client is also launched in the default browser.
2. If the web client is not launched automatically, then click **Start -> Programs -> ManageEngine ServiceDeskPlus - MSP -> ServiceDeskPlus - MSP Web Client** to start the web client. The application opens the login page in your default web browser.
3. Enter your **user name** "administrator" and **password** "administrator" to log in to ServiceDeskPlus - MSP. As soon as you log in the **configuration wizard** home page is displayed. Follow the instructions provided in the wizard and click the **Next** button.

#### To reinitialize the server

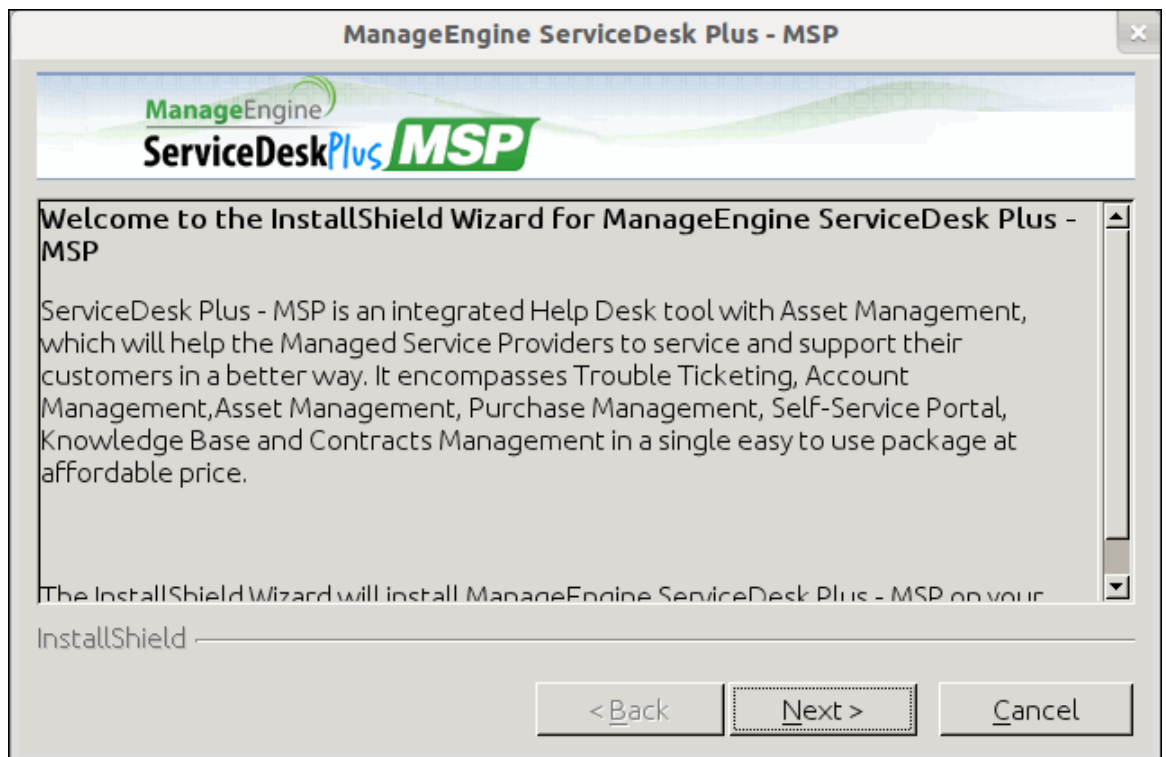
1. Go to <ServiceDeskPlus-MSP>\bin directory.
2. Execute **reinitializeDB.bat** to reinitialize the server. **Please note that all the data in the server will be lost when you reinitialize.**

## Installation on Linux

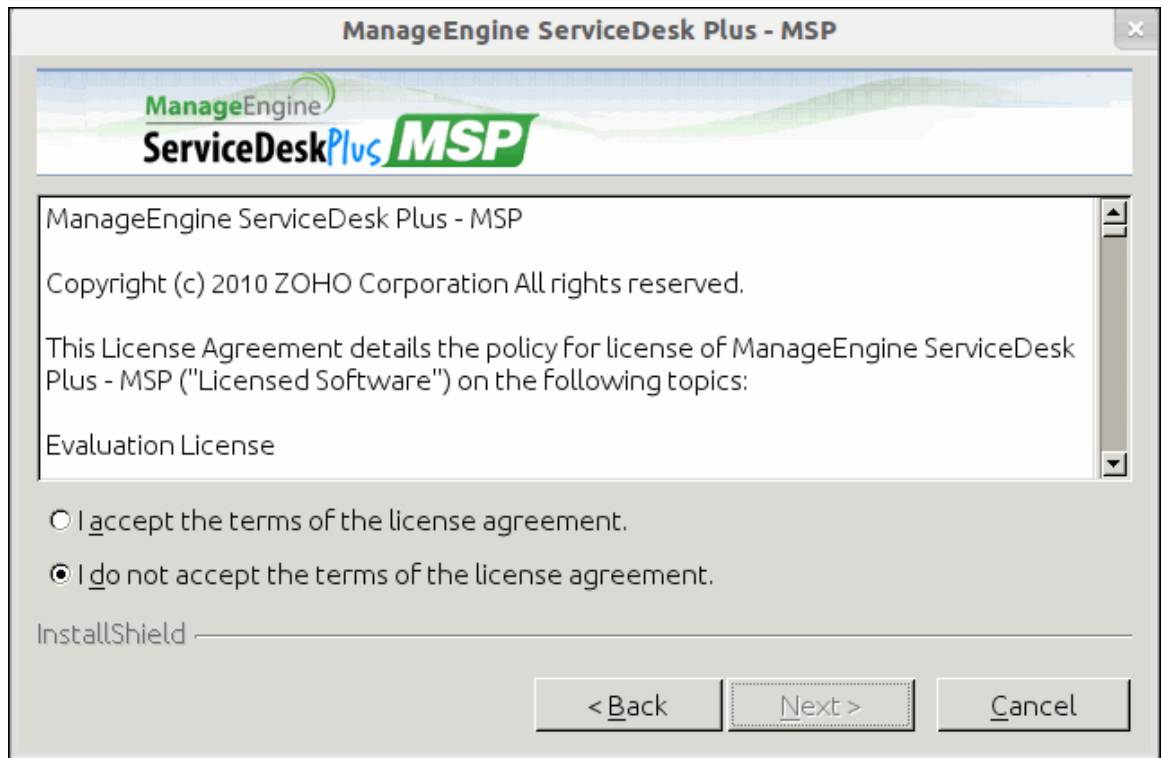
- Install ServiceDesk Plus - MSP on a Linux machine
- Install ServiceDesk Plus - MSP on a Linux machine without GUI
- Install ServiceDesk Plus - MSP as a Linux Service

### Install ServiceDesk Plus - MSP on a Linux machine

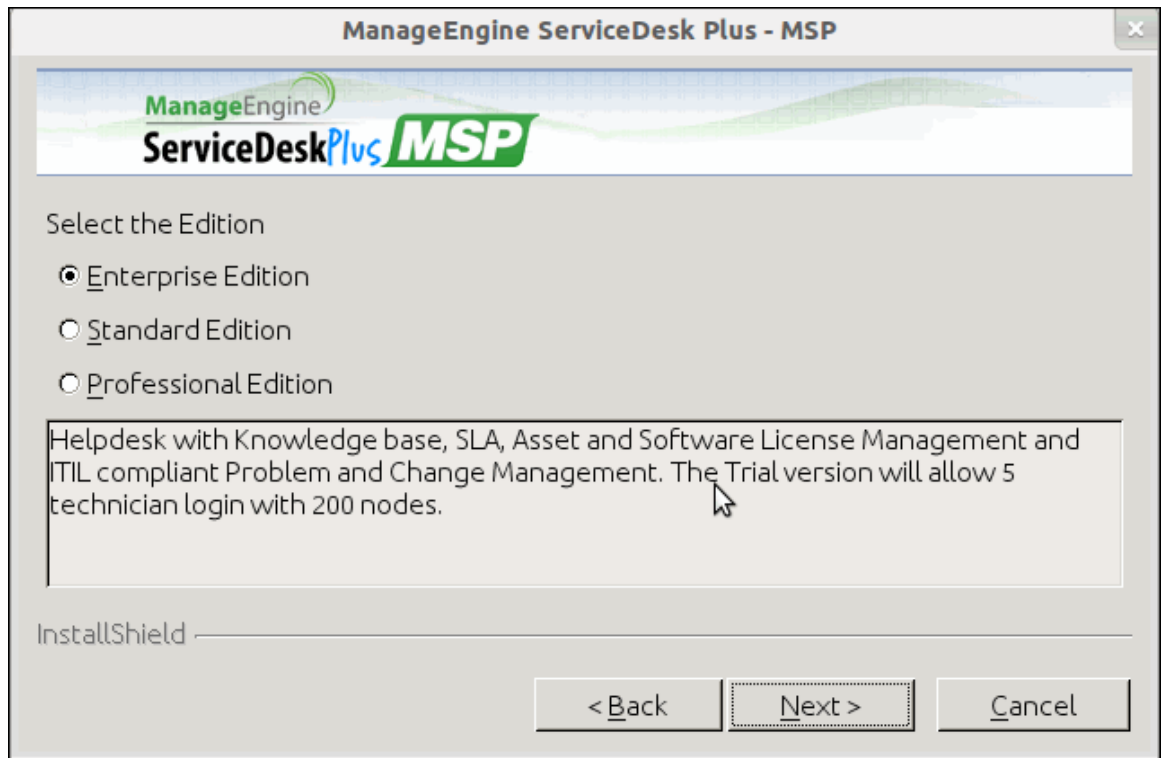
1. Download **ManageEngine\_ServiceDeskPlus\_MSP.bin** file.
2. To execute .bin type files, you require the execute permission. Enter the command as given below in your command prompt.  
**#chmod +xManageEngine\_ServiceDeskPlus\_MSP\_x\_Linux.bin**
3. Execute the .bin file.  
**./ManageEngine\_ServiceDesk\_Plus\_MSP.bin**
4. The **ManageEngine ServiceDesk Plus - MSP Installation Wizard** is displayed. Click **Next** to proceed with the installation.



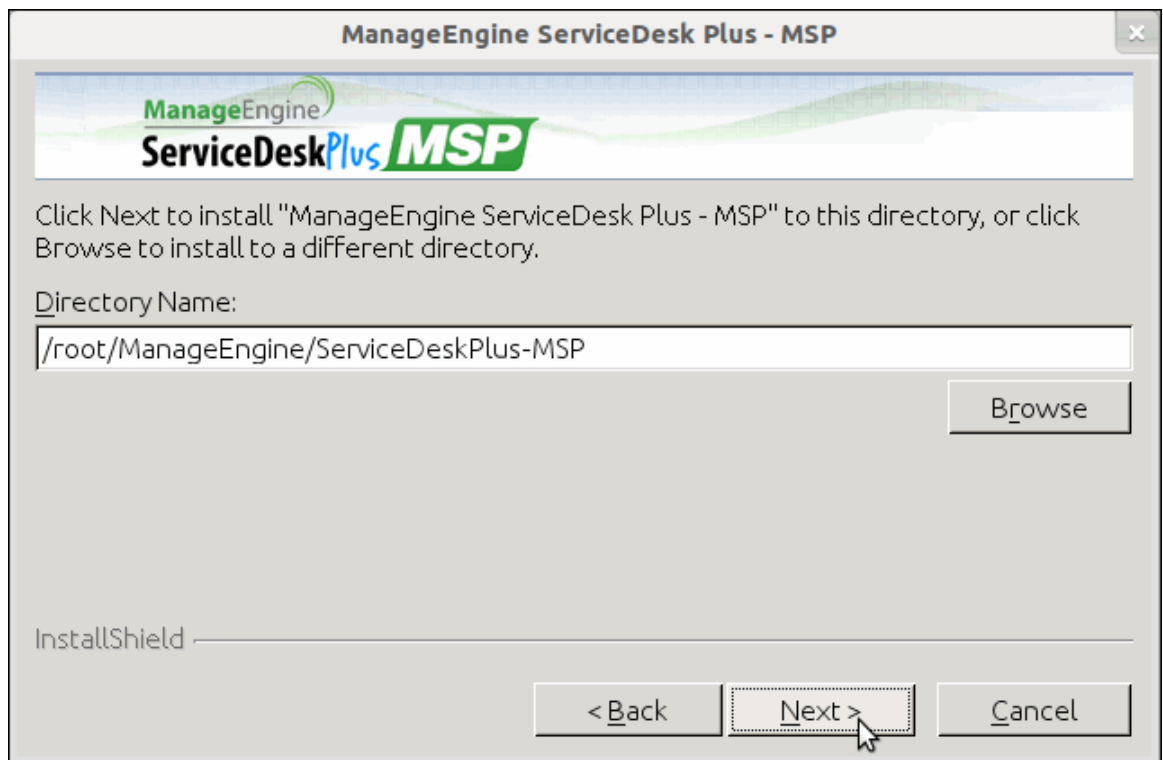
5. The **License Agreement** is displayed. Please read the license agreement carefully. You need to accept the license agreement to proceed with the installation.



6. Click **Yes** to accept the license agreement.
  7. Select the **ServiceDesk Plus Edition** to install.
    - **Standard Edition:** This edition offers Account Management, Billing, Help Desk Management, Self-Service Portal, Knowledge Base, SLA Management, and Help Desk Report to help you manage and track your requests.
    - **Professional Edition:** This edition offers Account Management, Billing, Software Compliance & License Tracking, Product Catalog, Asset Reports and few other asset related process along with the features of Standard Edition.
    - **Enterprise Edition:** This is an ITIL ready help desk. It includes all features of Professional Edition plus Incident Management, Problem Management, Change Management and Service Catalog.
- You can also refer the document ServiceDesk Plus Edition Comparison to choose your required edition.



8. The next step is choosing the installation directory. By default, the application is installed in *home/<user>/ManageEngine/ServiceDeskPlus-Msp* directory. If you want to change the installation directory, then click the **Browse** button and choose the installation folder. Click **OK**.



9. Click **Next**.

10. Enter the **Web Server Port Number** to run the web server. The default port number provided is **8080**. If you already have another application running in that port, then enter the port number which is free and can be used to run the web server. Click **Next**.

**NOTE:** If you want to provide a port number lesser than 1024 as the web server port, then you need to be the super-user of the system to successfully install and run ServiceDesk Plus - MSP application.

11. The **Registration for Technical Support** form is for obtaining technical assistance from our support team. By registering for technical support, our support team will be better informed about your organization and its specific needs, and hence provide a more focused support. Enter your details such as **Name**, contact **Email Address**, **Phone Number** (helps in making calls for immediate support), **Company Name** and **Country**. The Email Address is a mandatory field. Click **Next**.

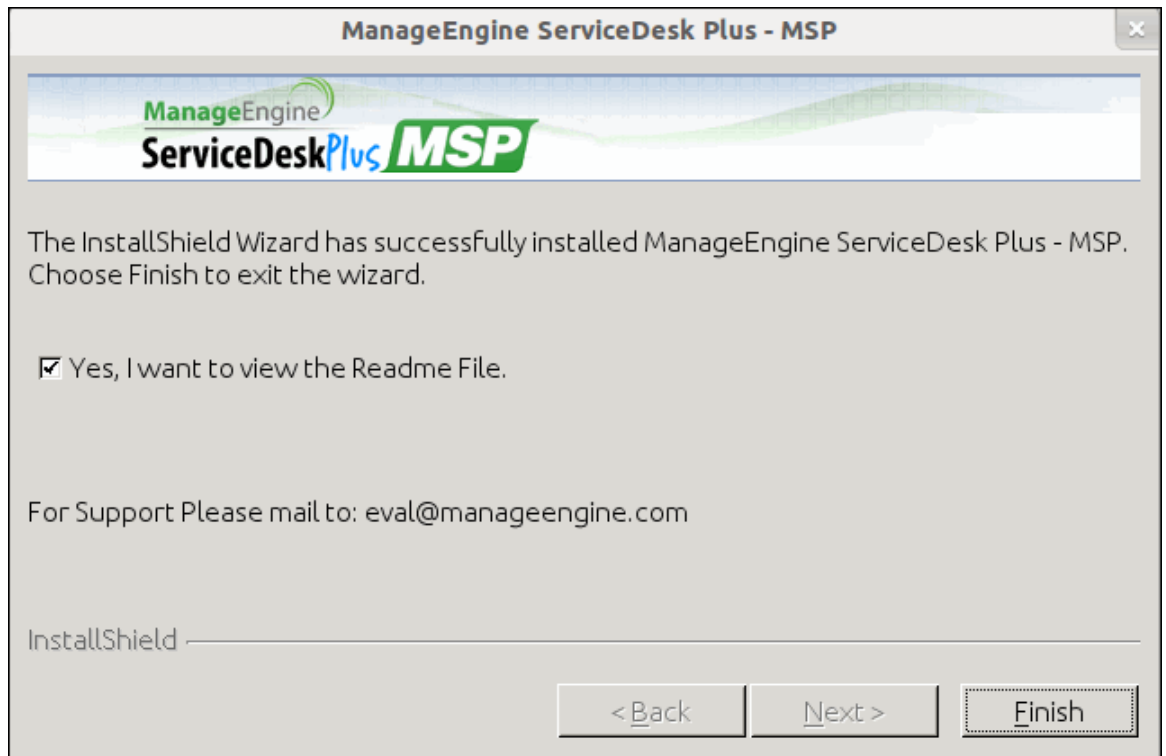
12. The details that you have provided till now are displayed for your confirmation.

**Installation Directory:** *home/<user>/ManageEngine/ServiceDeskPlus-MSP*

**Product Size:** *62.8 MB*

If the displayed information is correct, then click the **Next** button, or else click the **Back** button and make the necessary changes and proceed with the installation.

15. After you confirm the above details, the application is installed.
16. On successful installation, the **InstallShield Wizard Complete** screen is displayed. By default, the option to view the ReadMe file is enabled. If you do not wish to view the ReadMe file, deselect the check box.



17. Click **Finish** to complete the installation.

### Install ServiceDesk Plus - MSP on a Linux machine without GUI

1. Download **ManageEngine\_ServiceDeskPlus\_MSP.bin** file.
2. To execute .bin type files, you require the execute permission. Enter the command as given below in your command prompt.

**#chmod +xManageEngine\_ServiceDeskPlus\_MSP\_x\_Linux.bin**

3. Execute the .bin file.

**./ManageEngine\_ServiceDeskPlus\_MSP.bin -console**

[illegible]

4. Follow with the on-screen instructions to proceed with the installation.

## Install ServiceDesk Plus - MSP as a Linux Service

1. **Download** the servicedesk.txt file from [here](#).
2. Copy the **servicedesk.txt** to /etc/init.d/

```
# cp servicedesk.txt /etc/init.d/servicedesk
```
3. **Edit** the servicedesk file to modify the MDIR Variable. MDIR refers to /bin. Typically, if you have installed ServiceDesk Plus as a guest user, then MDIR will be,  
*MDIR=/home/guest/ManageEngine/ServiceDesk-MSP/bin*

**NOTE:** To edit the servicedesk file type **#vi servicedesk.txt**

4. Give executable permissions for servicedesk startup script.  

```
# chmod 755 /etc/init.d/servicedesk
```
5. Create a blank file under /var/log for logging purposes.  

```
# touch /var/log/servicedesk-plus.log
```
6. Use chkconfig command to add the script as a startup process.  

```
# chkconfig --add servicedesk
```

## Upgrade Service Pack

- Upgrade Service Pack on Windows
- Upgrade Service Pack on Linux
  - Apply patch from console or command line

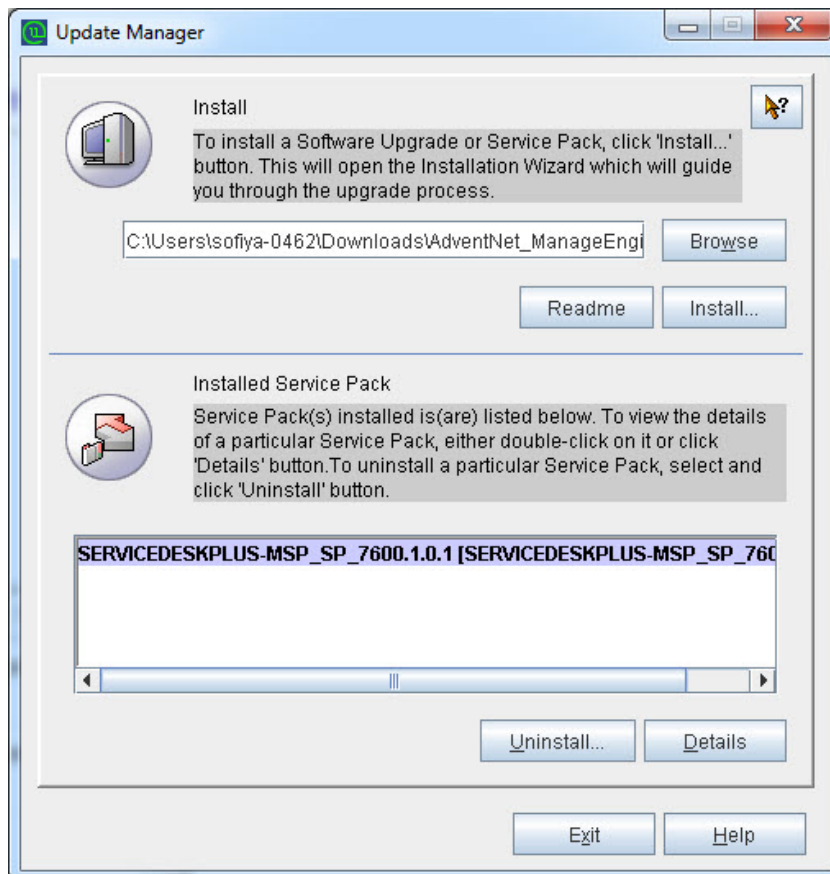
### Upgrade Service Pack on Windows

To upgrade to the latest version and build of ServiceDesk Plus - MSP,

1. Stop **ManageEngine ServiceDeskPlus - MSP** service.
2. Take a backup of the existing build for security reasons. Refer Backup Process to know how to take a backup of your data.

**NOTE:** Taking a backup is essential to revert to the existing build without any loss of data if the upgrade fails due to unexpected reasons. The backup is stored under Backup folder in ServiceDesk Plus-MSP Home directory.

3. Click here to download the latest hotfix or the .ppm file.
4. Go to [ServiceDesk Plus-MSP Home]\bin and execute the file **UpdateManager.bat**.  
`cmd> UpdateManager.bat`
5. A Java UI pops up where you can browse for the location of the .ppm file and click install to start the installation process.



**NOTE:** If you are planning on performing multiple upgrades, please make sure to start and stop the application once after successfully applying a service pack, make a backup of this upgraded version and then proceed with the next service pack.

## Upgrade Service Pack on Linux

1. Stop **ManageEngine ServiceDeskPlus - MSP** Server.
2. Take a backup of the existing build for security reasons. Refer Backup Process to know how to take a backup of your data.
3. Click here to download the latest hotfix or the .ppm file.
4. Run the script **UpdateManager.sh** in the <ServiceDesk\_Plus\_MSP\_Home>/bin folder.
5. From the Update Manager tool click **Browse** button to select the Service Pack file (ManageEngine\_ServiceDesk\_Plus\_-\_MSP\_<latest\_version>\_SP-<build\_number>.ppm) that you had downloaded.
6. Click **Install...** Follow the on-screen instructions to apply the Service Pack / Hotfix.
7. Once the upgrade is complete, start ServiceDesk Plus - MSP Server.

## Apply patch from console or command line

To install a patch from console or command line,

### Easiest option:

```
sh UpdateManager.sh -c
```

And it will guide the user through the steps.

### Here are the other options:

```
sh UpdateManager.sh -u server/default/conf -c -option i -ppmPath <Patch file path including patch file name> -h <Product Home>
```

**To un-install a patch:** `sh UpdateManager.sh -u server/default/conf -c -option u -h <Product Home> -version <Patch version>`

**To view installed patch versions:** `sh UpdateManager.sh -u server/default/conf -c -option v -h <Product Home>`

**To run UPDATERMANAGER.bat from console mode:** `UpdateManager.sh -c -option i ppmPath <Path where PPM is downloaded> -h C:\ManageEngine\ServiceDeskPlus-MSP`

## Start ServiceDeskPlus - MSP Server

- Start ServiceDeskPlus - MSP Server on Windows
- Start ServiceDeskPlus - MSP Server on Linux

### Start ServiceDeskPlus - MSP Server on Windows

1. Click **Start -> Programs -> ManageEngine ServiceDeskPlus - MSP-> ServiceDeskPlus - MSP Server** to start the web server. This takes approximately 2 minutes in a Windows XP, 512 MB RAM, and 1.0 GHZ processor. The server is started and the web client is launched in the default browser.
2. If the web client is not launched automatically, then click **Start -> Programs -> ManageEngine ServiceDeskPlus - MSP-> ServiceDeskPlus - MSP Web Client** to start the web client. The ServiceDesk Plus - MSP login page is opened in the default web browser.
3. Enter the **User name** as "administrator" and the **Password** as "administrator" to log in to ServiceDesk Plus - MSP.

As soon as you login, the **Configuration Wizard** home page is displayed. Click **Next** button to proceed with the configurations. Refer Admin Configurations in the Admin Guide to know how to configure ServiceDesk Plus - MSP.

### Start ServiceDeskPlus - MSP Server on Linux

1. Go to **<ServiceDeskPlus - MSP>/bin** directory and execute the run.sh file
2. To start the web client, open a web browser and type the following in the address field.

```
$ sh run.sh
```

```
http://localhost:8080
```

Here, you need to replace the localhost with the corresponding server name where the ServiceDeskPlus - MSP web server is running and the port number 8080 should be replaced with the actual port where the server is running. The ServiceDesk Plus - MSP login page opens in the default web browser.

3. Enter the **User name** as "administrator" and the **Password** as "administrator" to login to ServiceDesk Plus - MSP.

As soon as you login, the **Configuration Wizard** home page is displayed. Click **Next** button to proceed with the configurations. Refer Admin Configurations in the Admin Guide to know how to configure ServiceDesk Plus - MSP.

## Register ServiceDesk Plus - MSP

Once your 30 days trial evaluation period is over, you need to register the ServiceDesk Plus - MSP application. To purchase the application, please contact [sales@manageengine.com](mailto:sales@manageengine.com). They will send you the registered license file. Using this license file, you can register the ServiceDesk Plus - MSP application.

To register ServiceDesk Plus - MSP

1. Log in to the ServiceDesk Plus - MSP application using the user name and password of an admin user.
2. Click the **License** link available at the right top of the application. The **License** window is opened.
3. Click the **Browse** button to locate the license file sent to you when you purchased the application.
4. From the file chooser window, select the license file and click **Open**.
5. Click **Upgrade**.

The registration of the ServiceDesk Plus - MSP application is complete. You can continue using the application.

## Shutdown ServiceDeskPlus - MSP Server

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- Shutdown ServiceDeskPlus - MSP on Windows
  - Shutdown ServiceDeskPlus - MSP on Linux
- 

### Shutdown ServiceDeskPlus - MSP on Windows

1. Click **Start -> Programs -> ManageEngine ServiceDeskPlus - MSP-> Shutdown ServiceDeskPlus - MSP**. A confirmation message is displayed.
2. Click **OK** to proceed with the shutdown.

Alternatively, right-click on the system tray icon and select **Shut down Server**. A confirmation message is displayed. Click **OK** to shut down ServiceDesk Plus - MSP.

### Shutdown ServiceDeskPlus - MSP on Linux

Execute **shutdown.sh** file from the bin directory as given below,

**sh shutdown.sh -S**

## Configure the Database

- Configure the Database
  - **Configuring MS SQL Server**
  - **Configuring MY SQL Server**
- Non GUI Users
- Connect to My SQL Server
- Troubleshooting Tips

### Configure the Database

By default ServiceDesk Plus - MSP supports **MY SQL database**, to switch over to **SQL database**, you need to configure SQL server credentials to establish connection and start the server.

#### Configuring MS SQL Server

1. Execute the **changeDBServer.bat** [**changeDBServer.sh for Linux**] file presented under the ServiceDeskPlus - MSP Home. This opens the **Database Setup Wizard** page. Fill in the details of the form to configure SQL server.
  - **Server Type:** Select the server type from the combo box. Say, MS SQL
  - **Host Name:** Enter the IP Address/ host name in which the database is available. The default host name is 'localhost'.
  - **Port:** Specify the Port. The default port is 1433.
  - **Database:** By default the database name will be servicedesk in non-editable format.
  - **User Name:** Specify the User Name to login to the server
  - **Password:** Specify the Password.

2. To check the availability of connection, click the **Test** button. A pop up window pops up showing '**Connection Established**' message.
3. Click **OK** to proceed.
4. Click **Save** button to save the SQL server settings.

### Configuring MYSQL Server

1. If you are using a remote MySql server and do not want to use the inbuilt server then,
2. Select **Server Type** as MySql server. This opens the database wizard page.
3. Specify the **Host Name, Port, User Name & Password**.
4. Click **Test** button and check the availability of the connection.
5. Once the **connections are established**, **save** the details and start the server.

### Non GUI Users

Run the **changeDBServer.bat** [**changeDBServer.sh** for Linux] under command prompt by passing parameter as given below,

```
C:\[ServiceDesk Plus - MSP Home]\bin>changeDBServer.bat --console
```

It will get the DB Server necessary information from the console.

```
INFO: Command to stop DB server [cmd, /c, ..\bin\stopDB.bat, 33366, root]
C:\ManageEngine\ServiceDeskPlus-MSP\bin>changeDBServer.bat --console
"=====
""
"Usage : changeDBServer.bat --console [for non GUI user]"
"Usage : changeDBServer.bat [for GUI user]"
""
"=====
requestScheme is http
*****
DB Server Setup wizard
*****

1> Setup MYSQL Server
2> Setup MSSQL Server
3> Quit
Go to [1/2/3] : 1

Host : localhost
Port : 33355
User : root
Password :
```

### Connect to MY SQL Server

ServiceDesk Plus - MSP uses MYSQL as its default database.

#### Connect to MYSQL Server in Windows

1. Go to **[ServiceDesk Plus - MSP Home] \ mysql \ bin** in the command prompt.  
C:\> cd ManageEngine\ServiceDeskPlus - MSP\mysql\bin
2. Enter the command: **mysql.exe -u root -P 33366 servicedesk**  
C:\> cd ManageEngine\ServiceDeskPlus - MSP\mysql\bin>  
mysql.exe -u root -P 33366 servicedesk

**ServiceDesk** is the name of the database. **33366** is the port on which ServiceDesk Plus - MSP database runs. ServiceDesk Plus - MSP uses root account to connect to the database and does not use any password. You can connect to MYSQL database only from the server console.

```
C:\>cd ManageEngine\ServiceDeskPlus-MSP\mysql\bin

C:\ManageEngine\ServiceDeskPlus-MSP\mysql\bin>mysql.exe -u root -P 33355 servicedesk
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 28 to server version: 5.1.50-enterprise-commercial-pro

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql>
```

### Connect to MYSQL Server in Linux

1. Install the MYSQL client which supports your Linux version.
2. Once this is accomplished, make sure that the command "mysql" is in path. (Most often, mysql should be under path, if not, you may add the complete path to mysql command under PATH variable in the bashrc file.
3. Go to **[ServiceDesk Plus - MSP Home] \ mysql \ bin** in the command prompt.  
# cd [ServiceDesk Plus - MSP Home]/mysql/bin
4. Enter the command: **# mysql -u root -S ../tmp/mysql.sock servicedesk A**

```
[root@sdp-linux64 bin]# mysql -u root -S ../tmp/mysql.sock servicedesk -A
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 4
Server version: 4.1.18-pro

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> select * from workorder;
Empty set (0.00 sec)

mysql> exit
Bye
[root@sdp-linux64 bin]#
```

## Troubleshooting Tips

### MY SQL Connection Resolution

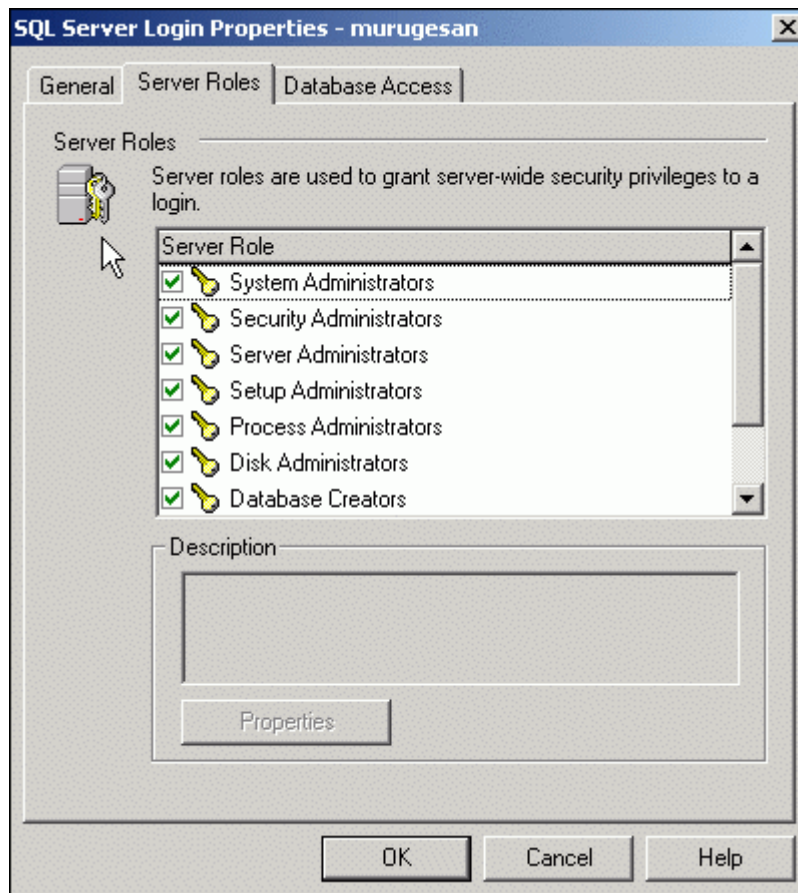
Verify the following,

- Check if MY SQL server is running.
- Check if the server name or the port number is misspelled or incorrect.
- If the MY SQL server is running in a remote machine then there may be a firewall blocking the port number you have entered.
- If none of the above mentioned issues matches then contact your system administrator.

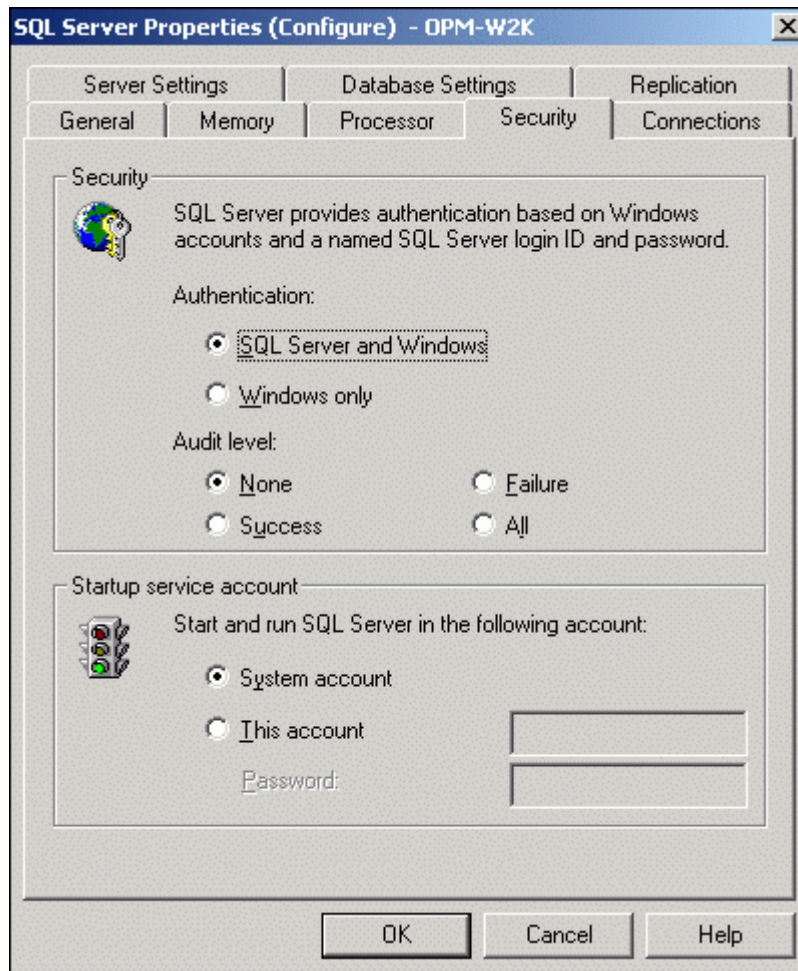
## MS SQL Connection Resolution

If a connection is refused and an exception is thrown by SQL Server as 'unable to connect the server' then there could be following reasons why this could happen such as,

- The server name is misspelled or the port number is incorrect
- The SQL server may not configured to use TCP/IP. In this case, enable TCP/IP from SQL server's network utility application.
- If there is a firewall blocking the port 1433 on the server then you will not be able to connect to the server.
- To confirm the firewall block connect to TCP/IP use \"telnet<server\_host>1433\" to confirm the block.
- SQL Server Instance is not currently supported by ServiceDesk and will be available in the feature release. You can also connect to SQL Server named instance once if you know the machine name and port of the named instance.
- Create new user with full privileges as shown below,



- While configuring SQL server properties select the authentication type as SQL server as shown below. Windows authentication is not supported by ServiceDesk Plus - MSP currently.



## Change Web Server Port

- Change Web Server Port on Windows
- Change Web Server Port on Linux

### Change Web Server Port on Windows

Follow the steps given below to change the web server port where the ServiceDeskPlus - MSP server will be running:

1. Go to `<ServiceDeskPlus-MSP>\bin` directory.
2. Execute the file **changeWebServerPort.bat** at command prompt as shown below:
 

```
C:\[ServiceDesk Plus - MSP
Home]\bin>changeWebServerPort.bat <new port number> <http
or https>
```
3. The web server port will be reset to the new port number that you have specified.
  - HTTPS - To start the ServiceDeskPlus - MSP server in HTTPS mode.
  - HTTP - To start the ServiceDeskPlus - MSP server in HTTP mode. By default, executing the file as **changeWebServerPort.bat <new port number>** will start the server in HTTP mode.
4. If the port number is occupied, you will be prompted to enter a different port number. If you do not wish to enter a different port number then press **N** on your keyboard to exit the application. Else press **Y** and enter a different port number that is unoccupied.

This change will be effected only when you restart the server. To connect to the ServiceDeskPlus - MSP server after restarting, the new port number must be used.

### Change Web Server Port on Linux

Follow the steps given below to change the web server port where the ServiceDeskPlus -MSP server will be running:

1. Go to `<ServiceDeskPlus- MSP>/bin` directory.
2. Execute the file **changeWebServerPort.sh** at command prompt as shown below,
 

```
$ sh changeWebServerPort.sh <new port number> <http or
https>
```
3. The web server port will be reset to the new port number that you have specified.
  - HTTPS - To start ServiceDeskPlus - MSP server in HTTPS mode.
  - HTTP - To start ServiceDeskPlus - MSP server in HTTP mode. By default, executing the file as **changeWebServerPort.bat <new port number>** will start the server in HTTP mode.
4. If the port number is occupied, you will be prompted to enter a different port number. If you do not wish to enter a different port number then press **N** on your keyboard to exit the application. Else press **Y** and enter a different port number that is unoccupied.

This change will be effected only when you restart the server. To connect to the ServiceDeskPlus - MSP server after restarting, the new port number must be used.

# Installing SSL Certificate

- Introduction
- Steps to install SSL in ServiceDesk Plus - MSP
- Install a .P7b Certificate
- Commands to install certificates of some common vendors

## Introduction

ServiceDesk Plus - MSP can run as a HTTPS service. But it requires a **SSL (Secure Socket Layer) Certificate** signed by a valid Certificate Authority (CA).

By default, on first time start-up, it creates a self-signed certificate. This self-signed certificate will not be trusted by the user browsers. Thus, while connecting to ServiceDesk Plus - MSP, you need to manually verify the certificate information and the hostname of ServiceDeskPlus - MSP server carefully and should force the browser to accept the certificate.

To make ServiceDeskPlus - MSP server identify itself correctly to the web browser and the user, you need to obtain a new signed certificate from a CA for the ServiceDesk Plus - MSP host. You can use keytool (bundled with Java) to create your certificates, get them signed by a CA and use them with ServiceDesk Plus - MSP.

## Steps to install SSL in ServiceDesk Plus - MSP

The steps involved in configuring ServiceDesk Plus - MSP to use the SSL are as given below.

**Step 1:** Create a Keystore file

**Step 2:** Create .CSR (Certificate Signing Request) file

**Step 3:** Install your SSL Certificate

**Step 4:** Configuring the Server

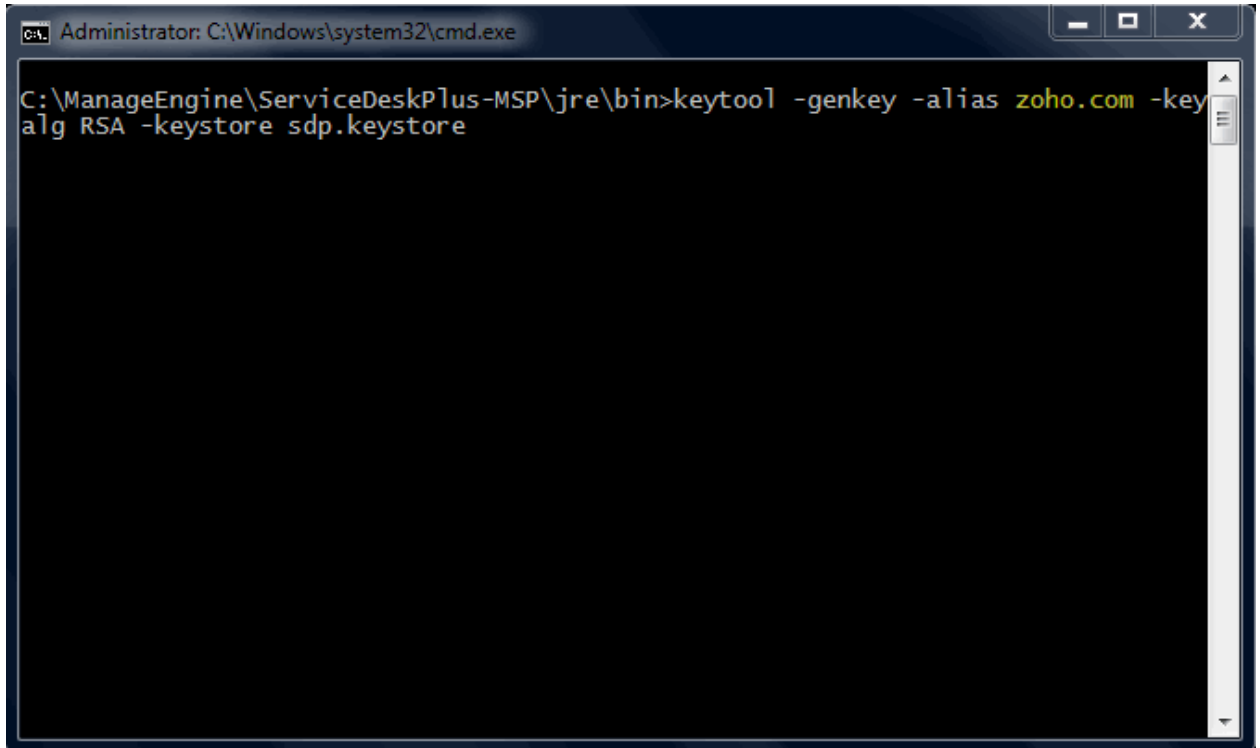
**NOTE:** In all the images, replace the highlighted text with the alias name you want to use for the ServiceDesk Plus - MSP.

## Step 1: Create a Keystore file

Before requesting for a certificate from a CA, you need to create tomcat specific ".keystore" file and ".csr" file. The .keystore file and .csr file will include information provided by the individual who creates the .keystore and .csr files.

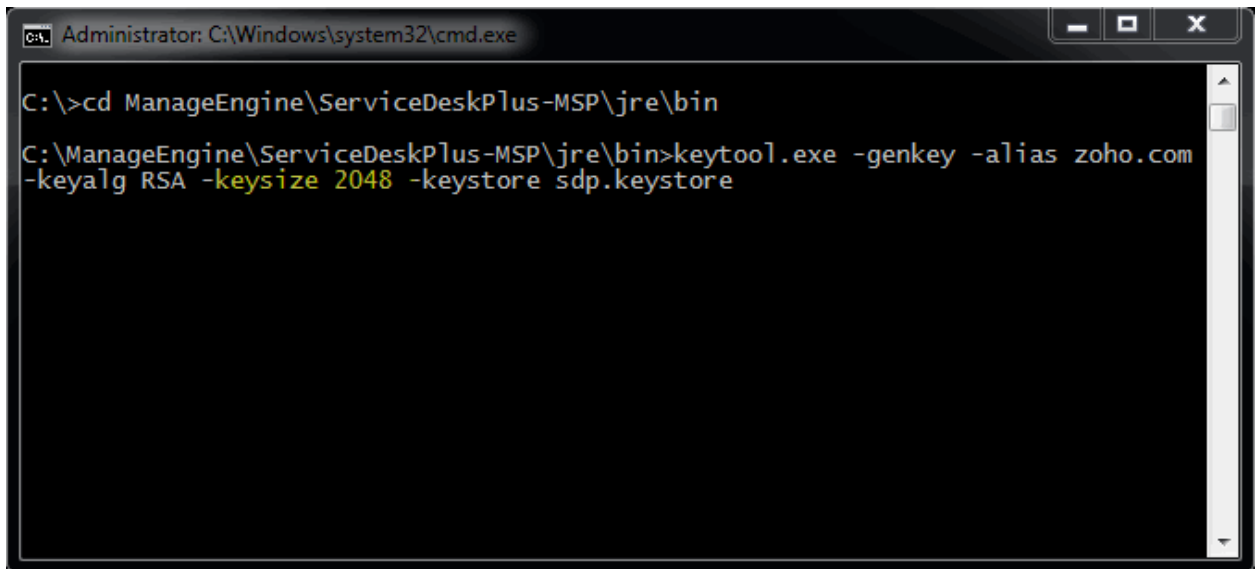
To create the .keystore file follow the below steps,

1. Open the Command Prompt.
2. From the location **<installation directory> \ jre \ bin** execute the command  
**keytool -genkey -alias <your\_alias\_name> or [Domain Name] -keyalg RSA -keystore sdp.keystore**



```
C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool -genkey -alias zoho.com -keyalg RSA -keystore sdp.keystore
```

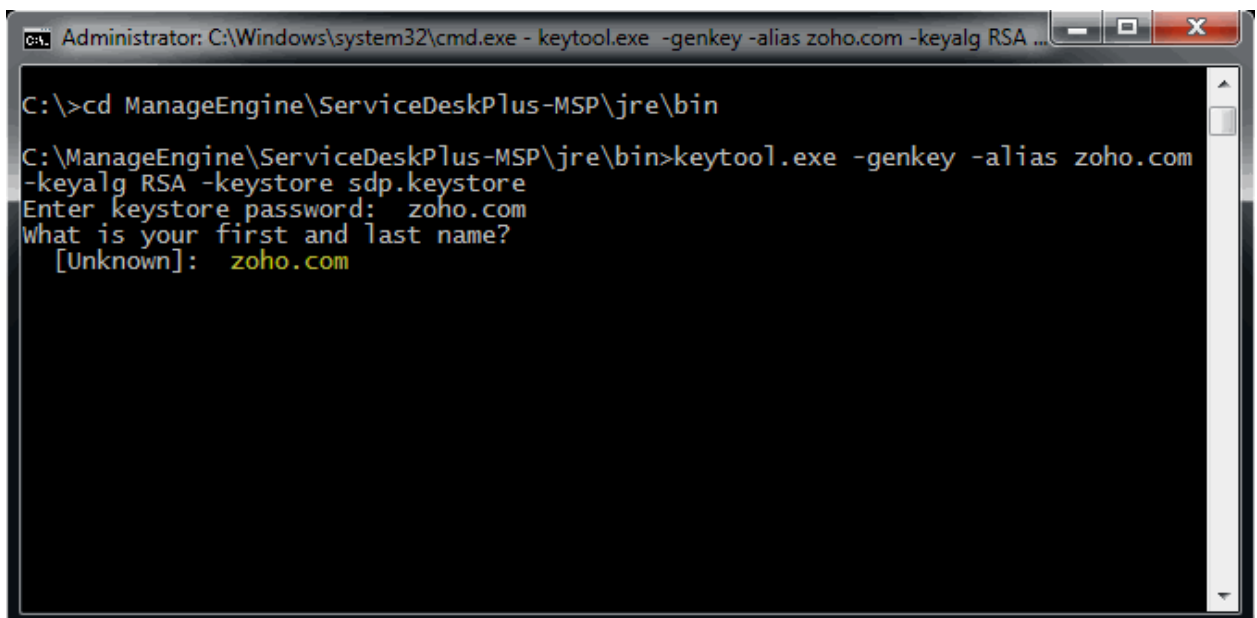
3. If your vendor requires a **CSR of size 2048** please use the command given below.  
**keytool -genkey -alias <your\_alias\_name> or [Domain Name] -keyalg RSA -keysize 2048 -keystore sdp.keystore**



```
C:\>cd ManageEngine\ServiceDeskPlus-MSP\jre\bin

C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool.exe -genkey -alias zoho.com
-keyalg RSA -keysize 2048 -keystore sdp.keystore
```

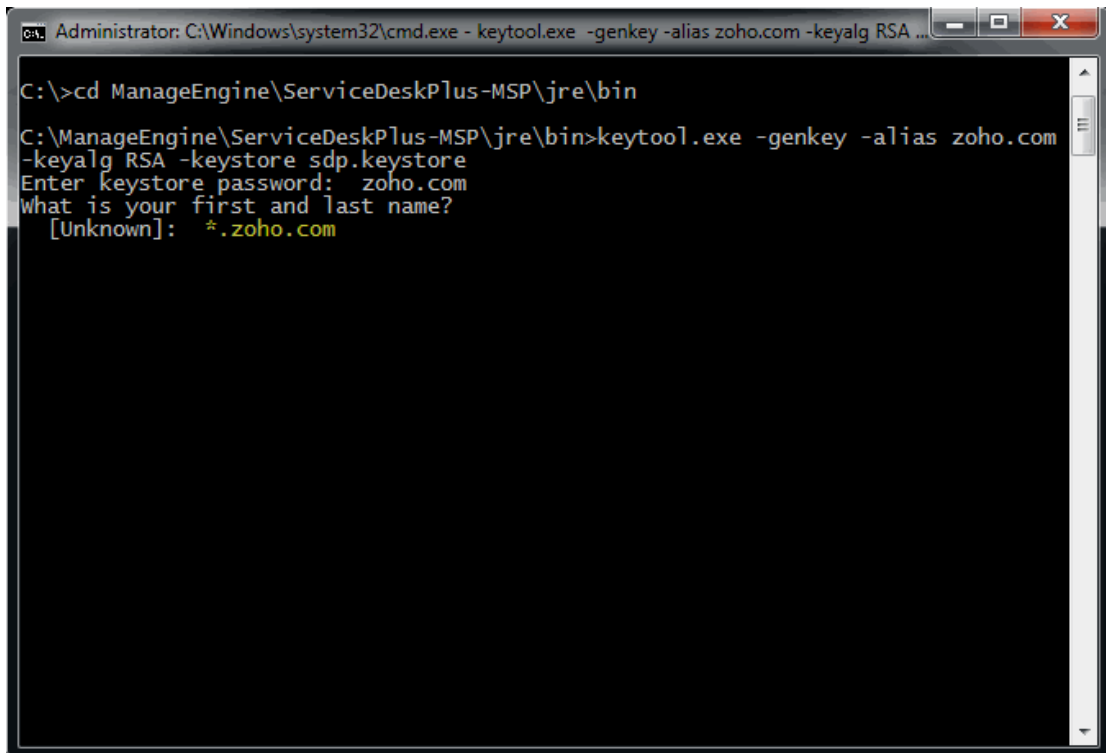
4. You will then be prompted to choose a password for your keystore.  
**NOTE:** Please note that the Password **should not contain \$ symbol**.
5. When it asks for first and last name, this is **NOT** your first and last name, but rather it is your **Fully Qualified Domain Name** for the site you are securing.



```
C:\>cd ManageEngine\ServiceDeskPlus-MSP\jre\bin

C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool.exe -genkey -alias zoho.com
-keyalg RSA -keystore sdp.keystore
Enter keystore password: zoho.com
What is your first and last name?
[Unknown]: zoho.com
```

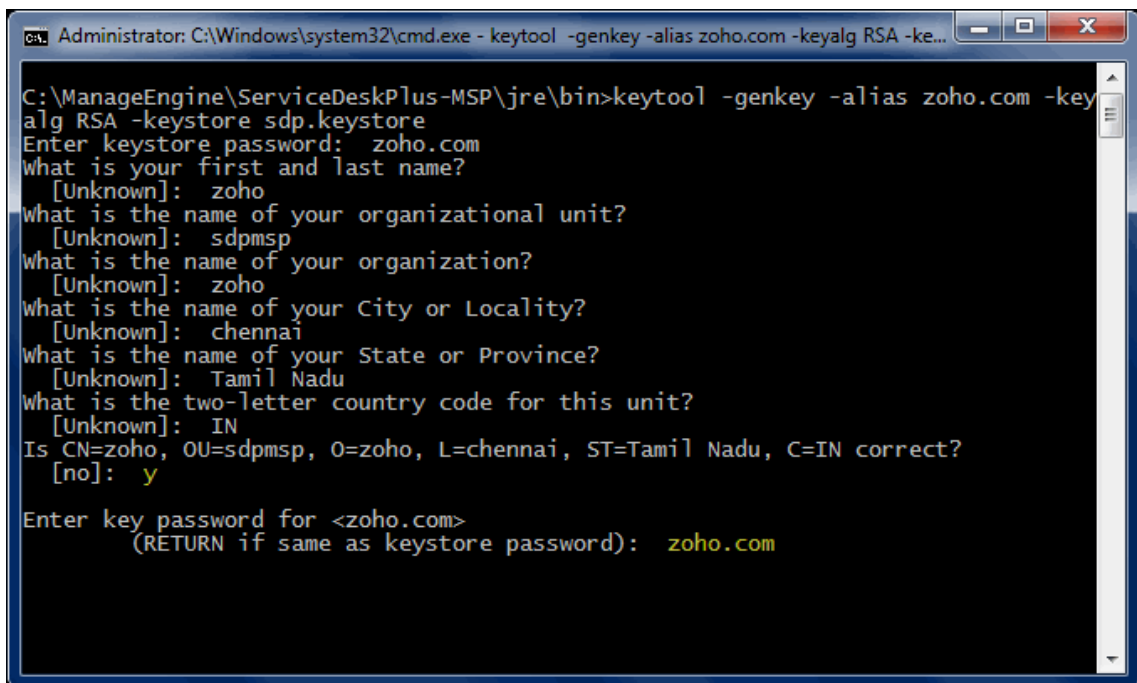
6. If you are ordering a **Wildcard Certificate** this must begin with the \* character.



```

Administrator: C:\Windows\system32\cmd.exe - keytool.exe -genkey -alias zoho.com -keyalg RSA ...
C:\>cd ManageEngine\ServiceDeskPlus-MSP\jre\bin
C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool.exe -genkey -alias zoho.com
-keyalg RSA -keystore sdp.keystore
Enter keystore password: zoho.com
What is your first and last name?
[Unknown]: *.zoho.com
  
```

7. On entering the required information, confirm that the information is correct by entering 'y' or 'yes' when prompted.



```

Administrator: C:\Windows\system32\cmd.exe - keytool -genkey -alias zoho.com -keyalg RSA -ke...
C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool -genkey -alias zoho.com -key
alg RSA -keystore sdp.keystore
Enter keystore password: zoho.com
What is your first and last name?
[Unknown]: zoho
What is the name of your organizational unit?
[Unknown]: sdpmsp
What is the name of your organization?
[Unknown]: zoho
What is the name of your City or Locality?
[Unknown]: chennai
What is the name of your State or Province?
[Unknown]: Tamil Nadu
What is the two-letter country code for this unit?
[Unknown]: IN
Is CN=zoho, OU=sdpmsp, O=zoho, L=chennai, ST=Tamil Nadu, C=IN correct?
[no]: y
Enter key password for <zoho.com>
(RETURN if same as keystore password): zoho.com
  
```

8. At the end of executing the above command, you will be prompted to enter keystore password. Try giving the password **same as your key password**. Make sure to remember the password you choose.
9. Your keystore file named sdp.keystore is now created in your current working directory.

**NOTE:** We request you to make a backup copy of the sdp.keystore file before installing the Certs. This backed up keystore can be used if the certificate installation goes wrong or when you renew your certificates the next year.

## Step 2: Creating .CSR (Certificate Signing Request) file

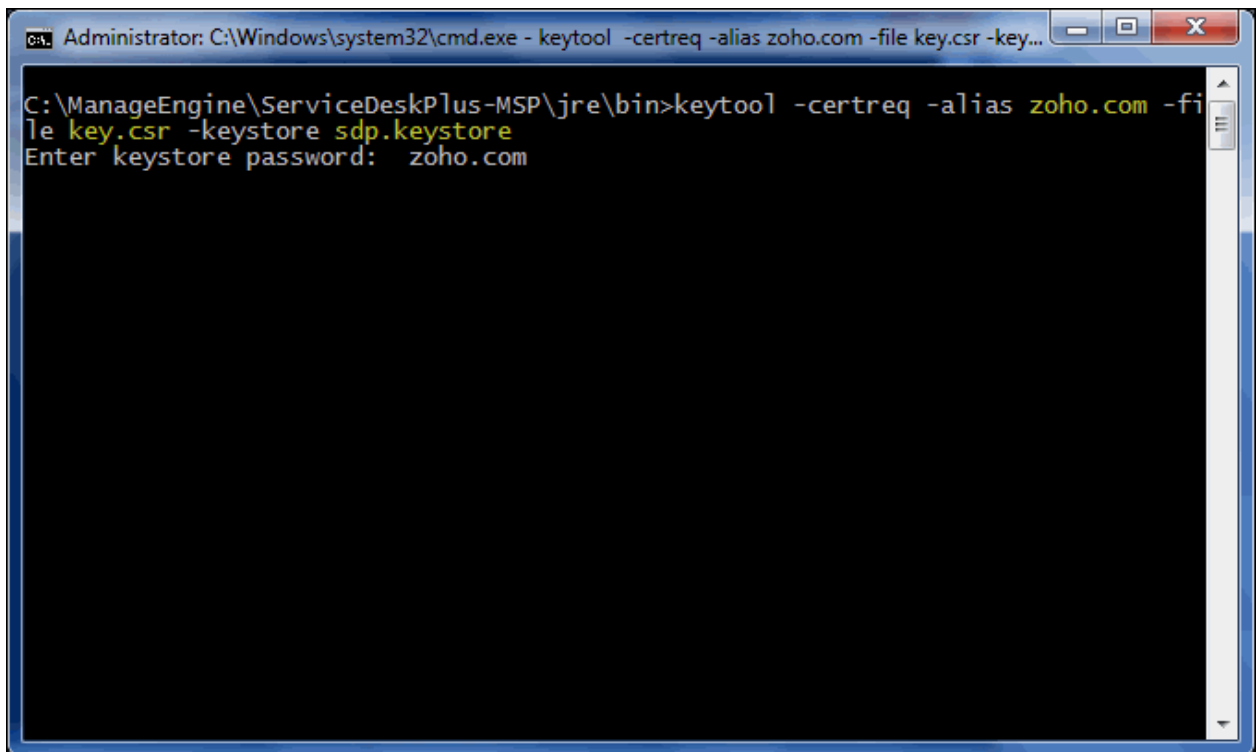
The .CSR (Certificate Signing Request) file is temporary and should be submitted to a CA to receive **CA-Signed Certificate** files.

Please follow the steps given below to create the CSR file.

1. Open the Command Prompt
2. From the location **<installation directory> \jre \ bin** execute the below command.

**keytool -certreq -alias <your\_alias\_name> -file key.csr -keystore sdp.keystore**

In the above command **<your\_alias\_name>** is the alias name provided when creating the keystore, **key.csr** is the name of the CSR file that will be created after the command is executed.



```
C:\Windows\system32\cmd.exe - keytool -certreq -alias zoho.com -file key.csr -key...
C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool -certreq -alias zoho.com -fi
le key.csr -keystore sdp.keystore
Enter keystore password: zoho.com
```

### Step 3: Install your SSL Certificate

Download the Certificate files received from the CA via e-mail to the directory where your keystore (sdp.keystore) was saved during the CSR creation process. The certificates must be installed to this exact keystore. If you try to install it to a different keystore it will not work.

The certificates you had downloaded must be installed to your keystore in the correct order for your certificate to be trusted. If the certificates are not installed in the correct order, then the certificate will not authenticate properly. To find the correct order, double click on the domain certificate and then go to 'Certification Path'.



These certificates are usually in the format **.cer** or **.crt**. If your certificate is with the **extension .p7b** please follow the instructions given in **Installing a .P7b Certificate** to export the certs to a .cer or .crt format.

Looking at the above certification path we can infer that we need to import two other certificates before the domain certificate. First is the **Root**, next the **Intermediate** and finally the **Domain Certificate**. Some CAs may also use another certificate called **Cross Intermediate**. These certificates can be downloaded from the Vendor's website.

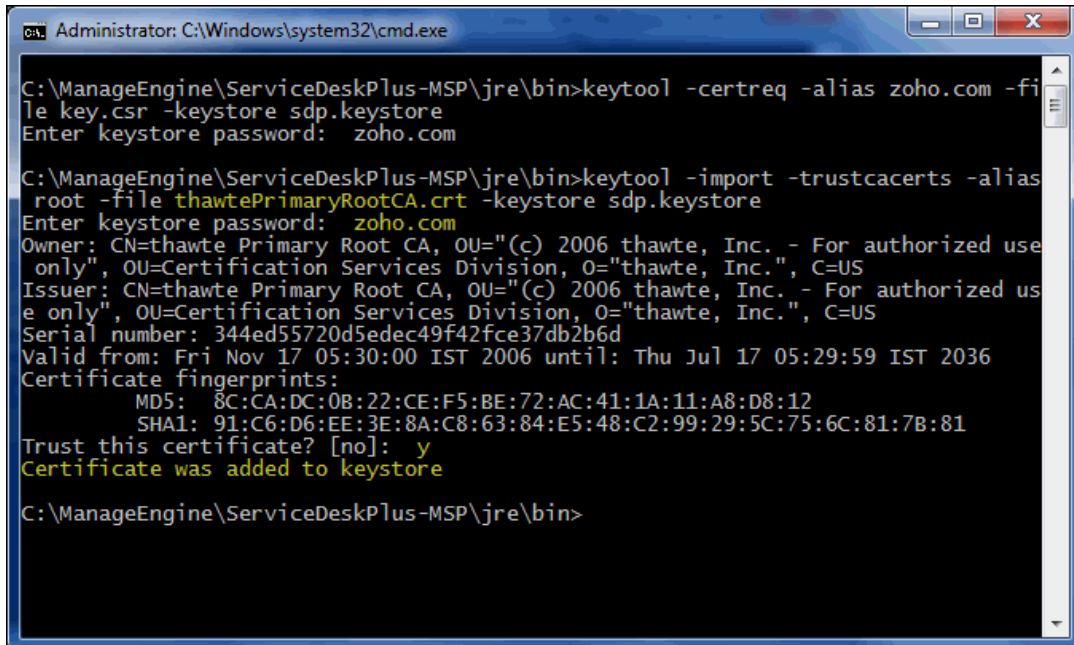
#### Installing the Root Certificate file

Each time you install a certificate to your keystore you will be prompted for the keystore password, which you chose while generating your CSR. Type the following command to install the Root certificate file:

```
keytool -import -trustcacerts -alias root -file <File_Name>.crt -keystore sdp.keystore
```

**NOTE:** Choose 'Yes' if you get prompted with a message that says "Certificate already exists in system-wide CA keystore under alias <Alias Name> Do you still want to add it to your own keystore? [no]:"

You will get a confirmation stating that the "Certificate was added to keystore".



```

Administrator: C:\Windows\system32\cmd.exe

C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool -certreq -alias zoho.com -file key.csr -keystore sdp.keystore
Enter keystore password: zoho.com

C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool -import -trustcacerts -alias root -file thawtePrimaryRootCA.crt -keystore sdp.keystore
Enter keystore password: zoho.com
Owner: CN=thawte Primary Root CA, OU="(c) 2006 thawte, Inc. - For authorized use only", OU=Certification Services Division, O="thawte, Inc.", C=US
Issuer: CN=thawte Primary Root CA, OU="(c) 2006 thawte, Inc. - For authorized use only", OU=Certification Services Division, O="thawte, Inc.", C=US
Serial number: 344ed55720d5edec49f42fce37db2b6d
Valid from: Fri Nov 17 05:30:00 IST 2006 until: Thu Jul 17 05:29:59 IST 2036
Certificate fingerprints:
    MD5: 8C:CA:DC:0B:22:CE:F5:BE:72:AC:41:1A:11:A8:D8:12
    SHA1: 91:C6:D6:EE:3E:8A:C8:63:84:E5:48:C2:99:29:5C:75:6C:81:7B:81
Trust this certificate? [no]: y
Certificate was added to keystore

C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>
  
```

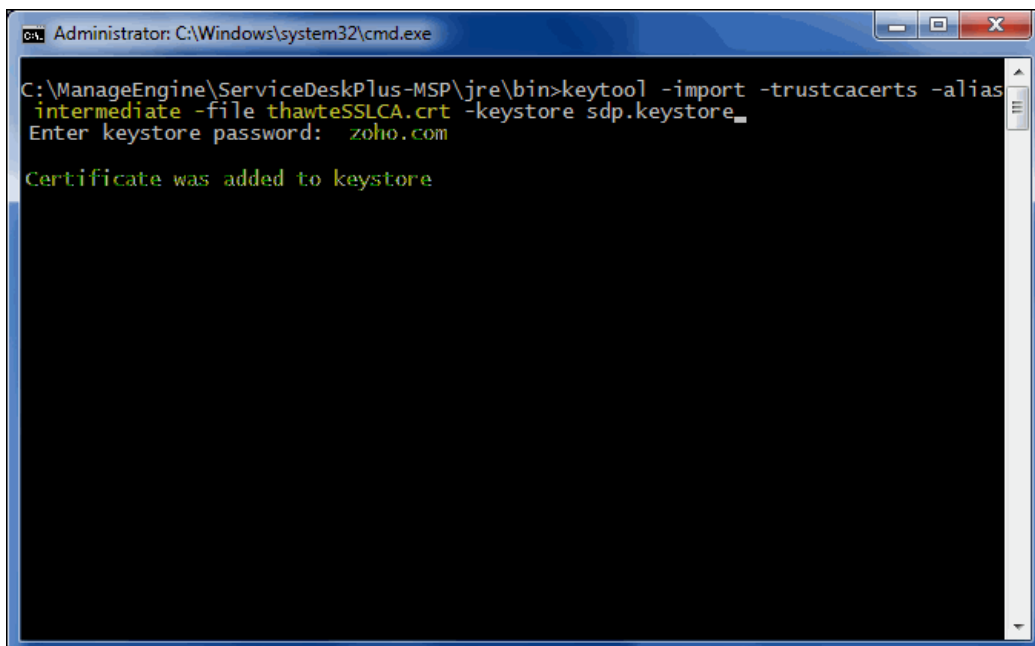
**Install the Intermediate Certificates and Cross Intermediate Certificates (if any).**

Follow the instructions provided by the CA.

**keytool -import -trustcacerts -alias intermediate -file <File\_Name>.crt -keystore sdp.keystore**

**keytool -import -trustcacerts -alias cross -file <File\_Name>.crt -keystore sdp.keystore**

You will get a confirmation stating that the "Certificate was added to keystore".



```

Administrator: C:\Windows\system32\cmd.exe

C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool -import -trustcacerts -alias intermediate -file thawteSSLCA.crt -keystore sdp.keystore
Enter keystore password: zoho.com

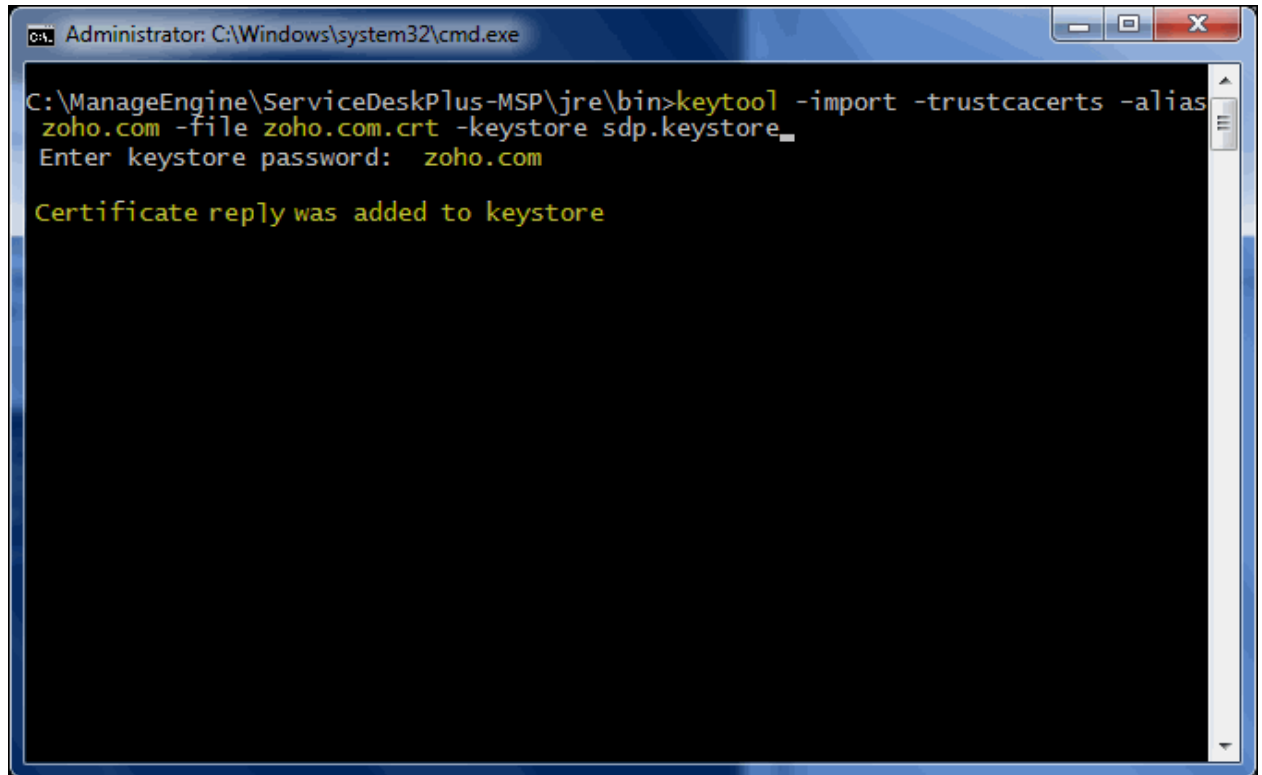
Certificate was added to keystore
  
```

### Install the Primary or the Domain Certificate file

Type the following command to install the Primary certificate file:

**keytool -import -trustcacerts -alias <your\_alias\_name or [Domain Name]> -file  
your\_domain\_name.crt -keystore sdp.keystore**

Please note that **<your\_alias\_name or [Domain Name]>** should be replaced with the alias name provided when creating the keystore (as discussed in Step 1). This time you will get a different confirmation stating that the **"Certificate reply was installed in keystore"**.

A screenshot of a Windows command prompt window titled "Administrator: C:\Windows\system32\cmd.exe". The window shows the following text: 

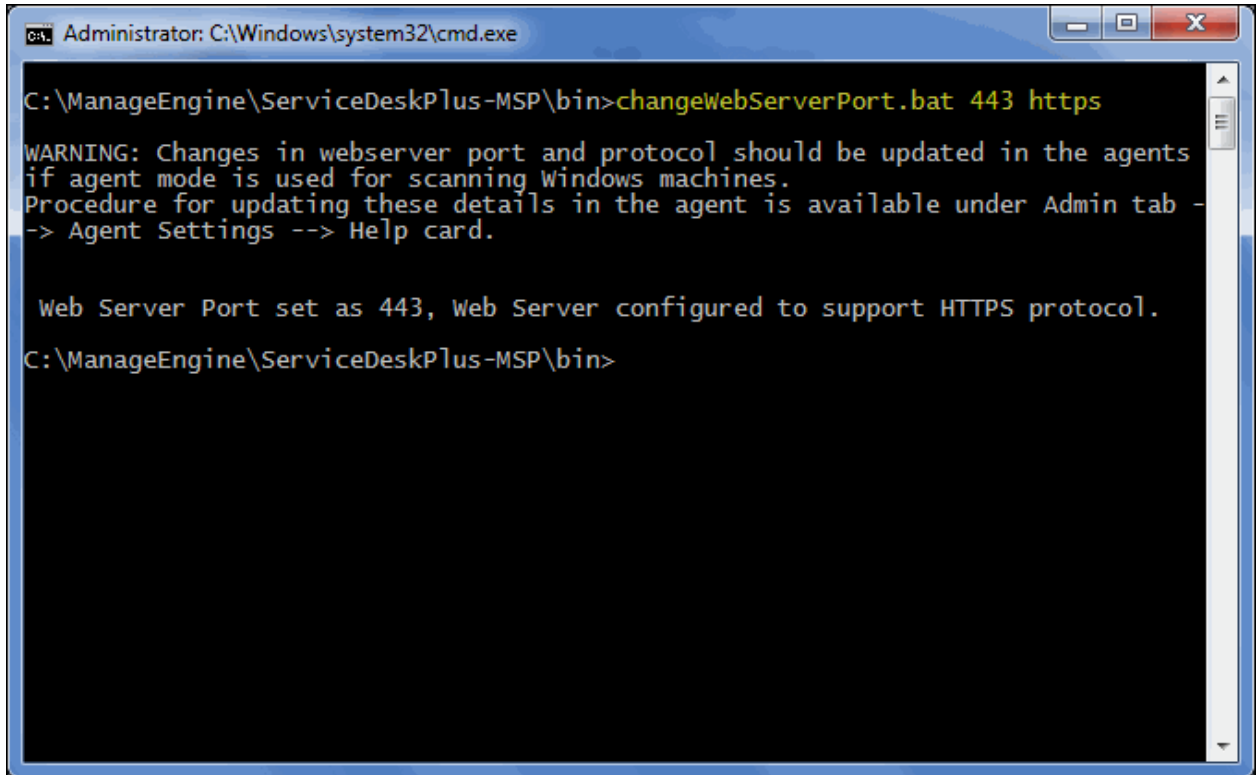
```
C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool -import -trustcacerts -alias  
zoho.com -file zoho.com.crt -keystore sdp.keystore_  
Enter keystore password: zoho.com  
Certificate reply was added to keystore
```

If you want to trust the certificate, then choose y or yes. Your Certificates are now installed to your keystore file (sdp.keystore).

## Step 4: Configuring the Server

1. Copy the sdp.keystore file from <ServiceDeskPlus-MSP\_Home>\jre\bin to <ServiceDeskPlus-MSP\_Home>\server\default\conf
2. From the command prompt, execute **changeWebServerPort.bat** script to change the connection mode to HTTPS.

Cmd>[ServiceDesk Plus-MSP\_Home]\bin> changeWebServerPort.bat  
<WEBSERVER\_PORT> https



```

Administrator: C:\Windows\system32\cmd.exe

C:\ManageEngine\ServiceDeskPlus-MSP\bin>changeWebServerPort.bat 443 https

WARNING: Changes in webserver port and protocol should be updated in the agents
if agent mode is used for scanning Windows machines.
Procedure for updating these details in the agent is available under Admin tab -
-> Agent Settings --> Help card.

Web Server Port set as 443, Web Server configured to support HTTPS protocol.
C:\ManageEngine\ServiceDeskPlus-MSP\bin>

```

3. Finally, update the name of the keystore and the password, you gave in Step 1, while generating sdp.keystore in the file server.xml present under <ServiceDeskPlus-MSP\_Home>\server\default\deploy\jbossweb-tomcat50.sar

```

<!-- SSL/TLS Connector configuration using the admin devl
guide keystore-->
<Connector URIEncoding="UTF-8"
address="{jboss.bind.address}" clientAuth="false"
compressableMimeType="text/css,text/javascript,application/javas
cript,text/plain,text/html" compression="on"
compressionMinSize="2048"
keystoreFile="{jboss.server.home.dir}/conf/sdp.keystore"
keystorePass="zoho.com" maxPostSize="-1" maxSpareThreads="15"
maxThreads="100" minSpareThreads="5"
noCompressionUserAgents="gozilla, traviata" port="443"
scheme="https" secure="true" sslProtocol="TLS"/>

```

4. Restart the service ManageEngine ServiceDesk Plus - MSP for the changes to take effect.

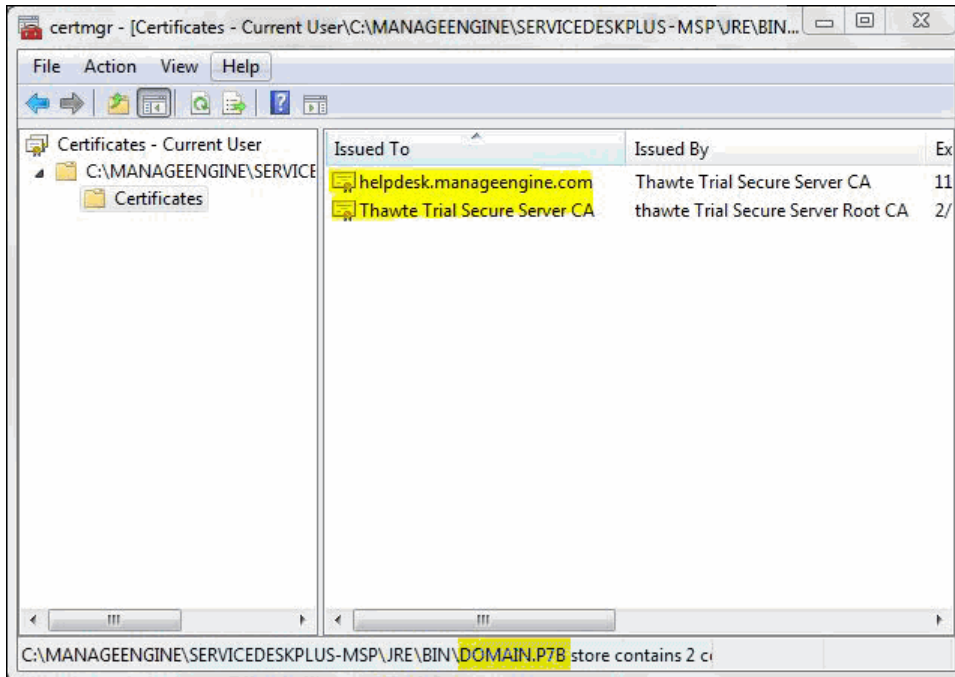
## Install a .P7b Certificate

Some CA will provide the certificates with an extension .p7b. In such a case you can double click on this file to open a console which will list all the required certificates. You can export these certificates to Base-64 encoded X.509 (.cer) files. *(Please refer to the Screenshots given below).*

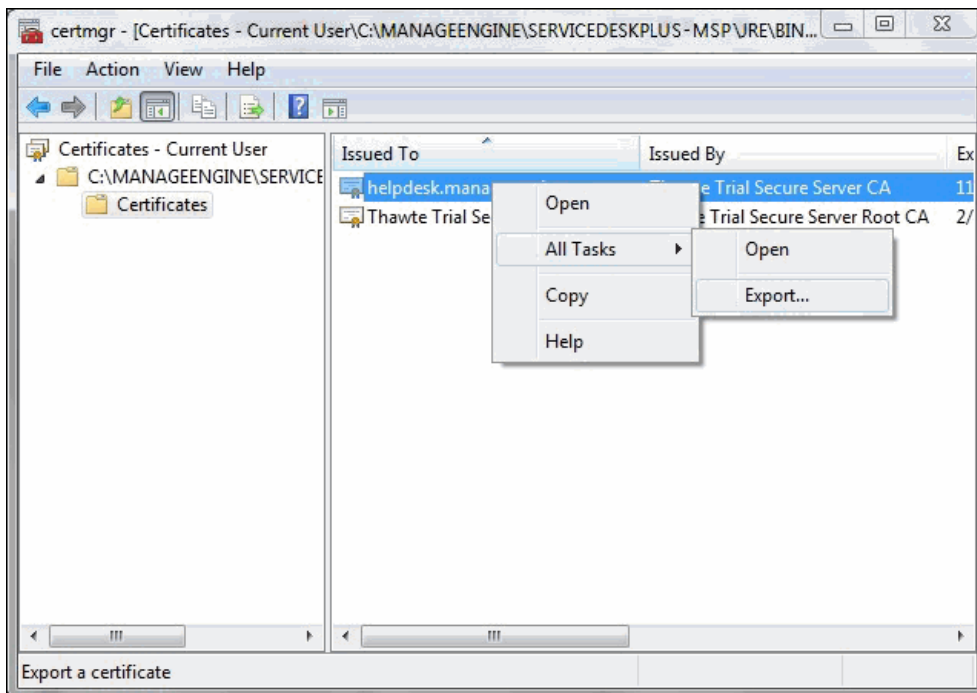
These certs can then be installed onto the keystore file using the instructions given in Step 3.

To export the certificate,

1. Go to **[ServiceDesk Plus - MSP Home] \ jre \ bin \ domain.P7B**.



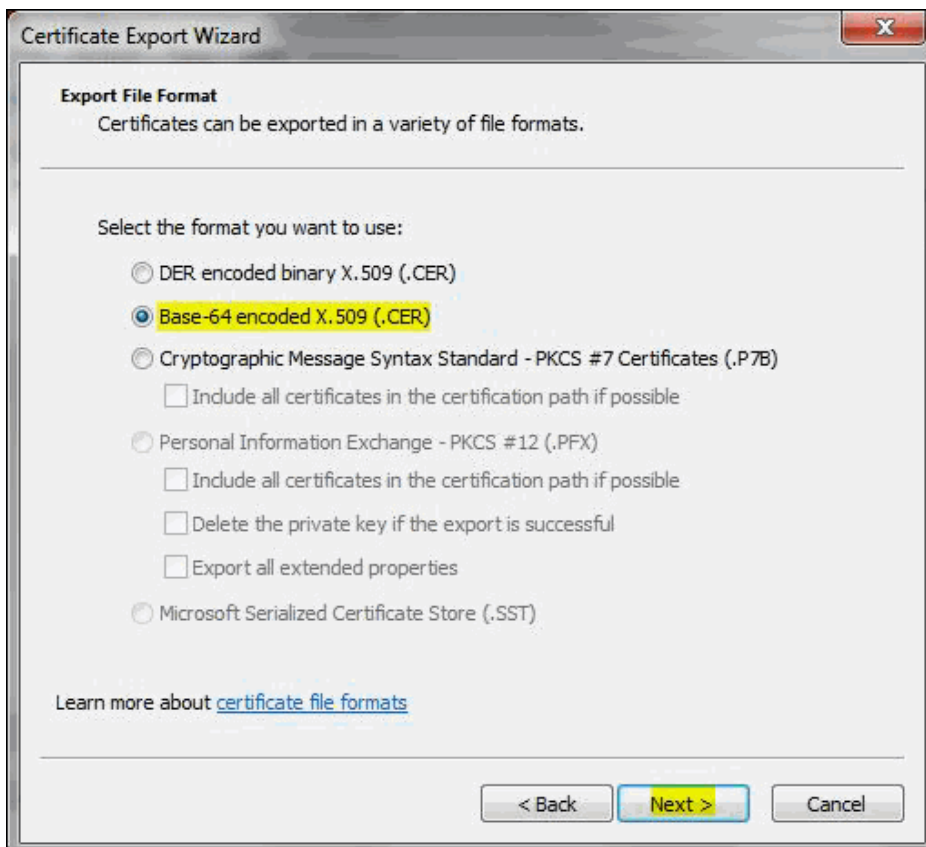
2. Right click on the certificate and select **All Tasks -> Export** option.



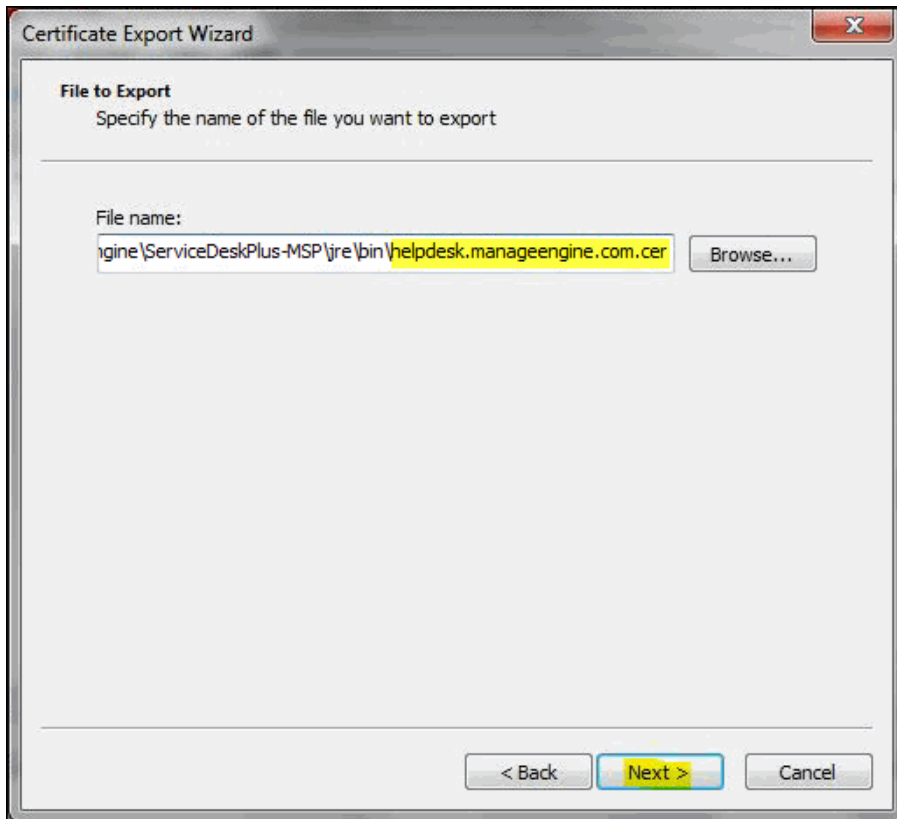
3. The Certificate Export Wizard dialog pops up. Click **Next** button to proceed.



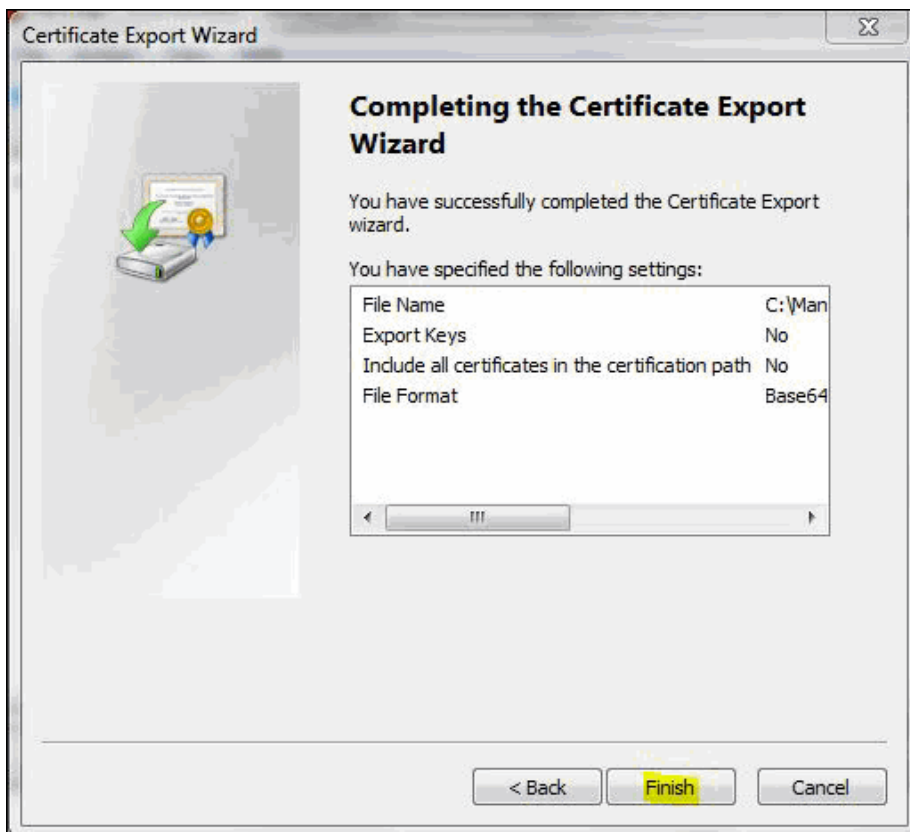
4. Select the export file format as **Base-64 encoded X.509 (.cer)**. Click **Next**.



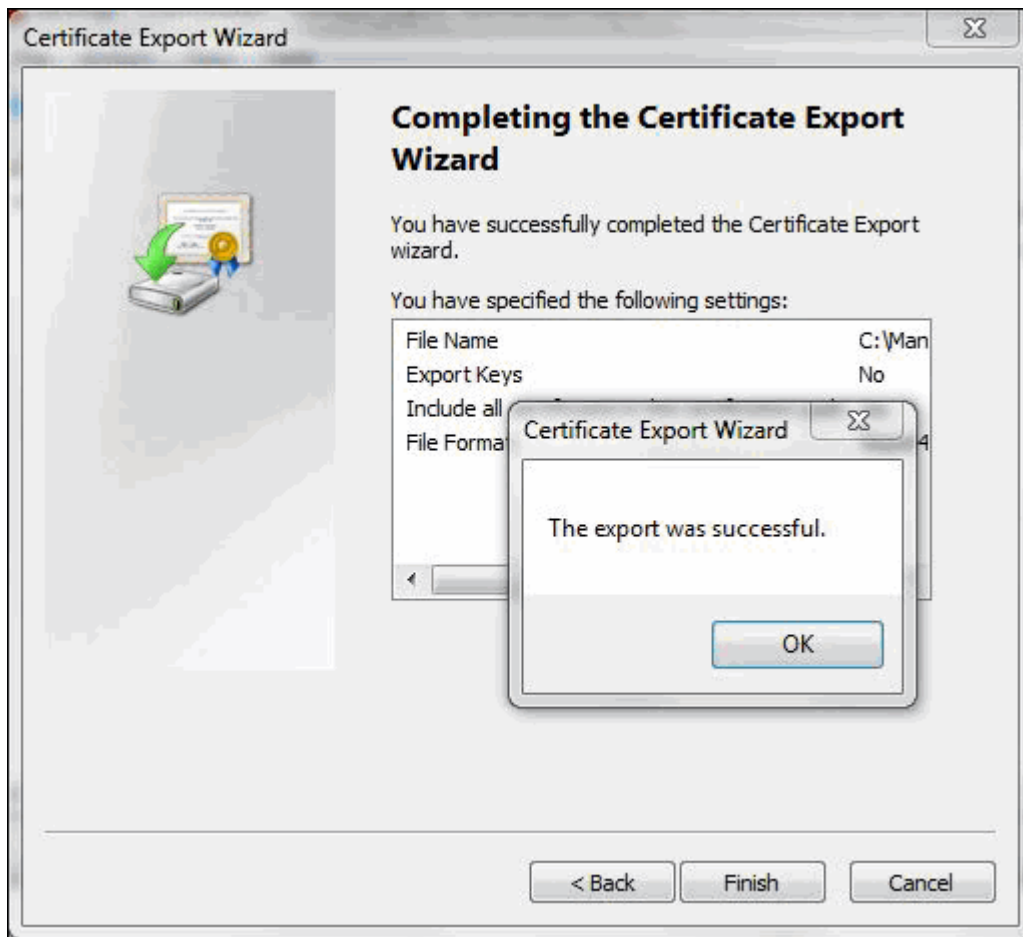
- Specify the name of the file you want to export. Click **Next**.



- The certificate export wizard is completed successfully. You can check for the settings you have specified. Click **Finish**.



7. A success message appears in a dialog box. Click **OK**.



## Commands to install certificates of some common vendors

Please find below the commands you need to use to install certificates of some common vendors.

**NOTE:** These instructions might change depending on the Certificates issued by the CA.

### GoDaddy

If your CA is "**GoDaddy**", then the steps to follow will be:

```
keytool -import -alias root -keystore <Keystore_Name>.keystore -trustcacerts -file gd_bundle.crt
```

```
keytool -import -alias cross -keystore <Keystore_Name>.keystore -trustcacerts -file  
gd_cross_intermediate.crt
```

```
keytool -import -alias intermediate -keystore <Keystore_Name>.keystore -trustcacerts -file  
gd_intermediate.crt
```

```
keytool -import -alias <Alias Specified when creating the Keystore> -keystore  
<Keystore_Name>.keystore -trustcacerts -file <CertificateName>.crt
```

### Verisign

If your CA is "**Verisign**", then the steps to follow will be:

```
keytool -import -alias intermediateCA -keystore <Keystore_Name>.keystore -trustcacerts -file  
<your_intermediate_certificate_name>.cer
```

```
keytool -import -alias <Alias Specified when creating the Keystore> -keystore <  
Keystore_Name>.keystore -trustcacerts -file <CertificateName>.cer
```

### **Comodos**

If your CA is "**Comodo**", then the steps to follow will be:

```
keytool -import -trustcacerts -alias root -file AddTrustExternalCARoot.crt -keystore  
<Keystore_Name>.keystore
```

```
keytool -import -trustcacerts -alias addtrust -file UTNAddTrustServerCA.crt -keystore  
<Keystore_Name>.keystore
```

```
keytool -import -trustcacerts -alias ComodoUTNServer -file ComodoUTNServerCA.crt -keystore  
<Keystore_Name>.keystore
```

```
keytool -import -trustcacerts -alias essentialSSL -file essentialSSLCA.crt -keystore  
<Keystore_Name>.keystore
```

```
keytool -import -trustcacerts -alias <Alias Specified when creating the Keystore> -file <Certificate-  
Name>.crt -keystore <Keystore_Name>.keystore
```

## Renew SSL Certificate

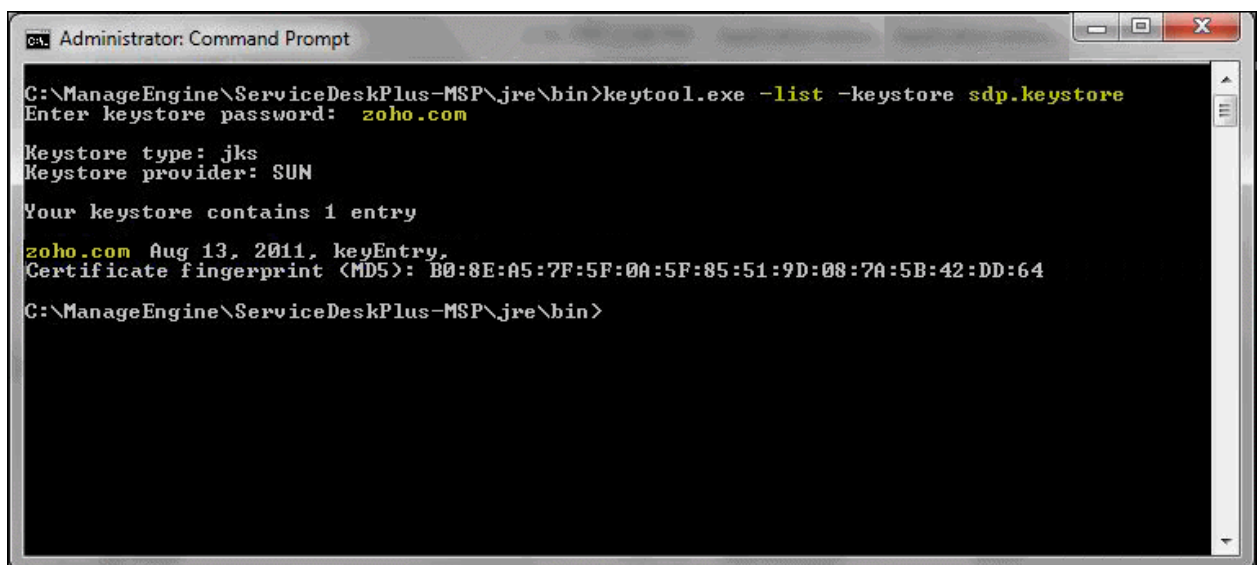
In order to use the renewed certificate, you need to have taken a backup of the existing keystore file (created while configuring the SSL), which was taken before the installation of any certs. If this file is present, then you can replace this file in the [ServiceDesk Plus - MSP Home]\jre\bin folder and follow the instructions from Step 3: Install your SSL Certificate.

If you do not have a backup of the keystore file, then you need to start from scratch i.e., from Step 1, and get the certificates reissued for the new CSR (Certificate Signing Request).

You can use the following command to get the list of certificates installed in the keystore.

**Keytool.exe -list -keystore sdp.keystore**

Below is an example of how a keystore looks before installing any Certificates. It will only have the keyEntry



```
C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>keytool.exe -list -keystore sdp.keystore
Enter keystore password: zoho.com

Keystore type: jks
Keystore provider: SUN

Your keystore contains 1 entry

zoho.com Aug 13, 2011, keyEntry,
Certificate fingerprint (MD5): B0:8E:A5:7F:5F:0A:5F:85:51:9D:08:7A:5B:42:DD:64
C:\ManageEngine\ServiceDeskPlus-MSP\jre\bin>
```

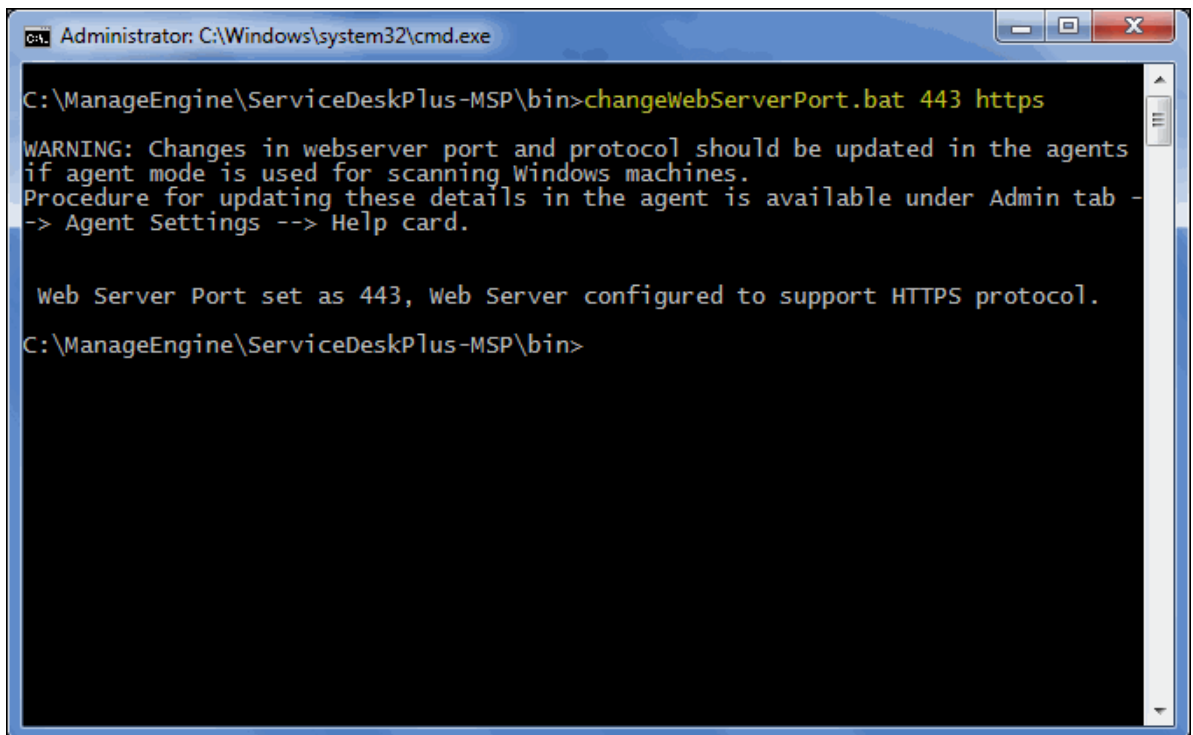
## Installing .PFX Certificate

.PFX is an extension for security certificate. It defines a file format that stores private keys (generated by your server at the time the CSR was generated) and public key certificate (your SSL Certificate provided by the CA) in a single encrypted file.

To install a certificate with the extension .PFX,

1. Stop ManageEngine ServiceDesk Plus - MSP service.
2. Copy the .pfx file to the location **C:\ManageEngine\ServiceDeskPlus-MSP\server\default\conf** (where C: is the drive in which ServiceDesk Plus - MSP is installed)
3. Change the web server port to 443 to run ServiceDesk Plus - MSP on secure mode. To change the web server port, open the command prompt and go to [ServiceDesk Plus - MSP Home]\bin. Enter the command as given below,

```
[ServiceDesk Plus - MSP Home]\bin> changewebserverport.bat 443
https
```



```
Administrator: C:\Windows\system32\cmd.exe

C:\ManageEngine\ServiceDeskPlus-MSP\bin>changeWebServerPort.bat 443 https

WARNING: Changes in webserver port and protocol should be updated in the agents
if agent mode is used for scanning Windows machines.
Procedure for updating these details in the agent is available under Admin tab -
-> Agent Settings --> Help card.

Web Server Port set as 443, Web Server configured to support HTTPS protocol.
C:\ManageEngine\ServiceDeskPlus-MSP\bin>
```

4. Go to the location **[ServiceDesk Plus - MSP Home]\server\default\deploy\jbossweb-tomcat50.sar** and open the file 'server.xml' in a word pad.
5. Locate the below entries in the file.

```
<!-- SSL/TLS Connector configuration using the admin devl
guide keystore
    <Connector port="8443"
address="${jboss.bind.address}"
    maxThreads="100" minSpareThreads="5"
maxSpareThreads="15"
    scheme="https" secure="true" clientAuth="false"
    keystoreFile="${jboss.server.home.dir}/conf/sdp.
keystore"
    keystorePass="sdpsecured" sslProtocol = "TLS" />
```

6. Please replace the file name **sdp.keystore** with the pfx file name (name.pfx) and enter the **keystoreType="pkcs12"** after the file name. Also replace the 'sdpsecured' with the password for the .pfx file.

7. The entries should look like this,

```
<!-- SSL/TLS Connector configuration using the admin devl
guide keystore
    <Connector port="8443"
address="${jboss.bind.address}"
            maxThreads="100" minSpareThreads="5"
maxSpareThreads="15"
scheme="https" secure="true" clientAuth="false"
keystoreFile="${jboss.server.home.dir}/conf/name.pfx"
keystoreType="pkcs12" keystorePass="your password"
sslProtocol = "TLS" />
```

8. **Restart** ManageEngine ServiceDesk Plus - MSP service.

## Uninstalling ServiceDesk Plus - MSP

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- In Windows
  - In Linux
- 

### In Windows

To uninstall ServiceDesk Plus - MSP from Windows

1. Click **Start -> Programs -> ManageEngine ServiceDeskPlus-MSP -> Uninstall ServiceDeskPlus - MSP**.

### In Linux

To uninstall ServiceDesk Plus - MSP from Linux

1. Go to `<ServiceDeskmsp>/_uninst` directory.
2. Execute `uninstaller.bin` as below:

```
$ ./uninstaller.bin
```

---

## Contacting ManageEngine

- Contact Information
- Sales
- Technical Support

### Contact Information

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### Sales

For purchasing ManageEngine ServiceDesk Plus - MSP from any part of the world, fill out the Sales Request Form. A sales person will contact you shortly. You can also send us e-mail at sales@manageengine.com.

**Zoho Corporation Pvt. Ltd.**

You can also call the Corporate office of Zoho Corporation at the following numbers:

**Phone:** +1-925-924-9500

**Fax:** +1-925-924-9600 and request for Sales

## **Technical Support**

One of the value propositions of Zoho Corp. to its customers is excellent support. During the evaluation phase, the support program is extended to users free of charge.

For support, please mail to [msp-servicedeskplus-support@manageengine.com](mailto:msp-servicedeskplus-support@manageengine.com).

Alternatively, you can submit your feedback from the ServiceDesk Plus - MSP product by clicking the **Feedback** link at the top right corner just above the header tabs after logging in to the application. Your feedback will be sent to the ServiceDesk Plus - MSP Support Team and they will get in touch with you. Do not forget to provide your e-mail ID or your contact information for the team to get in touch with you.