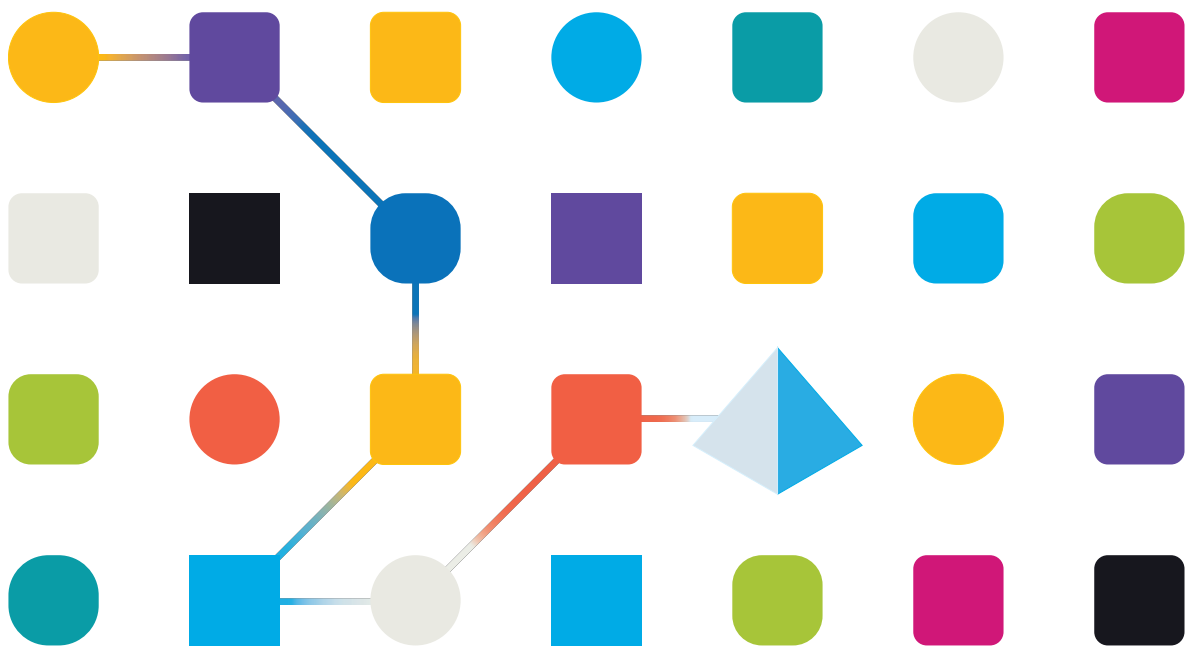




Hub 4.5

Silent Install Guide

Document Revision: 2.0



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Silent installation

The silent install process requires the editing and running of the Silent-Install-Hub-4.5.ps1 script in PowerShell to install Hub without the use of the Hub installer wizard.

The Silent-Install-Hub-4.5.ps1 script is available to download from the [Blue Prism Portal](#).

To perform a regular install using the Hub installer wizard, see [Install and configure the web server](#).

 When using the Hub installer wizard there are opportunities to validate information that you have entered into text fields by clicking buttons in the wizard. There is no validation when performing a silent install. Entering any incorrect parameters could result in a broken web server. It is recommended that you take a snapshot of the machine before running the script as a backup.

Intended audience

This guide is for IT professionals competent in:

- Editing and running scripts
- Using PowerShell
- Debugging

Prerequisites

All of the [prerequisites](#) for a regular Blue Prism Hub install are also applicable to a Blue Prism Hub silent install.

For information on installing the required software, see [Install and configure the web server](#).

Edit the Silent-Install-Hub.ps1 script file

The following sections describe how to prepare the Silent-Install-Hub-4.5.ps1 script file for a silent install of Blue Prism Hub.

The Silent-Install-Hub-4.5.ps1 can be opened and edited in an editor such as Notepad or Visual Studio Code. Each section of code in the file contains information that corresponds with a screen on the Hub install wizard.

Most parameters in the Silent-Install-Hub-4.5.ps1 file are straightforward to populate or edit. Each parameter has a name and value, and is displayed in the following format:

```
$msi_params = $msi_params + "NAME=`"Value`" "
```

To edit a parameter, overtype the **value**. It is recommended that you do not change any of the parameter names.



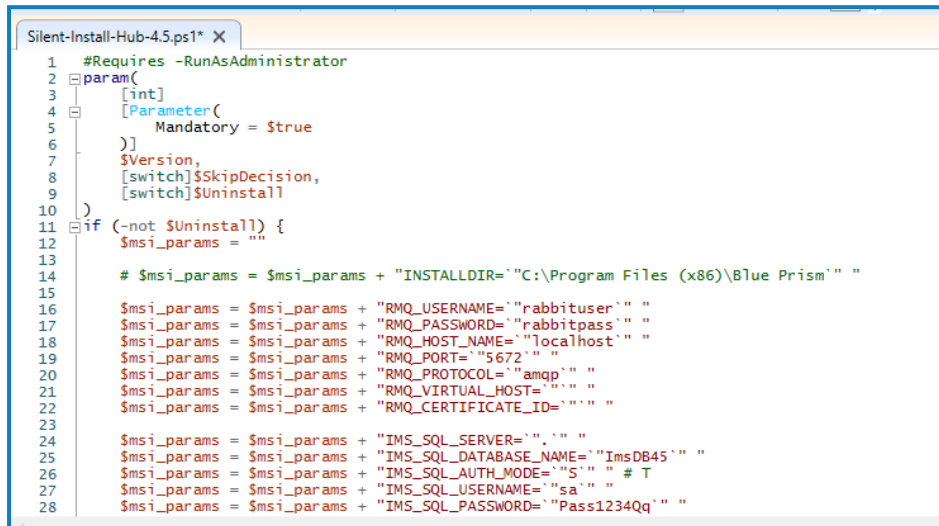
Remember to save the Silent-Install-Hub-4.5.ps1 after making any changes.

Change the default Hub install destination (optional)

To check the default location in the Silent-Install-Hub.ps1 script and change it to a new location:

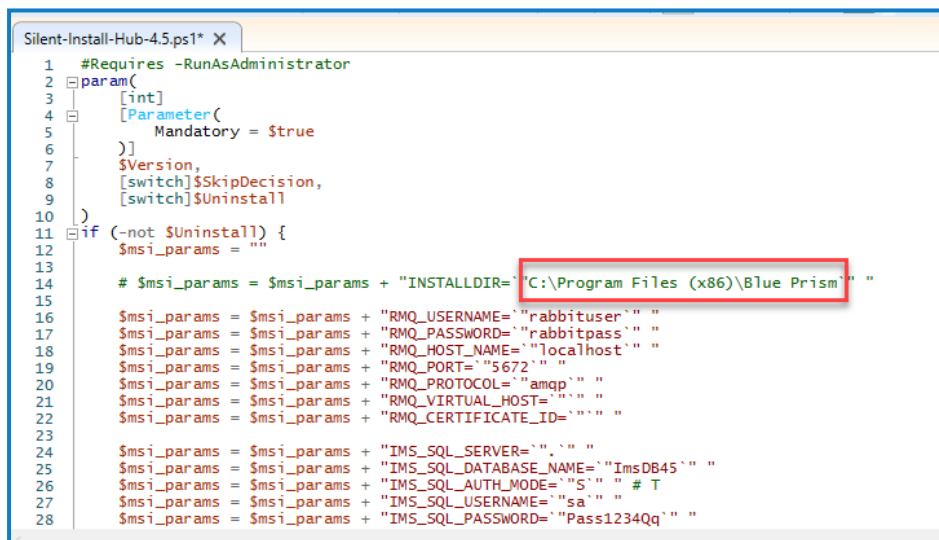
1. Open the Silent-Install-Hub-4.5.ps1 file in an editor.

The script file opens. It will display differently depending on your editor.



```
1 #Requires -RunAsAdministrator
2 param(
3     [int]
4     [Parameter(
5         Mandatory = $true
6     )]
7     $Version,
8     [switch] $SkipDecision,
9     [switch] $Uninstall
10 )
11 if (-not $Uninstall) {
12     $msi_params = ""
13
14     # $msi_params = $msi_params + "INSTALLDIR='C:\Program Files (x86)\Blue Prism'" "
15
16     $msi_params = $msi_params + "RMQ_USERNAME='rabbituser'" "
17     $msi_params = $msi_params + "RMQ_PASSWORD='rabbitpass'" "
18     $msi_params = $msi_params + "RMQ_HOST_NAME='localhost'" "
19     $msi_params = $msi_params + "RMQ_PORT='5672'" "
20     $msi_params = $msi_params + "RMQ_PROTOCOL='amqp'" "
21     $msi_params = $msi_params + "RMQ_VIRTUAL_HOST=''" "
22     $msi_params = $msi_params + "RMQ_CERTIFICATE_ID=''" "
23
24     $msi_params = $msi_params + "IMS_SQL_SERVER=''" "
25     $msi_params = $msi_params + "IMS_SQL_DATABASE_NAME='ImnoDB45'" "
26     $msi_params = $msi_params + "IMS_SQL_AUTH_MODE='S'" " # T
27     $msi_params = $msi_params + "IMS_SQL_USERNAME='sa'" "
28     $msi_params = $msi_params + "IMS_SQL_PASSWORD='Pass1234Qq'" "
```

The destination folder where you would like to install Hub displays the default location (C:\Program Files (x86)\Blue Prism):



```
1 #Requires -RunAsAdministrator
2 param(
3     [int]
4     [Parameter(
5         Mandatory = $true
6     )]
7     $Version,
8     [switch] $SkipDecision,
9     [switch] $Uninstall
10 )
11 if (-not $Uninstall) {
12     $msi_params = ""
13
14     # $msi_params = $msi_params + "INSTALLDIR='C:\Program Files (x86)\Blue Prism'" "
15
16     $msi_params = $msi_params + "RMQ_USERNAME='rabbituser'" "
17     $msi_params = $msi_params + "RMQ_PASSWORD='rabbitpass'" "
18     $msi_params = $msi_params + "RMQ_HOST_NAME='localhost'" "
19     $msi_params = $msi_params + "RMQ_PORT='5672'" "
20     $msi_params = $msi_params + "RMQ_PROTOCOL='amqp'" "
21     $msi_params = $msi_params + "RMQ_VIRTUAL_HOST=''" "
22     $msi_params = $msi_params + "RMQ_CERTIFICATE_ID=''" "
23
24     $msi_params = $msi_params + "IMS_SQL_SERVER=''" "
25     $msi_params = $msi_params + "IMS_SQL_DATABASE_NAME='ImnoDB45'" "
26     $msi_params = $msi_params + "IMS_SQL_AUTH_MODE='S'" " # T
27     $msi_params = $msi_params + "IMS_SQL_USERNAME='sa'" "
28     $msi_params = $msi_params + "IMS_SQL_PASSWORD='Pass1234Qq'" "
```

2. If you want to install Hub in a different location, remove the # from the start of the line and edit the filepath indicated in the image above.



The # indicates that the line is commented out and will not be run. You need to remove the # to activate the line.

Change the SQL authentication mode (optional)

The authentication mode can be edited for the following databases:

- Authentication Server (IMS_SQL_SERVER)
- Hub (HUB_SQL_SERVER)
- Audit (AUDIT_SQL_SERVER)
- File (FILE_SQL_SERVER)
- Notification Center (NOTIFICATION_CENTER_SQL_SERVER)
- License Manager (LICENSE_MANAGER_SQL_SERVER)
- Email Service (EMAIL_SERVICE_SQL_SERVER)

Each database section corresponds with a screen of the Hub install wizard.

The following instructions use the Authentication Server database as an example (IMS is a legacy name for Authentication Server).

The following line of code corresponds with the **Authentication Mode** panel in the **Configure Authentication Server SQL connection** screen of the Hub install wizard:

```
$msi_params = $msi_params + "IMS_SQL_SERVER='.' ' "
$msi_params = $msi_params + "IMS_SQL_DATABASE_NAME='TmsDB45' "
$msi_params = $msi_params + "IMS_SQL_AUTH_MODE='S' ' ' # T
$msi_params = $msi_params + "IMS_SQL_USERNAME='sa' ' '
$msi_params = $msi_params + "IMS_SQL_PASSWORD='Pass1234Qq' ' "
```

- To set the authentication mode to **Trusted (Windows Authentication)**, overwrite the value with a **T**.



If you input **T** for the IMS_SQL_AUTH_MODE value, remove any values for IMS_SQL_USERNAME and IMS_SQL_PASSWORD.

- To set the authentication mode to **Specify username and password (SQL Authentication)**, overwrite the value with an **S**.



If you input **S** for the IMS_SQL_AUTH_MODE value, populate the IMS_SQL_USERNAME and IMS_SQL_PASSWORD values.

Edit the Hostname



The default host names provided in script are examples only. Your organization's DNS and Domain structures must be considered when choosing host names in your installation.

The Hostname must be edited for the following websites:

- Authentication Server (IMS_SITE_NAME)
- Hub (HUB_SITE_NAME)
- Audit (AUDIT_SITE_NAME)
- Email Service (EMAIL_SERVICE_SITE_NAME)
- File (FILE_SITE_NAME)
- SignalR (SIGNALR_SITE_NAME)
- License Manager (LICENSE_MANAGER_SITE_NAME)
- Notification Center (NOTIFICATION_CENTER_SITE_NAME)

Each website section corresponds with a screen of the Hub install wizard.

The following instructions use the Authentication Server website as an example (IMS is a legacy name for Authentication Server).

The IMS_HOSTNAME corresponds to the **Authentication Server IIS Setup** screen of the Hub installer wizard.

```
$msi_params = $msi_params + "TMS_SITE_NAME='Blue Prism - IMS' "
$msi_params = $msi_params + "TMS_HOSTNAME='ims.local' "
$msi_params = $msi_params + "TMS_IIS_PORT='443' "
$msi_params = $msi_params + "TMS_SSL_CERTIFICATE_ID='FD8535F0A0982F6859484A9' "
$msi_params = $msi_params + "IMS_START_ON_INSTALL='true' "
```

To edit the Hostname:

1. Find each _HOSTNAME reference in turn and type your hostname in the value. You must enter the hostname in lowercase.

Get SSL Certificates with PowerShell

You can use PowerShell as a fast method of displaying the thumbprints of all certificates in a particular store.

1. Open PowerShell as administrator.
2. Type the following line after `PS C:\Windows\system32>`:

```
Get-ChildItem -Path Cert:\LocalMachine\My
```

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

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Windows\system32> Get-ChildItem -Path Cert:\LocalMachine\My

PSParentPath: Microsoft.PowerShell.Security\Certificate::LocalMachine\My

Thumbprint                               Subject
-----
-----
```

3. Press Enter.

The certificate thumbprints display in uppercase with no spaces.

```
PS C:\Windows\system32> Get-ChildItem -Path Cert:\LocalMachine\My

PSParentPath: Microsoft.PowerShell.Security\Certificate::LocalMachine\My

Thumbprint                               Subject
-----
C7FE94F0D89ECA596D8D67484E5CE92DA9806F37 CN=4d3297ae-6a3b-44e5-be26-6f1ebb795e55
```

Get SSL Certificates with Microsoft Management Console

Any screen in the Hub install wizard requiring a certificate displays a drop-down list for you to select from. When performing a silent install, certificates must be entered manually in a thumbnail format:

To access certificates:

1. In the Windows search bar, type "MMC" and select **MMC Run command**.
The Microsoft Management Console opens.
2. Click **File** then **Add/Remove Snap-ins**.

3. In the Add or Remove Snap-ins dialog, select **Certificates** and click **Add**.
4. In the Certificates snap-in dialog, click **Computer account** and click **Next**.
5. Click **Finish** and then **OK**.
6. Click **Certificates** in the tree view and select either the **Personal > Certificates** folder or the **Web Hosting > Certificates** folder to select the appropriate certificate in the main pane (look in the **Friendly Name** column).
7. Double-click your certificate and in the **Certificate** dialog select **Details** and then **Thumbprint**.



The script will only work if the certificate thumbprints are uppercase and contain no spaces. Use a text editor to change them to uppercase and delete spaces before pasting into the script file.

8. Copy the thumbprint and paste into the relevant certificate values in the **Silent-Install-Hub-4.5.ps1** file.

Select and deselect check boxes

Values that correspond with check boxes accept "true" or "false" values.

Skip Blue Prism Decision (optional)

To skip the Blue Prism Decision Install, set the BLUE_PRISM_DECISION_SKIPPED value to "true".

Check RabbitMQ

Ensure the RMQ parameters contain the correct values for your organization. The RabbitMQ parameters are shown below with the default example values in the script.

```
$msi_params = $msi_params + "RMQ_USERNAME=`"rabbituser`" "
$msi_params = $msi_params + "RMQ_PASSWORD=`"rabbitpass`" "
$msi_params = $msi_params + "RMQ_HOST_NAME=`"localhost`" "|
$msi_params = $msi_params + "RMQ_PORT=`"5672`" "
$msi_params = $msi_params + "RMQ_PROTOCOL=`"amqp`" "
$msi_params = $msi_params + "RMQ_VIRTUAL_HOST=`"``" "
$msi_params = $msi_params + "RMQ_CERTIFICATE_ID=`"``" "
```

Check Customer ID

Ensure the HUB_CUSTOMER_ID parameter contains the correct value. If this value is incorrect, you will not be able to license any plugins without some manual re-configuration.

Check Blue Prism API URL (optional)

Ensure the BLUE_PRISM_API_URL parameter contains the correct values.

Combine parameters


The following code is used to combine all parameters into one string ready for installing:

```
$silentArgs = "/I `"[filepath to Blue Prism Hub.msi]$Version\Blue Prism Hub.msi`" /qn /norestart
/l*v `C:[filepath to log file]logs_hub_$Version.log'" $msi_params"$process = Start-Process
msiexec.exe -Wait -ArgumentList $silentArgs -PassThru
Write-Host $process.ExitCode
```



Check that the filepath to the **Blue Prism Hub.msi** file is correct, and update if it is not.

Start silent install

 Remember to save the Silent-Install-Hub-4.5.ps1 after making any changes.


Before starting the install, ensure that the Silent-Install-Hub-4.5.ps1 script is in the same directory as the Blue Prism Hub.msi file, or you will need to specify the full path to the script in step three below.

1. In File Explorer, navigate to the location of the Blue Prism Hub.msi file.
2. Click **File** and select **Open Windows PowerShell > Open Windows PowerShell as administrator**.


The PowerShell screen displays.

3. Type `.\Silent-Install-Hub-4.5.ps1` and press Enter.
4. If a warning displays, type **R** for run once.

The Hub installer will run and Hub 4.5 will be available once installed. If the install fails an error code displays in PowerShell. It is recommended that you look in the log to find and fix the issue.

 A log file is created in the installer location during the installation and updates in real time. It is recommended that log files are deleted after installation for security reasons.

Silent uninstall

 Remember to save the Silent-Install-Hub-4.5.ps1 after making any changes.

1. Using PowerShell as an administrator, replace the following line of code in the Silent-Install-Hub-4.5.ps1 file:

```
$silentArgs = "/I `[filepath to Blue Prism Hub.msi]$Version\Blue Prism Hub.msi`" /qn  
/norestart /1*v `[filepath to log file]logs_hub_$Version.log`
```

with:

```
$silentArgs = "/X `[filepath to Blue Prism Hub.msi]$Version\Blue Prism Hub.msi`" /qn  
/norestart /1*v `[filepath to log file]logs_hub_uninstall_$Version.log`" $msi_params"
```

2. In File Explorer, navigate to the location of the Blue Prism Hub.msi file.
3. Click **File** and select **Open Windows PowerShell > Open Windows PowerShell as administrator**.
The PowerShell screen displays.
4. Type ".\Silent-Install-Hub-4.5.ps.1 and press Enter.
5. If a warning displays, type **R** for run once.
Hub will be uninstalled.
6. Type ".\Clear-Installation.ps1" and press Enter.

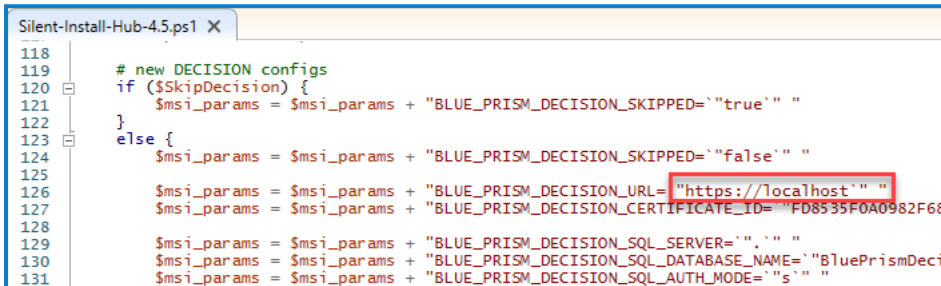
This completes the uninstall process. If the install fails an error code displays in PowerShell. It is recommended that you look in the log to find and fix the issue.

 Log files should be deleted after installation for security reasons.

Set up the Decision API outside of the Blue Prism Hub silent install process

The following information explains how to set up the API outside of the installer if Decision was not initially installed:

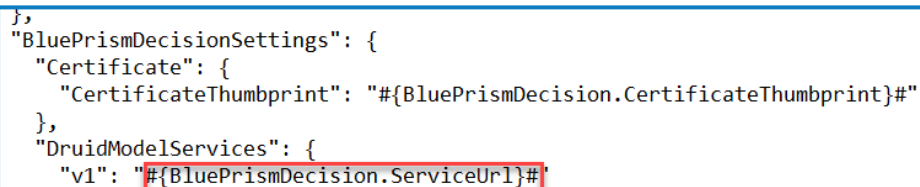
1. Open the Hub appsettings.json in an editor such as Notepad or Visual Studio Code.
2. Open the Silent-install-Hub-4.5.ps1 file and copy the BLUE_PRISM_DECISION_URL value.



```

118
119 # new DECISION configs
120 if ($SkipDecision) {
121     $msi_params = $msi_params + "BLUE_PRISM_DECISION_SKIPPED='true' "
122 }
123 else {
124     $msi_params = $msi_params + "BLUE_PRISM_DECISION_SKIPPED='false' "
125
126     $msi_params = $msi_params + "BLUE_PRISM_DECISION_URL='https://localhost' "
127     $msi_params = $msi_params + "BLUE_PRISM_DECISION_CERTIFICATE_ID='FD8535F0A0982F68' "
128
129     $msi_params = $msi_params + "BLUE_PRISM_DECISION_SQL_SERVER='.' "
130     $msi_params = $msi_params + "BLUE_PRISM_DECISION_SQL_DATABASE_NAME='BluePrismDeci
131     $msi_params = $msi_params + "BLUE_PRISM_DECISION_SQL_AUTH_MODE='s' "
  
```

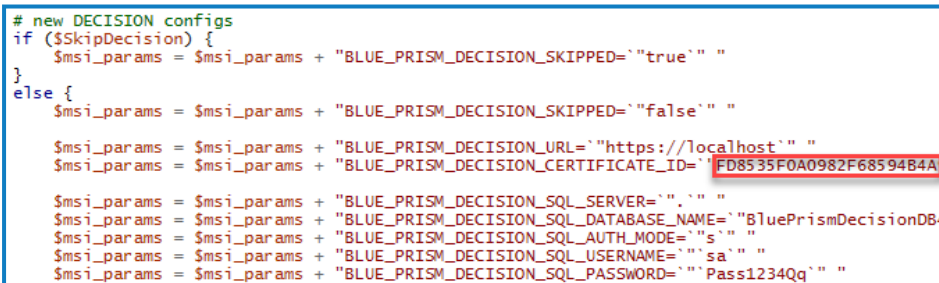
3. Paste the BLUE_PRISM_DECISION_URL value over the "v1" value in the "DruidModelServices" section of the Hub appsettings.json file.



```

},
"BluePrismDecisionSettings": {
  "Certificate": {
    "CertificateThumbprint": "#{BluePrismDecision.CertificateThumbprint}#"
  },
  "DruidModelServices": {
    "v1": "#{BluePrismDecision.ServiceUrl}"
  }
}
  
```

4. Copy the BLUE_PRISM_DECISION_CERTIFICATE_ID value from the Silent-Install-Hub-4.5.ps1



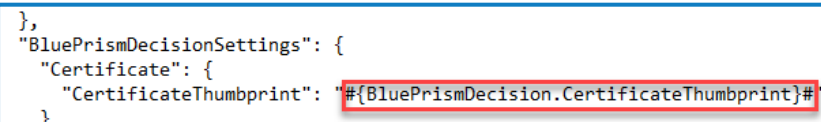
```

# new DECISION configs
if ($SkipDecision) {
    $msi_params = $msi_params + "BLUE_PRISM_DECISION_SKIPPED='true' "
}
else {
    $msi_params = $msi_params + "BLUE_PRISM_DECISION_SKIPPED='false' "

    $msi_params = $msi_params + "BLUE_PRISM_DECISION_URL='https://localhost' "
    $msi_params = $msi_params + "BLUE_PRISM_DECISION_CERTIFICATE_ID='FD8535F0A0982F68594B4A' "

    $msi_params = $msi_params + "BLUE_PRISM_DECISION_SQL_SERVER='.' "
    $msi_params = $msi_params + "BLUE_PRISM_DECISION_SQL_DATABASE_NAME='BluePrismDecisionDB4' "
    $msi_params = $msi_params + "BLUE_PRISM_DECISION_SQL_AUTH_MODE='s' "
    $msi_params = $msi_params + "BLUE_PRISM_DECISION_SQL_USERNAME='sa' "
    $msi_params = $msi_params + "BLUE_PRISM_DECISION_SQL_PASSWORD='Pass1234Qq' "
}
  
```

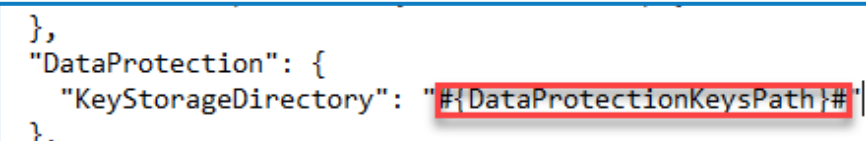
5. Paste the BLUE_PRISM_DECISION_CERTIFICATE_ID value over the "CertificateThumbprint" value in the "BluePrismDecisionSettings" section of the Hub appsettings.json file.



```

},
"BluePrismDecisionSettings": {
  "Certificate": {
    "CertificateThumbprint": "#{BluePrismDecision.CertificateThumbprint}#"
  }
}
  
```

6. In the Hub appsettings.json file, if the "KeyStorageDirectory" value is not encrypted, update the filepath to the data protection keys. If this value is encrypted, use the [Blue Prism Protector Tool](#) to decrypt the value and update the filepath. Encrypt again if necessary.



```

},
"DataProtection": {
  "KeyStorageDirectory": "#{DataProtectionKeysPath}#"
}
  
```

7. In the Hub appsettings.json file, if the "ConnectionString" value is not encrypted (in the "BluePrismDecision" section), update the Blue Prism Decision connection string. If this value is encrypted, use the [Blue Prism Protector Tool](#) to decrypt the value and update the connection string. Encrypt again if necessary.

```
    },  
    "BluePrismDecision": {  
      "ConnectionName": "BluePrismDecision",  
      "ServerName": "",  
      "DatabaseName": "",  
      "ConnectionString": "#{DbConnectionString.BluePrismDecision}#",  
      "UserId": "",  
      "Password": "",  
      "Timeout": 90,  
      "AuthType": 0,  
      "CurrentPromotionEnvironments": []  
    }  
  }  
}
```

8. Save the appsettings.json file.

You can now [set up Decision](#) within Hub. The database is created upon installation.