Click Studios

Password Remote Session Launcher

Gateway Installation Instructions

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1 System Requirements - General

Passwordstate' s Browser Based Remote Session Launcher Gateway has the following system requirements:

Windows Server Requirements

The server which will host the Gateway can be any one of the following Operating System versions, with required components:

- Microsoft Windows Server 2008 R2 & IIS 7.5
- Microsoft Windows Server 2012 & IIS 8.0
- Microsoft Windows Server 2012 R2 & IIS 8.5
- Microsoft Windows Server 2016 & IIS 10.0
- Microsoft Windows Server 2019 & IIS 10.0
- Windows 7 & IIS 7.5
- Windows 8 & IIS 8.0
- Windows 10 & IIS 10.0
- Microsoft **.NET Framework 4.5 or above**
- OpenJDK 11 or higher

Note With the remainder of this documentation, the paths specified in the documentation are assuming you are using the Gateway which comes with your Passwordstate installation, and not the paths for a separate install of the Gateway.

2   Architectural Overview

For the majority of customers, the Browser Based Remote Session Launcher Gateway which comes standard with your Passwordstate install is sufficient, and does not need to be installed separately.

Click Studios do provide a separate installer for the Gateway if require though, with instructions below for how to install it.

With respects to architecture, all SSH and RDP sessions are tunnelled through the Gateway, and does not require any client installs for the feature to function.

3   Installing Gateway Separately

Please note this step is not required for most customers, as the embedded Gateway install which comes with your Passwordstate installation is sufficient. If you do not need the Gateway install separately, please skip this step and go directly to '**Install OpenJDK 11**'.
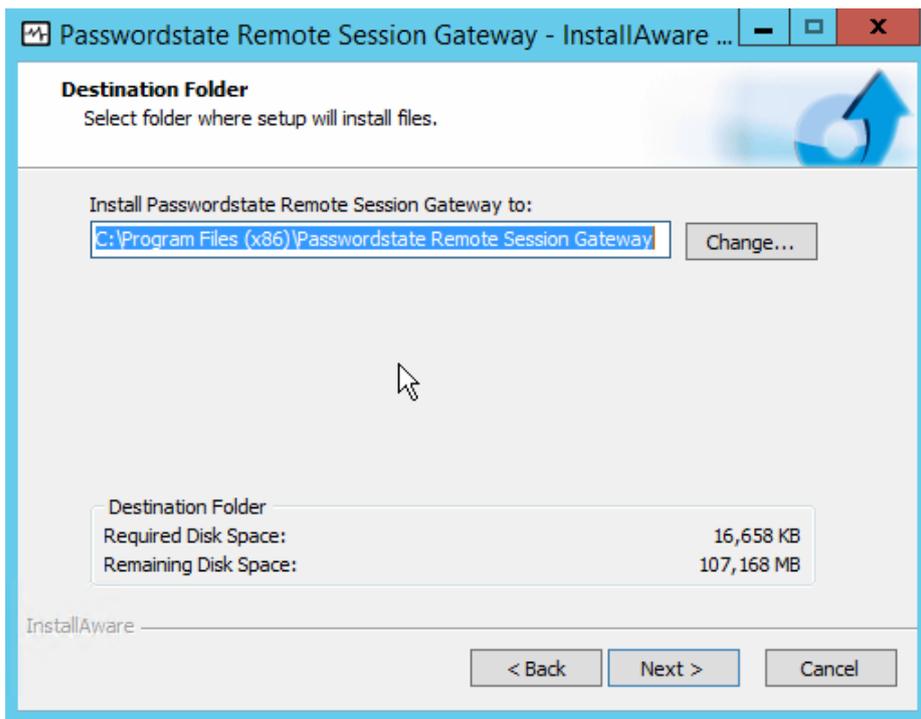
1. Within Passwordstate, download the installer from the screen Administration -> Remote Session Management -> Install Browser Based Gateway button

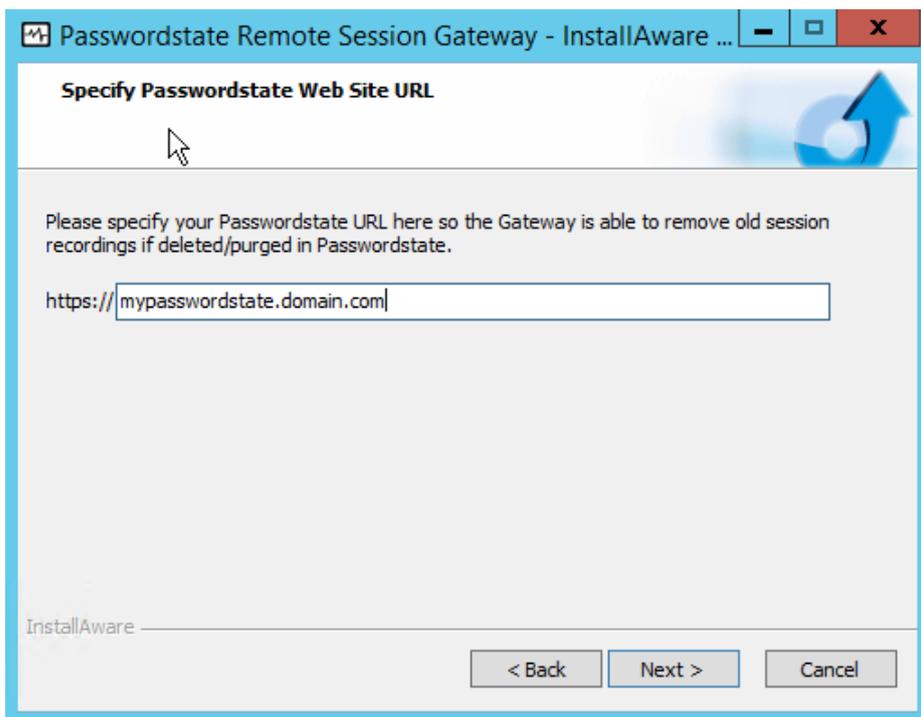2. At the '**Password Remote Session Gateway**' screen, click on the '**Next**' button
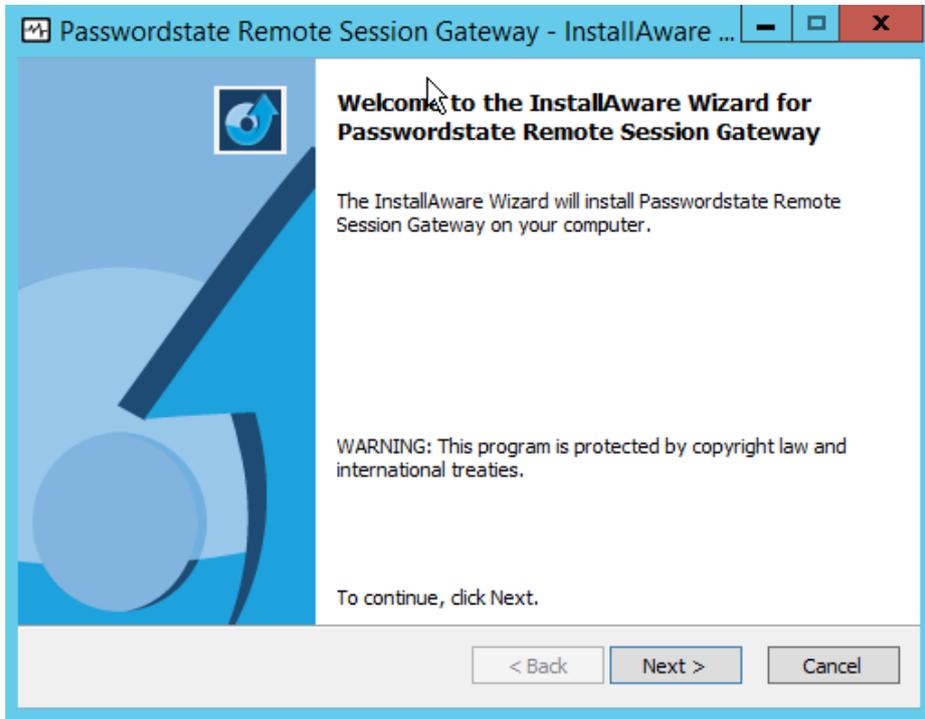
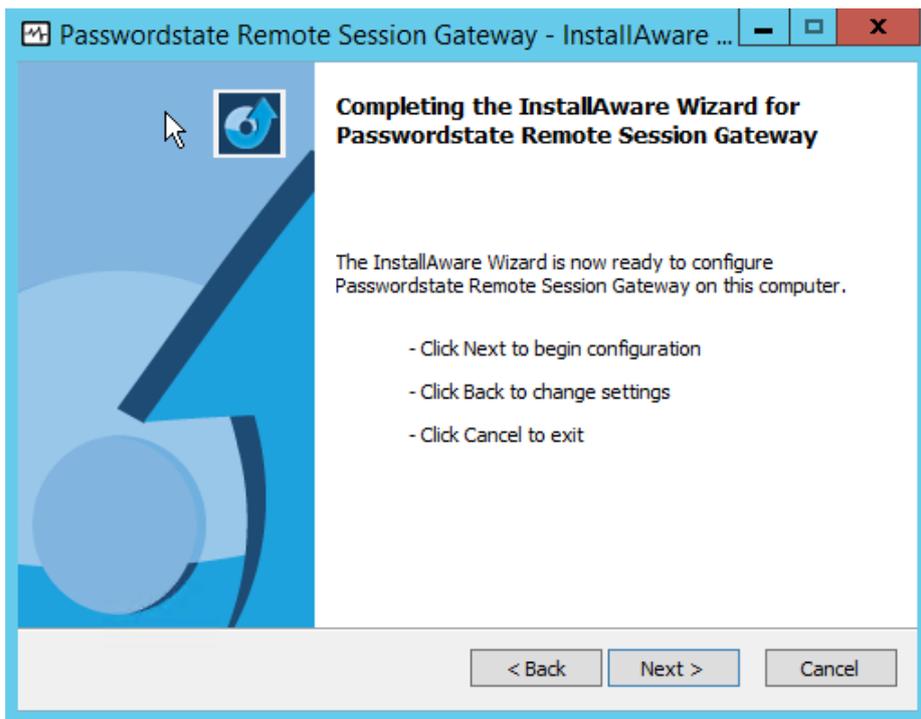3. Accept the Licence Agreement and click '**Next**'
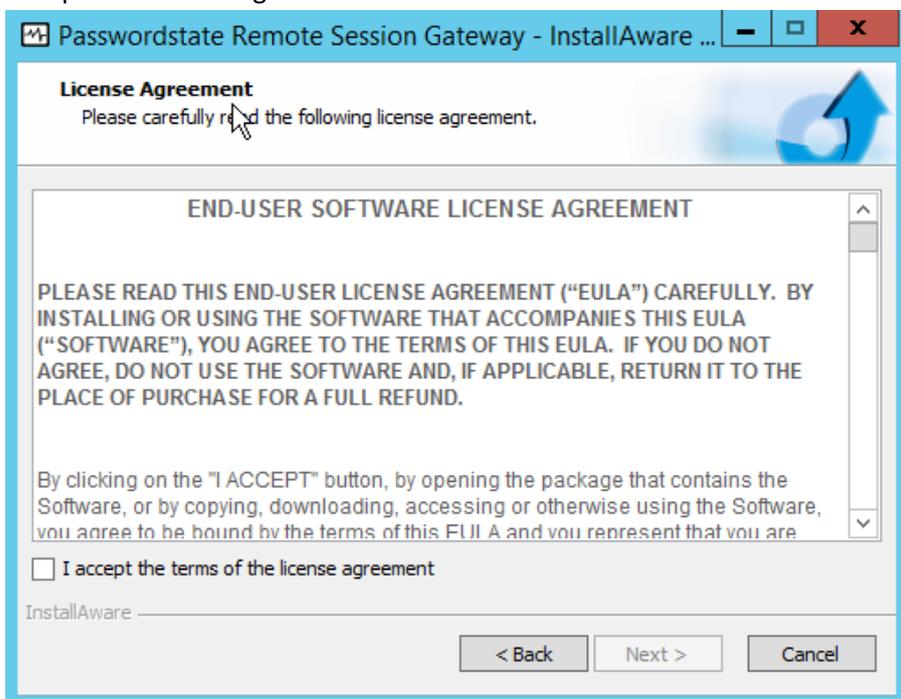
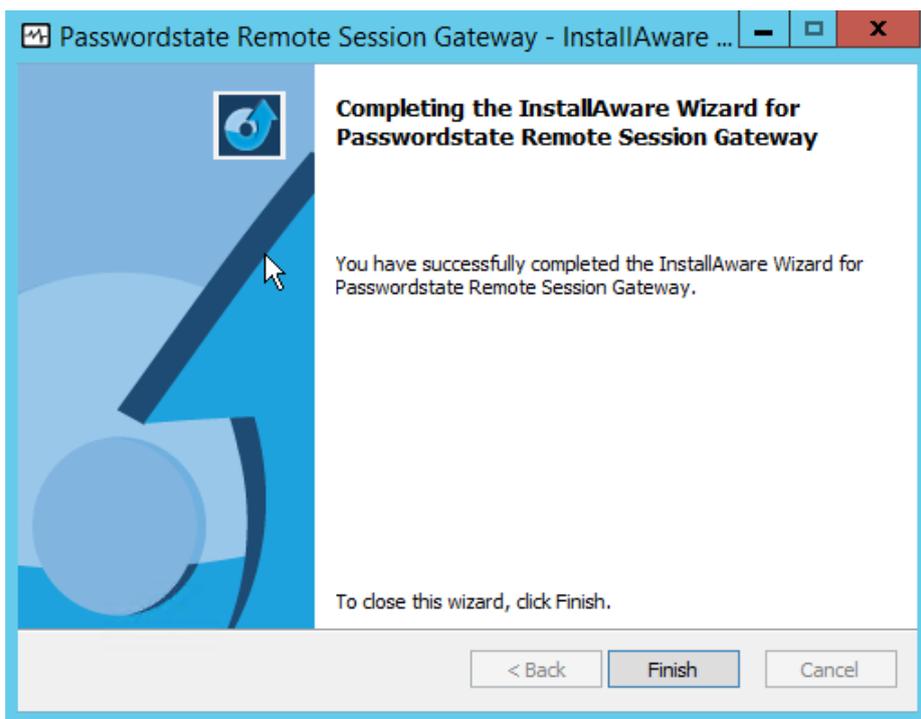4. Accept the default installation path, and click '**Next**'

5. Next you will need to specify the URL for your Passwordstate web site – this is so session recordings can be deleted if required

6. To begin the installation, click '**Next**'

7. To finalize the installation, click '**Finish**'

Note: Please refer to Section 6 – Configure Gateway Settings below, as you need to specify the URL to the machine you have installed the gateway on i.e. https://myserver.domain.com

4   Install OpenJDK 11

The Browser Based Remote Session Launcher requires Java to function, and Click Studios recommends the Open Source OpenJDK 11 version.

Download and Install

- Download OpenJDK 11 from the following URL - https://jdk.java.net/11/

- Extract the zip file into a folder, e.g. C:\Program Files\Java\ and it will create a jdk-11 folder (where the bin folder is a direct sub-folder). You may need Administrator privileges to extract the zip file to this location.

Set a PATH:

- Select Control Panel and search for Environment Variables

- Click 'Edit the System Environment Variables', then click the 'Environment Variables' button

- Under 'System Variables', add the location of the bin folder of the JDK installation to the PATH variable in System Variables - the following is a typical value for the **PATH** variable: "C:\Program Files\Java\jdk-11.0.2\bin"

Set JAVA_HOME:

- Again under System Variables, click New.

- Enter the variable name as **JAVA_HOME**.

- Enter the variable value as the installation path of the JDK (**without the bin sub-folder**).

- Click OK, Apply Changes, and close all Windows
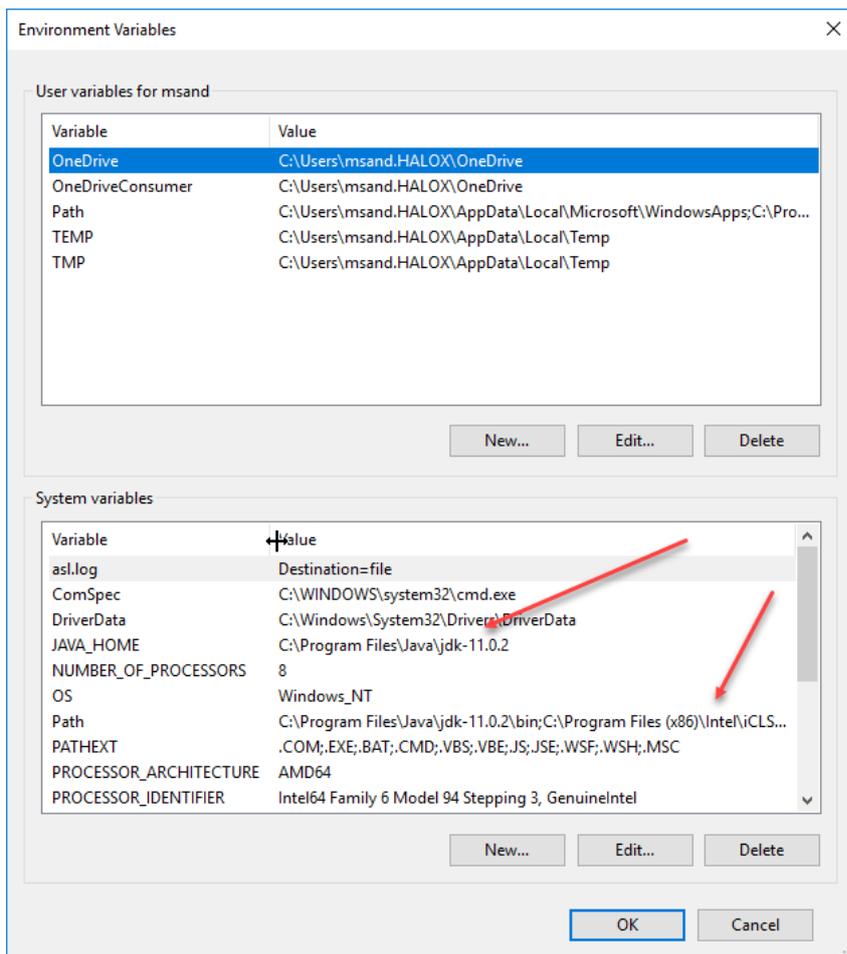
5 SSL Certificate Considerations and Gateway Windows Service Install

To ensure all traffic from your desktop browser to the gateway proxy running on the Passwordstate web server are encrypted using SSL, you need to export your existing Passwordstate certificate so it can be used with the gateway. To do that, please follow these instructions:

- In IIS, navigate to 'Server Certificates'
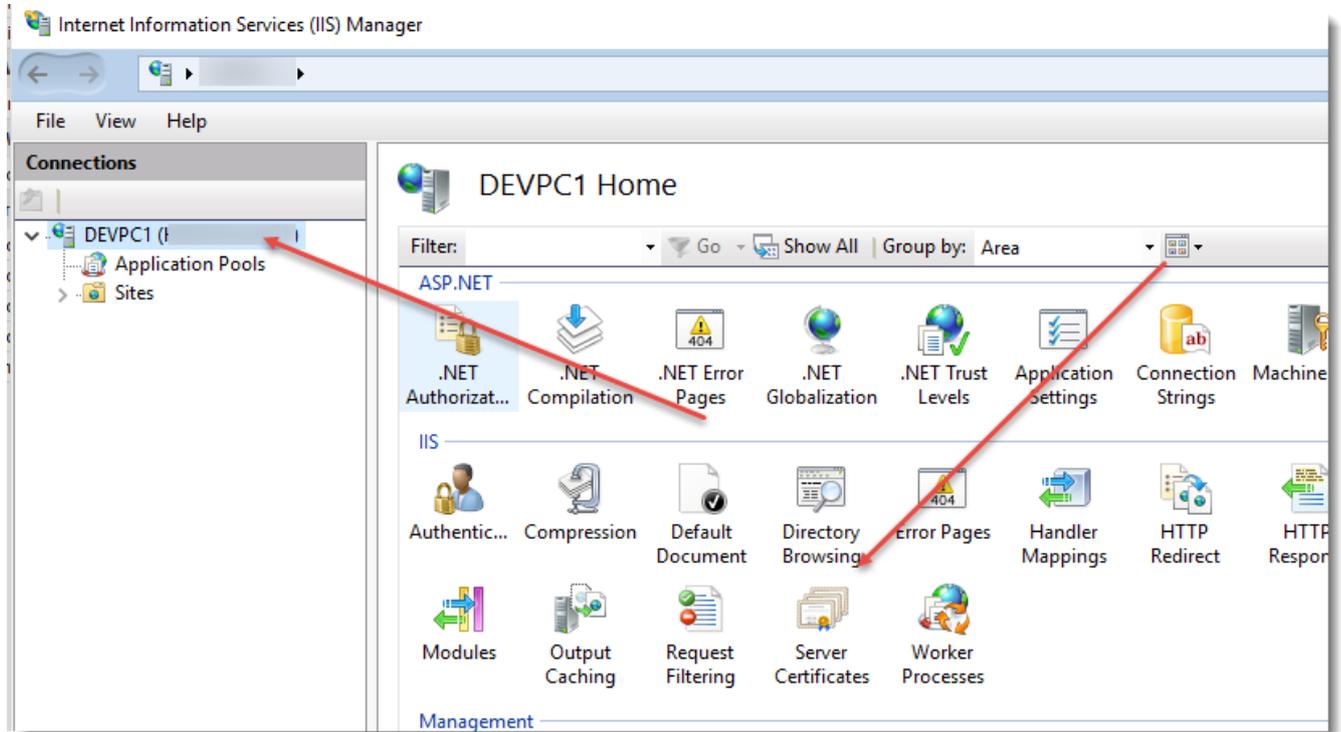
- Right click on your certificate and select 'Export'
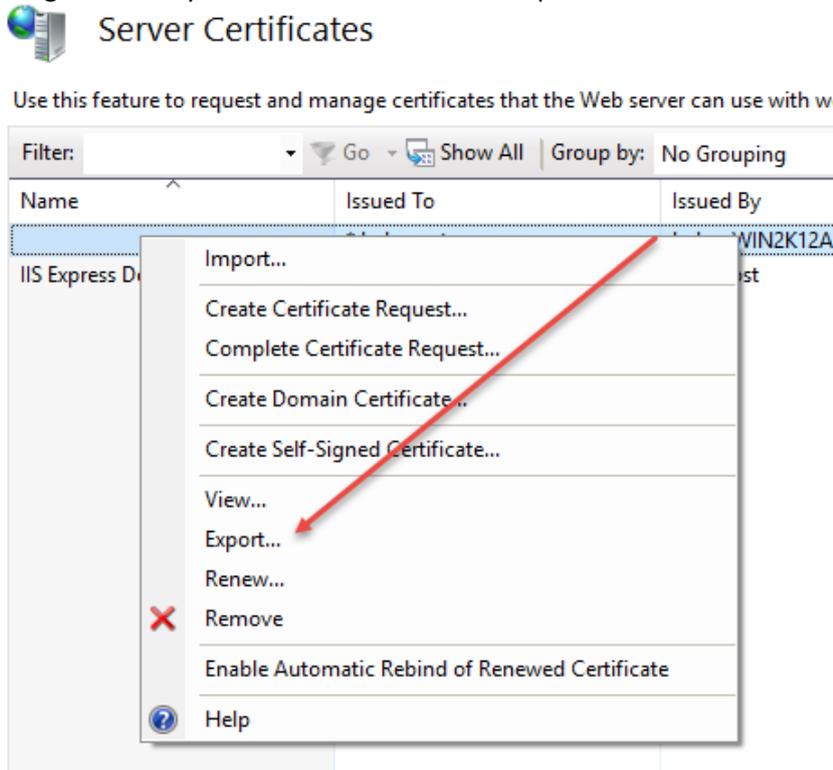
Note: If your certificate does not have the 'Export' menu option enabled or visible, then possibly you are using an internal Active Directory CA certificate, and the certificate does not have the 'export' option set for it, as per the screenshot below - speak to your Active Directory Admins about this if this is the case i.e. you will need to configure this on your cert, and re-import it to your web server a second time, before you can do the configuration above.
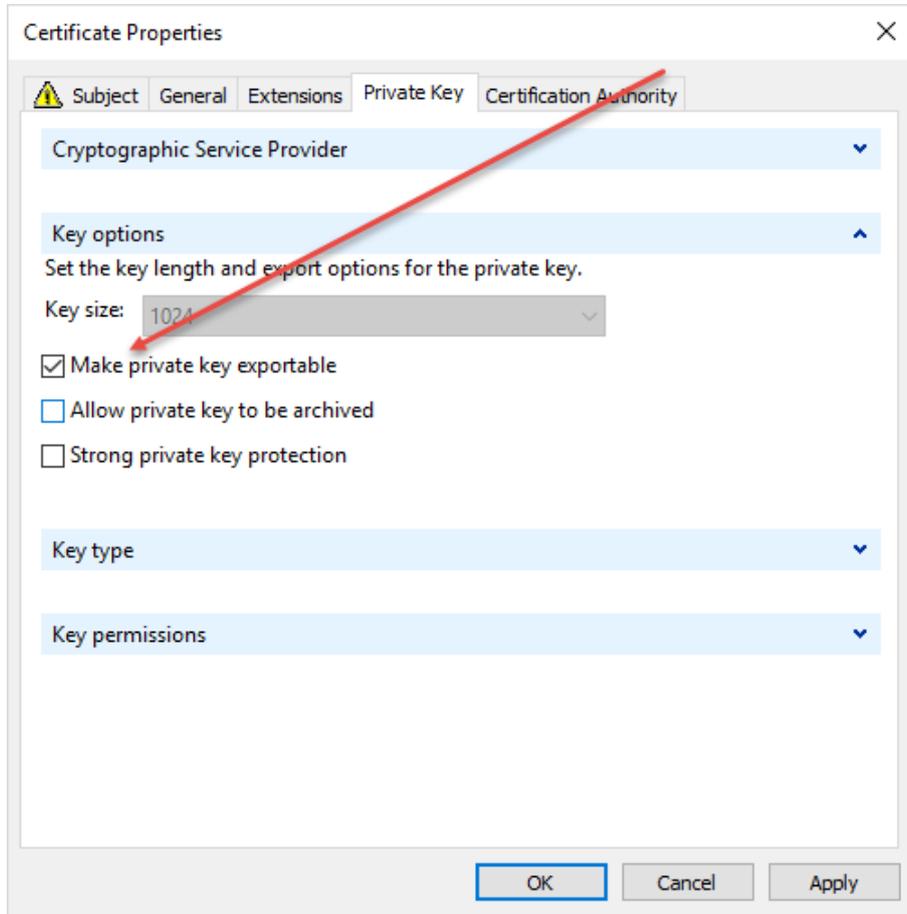

- Export the certificate to c:\inetpub\passwordstate\hosts\gateway, and name it Passwordstate.pfx – make sure you specify a password for the exported certificate as well (change the path to your Passwordstate folder as appropriate)
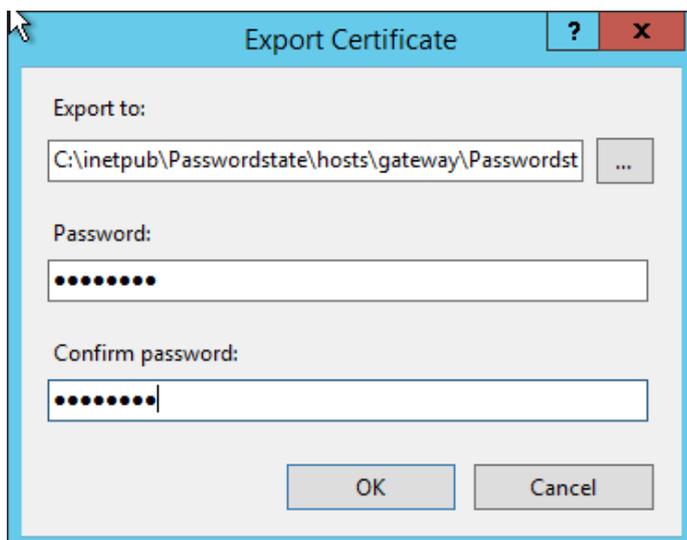
- Now from a command prompt as an Administrator, run the following commands, replace 'YourPassword' with the password specified above for the exported certificate, and document the encrypted password value. Leave the command prompt open for the final step below:
  - CD "C:\inetpub\Passwordstate\hosts\gateway"
  - java -cp SparkGateway.jar com.toremote.gateway.Encryption YourPassword (please note you need to press Enter a second time for this to exit correctly from java)
- Now open the file "C:\inetpub\Passwordstate\hosts\gateway\gateway.conf" and update the setting "keyStorePassword" with your encrypted password
- Back in the command prompt, run the following batch file to install the gateway service: "install-service.bat"
- In the folder C:\inetpub\Passwordstate\hosts\gateway, open Passwordstate-Gatewayw.exe by double clicking on it, and change the path for 'Java Virtual Environment' to "C:\Program Files\Java\jdk-11.0.2\bin\server\jvm.dll" (build number may be different here)
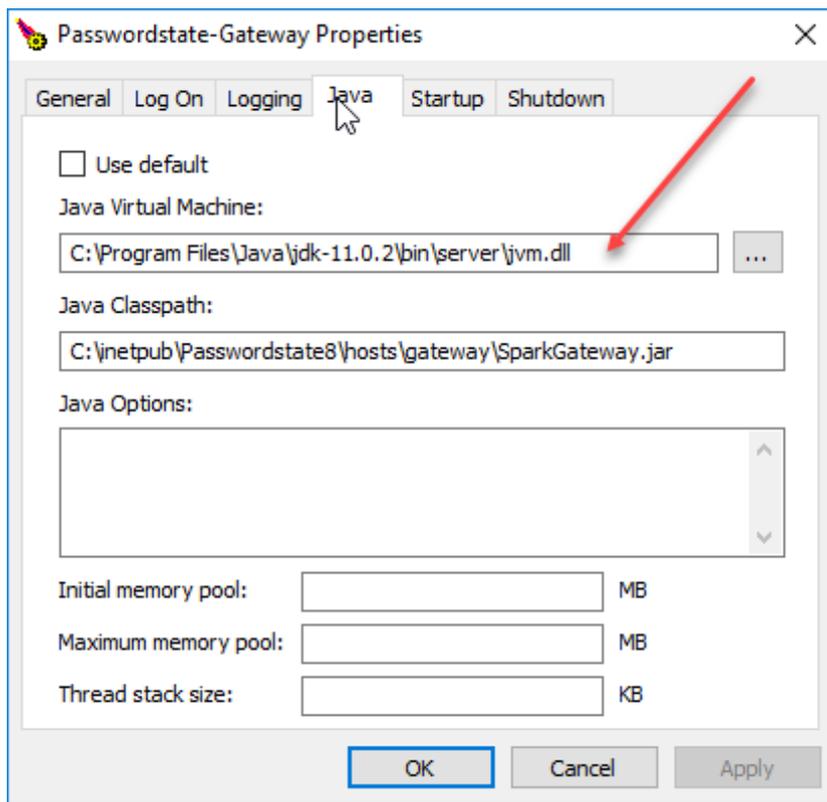
- Now start the Passwordstate-Gateway Windows Service

6 Configure Gateway Settings

There are certain settings you may need to modify for the Gateway configuration i.e.

- Gateway URL (only if you have installed the Gateway separately)
- Port Number the Gateway listens/operates on
- If you want to purge any recorded sessions after (x) number of days
- Where you would like to store recorded sessions - please see further detail below for this

To make these changes, navigate to the following page in Passwordstate –> Administration -> Passwordstate Administration -> Remote Session Management, and click on the 'Browser Based Gateway Settings' button, and you will see the screen below.

Note 1: If you have deployed the Gateway separately, changes to the Port Number of Session Recording folder need to be done manually in the gateway.conf file, and then you need to restart the Passwordstate-Gateway Windows Service

Note 2: Please make sure no firewalls are blocking access to the Port Number above - either Firewalls on the Windows Server itself, or firewalls in Microsoft Azure or Amazon AWS - if you are hosting Passwordstate in the cloud

Note 3: The Browser Based Remote Session Launcher will be the default launcher used, unless you've upgraded from a previous version where you were already using the Client Based version. If you would like to change this, it can be done on the screen Passwordstate –> Administration -> Passwordstate Administration -> Feature Access, and then 'Remote Sessions' tab.

7   Session Recording Folder Permissions

By default, the session recording folder is located at c:\inetpub\passwordstate\hosts\gateway\rec – your path may be different if you've installed Passwordstate into a different folder, or deployed the Gateway separately.

When located in this folder, the folder has the correct NTFS permissions in order to save recorded sessions. If, however you specify a different location e.g. a different disk than the C drive is recommended, then you need to ensure at least 'Authenticated Users' has Modify rights to the folder.

Note: Session Recordings will not be included in the standard Passwordstate backup functionality, due to the potential size of the files. If you have left the recording folder in the default path, then you need to organize your own backups of these files if required.