

Citrix Integration with VMware Identity Manager

In this lab you will install and configure the Citrix Integration broker to communicate with the existing on premise Citrix Farm and the VMware Identity Manager SaaS instance

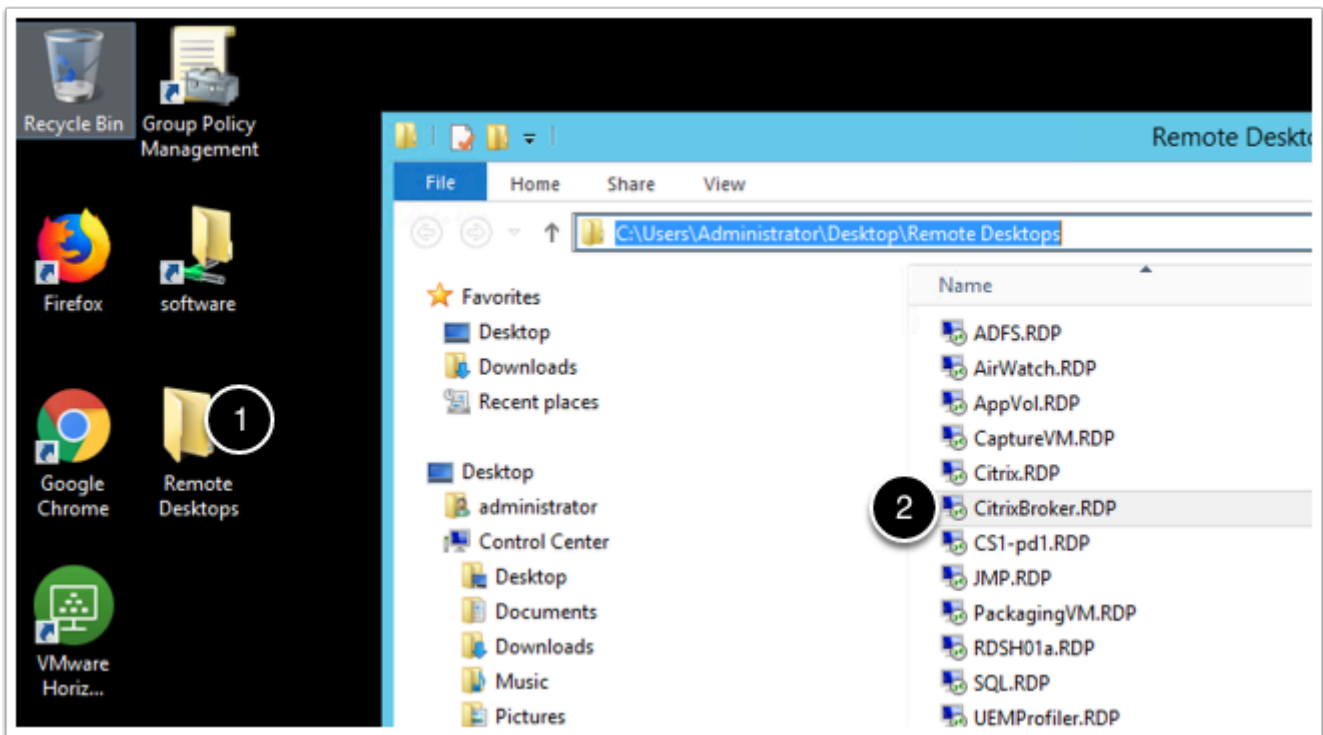
Section 1 - Integration broker installation

Part 1a - Preparing the integration broker virtual machine

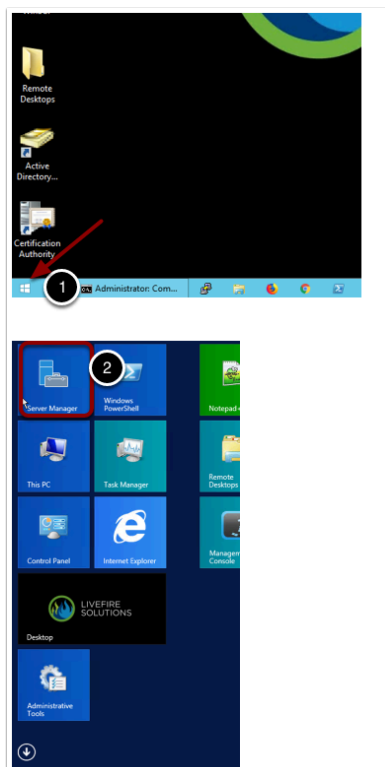
Part 1a has been completed beforehand for your convenience, this material is here for future reference. Please move on to part 1b.

In this part you will install the roles and software requirements for the installation of the Citrix integration broker.

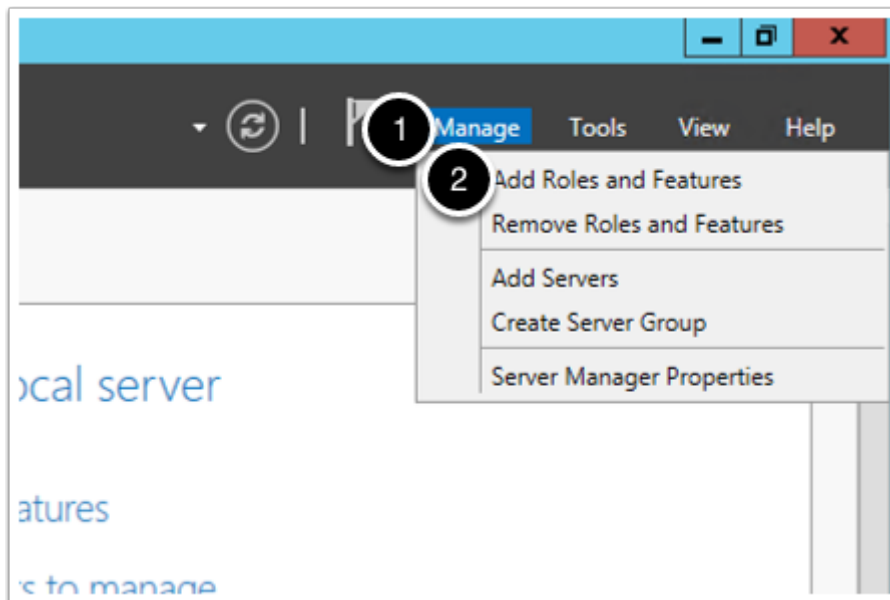
1. Log on to your **Controlcenter** virtual machine.
2. On your desktop, go to the **Remote Desktop** folder
3. Open **citrixbroker.rdp**
4. Log on with **username: euc-livewire\administrator** and **password: VMware1!**



5. In the **Citrix broker** machine go to **Start > Server Manager**



6. In **Server Manager**, select **Manage > Add Roles and Features**

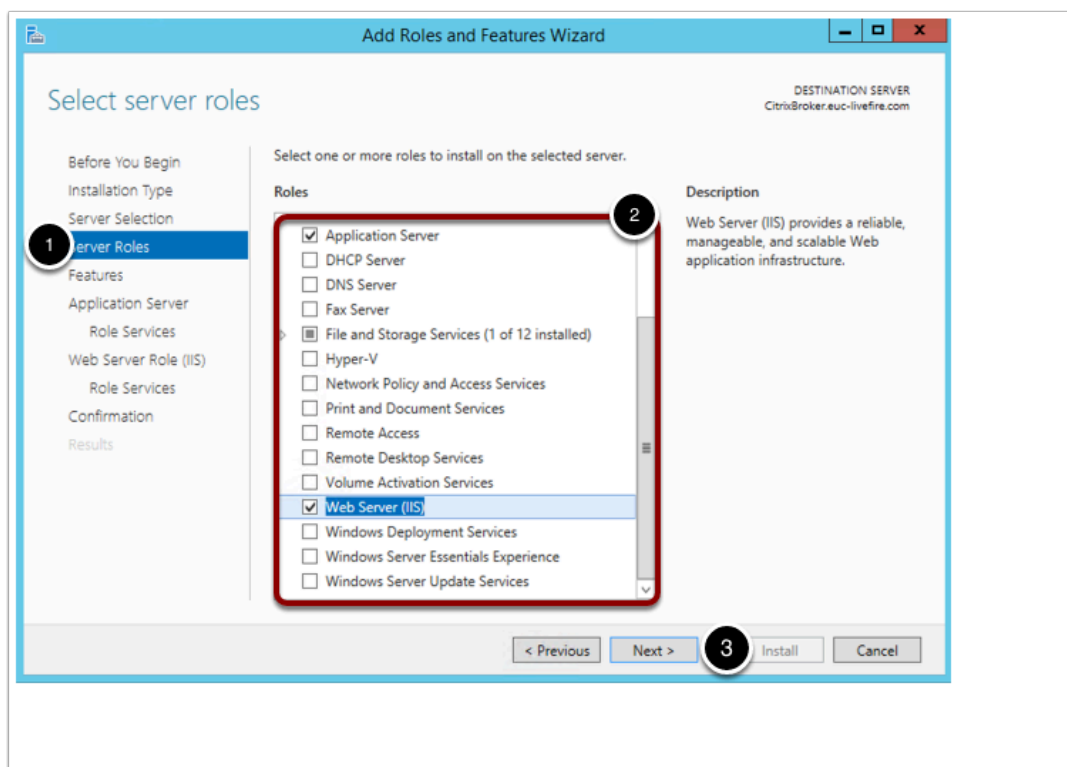


7. Click **Next** until you get to the **Server Roles** screen

8. Select the following roles:

- **Application Server**
- **File and Storage Services** (leave as default if selected)
- **Web Server (IIS)** (accept any additional required roles)

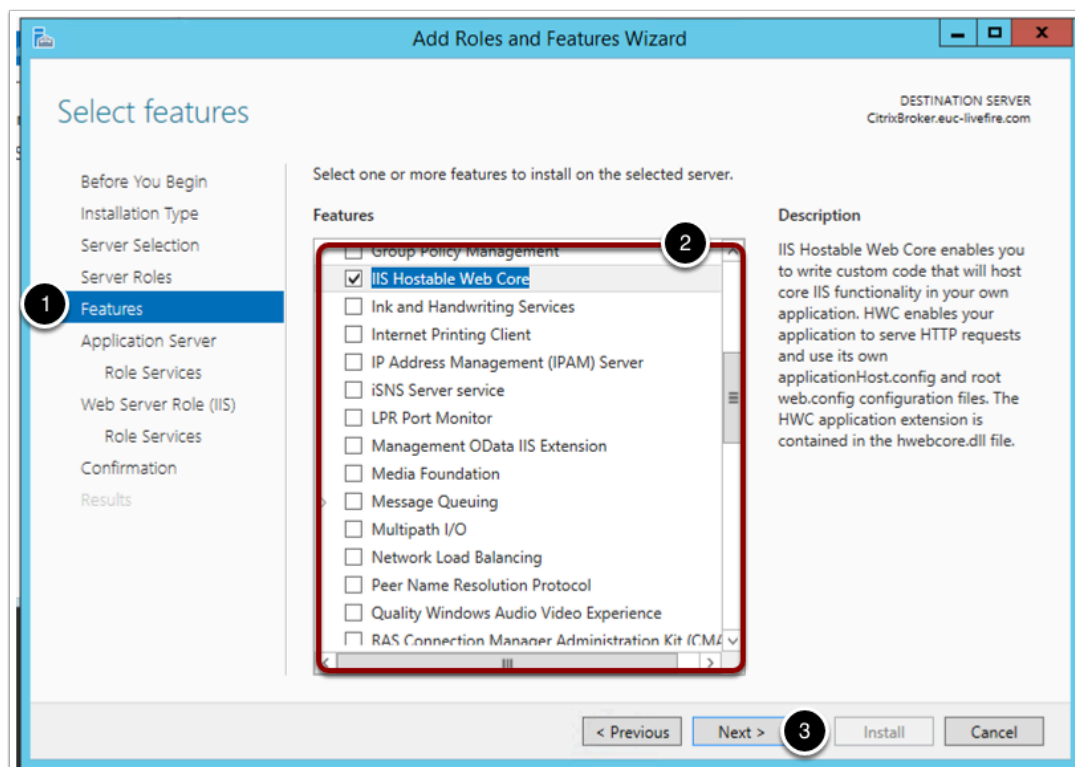
9. Click **Next**



10. In the **Features** window, select the following options:

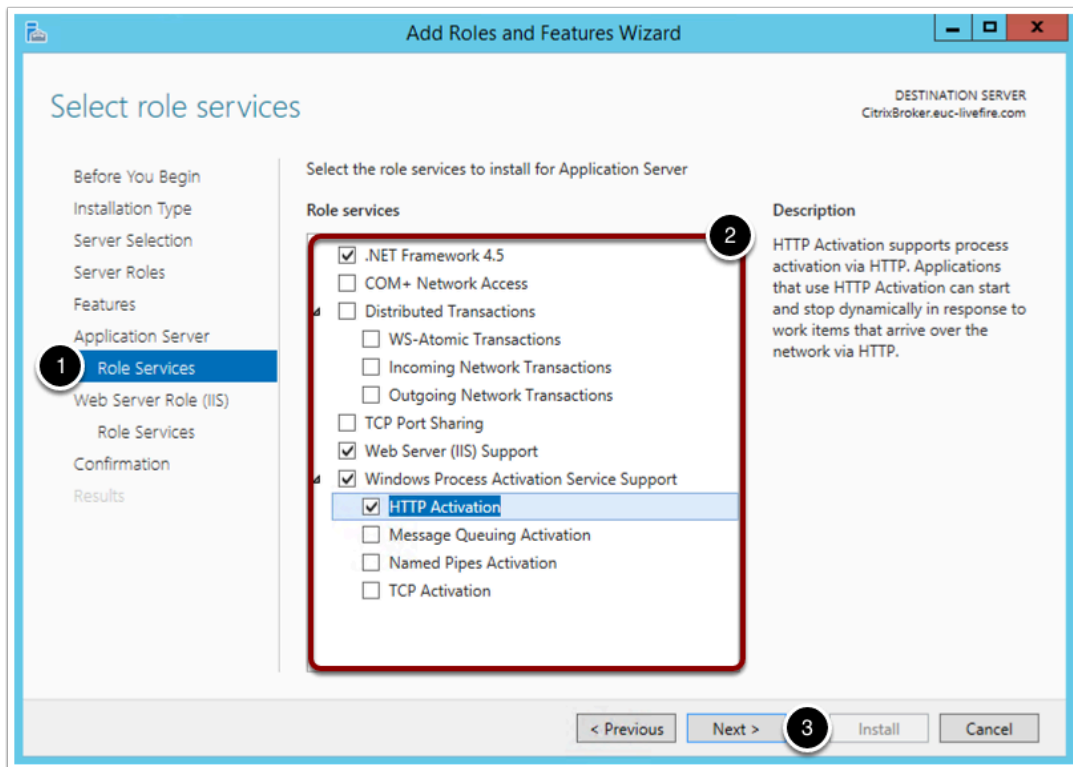
- **.NET Framework 3.5 Features**
 - **.NET Framework 3.5 (includes .NET 2.0 and 3.0)**
 - **HTTP Activation** (accept any required features)
- **IIS Hostable Web Core**
- **Windows Process Activation Service** (leave as default if already selected)
- **WinRM IIS Extension** (accept any required features)

11. Click **Next** until you reach **Application Services Role Services**.



12. Select the following role services:

- **.NET Framework 4.5** (do not change if preselected)
- **Web Server (IIS) Support** (accept the installation of any required roles)
- **Windows Process Activation Service Support**
 - **HTTP Activation** (accept the installation of any required roles)

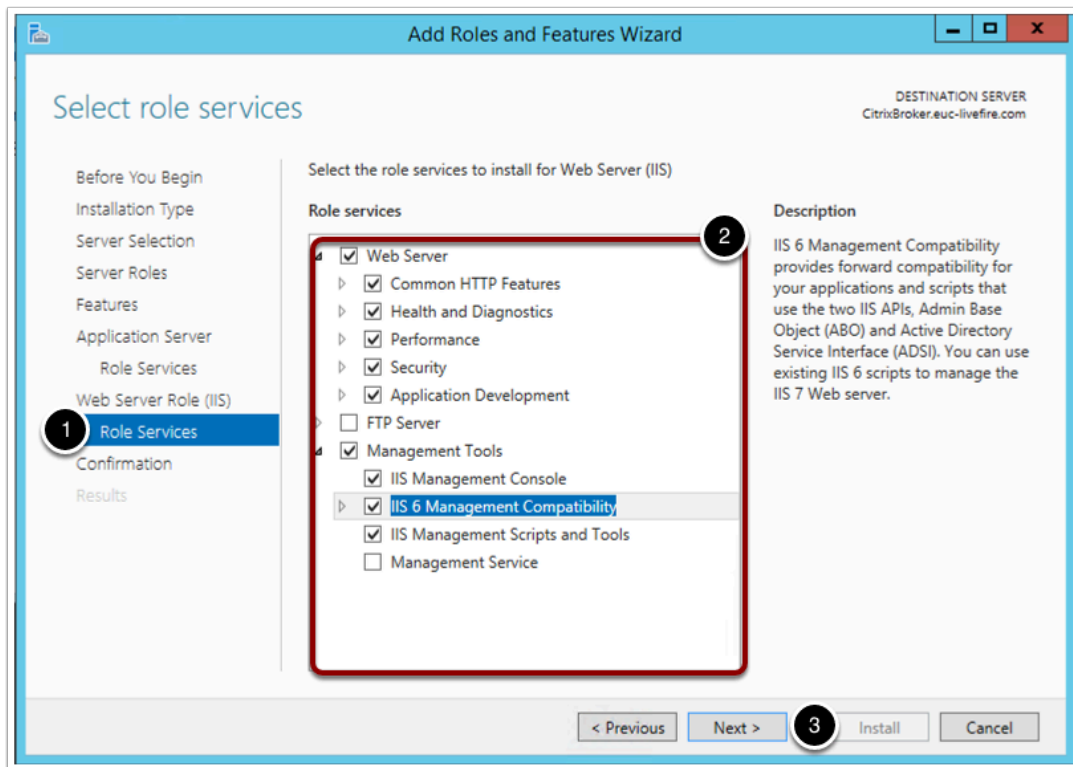


13. Click **Next** until you reach the **Web Server Role (IIS) Role Services** page.

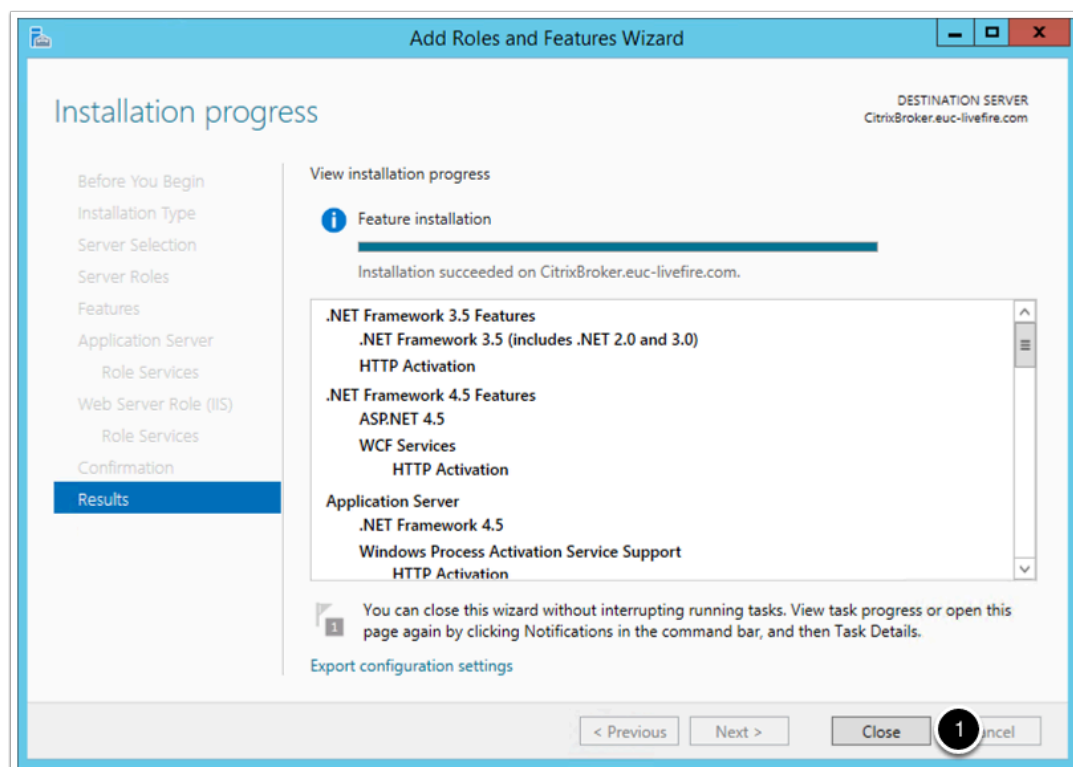
14. Select the following services:

- **Web Server** (Accept the default selections)
- **Management Tools**
 - **IIS Management Console**
 - **IIS 6 Management Compatibility**

15. Click **Next** then **Install**.



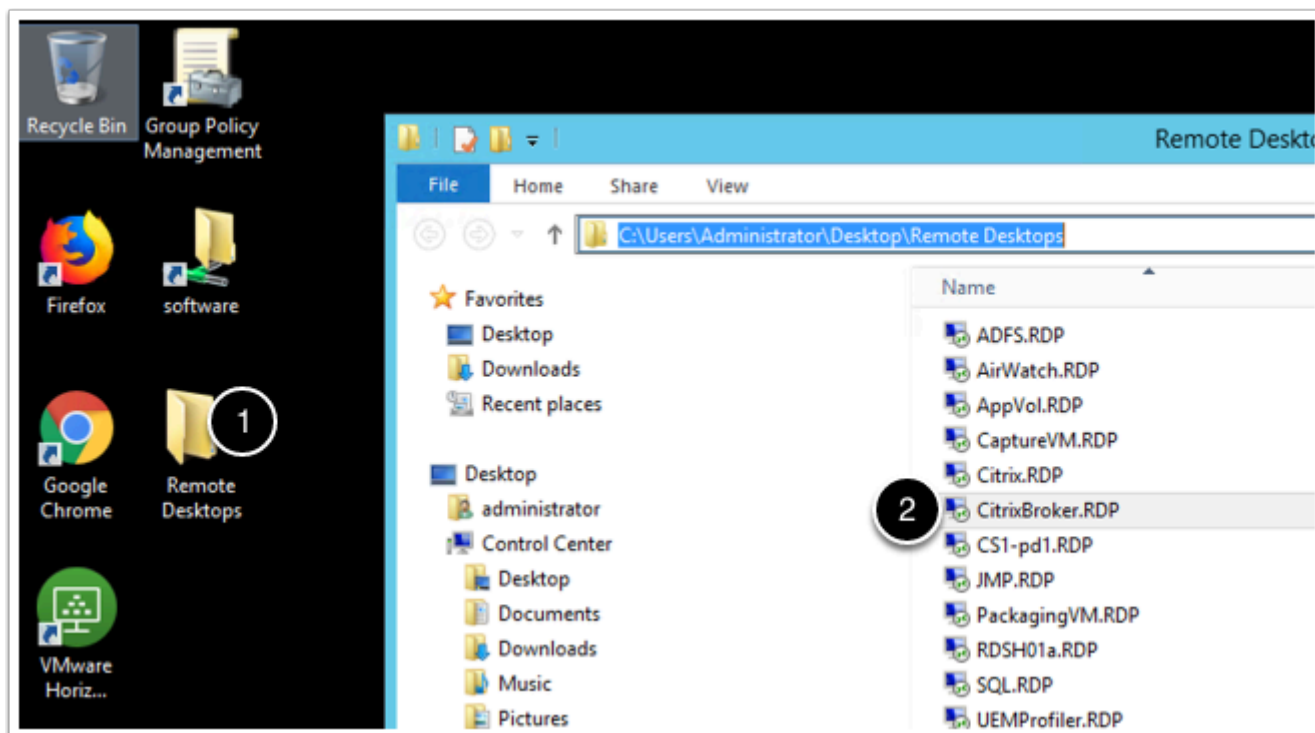
16. Click **Close** when the installation finishes.



Part 1b - Integration broker installation

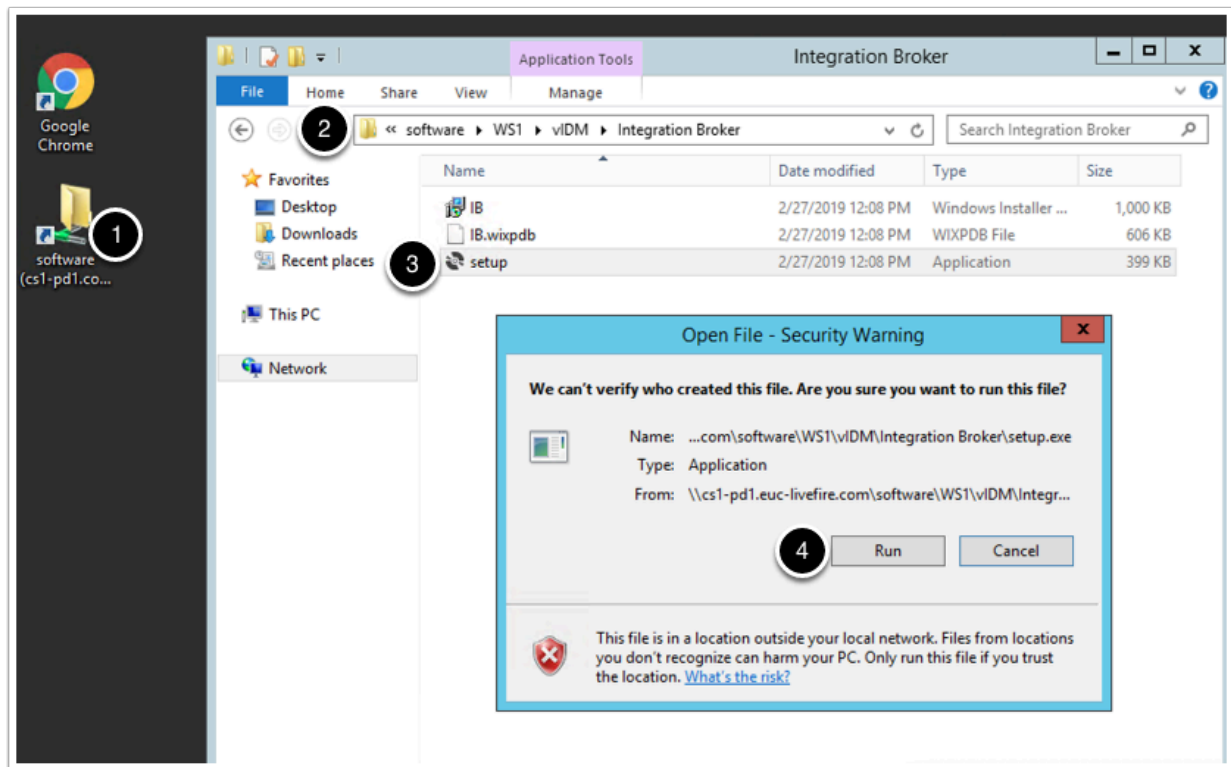
Connect to your citrixbroker virtualmachine

1. Log on to your **Controlcenter** virtual machine.
2. On your desktop, go to the **Remote Desktop** folder
3. Open **citrixbroker.rdp**
4. Log on with **username: euc-livefire\administrator** and **password: VMware1!**

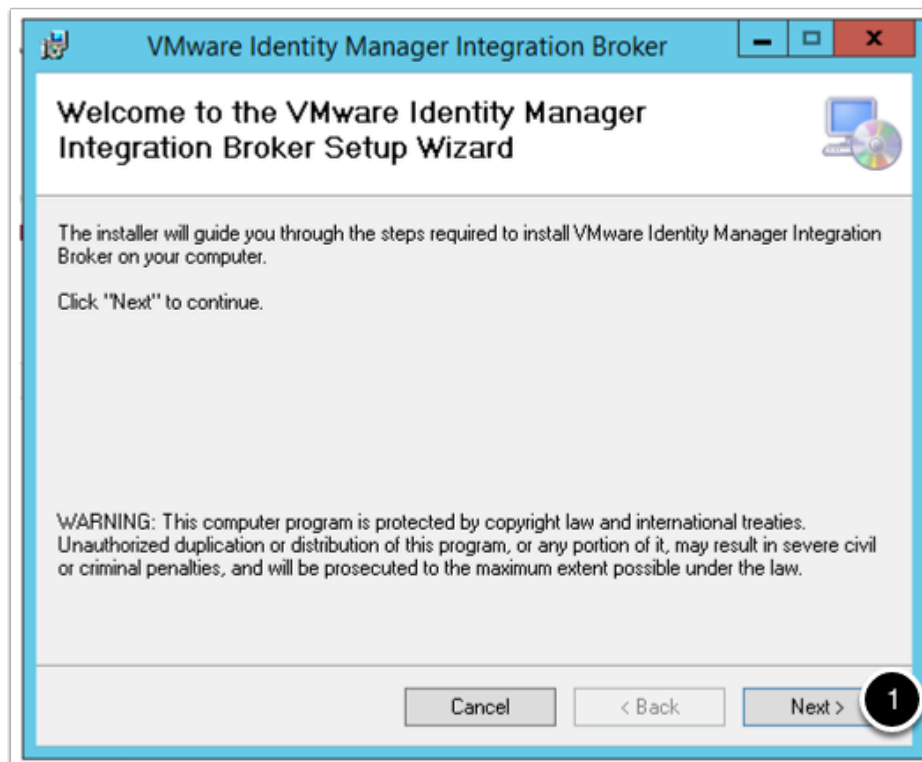


In this part you install the integration broker software

5. from the **Citrixbroker** virtual machine's desktop, go to the **Software** folder shortcut.
6. Navigate to **\\software\VIDM\IntegrationBroker-19.03.0-13221855**
7. Run **Setup.exe**, in the **security warning** window click **Run**

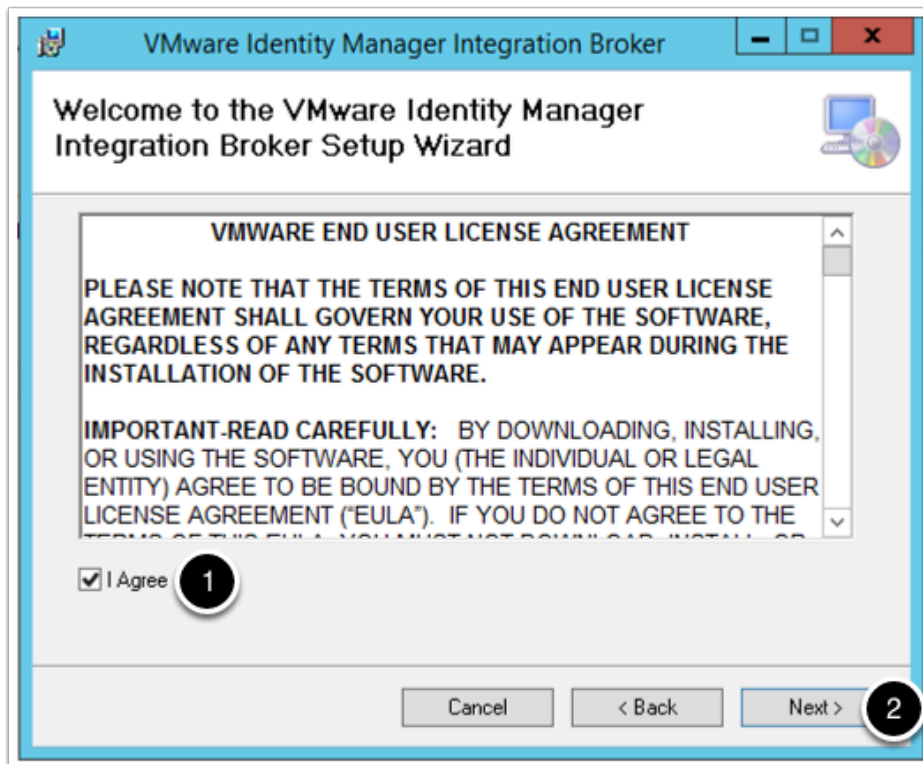


8. Click **Next** on the **Welcome** screen

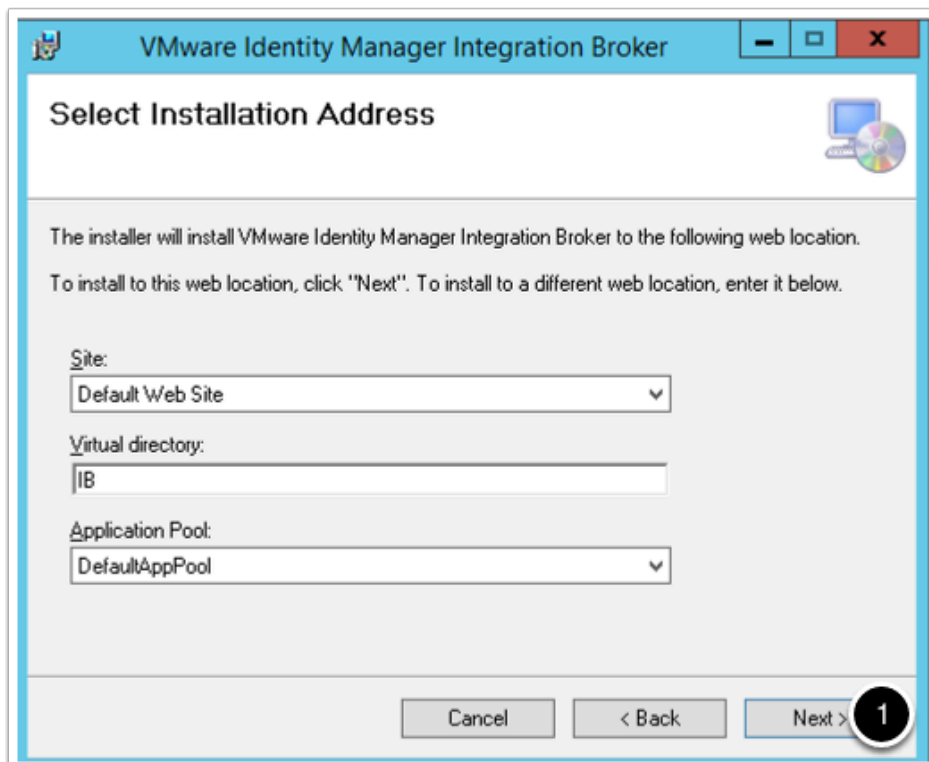


9. **Agree** to the **End User License Agreement**

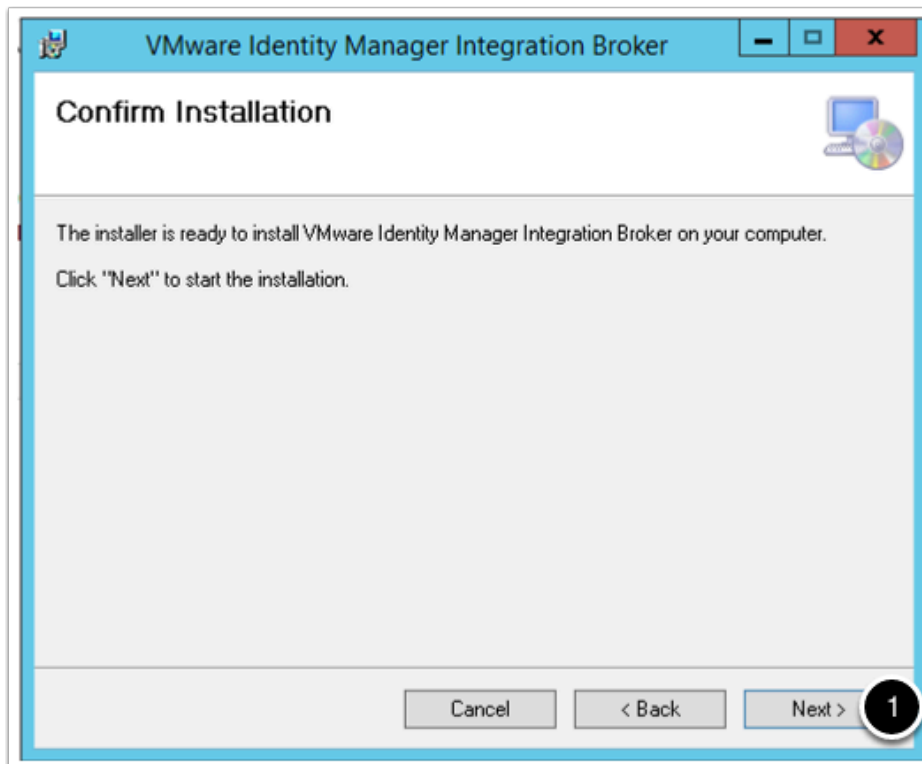
10. Click **Next**



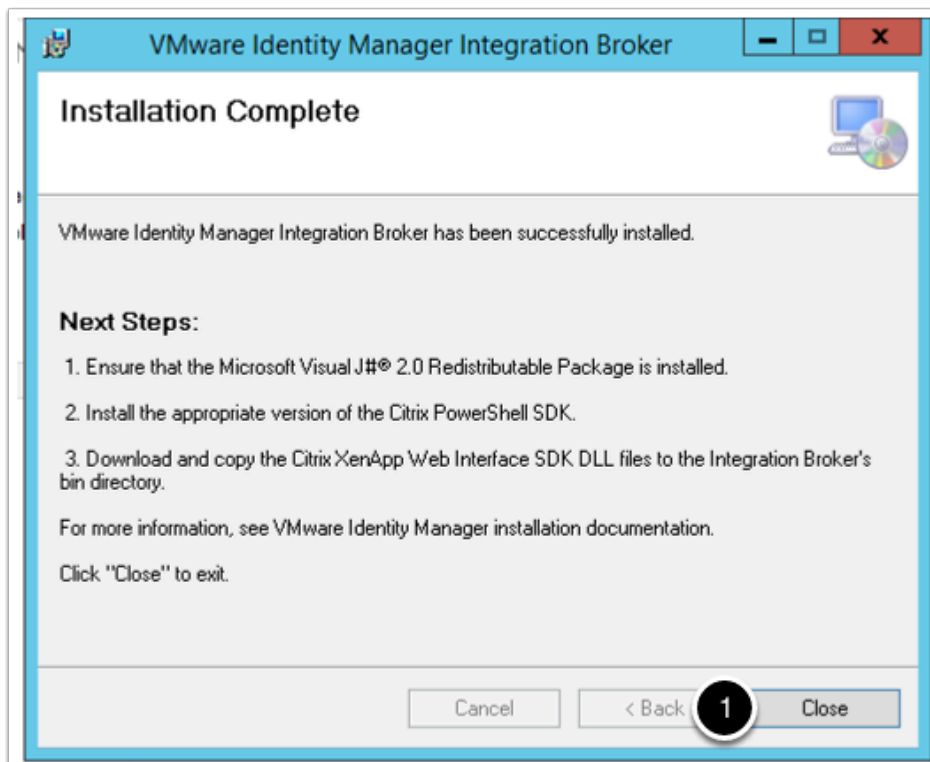
11. Leave the default settings and click **Next**.



12. Click **Next** on the **Confirm installation** windows.



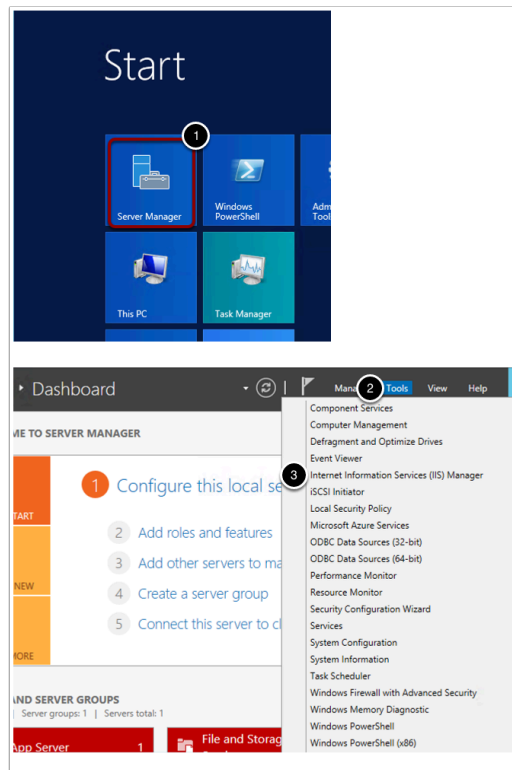
13. Click on **Close** on the **Installation Complete** window.



Part 1c - IIS Configuration

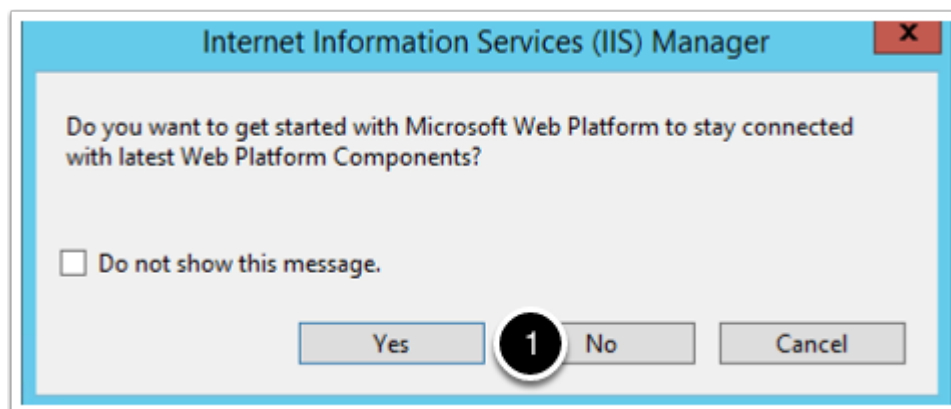
1. Click **Start > Server Manager**.

2. In Server Manager, select **Tools > Internet Information Services (IIS) Manager**.



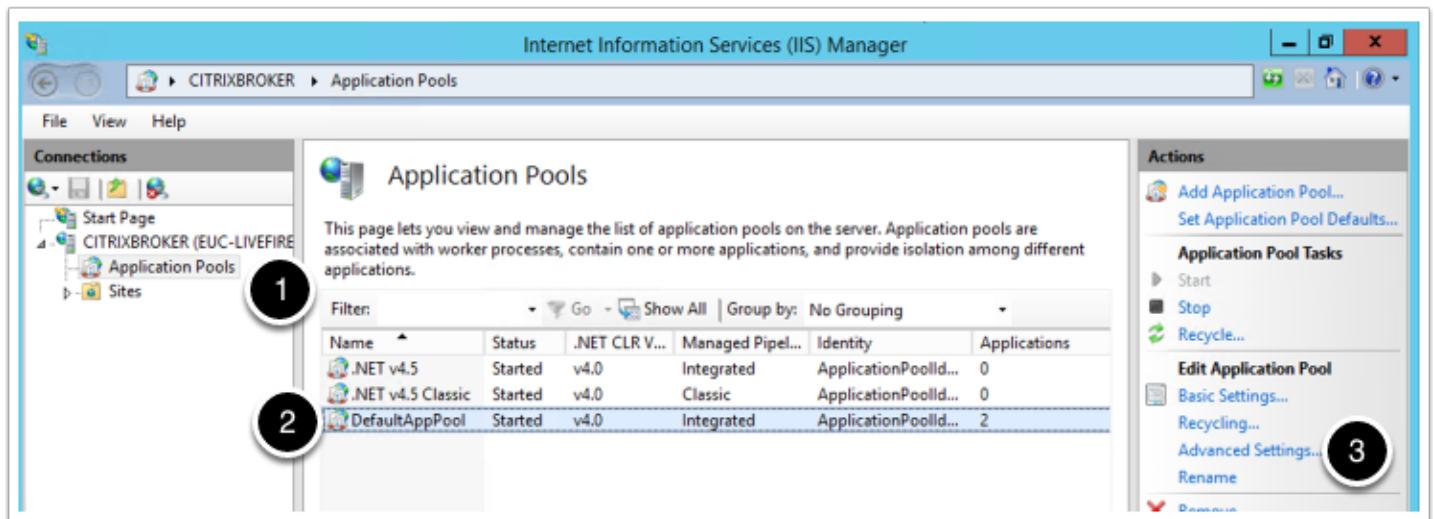
3. In the left pane, click **Citrixbroker > Application Pools**.

Click **No** in the **Microsoft Web Platform** pop up message if prompted

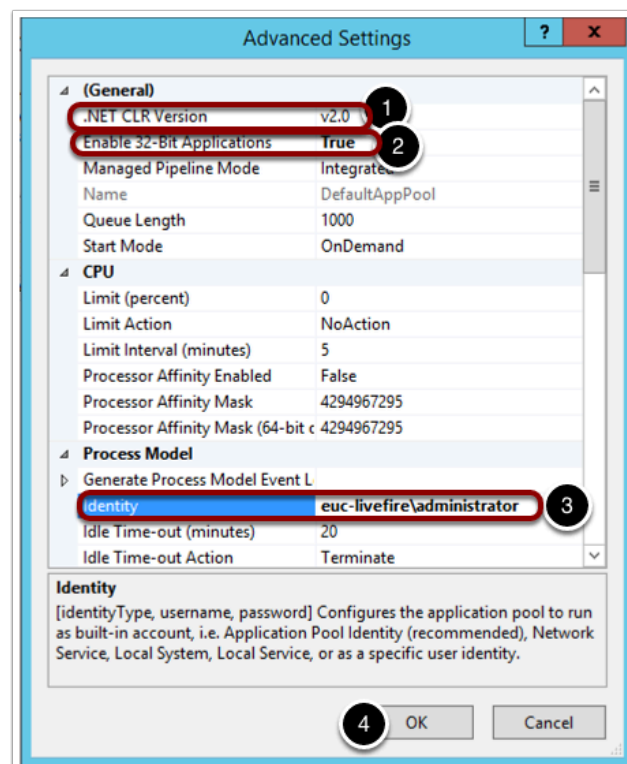


4. Select the **DefaultAppPool**

5. Click **Advanced Settings** in the right pane.



8. Set **.NET CLR Version** value to **2.0**
9. Set value **Enable 32-bit Applications** to **True**
10. Set **identity** value to **euc-livefire\administrator**
11. Click **OK**
12. Leave **IIS manager** open for the next step

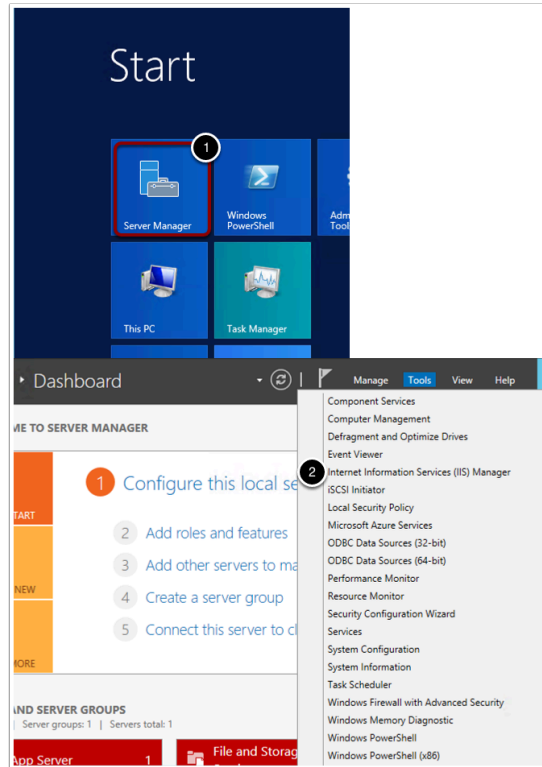


Part 1d - Self signed certificate creation

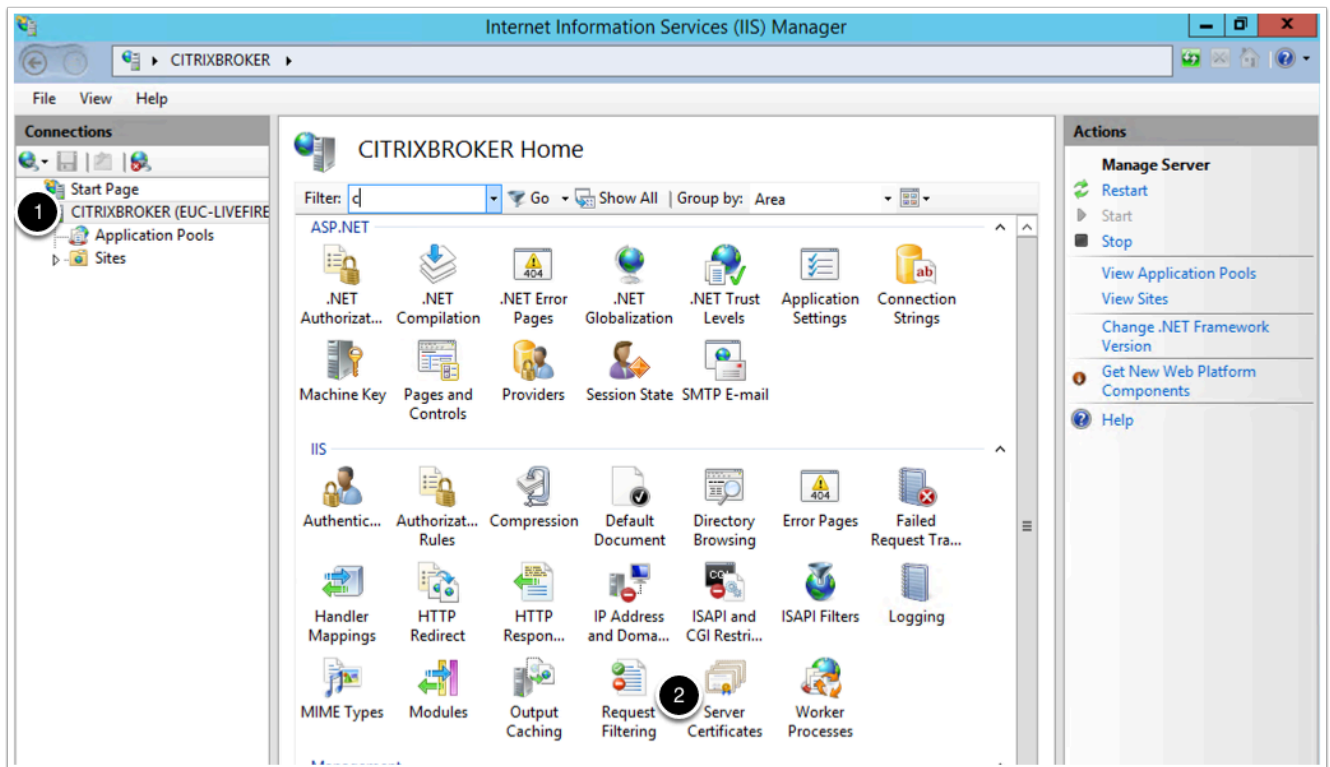
In this part you create a self signed certificate for the ssl communication with citrix storefront

Open the **IIS manager** if it is not open already

1. Go to **Start** > **Server Manager**
2. Go to **Tools** > **Internet Information Services Manager**



3. In your left pane click on the **Citrixbroker** object
4. Navigate to **Server Certificates** in the center pane



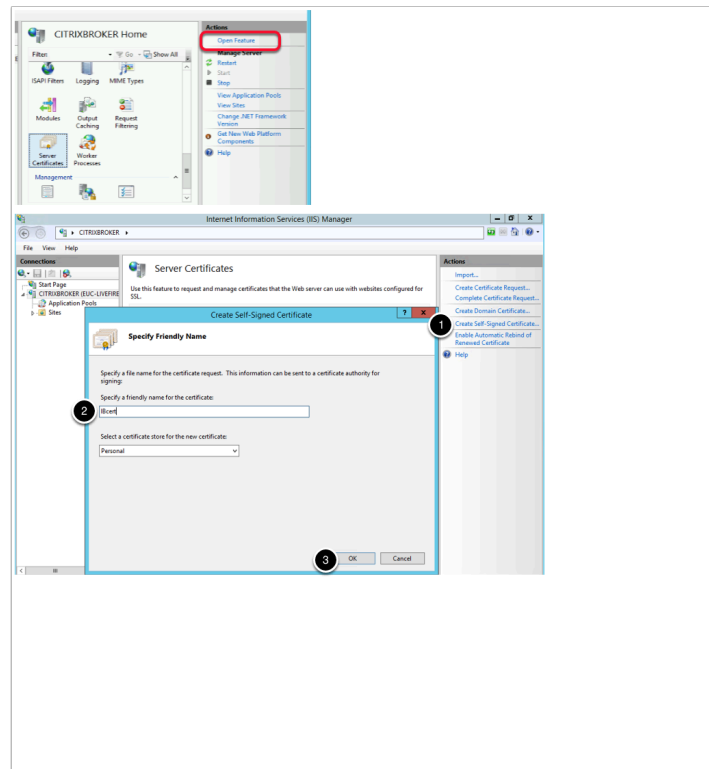
5. On your right pane go to **Actions** > **Open Feature**

Under Actions select **Create Self signed certificate**

6. in the **Create Self-Signed Certificate** window, write **lBcert** as a name for the certificate

7. Click **OK**.

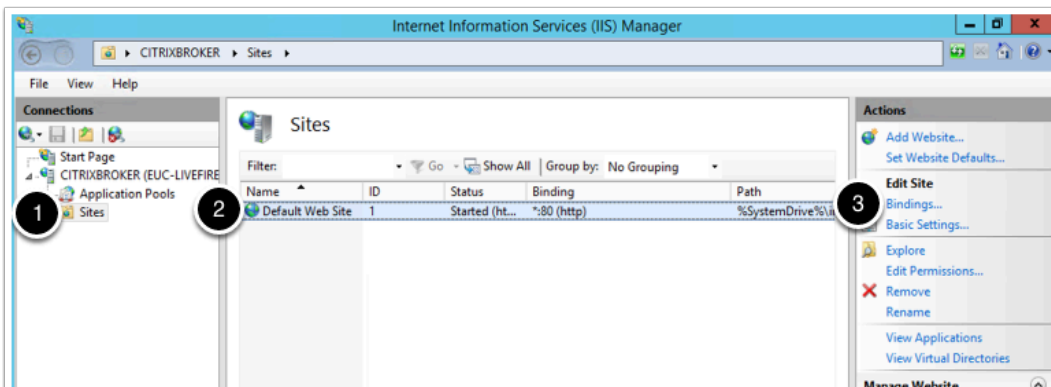
8. Leave the **IIS Manager** window open for the next steps



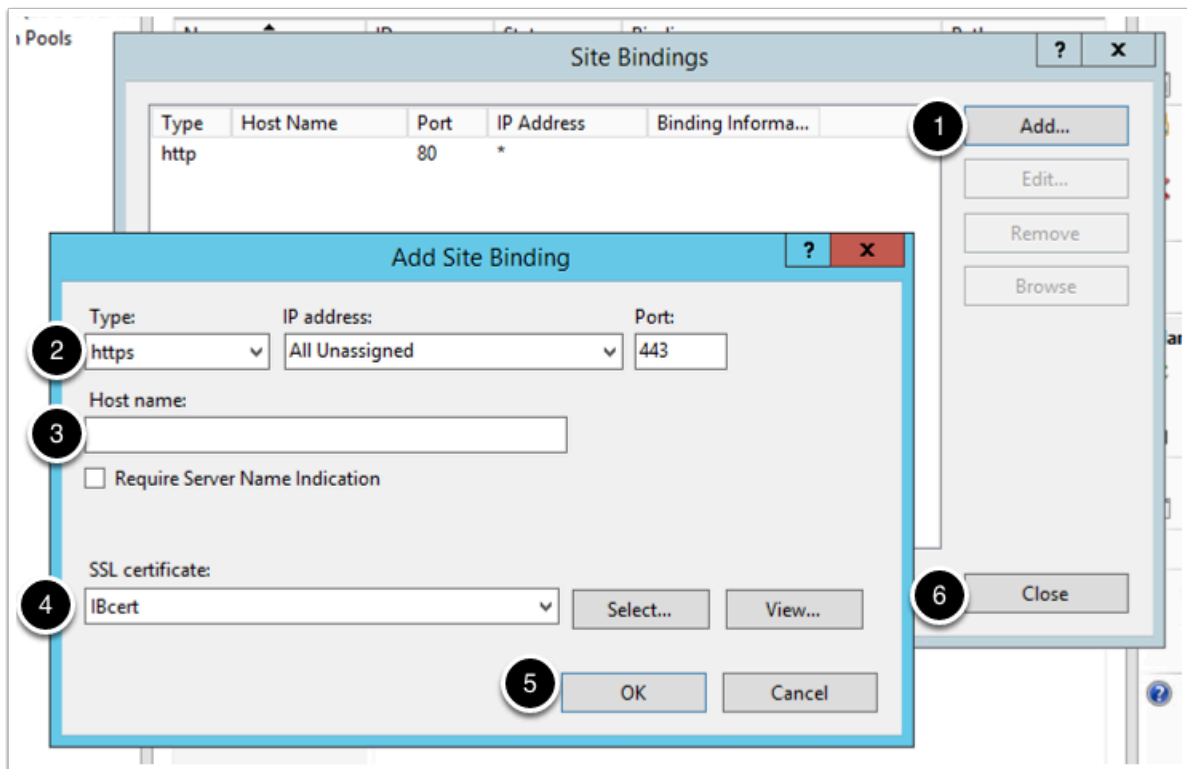
part 1e - Site binding configuration

Open the **IIS Manager** if not opened already

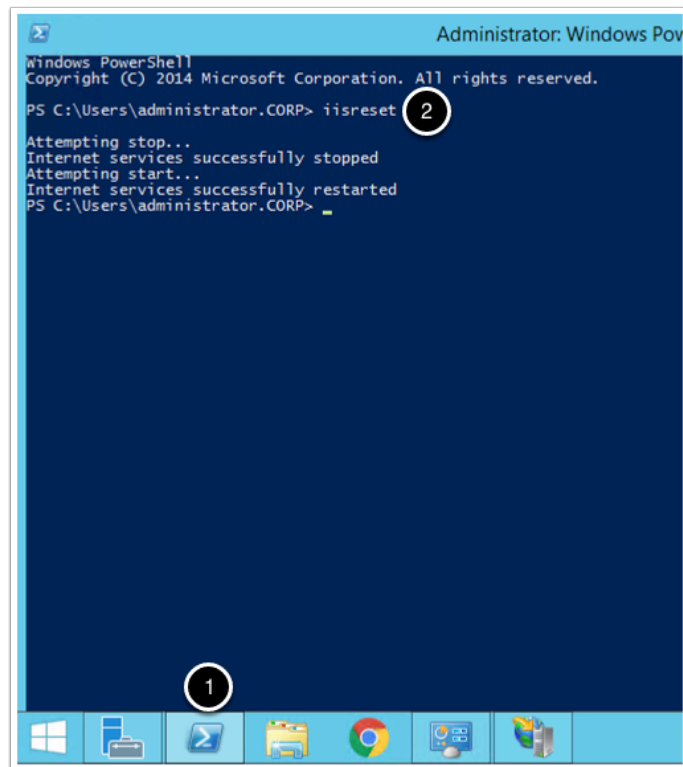
1. On the **IIS Manager** click on **Sites**
2. Click on the **Default Web Site**
3. In the right pane, under **Edit Site** select **Bindings**



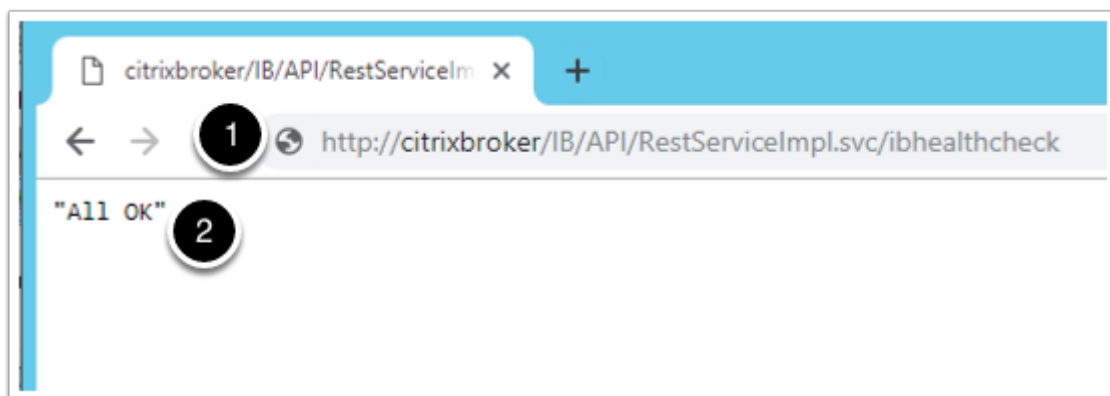
4. On the **Site Bindings** window click on **Add**
5. On **Type** select **HTTPS**
6. Make sure the **Host Name** field is empty
7. In the **Ssl Certificate** drop down menu choose the **IBcert** certificate you created on previous steps
8. Click **OK** on the **add site binding** window
9. Click **Close** on the **site binding** window



10. Open a **powershell** or **command line** window.
11. Run the **iisreset** command



12. In your **Controlcenter** VM open a chrome browser and type <http://citrixbroker/IB/API/RestServiceImpl.svc/ibhealthcheck> , you should see an **"ALL OK"** message.

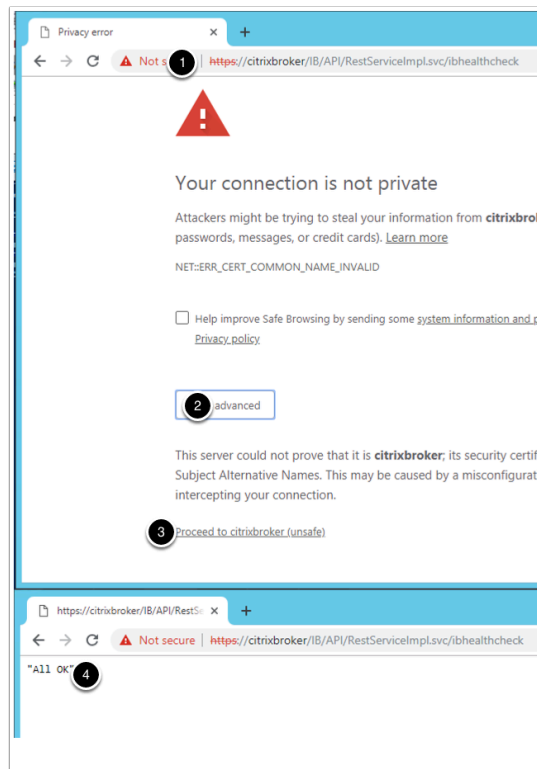


13. Now type <https://citrixbroker/IB/API/RestServiceImpl.svc/ibhealthcheck>

14. Click on **Advanced**

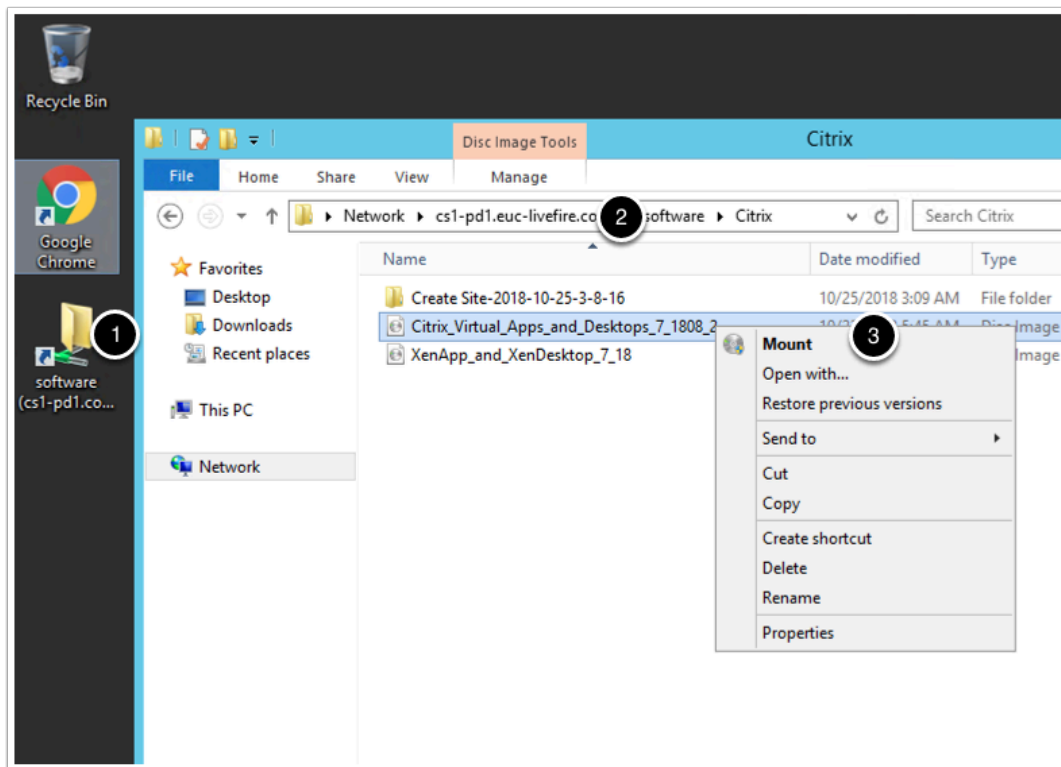
15. Click on **Proceed To Citrix Broker**

16. You should get an **"ALL OK"** message



part 1f - citrix components installation

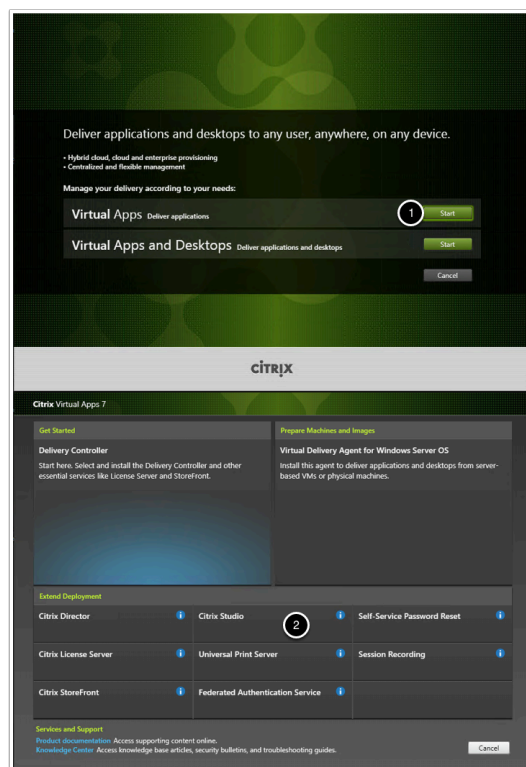
1. On your **Citrixbroker** machine, open the **Software** folder
2. Navigate to **Software** > **Citrix**
3. Right click and **mount** the **citrix virtual apps and desktops ISO**.



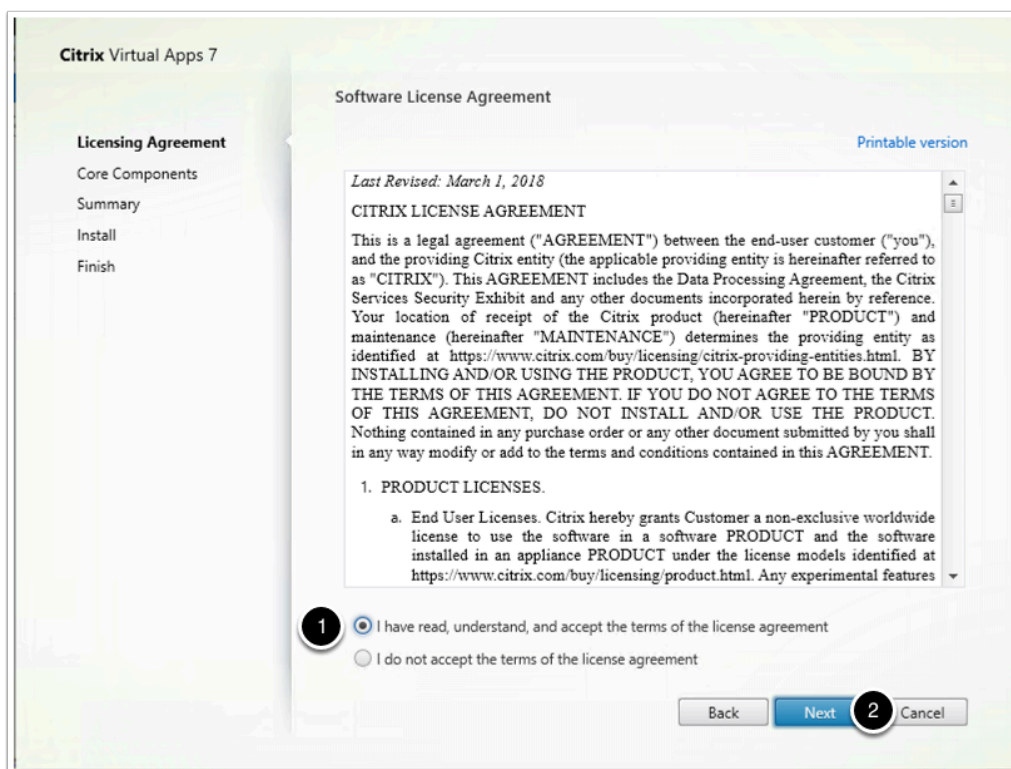
4. In the newly mounted drive navigate to **autoselect**

5. Click on **Start** next to **virtual apps**

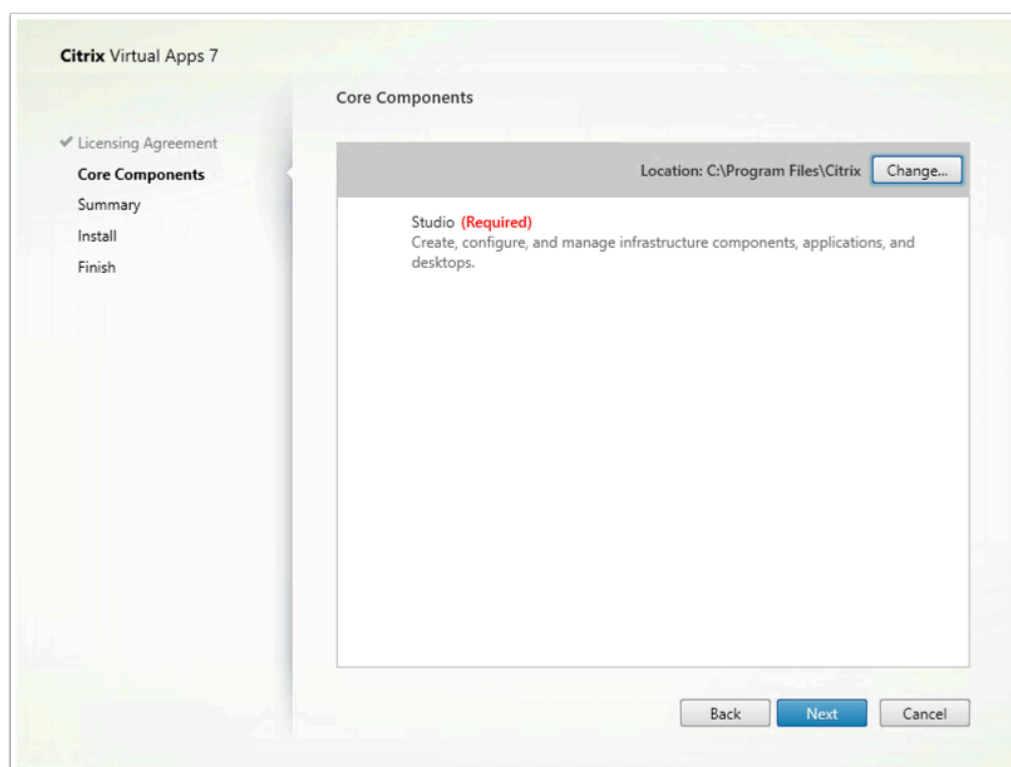
6. Click on **Citrix studio**



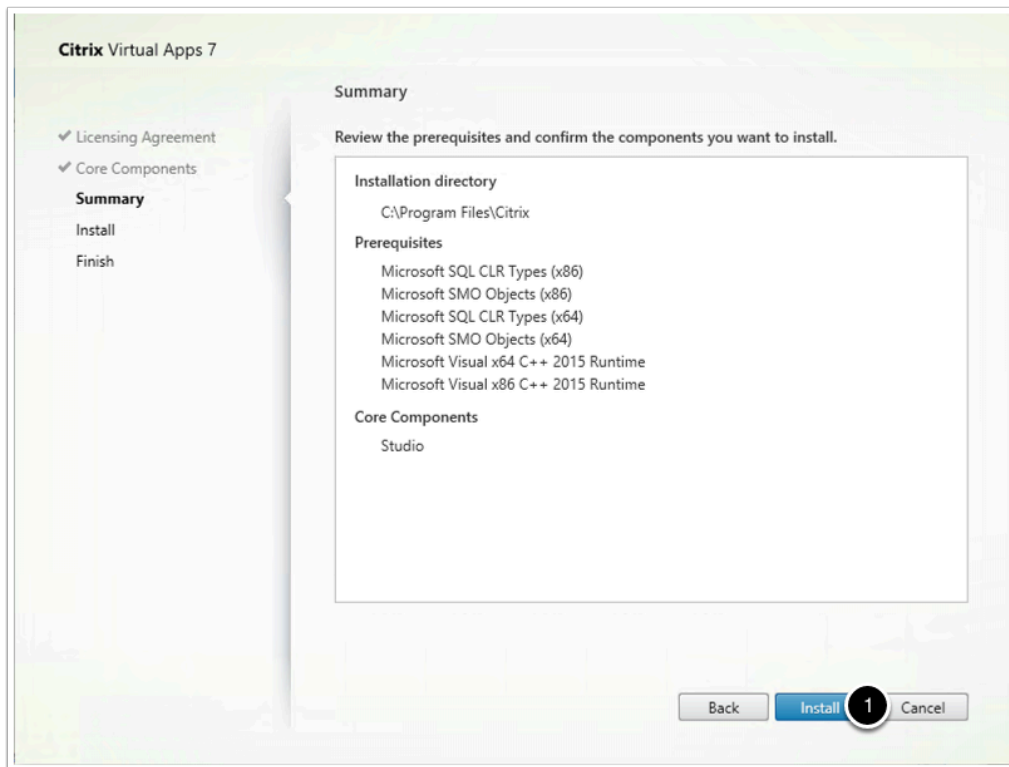
7. **Accept** the **software license agreement** and click **NEXT**



8. Click **Next** on the **core component** window

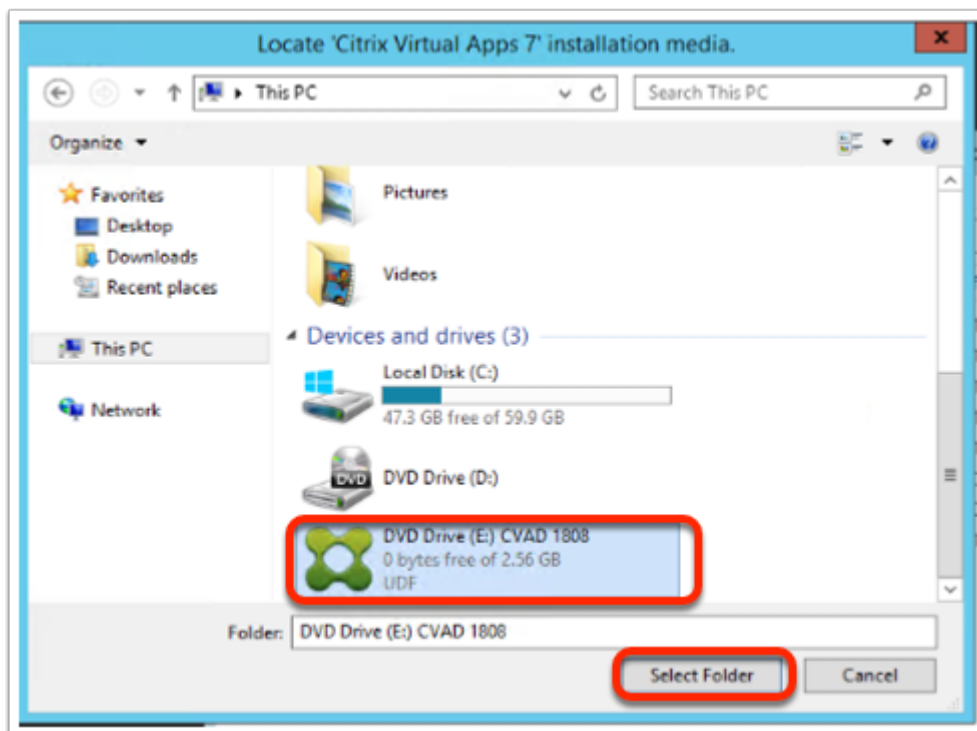


9. Click **install** on the **Summary** window



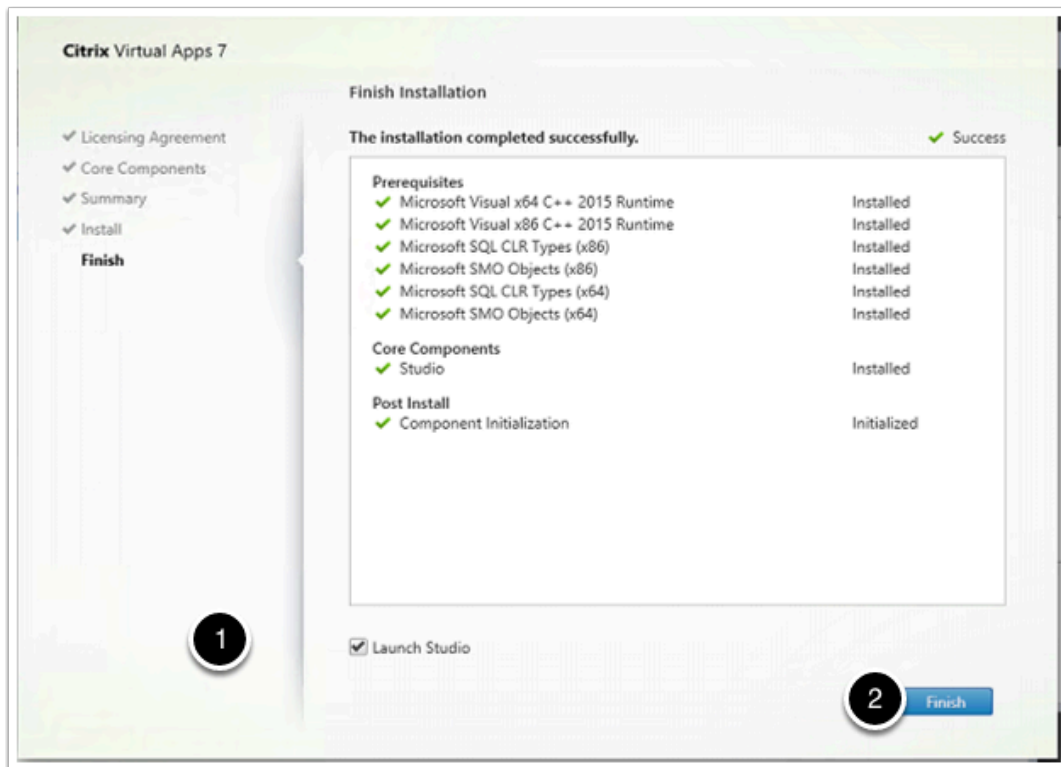
10. if your vm restarts during the installation process, please follow steps 1-3 of part 1f before proceeding.

11. in the "locate Citrix Virtual Apps 7 Installation Media" window, locate you mounted image and click on "**Select Folder**"



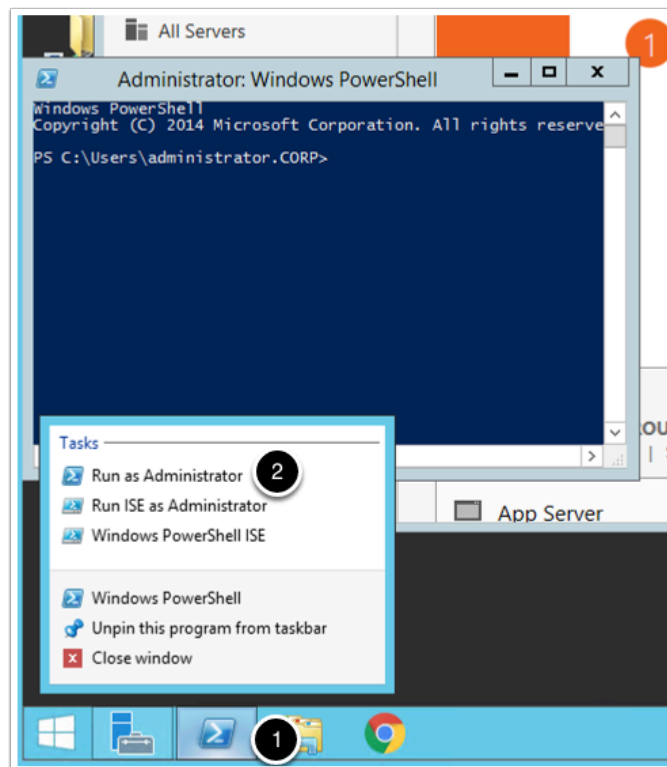
12. Uncheck "**launch studio**"

13. Click **Finish**. Allow the machine to restart if requested



14. On your Citrixbroker vm, on your task bar right click on the **powershell** icon

15. Click **run as administrator**



16. On your powershell windows type **Add-PSSnapin Citrix***

17. Type **Get-BrokerDesktopGroup -AdminAddress Citrix.euc-livewire.com**

you should get an output similar to this:

```
AppDisks                : {}
AppDnaAnalysisState      :
AppDnaCompatibility      :
AutomaticPowerOnForAssigned : True
AutomaticPowerOnForAssignedDuringPeak : False
ColorDepth               : TwentyFourBit
ConfigurationSlotUids     : {}
DeliveryType              : DesktopsAndApps
Description               :
DesktopKind               : Shared
DesktopsAvailable         : 1
DesktopsDisconnected      : 0
DesktopsFaulted           : 0
DesktopsInUse             : 0
DesktopsNeverRegistered   : 0
DesktopsPreparing         : 0
DesktopsUnregistered      : 0
Enabled                   : True
IconUid                   : 1
InMaintenanceMode         : False
IsRemotePC                : False
LicenseModel              :
MachineConfigurationNames : {}
MachineConfigurationUids  : {}
MetadataMap               : {}
MinimumFunctionalLevel    : L7_9
Name                      : standard delivery group
OffPeakBufferSizePercent  : 10
```

OffPeakDisconnectAction : Nothing
OffPeakDisconnectTimeout : 0
OffPeakExtendedDisconnectAction : Nothing
OffPeakExtendedDisconnectTimeout : 0
OffPeakLogOffAction : Nothing
OffPeakLogOffTimeout : 0
PeakBufferSizePercent : 10
PeakDisconnectAction : Nothing
PeakDisconnectTimeout : 0
PeakExtendedDisconnectAction : Nothing
PeakExtendedDisconnectTimeout : 0
PeakLogOffAction : Nothing
PeakLogOffTimeout : 0
ProductCode :
ProtocolPriority : {}
PublishedName : standard delivery group
ReuseMachinesWithoutShutdownInOutage : False
Scopes :
SecureIcaRequired : False
SessionSupport : MultiSession
Sessions : 0
SettlementPeriodBeforeAutoShutdown : 00:00:00
SettlementPeriodBeforeUse : 00:00:00
ShutdownDesktopsAfterUse : False
Tags : {}
TenantId :
TimeZone : Pacific Standard Time
TotalApplicationGroups : 0
TotalApplications : 3
TotalDesktops : 1

TurnOnAddedMachine : True
UUID : 9c5c2e43-85f4-4c20-8ed4-20f323c9544a
Uid : 2
ZonePreferences : {ApplicationHome, UserHome, UserLocation}

18. Type **Get-ConfigSite -AdminAddress Citrix.euc-livewire.com** , you should get an output similar to this:

ConfigurationLoggingServiceGroupUid : 5d466dbe-9f03-49e6-a5d1-4fc4cb5a17bd
ConfigurationServiceGroupUid : b2456fbb-c9cb-4445-b0ae-dadc70e7a1de
DelegatedAdministrationServiceGroupUid : 4e794a98-a86d-46d9-b0f3-34c20b28bc12
LicenseServerName : citrix.euc-livewire.com
LicenseServerPort : 27000
LicenseServerUri : https://citrix.euc-livewire.com:8083/
LicensingBurnIn : 2018.0815
LicensingBurnInDate : 8/14/2018 5:00:00 PM
LicensingModel : Concurrent
MetadataMap : {[CertificateHash,
OU6gnsHLtsTWxKlbQdQ9a5PwnrXwtW6VhKyVbMWfgluHrPwPrj7AOA5WoKd
CLWbfveYPtpCTM+1BCf2ajnNE2Q==],
[Citrix_DesktopStudio_License_Is_XD_Apps_Edition, False],
[Citrix_StoreFront_Cluster_Id, 195c6821-b6aa-4000-be22-f013375f4aec],
[ConfiguredComponents, Admin Config Log Acct Hyp AppLib Prov Broker
Lic
Monitor Pvs Sf Trust EnvTest AppV Analytics Orch]...}
PrimaryZoneName : Primary
PrimaryZoneUid : 66798896-2967-4465-9067-8608775d7a9e
ProductCode : MPS
ProductEdition : ADV
ProductVersion : 7.19

SiteGuid : a5e6adb4-e71c-4397-a34e-a4404e556821

SiteName : London

19. from your control center vm, in your chrome browser go to <https://citrixbroker/IB/API/RestServiceImpl.svc/hznxenapp/admin/xenfarminfo?computerName=citrix&xenappversion=Version7x>

you should get an output similar to this:

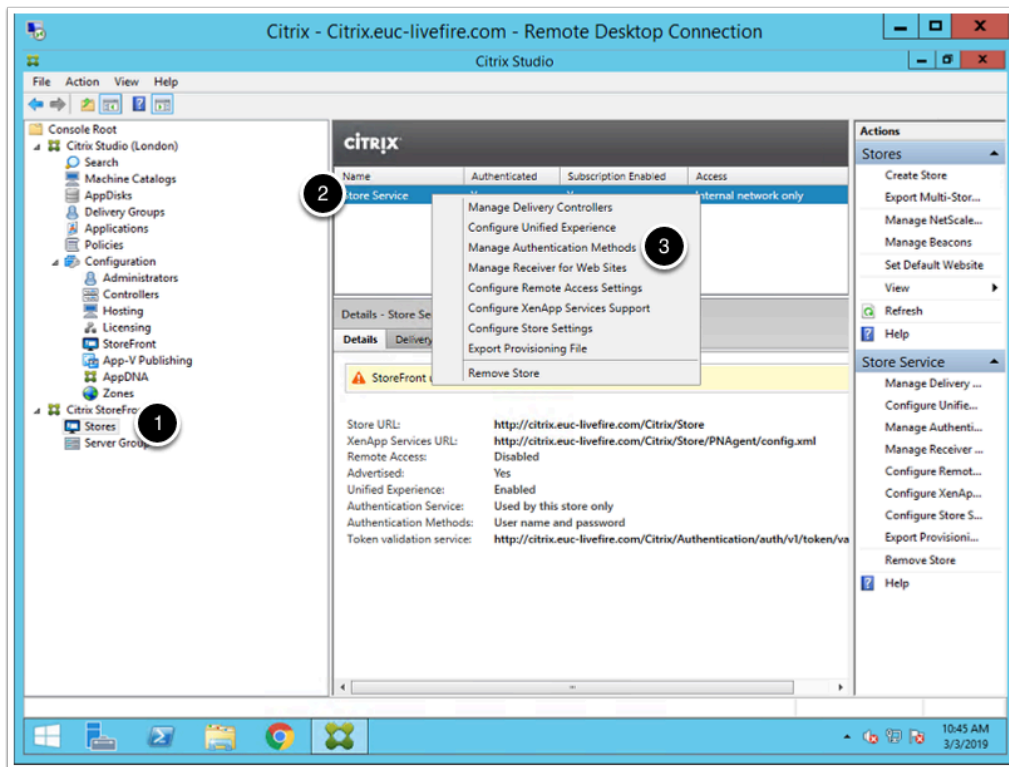
```
"[{\"ConfigurationLoggingServiceGroupUid\": \"5d466dbe-9f03-49e6-a5d1-4fc4cb5a17bd\", \"ConfigurationLoggingServiceGroupVersion\": \"1.0.0\", \"ConfigurationLoggingServiceGroupType\": \"c9cb-4445-b0ae-dadc70e7a1de\", \"DelegatedAdministrationServiceGroupUid\": \"4e794a98-a86d-46d9-b0f3-34c20b28\", \"DelegatedAdministrationServiceGroupVersion\": \"1.0.0\", \"DelegatedAdministrationServiceGroupType\": \"livefire.com\", \"LicenseServerPort\": \"27000\", \"LicenseServerUri\": \"https://citrix.euc-livefire.com:8083\", \"LicensingBurnIn\": \"2018.0815\", \"LicensingBurnInDate\": \"8/14/2018 5:00:00 PM\", \"LicensingModel\": \"Concurrent\", \"MetadataMap\": \"System.Collections.Generic.Dictionary`2[System.String, System.Object]\", \"SiteName\": \"London\"}]\"
```

if you get anything starting with "exception name" or. an http error please check your url.

20. On the **ControlCenter** server. Open the **Remote Desktop** folder open **citrix.rdp** and open **citrix studio** from the **Start Menu**

21. In the left pane navigate to **Citrix Storefront > stores**

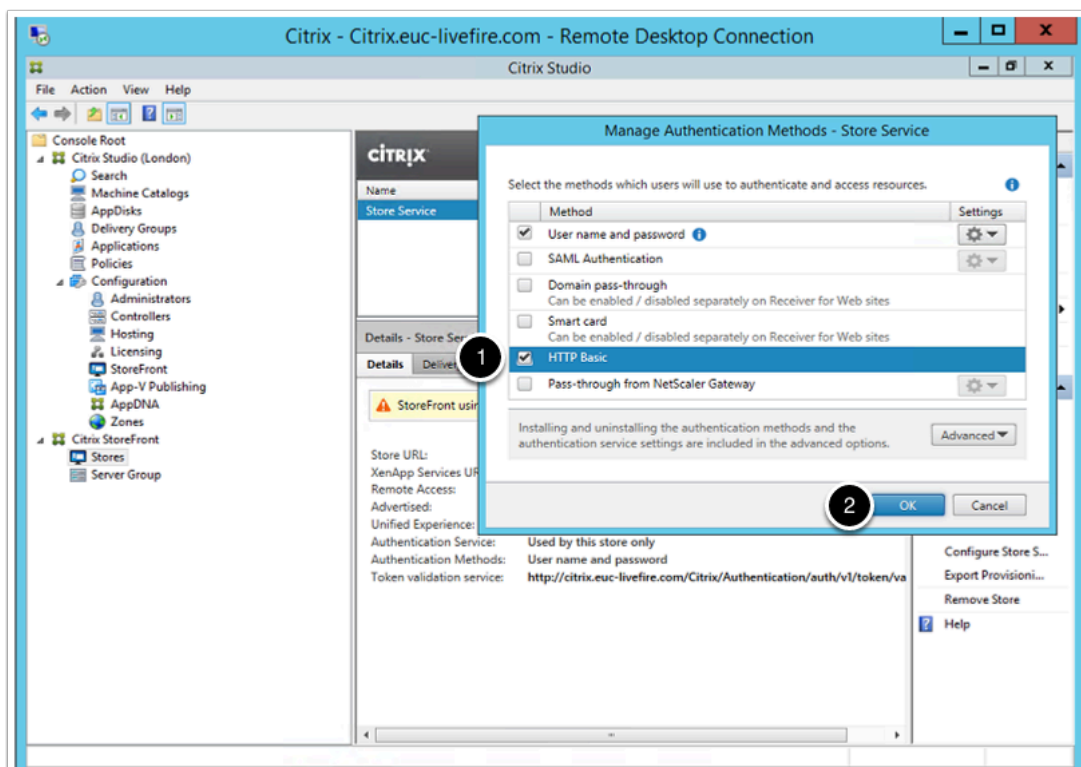
22. In the main pane, right click on **store service**, and click **manage authentication methods**



23. Check **HTTP basic**

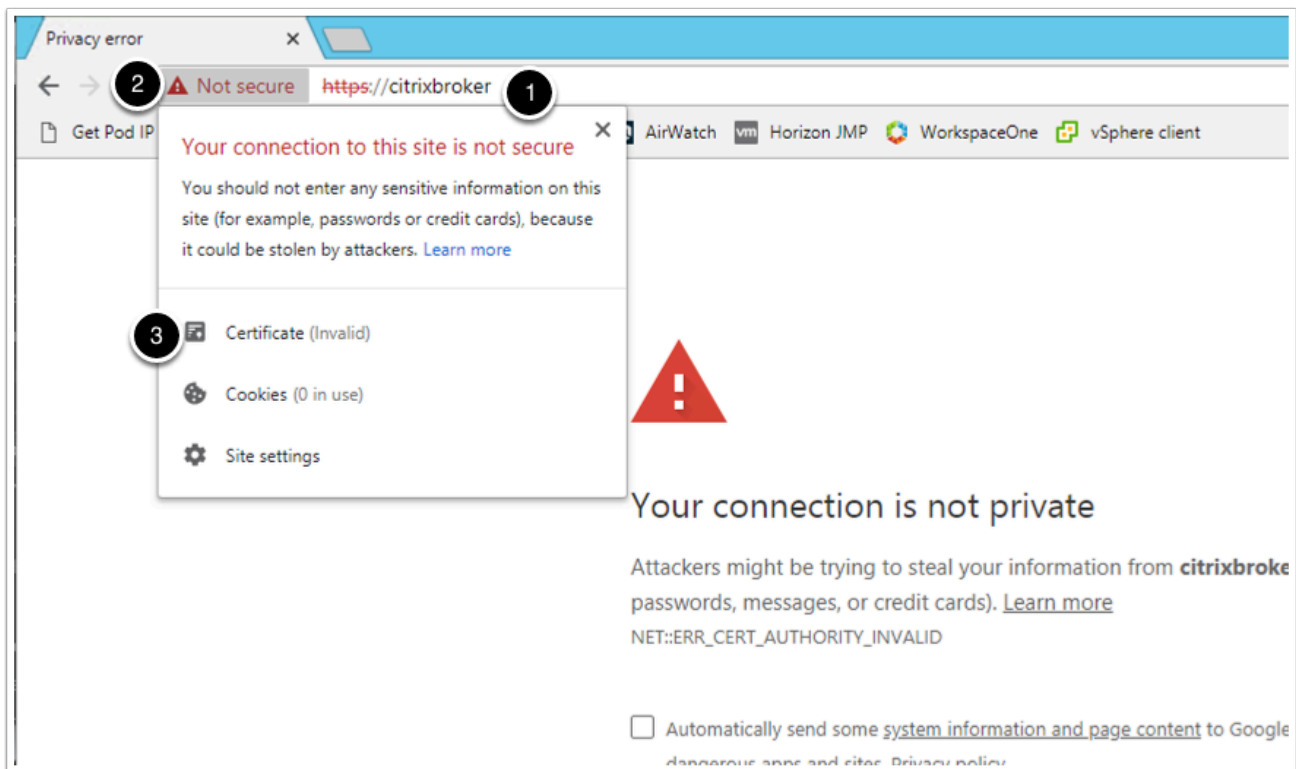
24. Click **Ok**

25. **Close** all windows

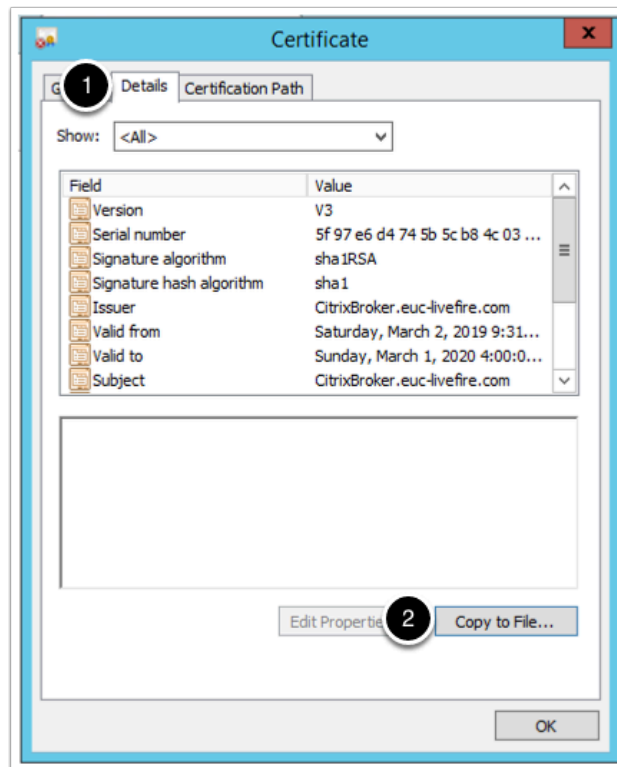


part 1g - certificate export

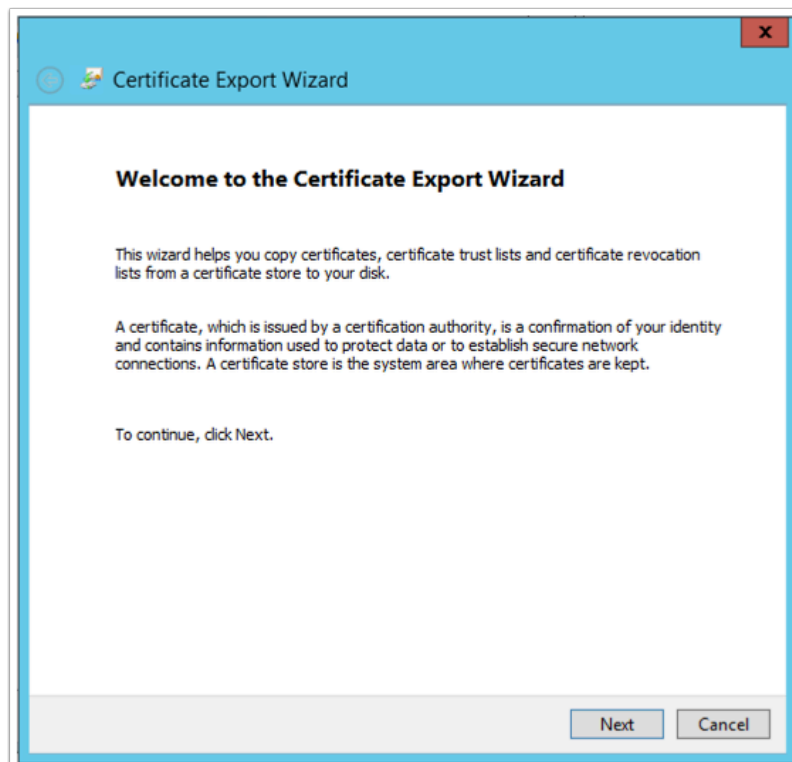
1. From your **Controlcenter** vm open the chrome browser and type <https://citrixbroker> on the address bar
2. Right click on "**not secure**"
3. Click on **Certificate**



4. On the certificate window, go to the **details tab**
5. Click **copy to file**

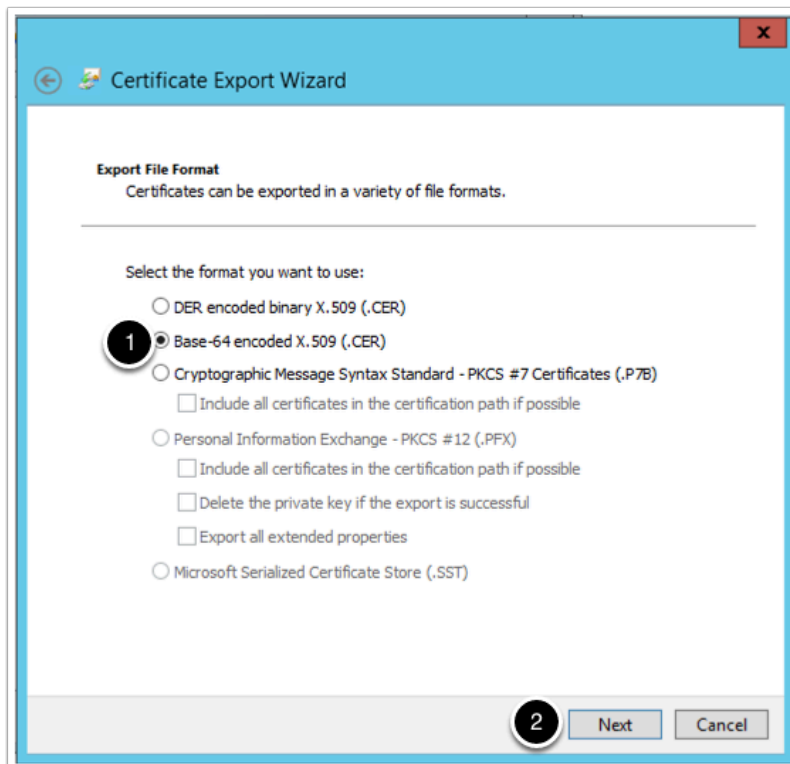


6. In the **Certificate Export Wizard** window, click **Next**



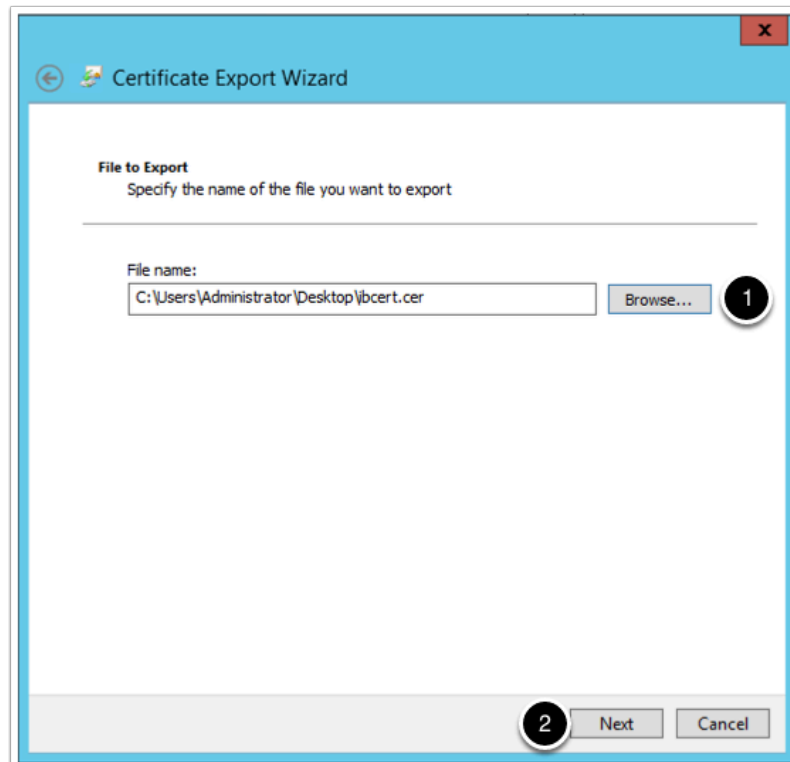
7. Click on **Base-64 encoded x.509 (.CER)**

8. Click **Next**

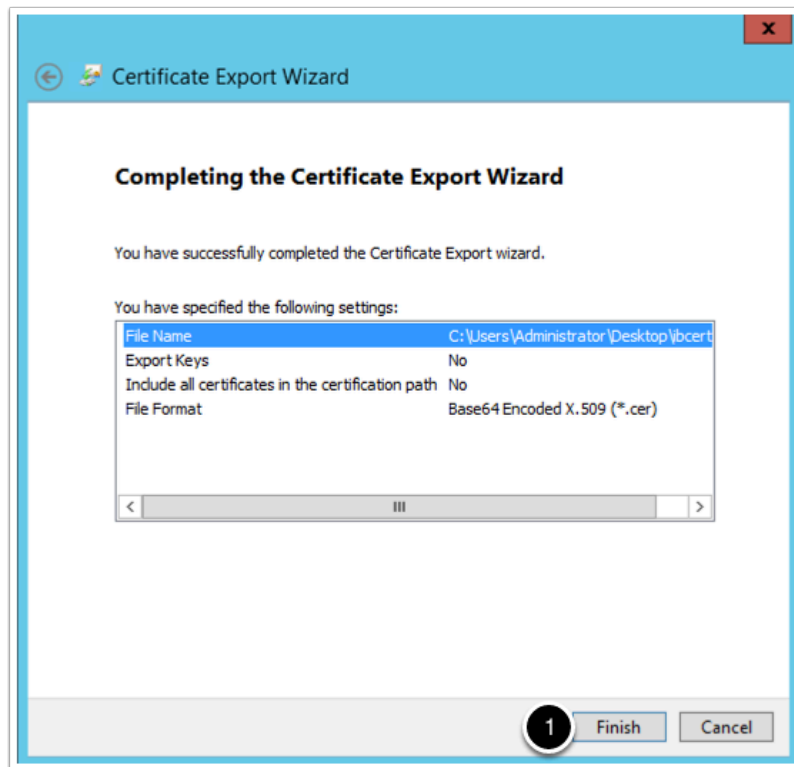


9. Click on **Browse** and point to your desktop, and save the certificate with the name **ibcert**.

10. Click **Next**



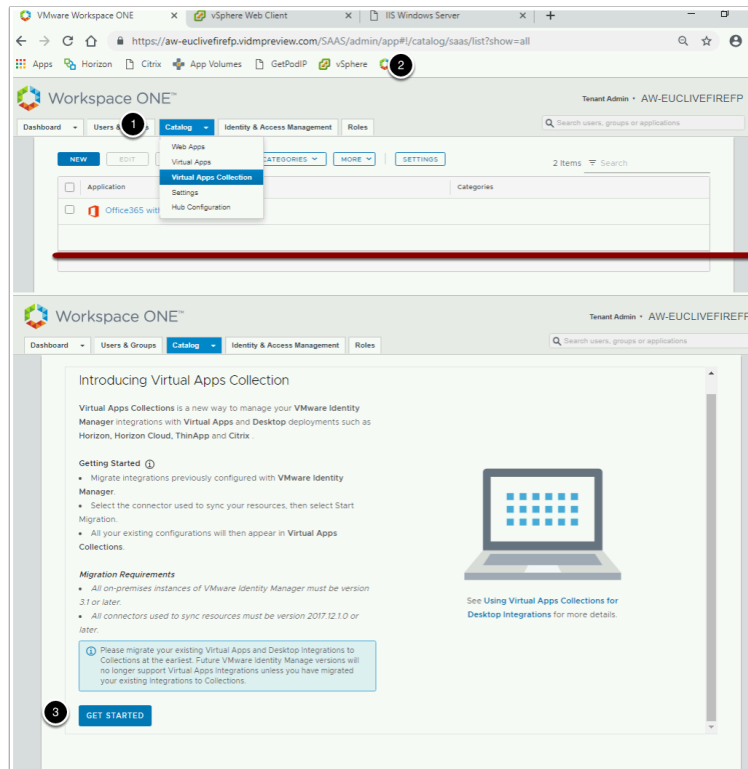
11. click **Finish**



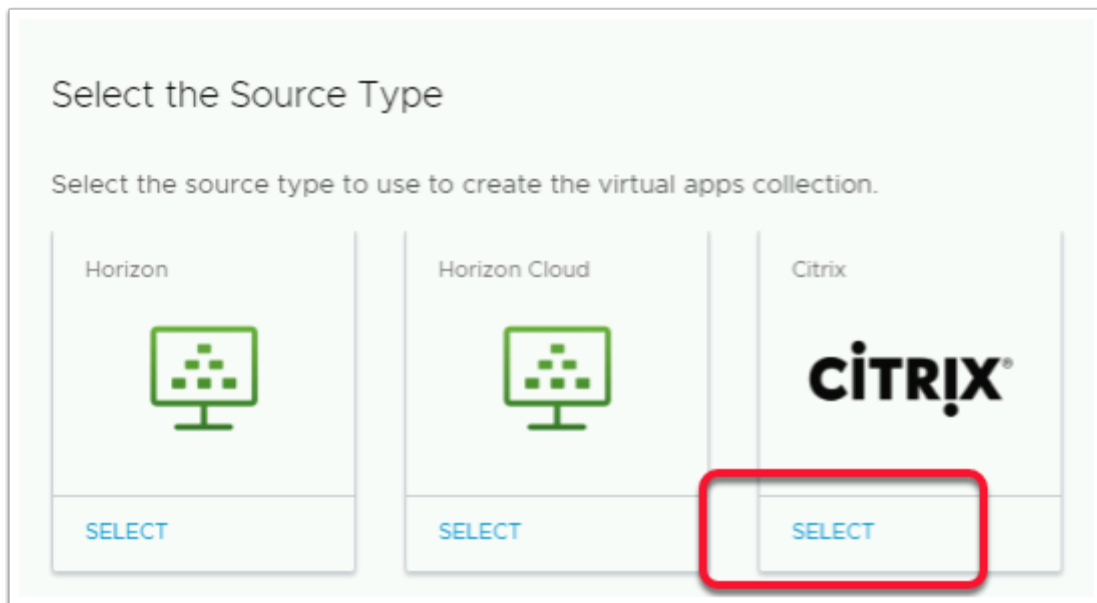
Section 2 - VMware Identity Manager Configuration

Part 1 - Configuring virtual app collection

1. Go to your **identity manager tenant url**, and login with your administrator user.
2. in the **administration console** navigate to **Catalog** > **Virtual Apps Collection**
3. Select **GET STARTED** if prompted



4. On the **Select the Source Type** page in the **Citrix Box** select the **SELECT** hyperlink



5. In the New **Citrix Collection** window, in **Section 1 Connector and Broker**

1. Next to **Name** type **Citrix**
2. Under **Connector** accept the default connector that being **ws1-Connector.euc-livfire.com (LivefireSync)**
3. In the **Sync Intergration Broker** section, under **Host** type **citrixbroker.euc-livfire.com**
4. Under **Port** type **443**

- [illegible]

- Citrix Integration with VMware Identity Manager -0500

Launch Integration Broker

Provide information about the Integration Broker that you want to use to process launch requests. This connection must be over SSL, and you can use the same Integration Broker used for sync.

Host *

citrixbroker.euc-liveware.com

Port *

443

-----BEGIN CERTIFICATE-----

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

-----END CERTIFICATE-----

Port *

443

SSL Certificate *

kNO=

-----END CERTIFICATE-----

CANCEL NEXT

7. In the New Citrix Collection window, in Section 2 Server Farm

1. Under **Add or modify Citrix server farms**. At least one server farm is required. select the **+ ADD SERVER FARM**
2. On the **Add Server Farm** window select **+ADD SERVER**
3. Under Server Name type **citrix.euc-liveware.com**
4. Under the **Launch Preference**,
 - Verify **STOREFRONT** is selected
 - Under **StoreFront Server URL** type **http://citrix.euc-liveware.com/Citrix/StoreWeb/**
5. Select **ADD**
6. In the New **Citrix Collection** window select **NEXT**

The screenshot shows the 'New Citrix Collection' wizard with the following steps:

- 1 Connector and Broker**: A dropdown menu showing 'ADD A NEW CITRIX COLLECTOR (ONLY IF YOU HAVE A NEW CITRIX COLLECTOR)'.
- 2 Server Farm**: A section titled 'Add Server Farm' with a 'Version' dropdown set to '7.x' and a 'Server' text field. Below the text field is an 'ADD SERVER' button.
- 3 Configuration**: A section titled 'Add Server Farm' with a 'Version' dropdown set to '7.x' and a 'Server' text field. Below the text field is an 'ADD SERVER' button.
- 4 Launch Preference**: A section titled 'Launch Preference' with a 'STOREFRONT' dropdown set to 'WEB INTERFACES SSO' and a 'StoreFront Server URL' text field containing 'http://citrix-esp-dsaffine.com/Citrix/StoreWeb/'.
- 5 Summary**: A section with 'CANCEL' and 'ADD' buttons.
- 6 Final confirmation**: A section with 'CANCEL', 'BACK', and 'NEXT' buttons.

7. In the New **Citrix Collection** window

1. in **Section 3. Configuration** Accept the the default values and select **NEXT**
2. **Section 4. Summary**
 - Select **SAVE & CONFIGURE NETWORK RANGE**
3. On the **Network Ranges** window select **ALL RANGES**
4. Observe the defaults, in this lab there is no requirement to make changes, Select **CANCEL**.
5. You will land back at the **Virtual Apps Collection** Page

New Citrix Collection

1. Connector and Broker
2. Server Farm
3. Configuration
4. Summary

Sync

Sync Frequency: Manual

Sync Status: Not yet synced

Sync Categories from Server Farm: Yes

Other Configurations: Activation Policy: User-Activated

Connection

Name: Citrix

Source Type: Citrix

Sync Integration Broker: Sync Integration Broker

Host: 10.10.10.10

Port: 443

App ID: 10

App ID: 10

Save & Continue to Next Step

- 8.
- In the **Virtuals APPs Collections** window
 - Select the radio button next to Citrix, Select the **SYNC** button
 - On the **Calculating Sync Actions** page select **SAVE**

Virtual Apps Collections

1

NEW EDIT SYNC DELETE

Name	Source Type	Sync Frequency	Sync Status	Last Attempt Sync
Citrix	Citrix	Manual	Not yet synced	

1 - 1 of 1 item(s)

Calculating Sync Actions

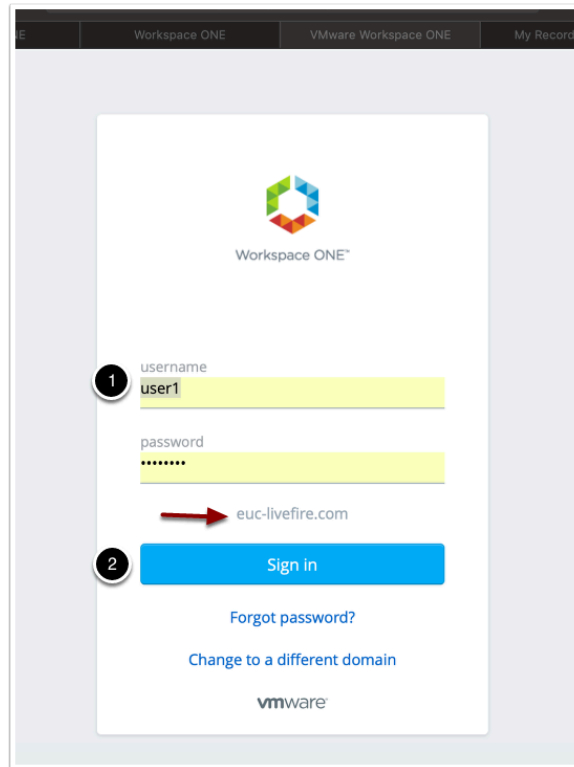
2

Applications	Desktops	Assignments
3 added	0 added	3 added
0 updated	0 updated	0 updated
0 deleted	0 deleted	0 deleted

CANCEL SAVE

Part 2 - Verification

1. From your **ControlCenter** machine's **chrome** browser open your custom **Vmware identity Manager** SaaS tenant url
2. Log in with your **user1** credential, in the **euc-livfire.com** authentication domain with the password **VMware1!**



3.
 1. In the **Web based Hub interface** under Categories select **Virtual**
 2. Under the **Virtual Category** next Calculator select **OPEN**
 3. If you are in Mozilla Firefox you will be prompted with **What Should Firefox do with this file?** **Accept the default** and select **OK**
 4. You can now observe the integration of **Citrix** into **VMware Identity Manager**.

