

# 1. Horizon Linux Multi-Session Farms

Linux can and has been a fundamental platform for developers to work from. From a licensing perspective, in many cases organization like to keep costs down in favour and would then consider Linux as an alternative. The Linux integration with VMware Horizon is not well documented. Like the Windows Operating system where we have both Virtual Desktop infrastructure and RDS Published applications, Linux too has a Virtual Desktop and Application based offering. In this session we will look at the RDS equivalent of Linux, that being Linux Multi-Session. One of the objectives in this guide is take you through step by step to deploy a Linux based Multi-Session Farm and then have Published Applications.

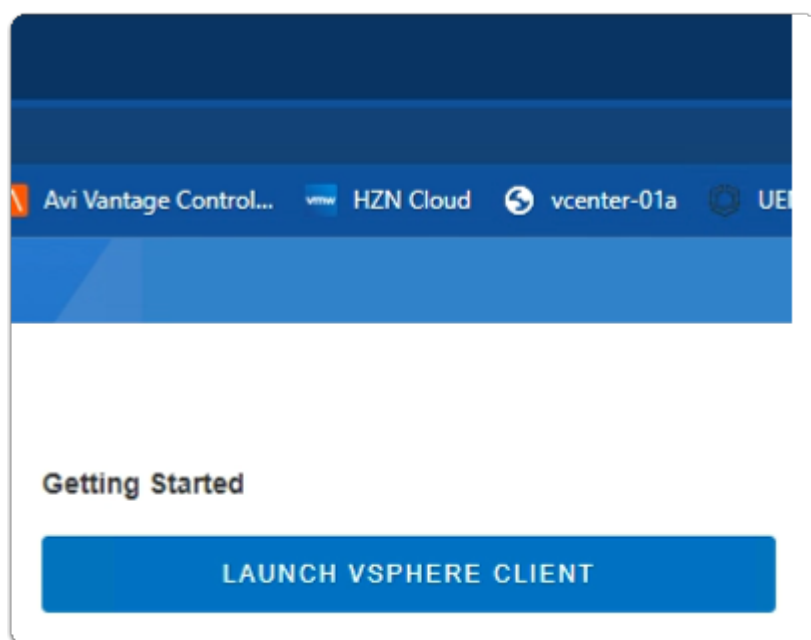
Full credit to Rahul Jha in the EUC-Livefire team to bring together the underlying requirements to make this work

## Part 1. Preparing an Ubuntu base for Horizon Linux Multi - Session for Site 1

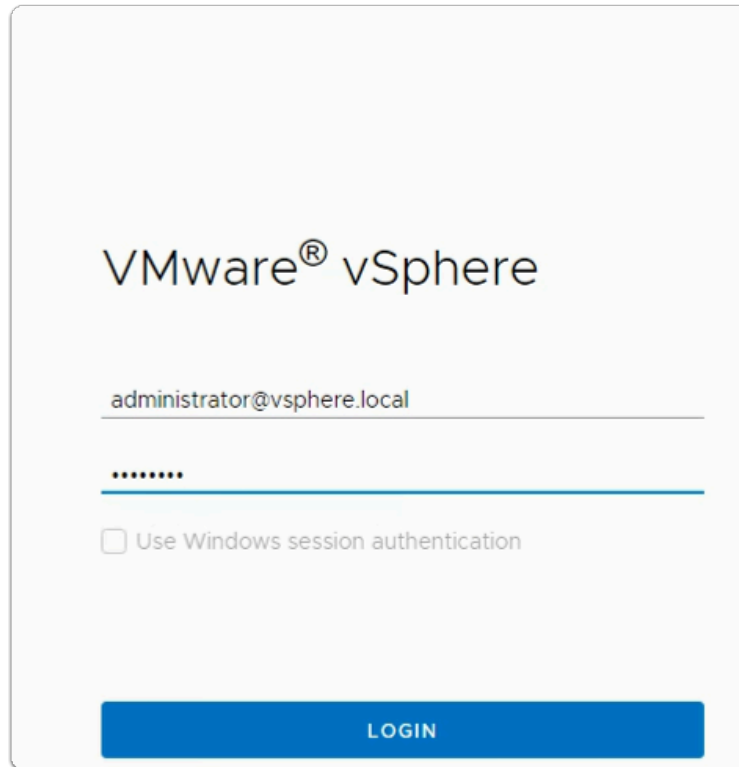
We will complete the following tasks

- We domain join the Linux Master
- We configure TrueSSO for Linux Master
- We install the Horizon Agent

### Section 1. Domain joining the Linux Master

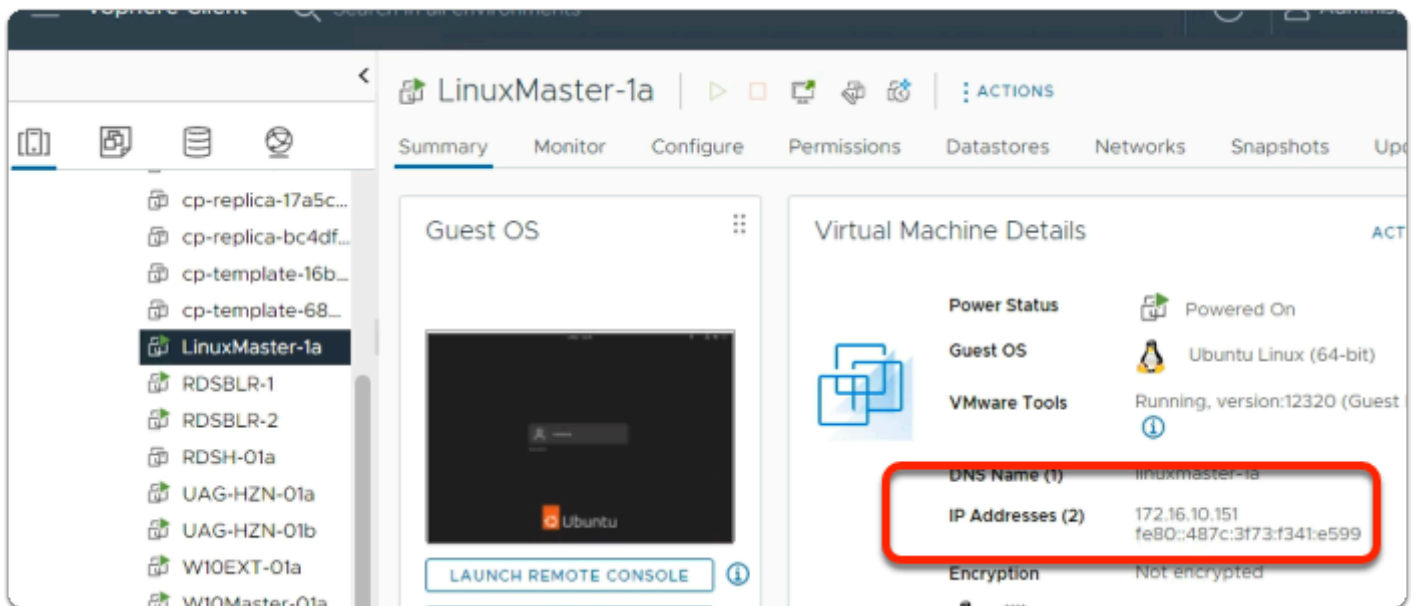


1. On your Control Center server
  - Open your **Site 1 Chrome Browser**
  - On the **Favourite Bar**
    - select the **vcenter-01a** shortcut
    - Under **Getting Started**
      - select the **LAUNCH VSPHERE CLIENT** area

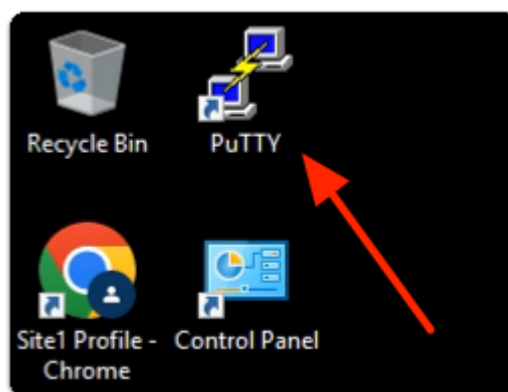


The screenshot shows the VMware vSphere login page. At the top, it says "VMware® vSphere". Below that is a username field containing "administrator@vsphere.local". Underneath the username field is a password field represented by a series of dots. Below the password field is a checkbox labeled "Use Windows session authentication". At the bottom of the form is a blue button labeled "LOGIN".

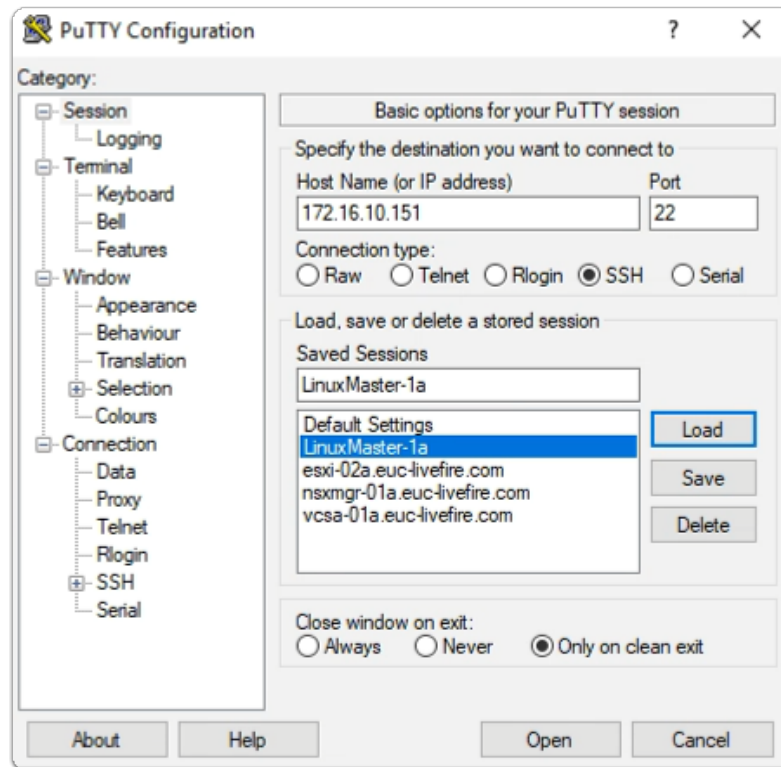
2. In the **VMware vSphere** client area
  - In the **username** area
    - enter **administrator@vsphere.local**
  - In the **password** area
    - enter **VMware1!**
  - At the bottom of the screen
    - Select **LOGIN**



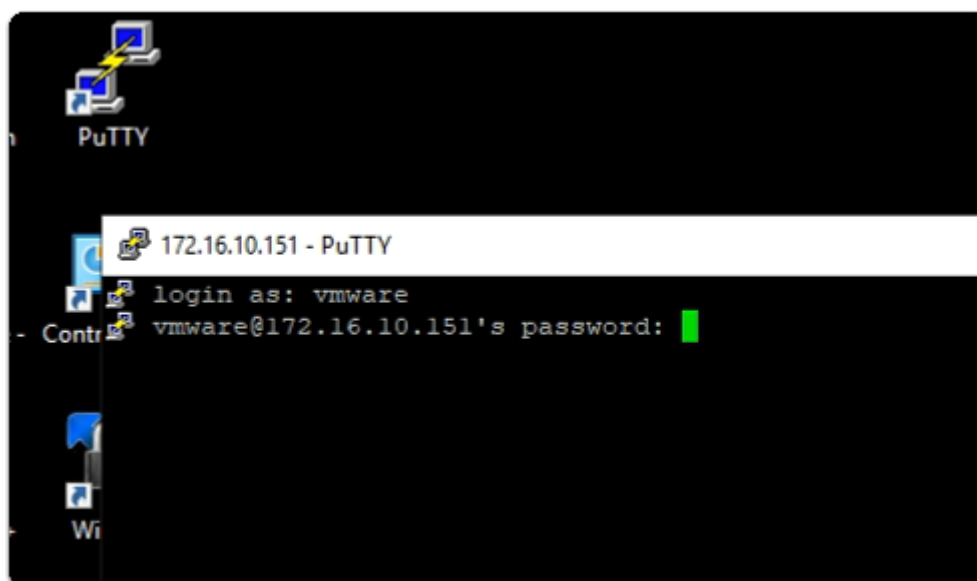
3. In the **VMware vSphere** client
  - In the **Hosts & Clusters** Inventory
    - select the **LinuxMaster-1a** virtual machine
    - **Note:** Power on the **LinuxMaster-1a** if it's off
  - In the **Virtual Machine Details** area
    - Next to **IP Addresses (2)**
      - make a note of **YOUR specified assigned DHCP IP address**
        - **Note:** In the example its **172.16.10.151**
  - **Minimize** your **Site 1 Chrome Browser**



4. On the **ControlCenter** server desktop
  - Select and launch the **Putty** shortcut



5. In the **PuTTY Configuration** window
  - under **Host Name (or IP address)**
    - enter **Your DHCP IP address for LinuxMaster-1a**
  - under **Saved Sessions**
    - enter **LinuxMaster-1a**
  - in the **Saved Sessions** area under **Load**
    - select **Save**
  - select **Open**





6. In the **Putty Window**

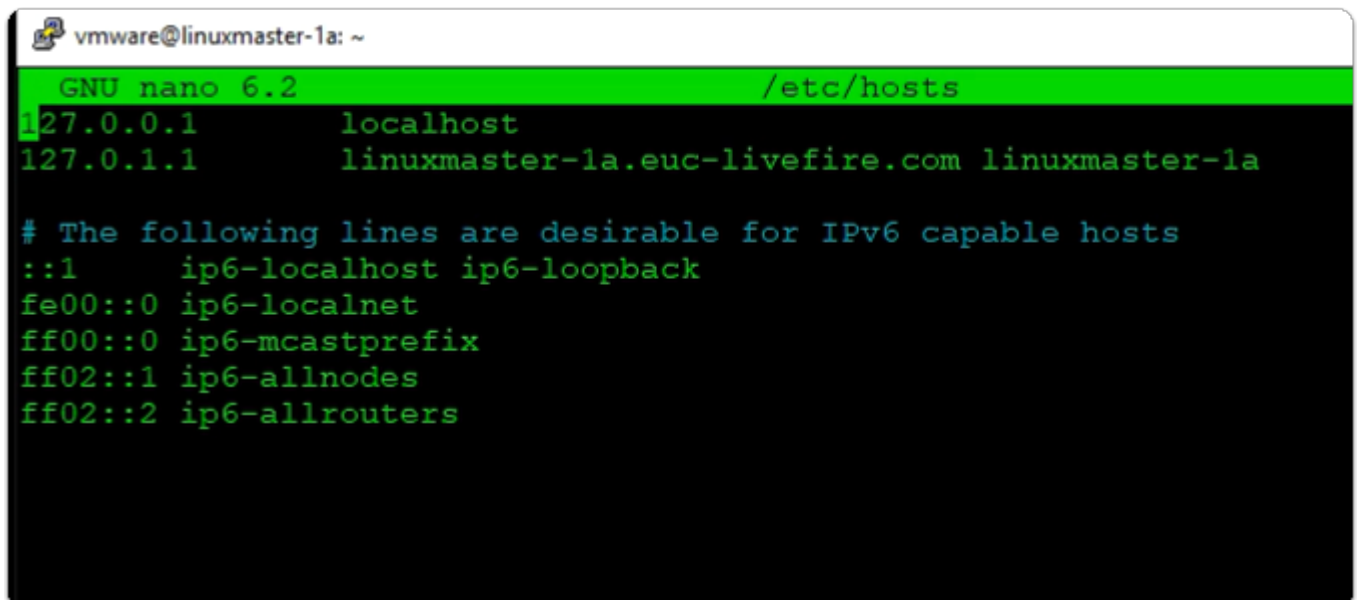
- next to **login as:**
  - enter **vmware**
- next to **password:**
  - enter **VMware1!**
- with your **keyboard**
  - select **ENTER**



```
vmware@linuxmaster-1a: ~  
vmware@linuxmaster-1a:~$ sudo nano /etc/hosts  
[sudo] password for vmware: █
```

7. In the **Putty window**

- enter **sudo nano /etc/hosts**
- next to **password for vmware:**
  - enter **VMware1!**



```
GNU nano 6.2 /etc/hosts  
127.0.0.1 localhost  
127.0.1.1 linuxmaster-1a.euc-livewire.com linuxmaster-1a  
  
# The following lines are desirable for IPv6 capable hosts  
::1 ip6-localhost ip6-loopback  
fe00::0 ip6-localnet  
ff00::0 ip6-mcastprefix  
ff02::1 ip6-allnodes  
ff02::2 ip6-allrouters
```

8. In the **Putty window**

- Verify in line 2 that we have already appended
  - **linuxmaster-1a.euc-livewire.com**
  - **linuxmaster-1a**
- With your keyboard

- press **CTRL + X**

```
vmware@linuxmaster-1a:~$ sudo apt install samba krb5-config krb5-user winbind libpam-winbind libnss-winbind
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
krb5-config is already the newest version (2.6+nmulubuntu1).
libnss-winbind is already the newest version (2:4.15.13+dfsg-0ubuntu1.1).
libpam-winbind is already the newest version (2:4.15.13+dfsg-0ubuntu1.1).
samba is already the newest version (2:4.15.13+dfsg-0ubuntu1.1).
winbind is already the newest version (2:4.15.13+dfsg-0ubuntu1.1).
krb5-user is already the newest version (1.19.2-2ubuntu0.1).
0 to upgrade, 0 to newly install, 0 to remove and 84 not to upgrade.
vmware@linuxmaster-1a:~$
```

#### 9. In the **Putty** window

- Install the winbind and samba packages
  - enter the following command
  - **sudo apt install samba krb5-config krb5-user winbind libpam-winbind libnss-winbind**
    - If prompted for Password, enter **VMware1!**
    - If not, press **Y** to install.
    - validate that **winbind** is already installed and its the newest version
  - **sudo apt install tdb-tools**
    - If prompted for Password, enter **VMware1!**

```
samba is already the newest version (2:4.15.13+dfsg-0ubuntu1.1)
winbind is already the newest version (2:4.15.13+dfsg-0ubuntu1.1)
krb5-user is already the newest version (1.19.2-2ubuntu0.1)
0 to upgrade, 0 to newly install, 0 to remove and 40 not to
vmware@linuxmaster-1a:~$ sudo nano /etc/samba/smb.conf
[sudo] password for vmware:
```

#### 10. In the **Putty** window

enter the following command

**sudo nano /etc/samba/smb.conf**

- next to **password for vmware:**
  - enter **VMware1!**

```
# This is the main Samba configuration file.
# smb.conf(5) manual page in
# here. Samba has a huge number of
# options that are not shown in this example
#
# Some options that are often
# commented-out examples in
# - When such options are
#   differs from the default
# - When commented with "#"
#   behaviour of Samba but
#   enough to be mentioned
#
# NOTE: Whenever you modify
# "testparm" to check that you
# errors.
#===== Global Settings =====
[global]
#
## Browsing/Identification ##
```

11. In the **Putty** window

- with your **Keyboard**, move your **Cursor** down until its **two spaces** below **[global]**

```
#===== Global Settings =====
[global]
security = ads
realm = EUC-LIVEFIRE.COM
workgroup = EUC-LIVEFIRE.COM
idmap uid = 10000-20000
idmap gid = 10000-20000
winbind enum users = yes
winbind enum groups = yes
template homedir = /home/%D/%U
template shell = /bin/bash
client use spnego = yes
client ntlmv2 auth = yes
encrypt passwords = yes
winbind use default domain = yes
restrict anonymous = 2
kerberos method = secrets and keytab
winbind refresh tickets = true
```

12. In the **Putty** window

- **Copy** the following from below

security = ads  
realm = EUC-LIVEFIRE.COM  
workgroup = EUC-LIVEFIRE.COM  
idmap uid = 10000-20000  
idmap gid = 10000-20000  
winbind enum users = yes  
winbind enum groups = yes  
template homedir = /home/%D/%U  
template shell = /bin/bash  
client use spnego = yes  
client ntlmv2 auth = yes  
encrypt passwords = yes  
winbind use default domain = yes  
restrict anonymous = 2  
kerberos method = secrets and keytab  
winbind refresh tickets = true

- **Paste** in your Putty console

```
template homedir = /home/%D/%U
template shell = /bin/bash
client use spnego = yes
client ntlmv2 auth = yes
encrypt passwords = yes
winbind use default domain = yes
restrict anonymous = 2

## Browsing/Identification ##

# Change this to the workgroup/NT-
workgroup = EUC-LIVEFIRE

# server string is the equivalent o
server string = %h server (Samba

#### Networking ####
```

13. In the **Putty** window

- Using your **keyboard**,
  - move your **Cursor** down, until you find **workgroup = WORKGROUP**
  - Replace **WORKGROUP** with **EUC-LIVEFIRE**
    - As shown in the screenshot above

```

[global]

security = ads
realm = EUC-LIVEFIRE.COM
workgroup = EUC-LIVEFIRE.COM
idmap uid = 10000-20000
idmap gid = 10000-20000
winbind enum users = yes
winbind enum groups = yes
template homedir = /home/%D/%U
template shell = /bin/bash
client use spnego = yes
client ntlmv2 auth = yes
encrypt passwords = yes
winbind use default domain = yes
restrict anonymous = 2
kerberos method = secrets and keytab
winbind refresh tickets = true

## Browsing/Identification ##

# Change this to the workgroup/NT-domain name your Samba server wi
workgroup = EUC-LIVEFIRE

# server string is the equivalent of the NT Description field
server string = %h server (Samba, Ubuntu)

#### Networking ####

Save modified buffer?
Y Yes
N No

```

14. To Save the smb.conf
  - Using your **keyboard**,
    - Enter **CTRL + X**
    - Press **Y**
    - Press **Enter** to exit

```

vmware@linuxmaster-1a: /
vmware@linuxmaster-1a:/$ sudo systemctl restart smbd.service
vmware@linuxmaster-1a:/$

```

15. Restart smbd.service
  - **sudo systemctl restart smbd.service**

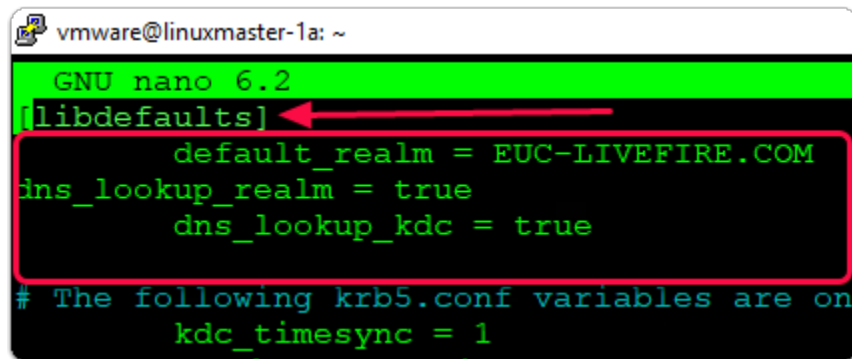
```

[sudo] password for vmware:
vmware@linuxmaster-1a:~$ sudo nano /etc/samba/smb.conf
vmware@linuxmaster-1a:~$ sudo nano /etc/krb5.conf

```

16. In the **Putty** window
  - enter the following command

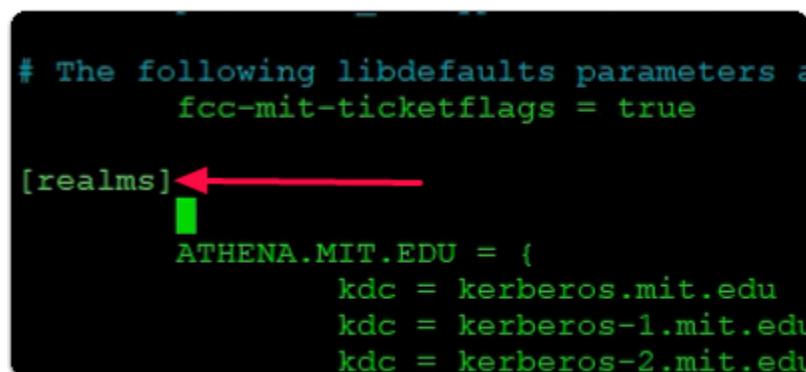
**sudo nano /etc/krb5.conf**



```
vmware@linuxmaster-1a: ~  
GNU nano 6.2  
[libdefaults]  
    default_realm = EUC-LIVEFIRE.COM  
    dns_lookup_realm = true  
    dns_lookup_kdc = true  
# The following krb5.conf variables are on  
    kdc_timesync = 1
```

17. In the **Putty** window

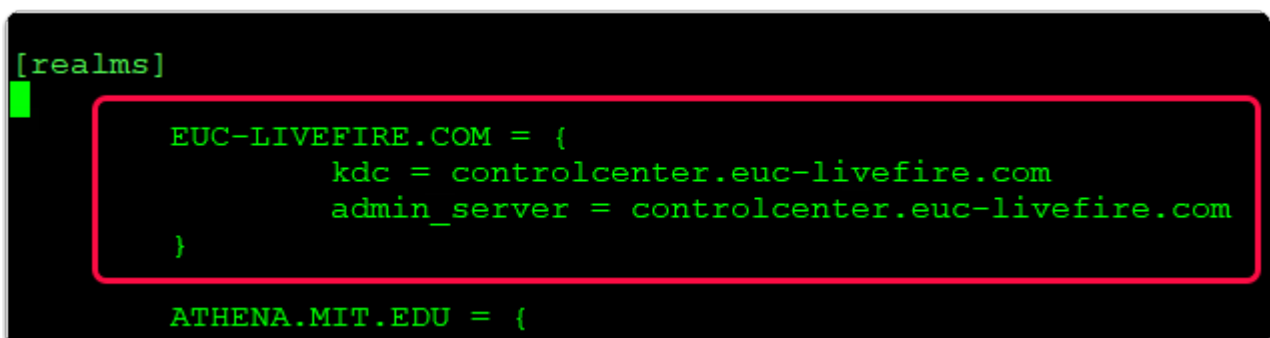
- In the **[libdefaults]** section
  - using your keyboard, move the **cursor** below **default\_realm = EUC-LIVEFIRE.COM**
  - paste the following one by one
    - **dns\_lookup\_realm = true**
    - **dns\_lookup\_kdc = true**



```
# The following libdefaults parameters a  
    fcc-mit-ticketflags = true  
[realms]  
    ATHENA.MIT.EDU = {  
        kdc = kerberos.mit.edu  
        kdc = kerberos-1.mit.edu  
        kdc = kerberos-2.mit.edu
```

18. In the **Putty** window

- using your **Keyboard**, move your **Cursor** down until you find **{realms}**
- leave your **Cursor** over the **ATHENA.MIT.EDU**
- **with your Keyboard**
  - press **ENTER**
  - press the **TAB** key
  - move your **Cursor** one row up



```
[realms]  
    EUC-LIVEFIRE.COM = {  
        kdc = controlcenter.euc-livefire.com  
        admin_server = controlcenter.euc-livefire.com  
    }  
    ATHENA.MIT.EDU = {
```

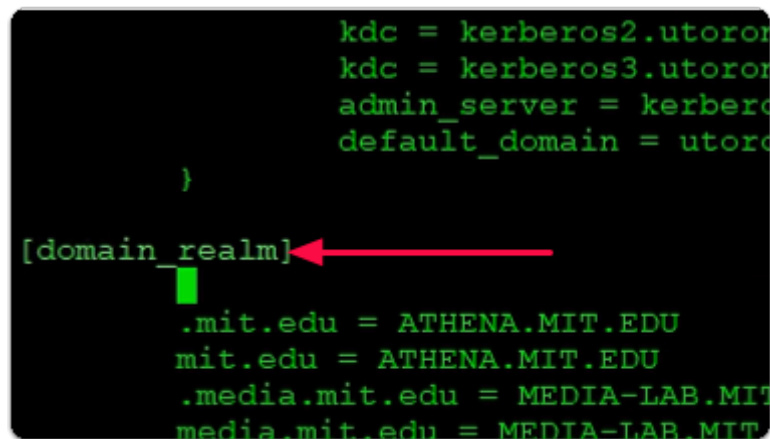
19. In the **Putty** window
- Above **ATHENA.MIT.EDU**
  - type in the following

**EUC-LIVEFIRE.COM = {**

**kdc = controlcenter.euc-livefire.com**

**admin\_server = controlcenter.euc-livefire.com**

**}**

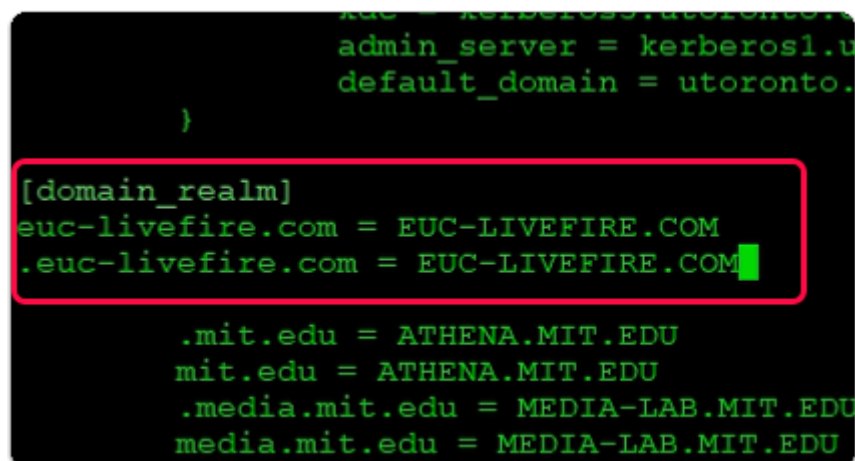


```
kdc = kerberos2.utoron
kdc = kerberos3.utoron
admin_server = kerbero
default_domain = utoro

}

[domain_realm]
.mit.edu = ATHENA.MIT.EDU
mit.edu = ATHENA.MIT.EDU
.media.mit.edu = MEDIA-LAB.MIT
media.mit.edu = MEDIA-LAB.MIT
```

20. In the **Putty** window
- move your **Cursor** down to **{domain\_realm}**
  - Open a **new row**, between **{domain\_realm}** and **.mit.edu = ATHENA.MIT.EDU**



```
kdc = kerberos3.utoronto.
admin_server = kerberos1.u
default_domain = utoronto.

}

[domain_realm]
euc-livefire.com = EUC-LIVEFIRE.COM
.euc-livefire.com = EUC-LIVEFIRE.COM

.mit.edu = ATHENA.MIT.EDU
mit.edu = ATHENA.MIT.EDU
.media.mit.edu = MEDIA-LAB.MIT.EDU
media.mit.edu = MEDIA-LAB.MIT.EDU
```

21. In the **Putty** window
- Below **{domain\_realm}**
  - type the following

**euc-livefire.com = EUC-LIVEFIRE.COM**

**.euc-livefire.com = EUC-LIVEFIRE.COM**

```
admin_server = kerberos.mit.edu
default_domain = mit.edu
}
ZONE.MIT.EDU = {

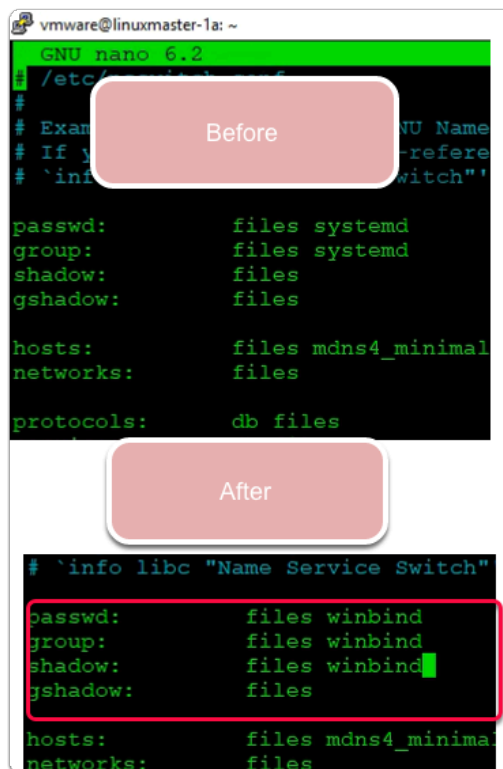
^G Help          ^O Write Out     ^W Where Is
^X Exit          ^R Read File     ^\ Replace
```

22. In the **Putty** window
- using your Keyboard
  - enter **CTRL + S** to save
  - enter **CTRL + X** to exit

```
vmware@linuxmaster-1a:~$ sudo nano /etc/nsswitch.conf
```

23. In the **Putty** window
- enter the following command

**sudo nano /etc/nsswitch.conf**



24. In the **Putty** window
- change the following to
    - Next to:
      - **passwd:** files **winbind**
      - **group:** files **winbind**



- **shadow:** files **winbind**
- To **Save**
  - Type **CTRL + S**
- To **Exit**
  - Type **CTRL + X**

```
vmware@linuxmaster-1a:~$ sudo nano /etc/nsswitch.conf
vmware@linuxmaster-1a:~$ sudo nano /etc/nsswitch.conf
vmware@linuxmaster-1a:~$ sudo kinit administrator
Password for administrator@EUC-LIVEFIRE.COM:
vmware@linuxmaster-1a:~$ █
```

25. In the **Putty** window

- enter the following command
  - **sudo kinit administrator**
  - with your **keyboard**
    - Press **Enter**
- Next to **Password for administrator@EUC-LIVEFIRE.COM:**
  - type **VMware1!**

```
vmware@linuxmaster-1a:~$ sudo kinit administrator
Password for administrator@EUC-LIVEFIRE.COM:
vmware@linuxmaster-1a:~$ sudo klist
Ticket cache: FILE:/tmp/krb5cc_0
Default principal: administrator@EUC-LIVEFIRE.COM

Valid starting    Expires          Service principal
06/03/23 17:53:56 07/03/23 03:53:56 krbtgt/EUC-LIVEFIRE.COM@EUC-LIVEFIRE.COM
renew until 07/03/23 17:53:25
vmware@linuxmaster-1a:~$ █
```

26. In the **Putty** window

- enter the following command
  - **sudo klist**
  - with your keyboard
    - Press **ENTER**

```
renew until 07/03/23 17:33:23
vmware@linuxmaster-1a:~$ sudo net ads keytab create -U administrator

Warning: "kerberos method" must be set to a keytab method to use keytab functions.
Password for [EUC-LIVEFIRE.COM\administrator]:
vmware@linuxmaster-1a:~$
```

27. In the **Putty** window

- enter the following command

**sudo net ads keytab create -U administrator**

- Next to **Password for [EUC-LIVEFIRE.COM\administrator]:**
  - type **VMware1!**

```
vmware@linuxmaster-1a: ~
vmware@linuxmaster-1a:~$ sudo net ads join -U administrator
Password for [EUC-LIVEFIRE\administrator]:
Using short domain name -- EUC-LIVEFIRE
Joined 'LINUXMASTER-1A' to dns domain 'euc-livefire.com'
vmware@linuxmaster-1a:~$
```

28. In the **Putty** window

- enter the following command

**sudo net ads join -U administrator**

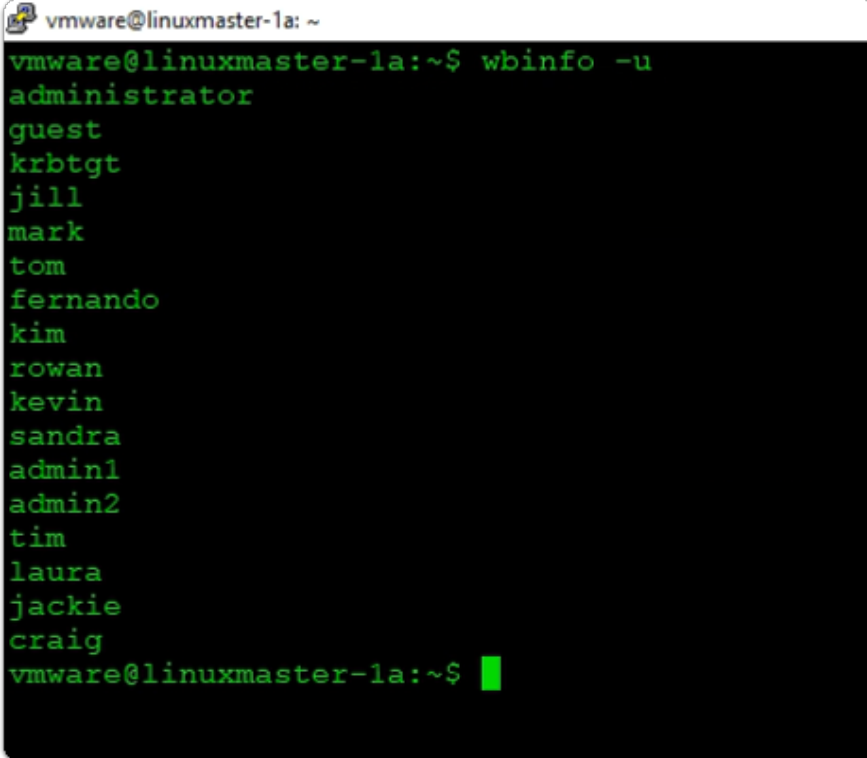
- Next to **Password for [EUC-LIVEFIRE.COM\administrator]:**
  - type **VMware1!**

```
Joined 'LINUXMASTER-1A' to dns domain 'euc-livefire.com'
vmware@linuxmaster-1a:~$ sudo systemctl restart winbind.service
vmware@linuxmaster-1a:~$
```

29. In the **Putty** window

- enter the following command

**sudo systemctl restart winbind.service**

A terminal window titled 'vmware@linuxmaster-1a: ~' showing the command 'wbinfo -u' and its output. The output lists 16 usernames: administrator, guest, krbtgt, jill, mark, tom, fernando, kim, rowan, kevin, sandra, admin1, admin2, tim, laura, jackie, and craig. The prompt 'vmware@linuxmaster-1a:~\$' is followed by a green cursor.

```
vmware@linuxmaster-1a:~$ wbinfo -u
administrator
guest
krbtgt
jill
mark
tom
fernando
kim
rowan
kevin
sandra
admin1
admin2
tim
laura
jackie
craig
vmware@linuxmaster-1a:~$
```

30. In the **Putty** window
- enter the following command

**wbinfo -u**

- with your keyboard
  - Press **Enter**

```
vmware@linuxmaster-1a: ~  
vmware@linuxmaster-1a:~$ wbinfo -g  
domain computers  
domain controllers  
schema admins  
enterprise admins  
cert publishers  
domain admins  
domain users  
domain guests  
group policy creator owners  
ras and ias servers  
allowed rodc password replication group  
denied rodc password replication group  
read-only domain controllers  
enterprise read-only domain controllers  
cloneable domain controllers  
protected users  
key admins  
enterprise key admins  
dnsadmins  
dnsupdateproxy  
helpdesk  
it support  
marketing  
sales  
developers  
vmware@linuxmaster-1a:~$
```

31. In the **Putty** window
- enter the following command
    - **wbinfo -g**
    - with your keyboard
      - Press **Enter**

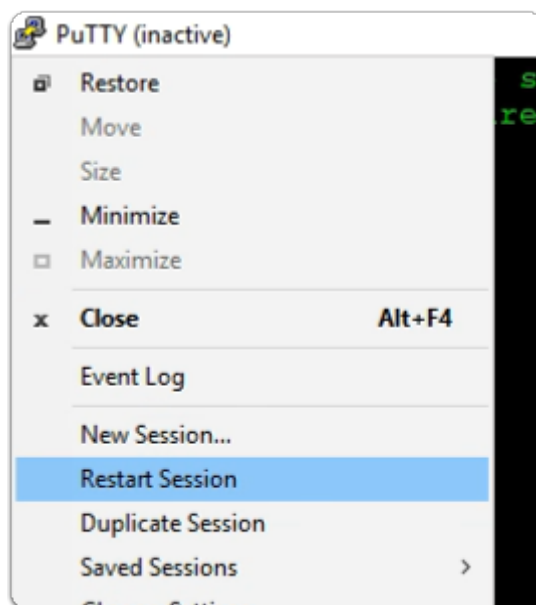
```
jlll:~:10003:10000:~/home/EUC-LIVEFIRE/jlll:/bin/bash  
mark:~:10004:10000:~/home/EUC-LIVEFIRE/mark:/bin/bash  
tom:~:10005:10000:~/home/EUC-LIVEFIRE/tom:/bin/bash  
fernando:~:10006:10000:~/home/EUC-LIVEFIRE/fernando:/bin/bash  
kim:~:10007:10000:~/home/EUC-LIVEFIRE/kim:/bin/bash  
rowan:~:10008:10000:~/home/EUC-LIVEFIRE/rowan:/bin/bash  
kevin:~:10009:10000:~/home/EUC-LIVEFIRE/kevin:/bin/bash  
sandra:~:10010:10000:~/home/EUC-LIVEFIRE/sandra:/bin/bash  
admin1:~:10011:10000:~/home/EUC-LIVEFIRE/admin1:/bin/bash  
admin2:~:10012:10000:~/home/EUC-LIVEFIRE/admin2:/bin/bash  
tim:~:10013:10000:~/home/EUC-LIVEFIRE/tim:/bin/bash  
laura:~:10014:10000:~/home/EUC-LIVEFIRE/laura:/bin/bash  
jackie:~:10015:10000:~/home/EUC-LIVEFIRE/jackie:/bin/bash  
craig:~:10016:10000:~/home/EUC-LIVEFIRE/craig:/bin/bash  
vmware@linuxmaster-1a:~$  
allowed rodc password replication group:x:10017:  
denied rodc password replication group:x:10018:  
read-only domain controllers:x:10012:  
enterprise read-only domain controllers:x:10014:  
cloneable domain controllers:x:10014:  
protected users:x:10015:  
key admins:x:10016:  
enterprise key admins:x:10017:  
dnsadmins:x:10018:  
dnsupdateproxy:x:10019:  
helpdesk:x:10020:  
it support:x:10021:  
marketing:x:10022:  
sales:x:10023:  
developers:x:10024:  
vmware@linuxmaster-1a:~$
```

Not the full screenshot  
for either of these  
captures.

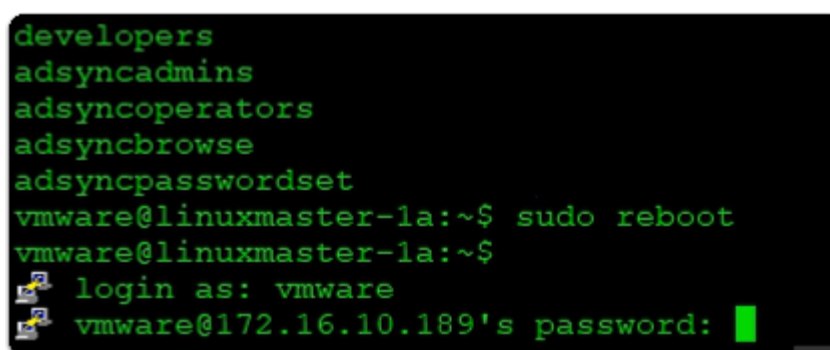
32. In the **Putty** window
- enter the following command

### sudo reboot

- next to **[sudo]** password for vmware:
  - type **VMware1!**
  - Press **Enter**



33. In the **Putty window (inactive)**
- select the **top left corner icon**
  - From the drop down menu
    - select **Restart Session**



34. In the **Putty** window
- next to **login as :**
    - enter **vmware**
      - with your **keyboard**
        - press **ENTER**
  - next to **password :**
    - enter **VMware1!**

- with your **keyboard**
- press **ENTER**

## Section 2. Configure TrueSSO for Ubuntu Desktop

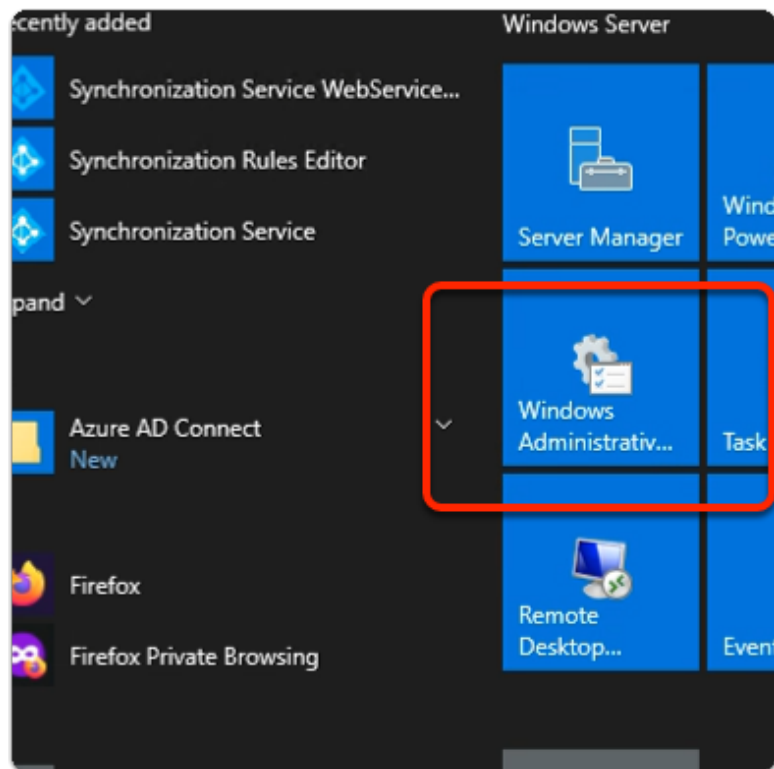
```
Enable ESM Apps to receive additional future security updates
See https://ubuntu.com/esm or run: sudo pro status

Last login: Mon Apr 10 11:26:56 2023 from 192.168.110.10
vmware@linuxmaster-1a:~$ sudo apt install libpam-pkcs11
[sudo] password for vmware: 
```

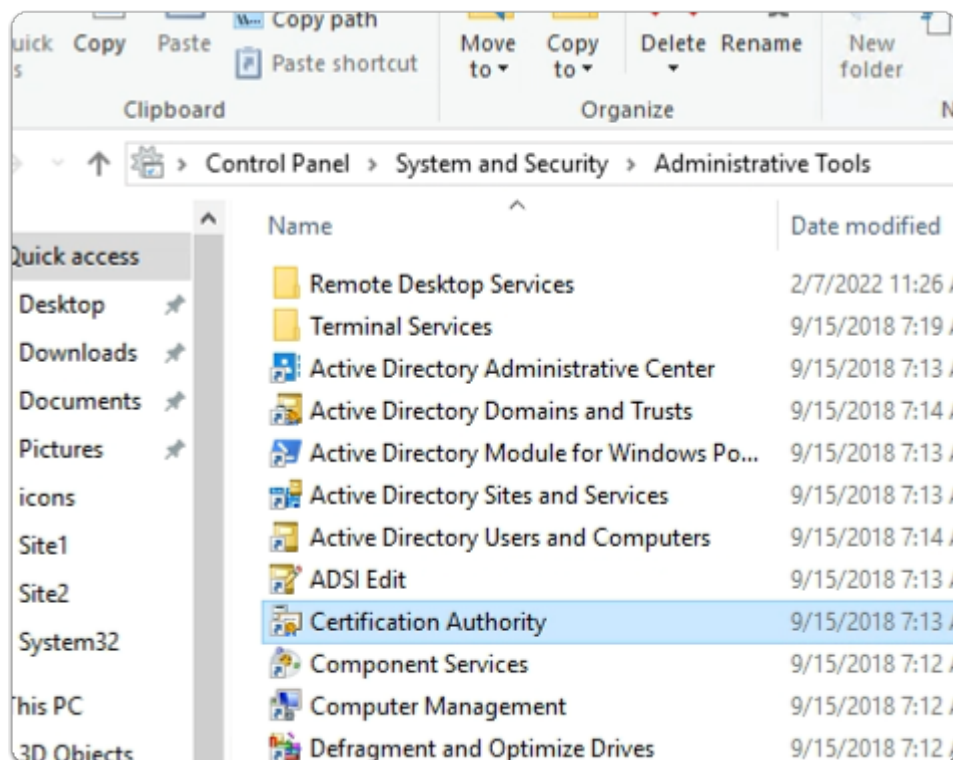
1. On your Ubuntu desktop,
  - To install the pkcs11 support package
  - In the Putty session enter
    - **sudo apt install libpam-pkcs11**
      - when prompted for password
        - enter **VMware1!**

```
Unpacking libpam-pkcs11 (0.6.11-4build2) ...
Setting up libpam-pkcs11 (0.6.11-4build2) ...
Processing triggers for man-db (2.10.2-1) ...
vmware@linuxmaster-1a:~$ sudo apt install libnss3-tools
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed
  libnss3-tools
0 to upgrade, 1 to newly install, 0 to remove and 65 not to
Need to get 565 kB of archives.
After this operation, 2,195 kB of additional disk space will
Get:1 http://gb.archive.ubuntu.com/ubuntu jammy-updates/universe
```

2. On your Ubuntu desktop,
  - to Install the **libnss3-tools** package
  - In the Putty session enter
    - **sudo apt install libnss3-tools**
      - with your keyboard
        - Press **ENTER** (no password required)



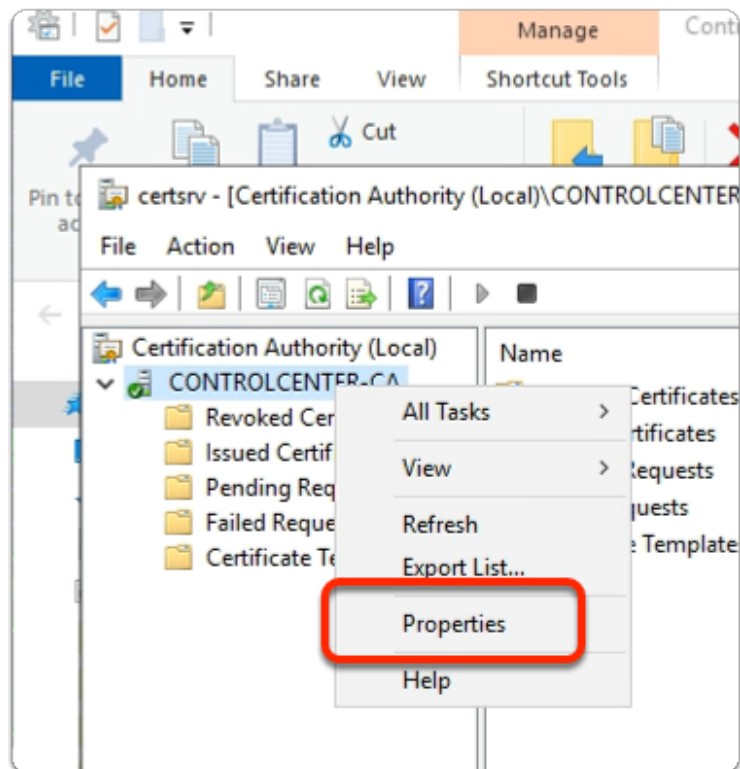
3. On your ControlCenter server
  - select the **START** button
  - In the Menu
    - select **Window Administrative tools**



4. In the Administrative Tools area

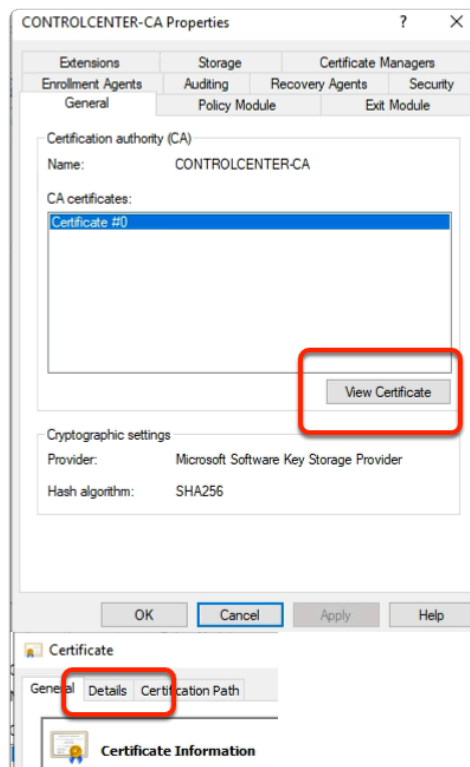


- select **Certificate Authority**



5. In the Certificate Authority console

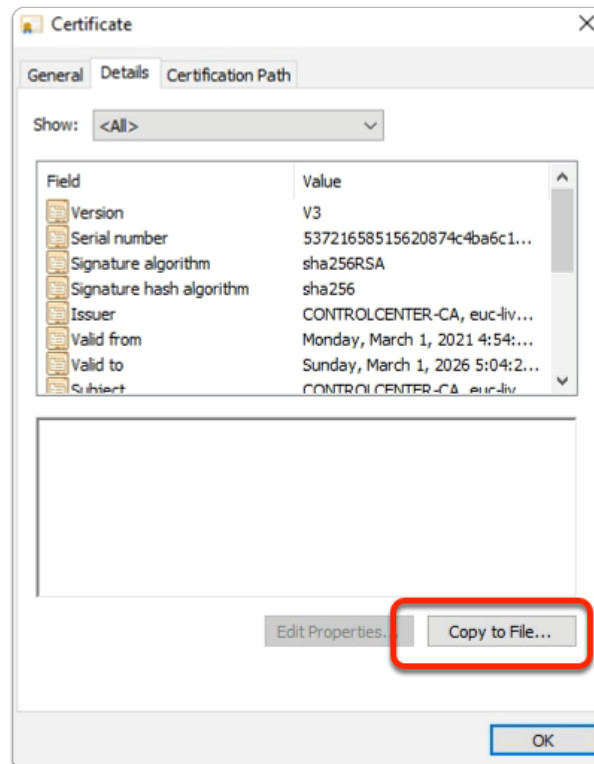
- select & right-click **CONTROLCENTER-CA**
  - in the **drop menu**
    - select **Properties**





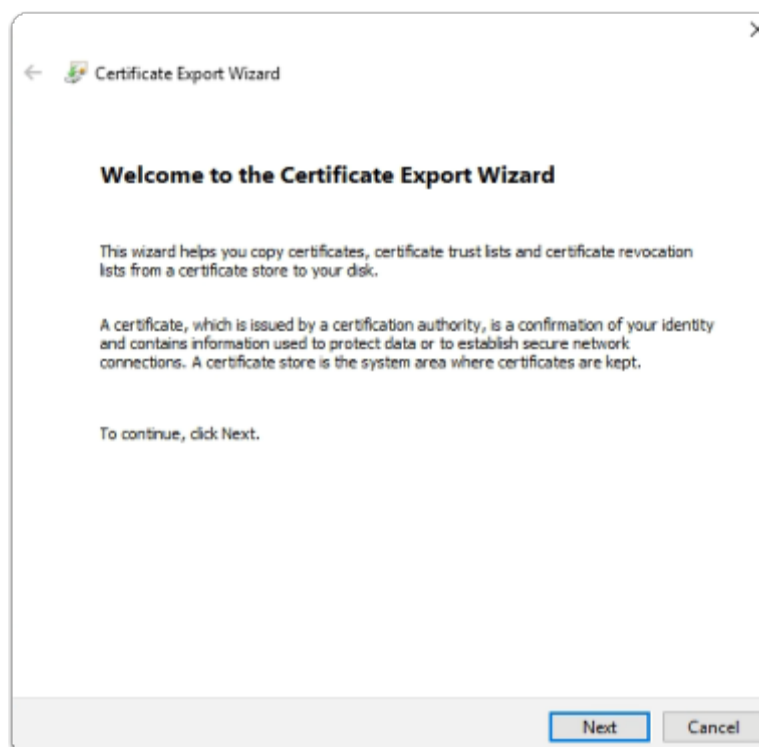
6. In the **CONTROLCENTER-CA** Properties

- select **View Certificate**
- In the **Certificate** window
  - select the **Details** tab



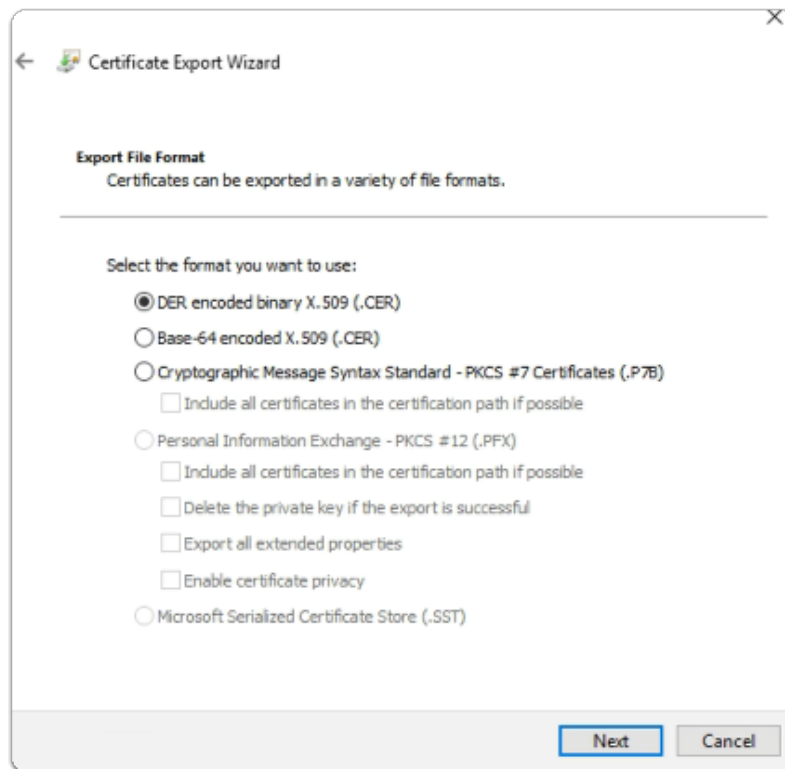
7. In the **Certificate > Details** tab

- select **Copy to File....**



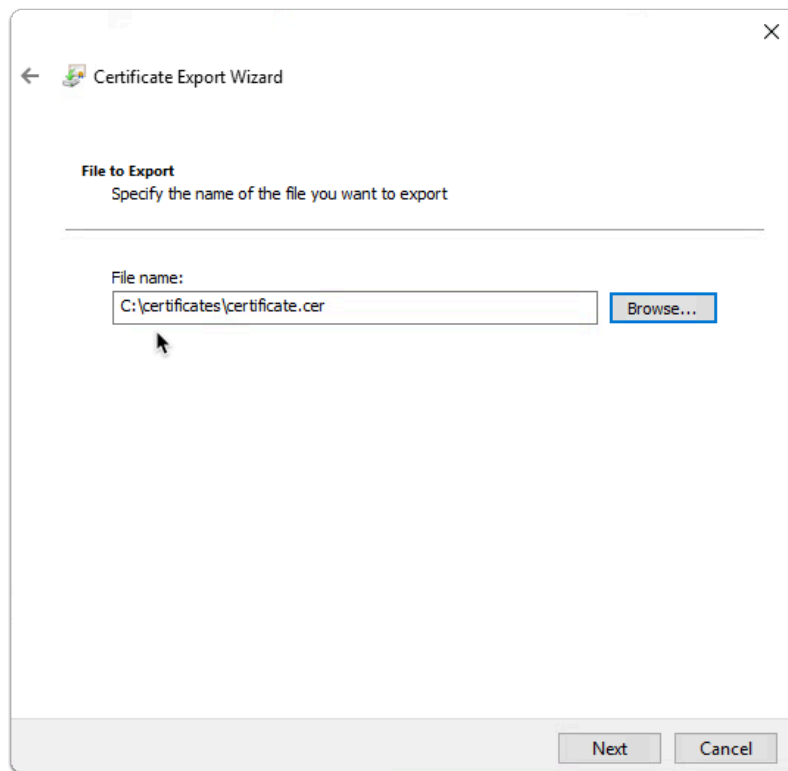
8. In the **Certificate Export Wizard**

- Welcome page
- select **Next**



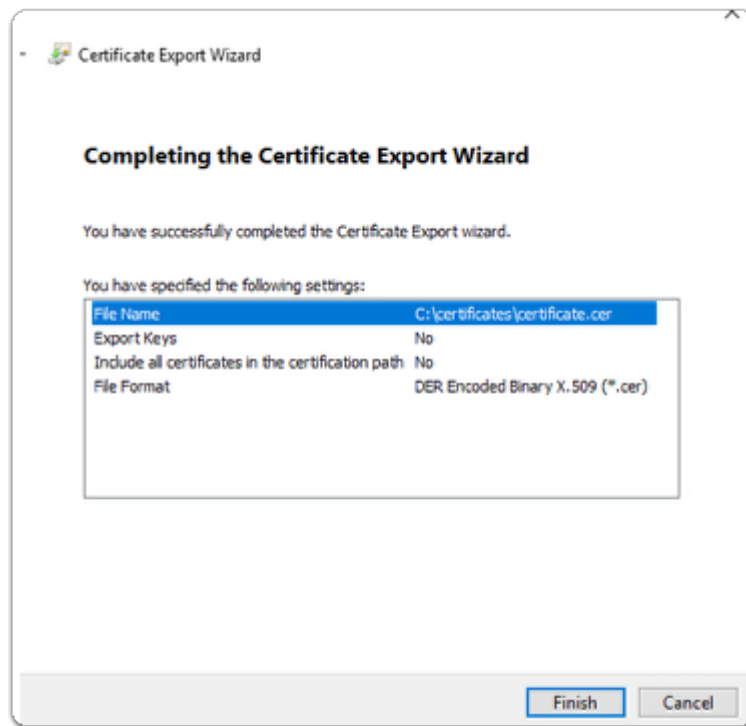
9. In the **Certificate Export Wizard**

- **Export File Format** page
  - next to **DER encoded X.509 (.CER)**
    - select the **radio button**
- select **Next**



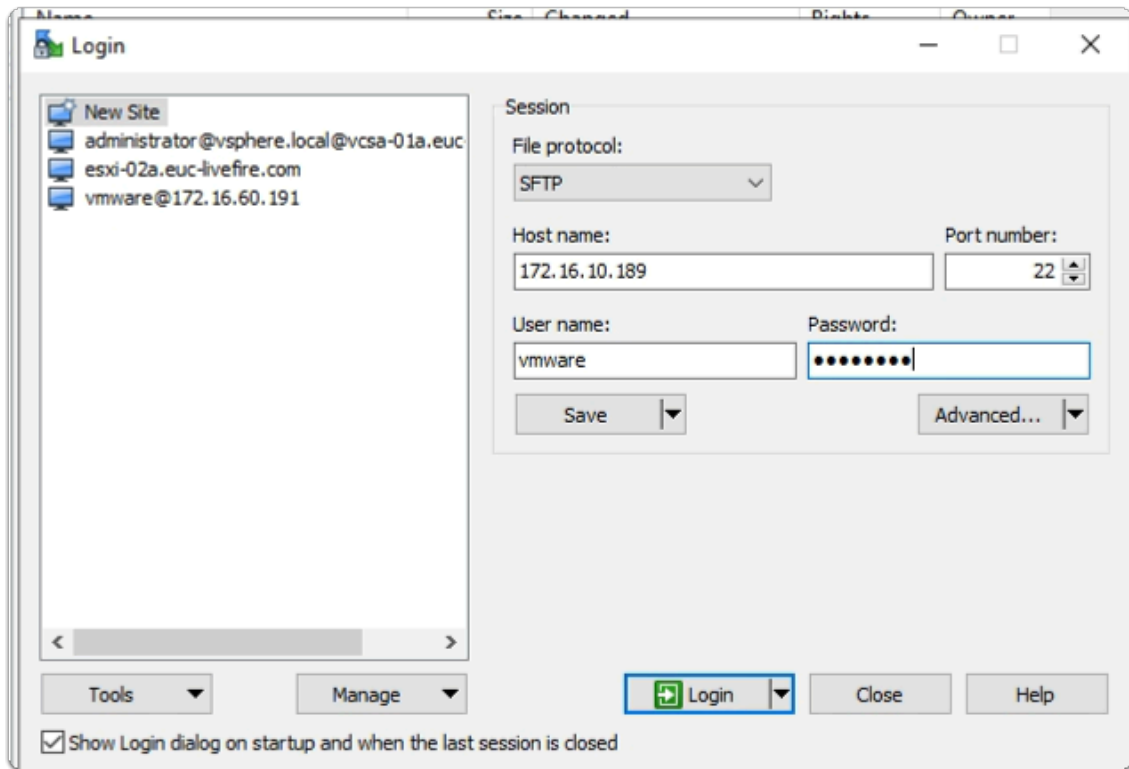
10. In the Certificate Export Wizard

- **File to Export** page
  - select **Browse**
    - browse to **C:\certificates\**
      - next to **File name:**
        - enter **certificate**
        - select **Save**
  - select **Next**

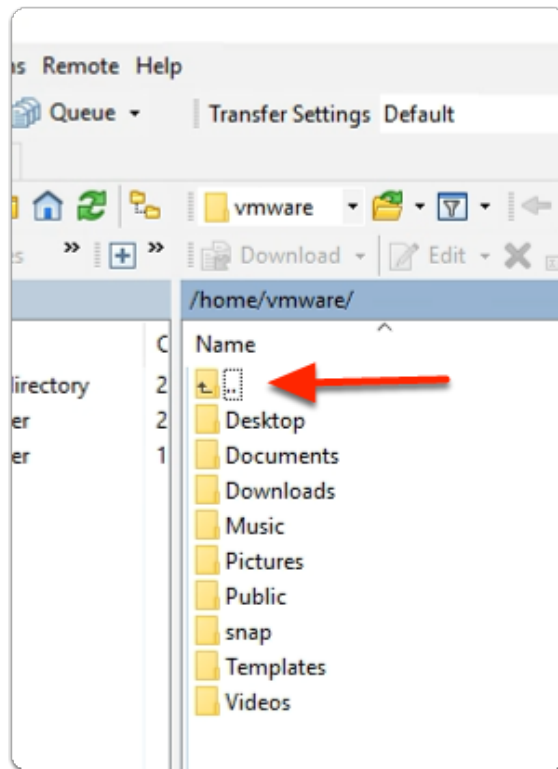


11. In the Certificate Export Wizard

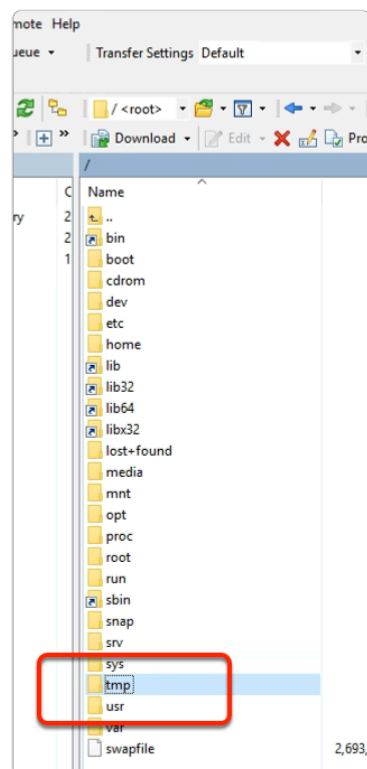
- **Completing the Certificate Export Wizard** page
  - select **Finish**
- to close the **The export was successful** message and Export wizard
  - select **Ok**
- to close the **Certificate** window
  - select **OK**
- to close the **CONTROLCENTER-CA Properties** window
  - select **OK**
- **Close** the **Certsrv** admin console



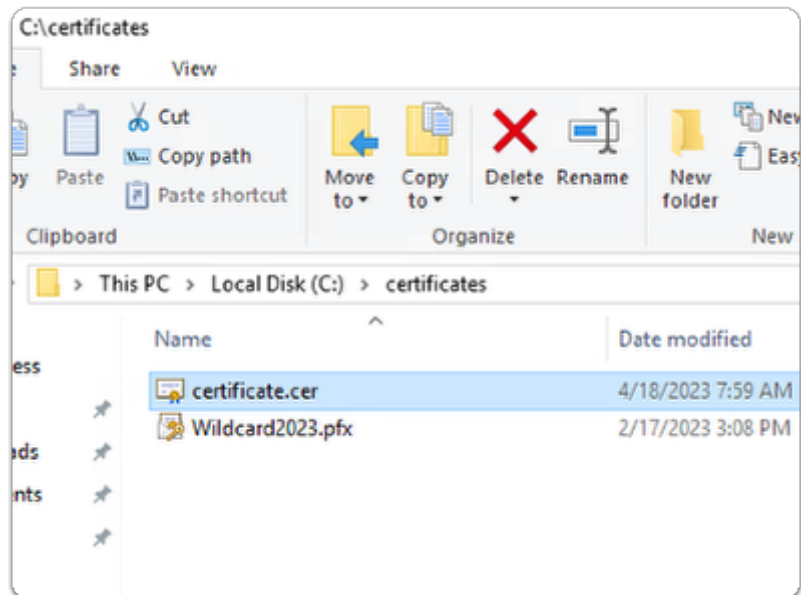
12. On your ControlCenter server
- Launch your **WinSCP client**
    - below **Host name:**
      - enter your **IP address**
    - below **Username**
      - enter **vmware**
    - below **Password**
      - enter **VMware1!**
  - select **Login**



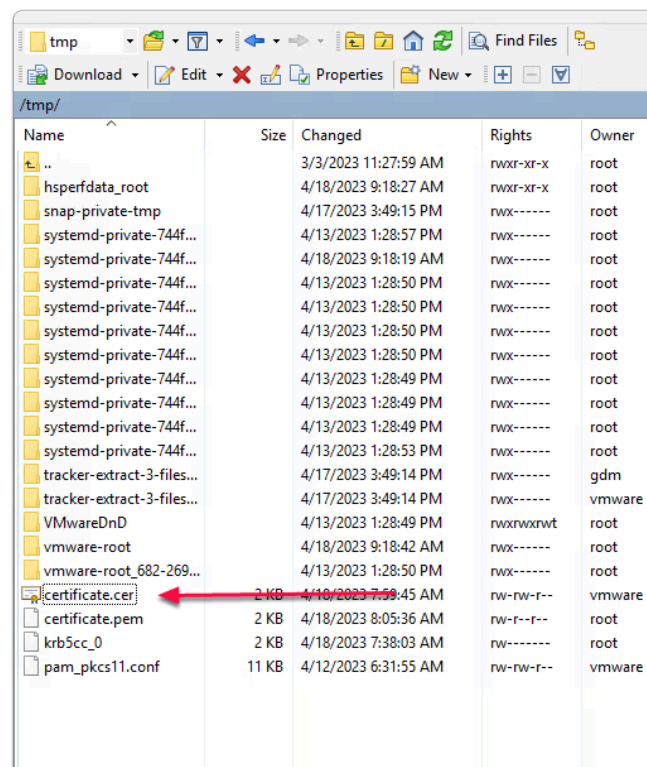
13. In the **WinSCP** client
- select the **UP arrow** twice



14. In the **WinSCP** client
- select and open the **tmp** folder



15. On the Controlcenter server
  - From the desktop, Taskbar
  - Open the **folder** Icon
  - browse to **C:\ > Certificates**



16. On the Controlcenter server
  - From the **C:\Certificates** folder
  - select and drag **certificate.cer** to **WinSCP /tmp/** folder

```
vmware@linuxmaster-1a: /tmp
vmware@linuxmaster-1a:/tmp$ ls
certificate.cer
hsperfdata_root
krb5cc_0
snap-private-tmp
systemd-private-744fcbdddef994257aad3b8d48751ddd4-colo
systemd-private-744fcbdddef994257aad3b8d48751ddd4-Mode
systemd-private-744fcbdddef994257aad3b8d48751ddd4-powe
systemd-private-744fcbdddef994257aad3b8d48751ddd4-swit
systemd-private-744fcbdddef994257aad3b8d48751ddd4-syst
vmware@linuxmaster-1a:/tmp$
```

17. On your Ubuntu desktop,
- to Locate the root CA certificate that you downloaded,
    - In the Putty session enter the following commands
      - `cd /tmp`
      - `ls`
      - you should see the **certificate.cer** certificate

```
vmware@linuxmaster-1a:/tmp$ sudo openssl x509 -inform der -in /tmp/certificate.cer -out /tmp/certificate.pem
vmware@linuxmaster-1a:/tmp$ ls
certificate.cer
certificate.pem
hsperfdata_root
krb5cc_0
snap-private-tmp
systemd-private-744fcbdddef994257aad3b8d48751ddd4-colord.service-sru993
systemd-private-744fcbdddef994257aad3b8d48751ddd4-ModemManager.service-hsbLRj
systemd-private-744fcbdddef994257aad3b8d48751ddd4-power-profiles-daemon.service-tlAKNM
systemd-private-744fcbdddef994257aad3b8d48751ddd4-switcheroo-control.service-fChunv
systemd-private-744fcbdddef994257aad3b8d48751ddd4-systemd-logind.service-ES9bIG
vmware@linuxmaster-1a:/tmp$
vmware@linuxmaster-1a:/tmp$
```

18. On your Ubuntu desktop,
- Convert the CER file to . PEM format
    - This will also serve to validate the file format
    - In the Putty session enter the following commands
      - `sudo openssl x509 -inform der -in /tmp/certificate.cer -out /tmp/certificate.pem`
    - Once the file is converted, run the following command to validate
      - `ls`



```

tracker-extract-3-files.128
VMwareDnD
vmware-root
vmware-root_647-3988163046
vmware@linuxmaster-1a:/tmp$ sudo mkdir -p /etc/pki/nssdb
[sudo] password for vmware:
vmware@linuxmaster-1a:/tmp$

```

vmware-root\_647-3988163046

4/10/2023 11:50:4

19. On your Ubuntu desktop,

- Make an/etc/pki/nssdb directory to contain the system database
  - In the Putty session enter
    - **sudo mkdir -p /etc/pki/nssdb**
  - If prompted for password for **vmware**:
    - enter **VMware1!**

```

vmware@linuxmaster-1a:/tmp$ sudo certutil -A -d /etc/pki/nssdb -n "root CA cert" -t "CT,C,C" -i /tmp/certificate.pem
vmware@linuxmaster-1a:/tmp$

```

20. On your Ubuntu desktop,

- to Use the certutil command to install the root CA certificate to the system database/etc/pki/nssdb
  - In the Putty session enter
    - **sudo certutil -A -d /etc/pki/nssdb -n "root CA cert" -t "CT,C,C" -i /tmp/certificate.pem**

```

vmware@linuxmaster-1a:/tmp$ mkdir -p /etc/pam_pkcs11/cacerts
vmware@linuxmaster-1a:/tmp$ sudo cp /tmp/certificate.pem /etc/pam_pkcs11/cacerts
vmware@linuxmaster-1a:/tmp$

```

21. On your Ubuntu desktop,

- Copy the root CA certificate to the/etc/pam\_pkcs11/ca certs directory.
  - In the Putty session enter

**mkdir -p /etc/pam\_pkcs11/cacerts**

**sudo cp /tmp/certificate.pem /etc/pam\_pkcs11/cacerts**

```
vmware@linuxmaster-1a:/tmp$ cd /etc/pam_pkcs11/cacerts/
vmware@linuxmaster-1a:/etc/pam_pkcs11/cacerts$
vmware@linuxmaster-1a:/etc/pam_pkcs11/cacerts$ sudo pkcs11_make_hash_link
vmware@linuxmaster-1a:/etc/pam_pkcs11/cacerts$
```

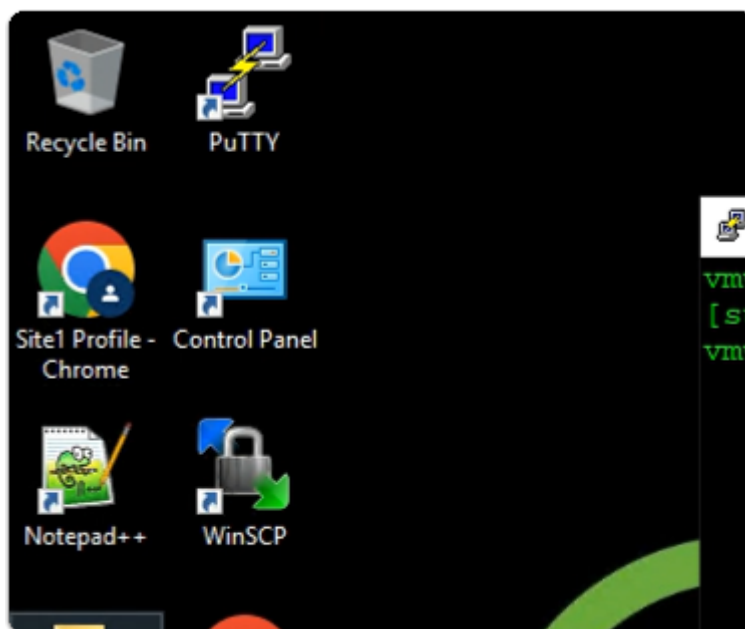
22. On your Ubuntu desktop,
  - To Create a hash link for the root CA certificate. .
  - In the Putty session enter

**cd /etc/pam\_pkcs11/cacerts**

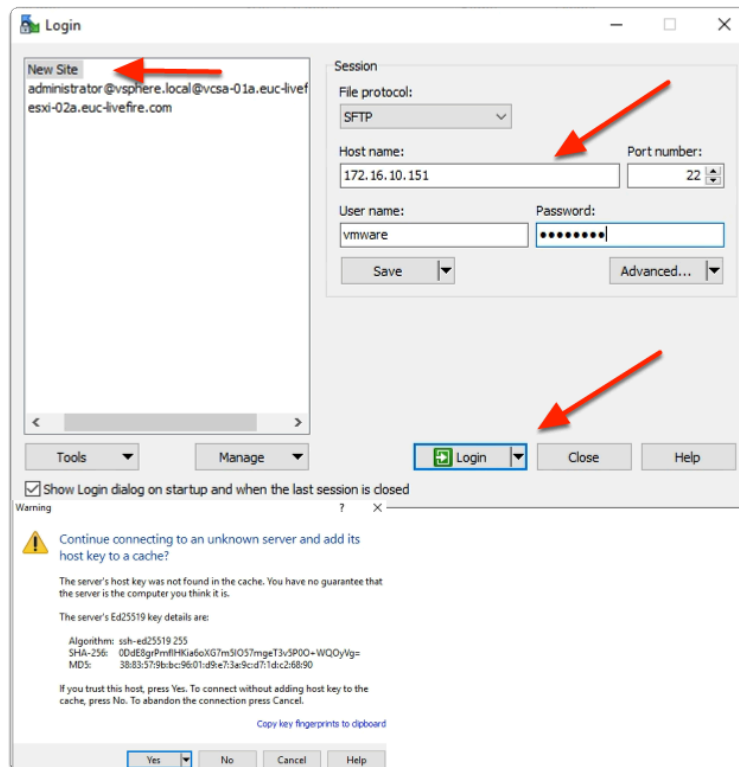
**sudo pkcs11\_make\_hash\_link**

```
vmware@linuxmaster-1a: ~/Downloads/VMware-horizonagent-linux-x86_64-2212-8.8.0-21071111
vmware@linuxmaster-1a:~/Downloads$ cd VMware-horizonagent-linux-x86_64-2212-8.8.0-21071111/
vmware@linuxmaster-1a:~/Downloads/VMware-horizonagent-linux-x86_64-2212-8.8.0-21071111$ sudo ./install
on -T yes
```

## Section 3: Deploying the Linux Horizon Agent

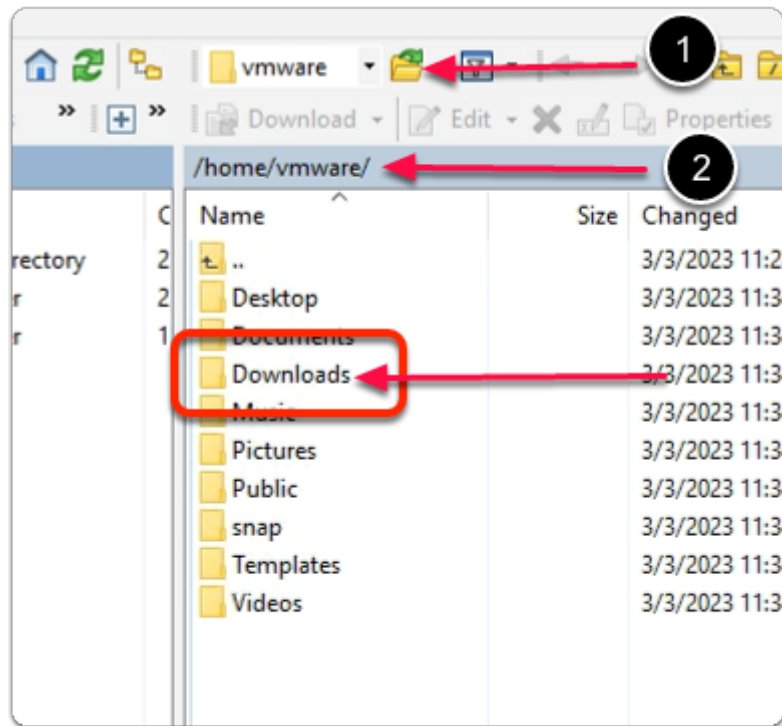


1. On your ControlCenter server
  - from the Desktop
  - launch the **WinSCP** shortcut



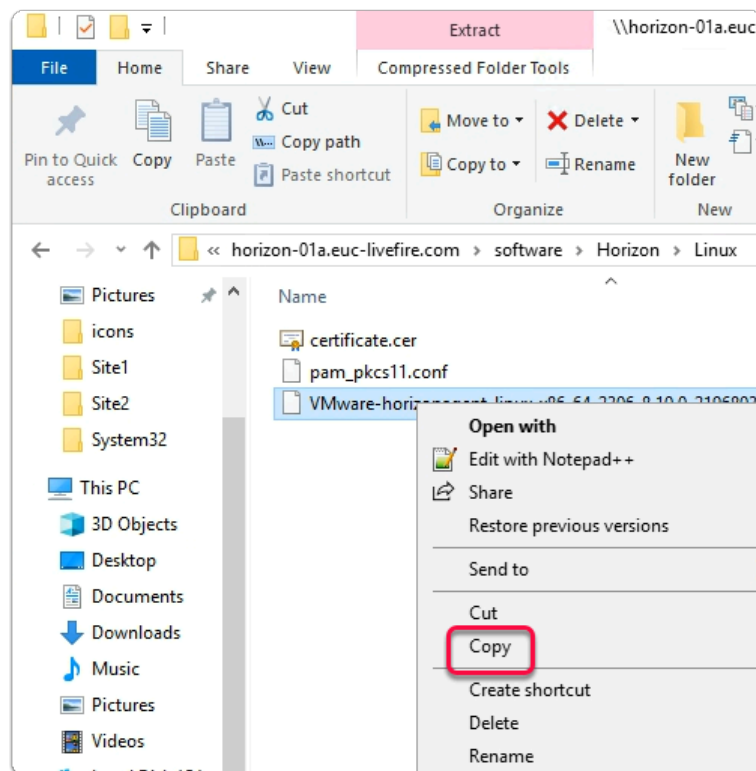
## 2. In the **WinSCP** window

- In the left pane
  - select **New Site**
- In the right pane, under
  - **Host name:**
    - enter *your LinuxMaster IP*
  - **User name:**
    - enter **vmware**
  - **Password:**
    - enter **VMware1!**
  - Select **Login**
- In the **Warning** window
  - select **Yes**

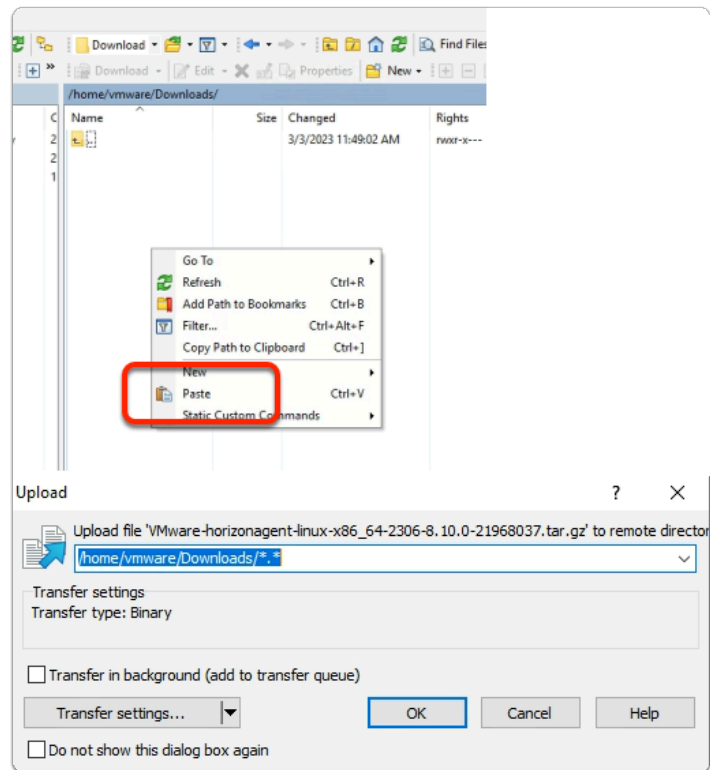


### 3. In the **WinSCP** window

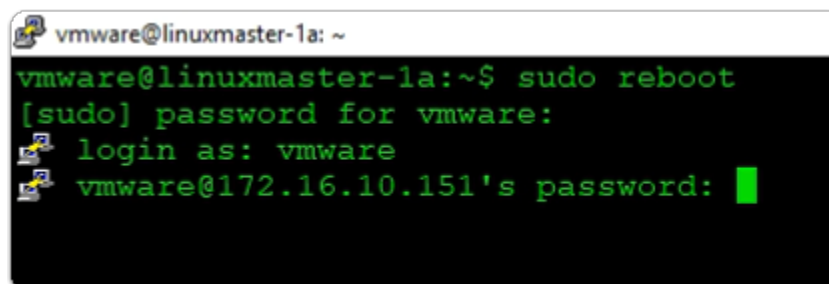
- In the right pane Navigate to
  - from the dropdown denoted as 1
  - Select **/<root>**
  - **Home > vmware > Downloads**
  - Open **Downloads**



4. On the ControlCenter server desktop
  - Open the **software** shortcut
    - Open the **Horizon > Linux** folder
      - **Select > right-click > VMware-horizonagent-linux-x86\_64-2306-8.10.0-21968037.tar.gz** file
      - select **Copy**
  - Switch back to **WinSCP**



5. In the **WinSCP** window
  - In the **right pane**
    - **select** and **right-click** to launch the menu
      - select **Paste**
  - In the **Upload** window
    - select **OK**
- Switch back to your **Putty** session



6. In the **Putty** window

- If required
- Next to **login as:**
  - type **vmware**
- next to **password:**
  - type **VMware1!**

```
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Wed Apr  5 17:25:42 2023 from 192.168.110.10
vmware@linuxmaster-1a:~$ sudo apt install open-vm-tools-desktop open-vm-tools
[sudo] password for vmware:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
open-vm-tools is already the newest version (2:12.1.0-1~ubuntu0.22.04.1).
```

7. In the **Putty** Console
  - enter the following command:

**sudo apt install open-vm-tools-desktop open-vm-tools**

- with your keyboard
  - press **ENTER**
- next to **password for vmware:**
  - enter **VMware1!**
- from the output
  - validate that **open-vm-tools** is installed and you have the latest version

```
Processing triggers for man-db (2.10.2-1) ...
vmware@linuxmaster-1a:/etc/pam_pkcs11/cacerts$ cd /home/vmware/Downloads/
vmware@linuxmaster-1a:~/Downloads$ ls -l
total 127280
-rw-rw-r-- 1 vmware vmware 130328034 Jul 18 19:06 VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037.tar.gz
vmware@linuxmaster-1a:~/Downloads$ tar -zxvf VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037.tar.gz
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/vhci/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/vhci/ubuntu/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/vhci/ubuntu/1404/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/vhci/ubuntu/1404/usb-vhci-ubuntu1404.tar.manifest
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/vhci/ubuntu/1404/usb-vhci-ubuntu1404.tar.patterns
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/vhci/ubuntu/1404/usb-vhci-hcd.ko
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/vhci/ubuntu/1404/usb-vhci-iocifc.ko
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/vhci/ubuntu/1604/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/vhci/ubuntu/1604/usb-vhci-ubuntu1604.tar.manifest
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/resources/vhci/ubuntu/1604/usb-vhci-ubuntu1604.tar.patterns
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/fr/collabui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/fr/printerui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/fr/vmwdmGreeter.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/ja/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/ja/collabui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/ja/printerui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/ja/vmwdmGreeter.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/ko/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/ko/collabui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/ko/printerui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/ko/vmwdmGreeter.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_CN/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_CN/collabui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_CN/printerui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_CN/vmwdmGreeter.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_TW/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_TW/collabui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_TW/printerui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_TW/vmwdmGreeter.mo
vmware@linuxmaster-1a:~/Downloads$
```

The package will extract and look like this when complete



8. In the **Putty** Console

- with your keyboard
  - type
    - **cd /home/vmware/Downloads/**
  - In the **/Downloads\$** path
  - with your keyboard
    - Type **ls -l**
    - Press **ENTER**
    - Type **tar -zxvf VMware-horizonagent-linux-x86\_64-2306-8.10.0-21968037.tar.gz**
      - **Note: The above command will extract the files from the compressed agent bundle**

```
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/ko/printerui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/ko/vmwdmGreeter.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_CN/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_CN/collabui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_CN/printerui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_CN/vmwdmGreeter.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_TW/
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_TW/collabui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_TW/printerui.mo
VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/110n/zh_TW/vmwdmGreeter.mo
vmware@linuxmaster-1a:~/Downloads$ cd VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037/
vmware@linuxmaster-1a:~/Downloads/VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037$
```

9. In the **Putty** Console

- **/Downloads\$**
  - with your keyboard
  - type **ls** to list the files
    - type **cd VMware-horizonagent-linux-x86\_64-2306-8.10.0-21968037/**
      - Press **ENTER**

```
vmware@linuxmaster-1a:~/Downloads/VMware-horizonagent-linux-x86_64-2306-8.10.0-21968037$ sudo ./install_viewagent.sh --multiple-session -T yes
Install multiple session agent...
VMWARE GENERAL TERMS
Last updated:16 June 2022
By downloading or using an Offering, Customer agrees to be bound by the terms
of the Agreement.
1. OFFERINGS.
1.1. Applicable Terms. The terms of the Order and these General Terms, including
applicable Exhibits and Offering-specific Notes (collectively, the "Agreement")
govern Customer's use of the Offerings. The following descending order of
precedence applies: (a) the Order; (b) the General Terms; (c) the Exhibits;
and (d) the Offering-specific Notes.
1.2. Users. Customer is responsible for its Users' compliance with the
Agreement.
1.3. Restrictions. Customer may use the Offerings only for its internal use
and for the benefit of its Affiliates. Affiliates may not use the Offerings.
Customer may not resell or sublicense its rights to the Offerings. Customer
may not use the offerings in an application service provider, service bureau,
hosted IT service, or similar capacity for third parties.
1.4. Benchmarking. Customer may use the Offerings to conduct internal
performance testing and benchmarking studies. Customer may only publish

v.16 June 2022
Page 7 of 7
Are you sure to install Linux agent (y/n)?
```

10. In the **Putty** Console

- Install Linux Agent with **TrueSSO Mode and Multi-session** mode enabled

- In the **VMware-horizonagent-linux-x86\_64-2303-8.9.0-21434177** folder
  - enter **sudo ./install\_viewagent.sh --multiple-session -T yes**
    - with your keyboard
      - Press **ENTER**
        - if prompted **[sudo] password for vmware:**
          - type **VMware1!**
            - Press **ENTER**
              - when prompted, **Are you sure to install Linux agent (y/n)?**
                - type **Y**
                  - Press **ENTER**

```
If you have any questions or issues regarding
You must restart your system for the configu

Installation done

vmware@linuxmaster-1a:~/Downloads/VMware-hor
```

11. Once the agent installation is complete,
  - Message will show up
    - **Installation Done**

```
64-2303-8.9.0-21434177$
64-2303-8.9.0-21434177$
64-2303-8.9.0-21434177$ sudo nano /etc/vmware/viewagent-custom.conf
```

12. In the **Putty** Console
  - type

**sudo nano /etc/vmware/viewagent-custom.conf**

- Press **ENTER**

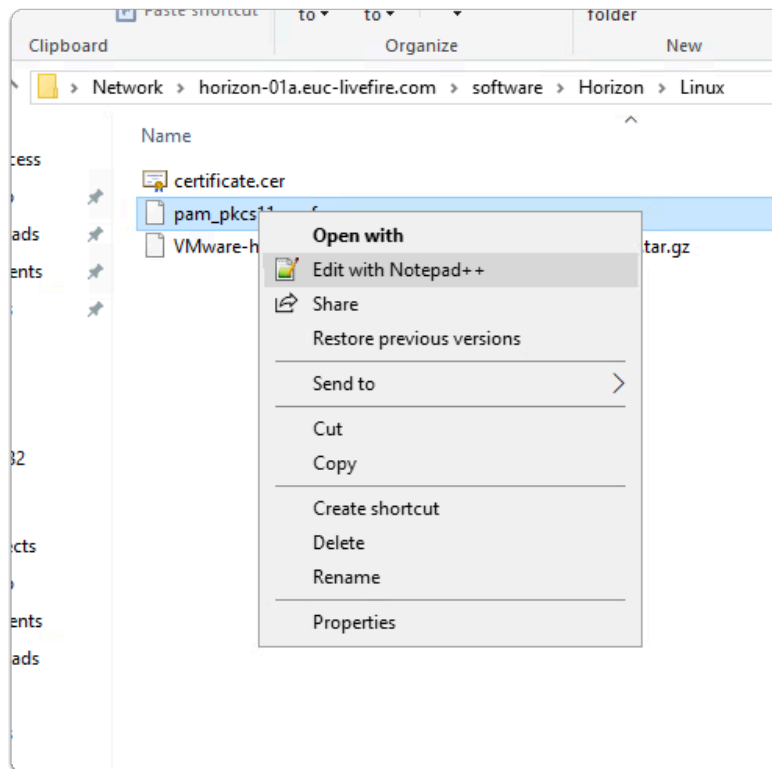
```
#Enable/Disable VM Hosted App. Default
#AppEnable=FALSE
OfflineJoinDomain=samba
NetbiosDomain=EUC-LIVEFIRE

^G Help      ^O Write Out  ^W Wh
^X Exit      ^R Read File  ^\ Re
```

13. In the **Putty** Console
  - NANO console
    - using your keyboard, **scroll down** to the bottom of this window

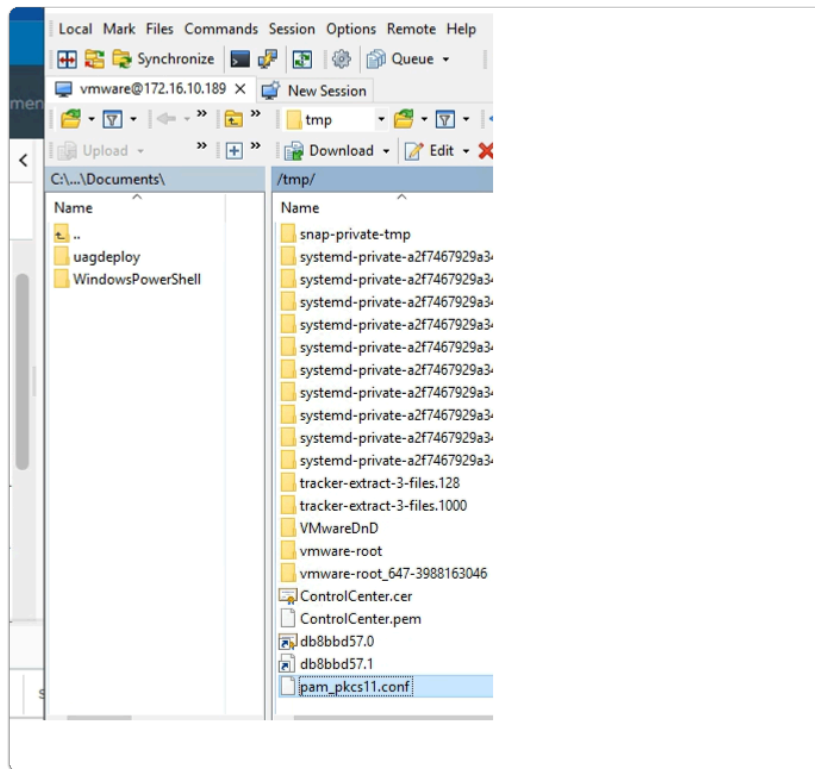


- below **#AppEnable=FALSE**
  - enter  
**OfflineJoinDomain=samba**  
**NetbiosDomain=EUC-LIVEFIRE**
- using your keyboard
  - To SAVE
    - Press **CTRL + S**
  - To EXIT
    - Press **CTRL + X**



#### 14. On **ControlCenter** server

- On the taskbar
- Launch the folder icon
- Browse to **\\horizon-01a.euc-livefire.com\software\Horizon\Linux**
- In your File Explorer window
- select and copy **pam\_pks11.conf**



15. On **ControlCenter** server

- switch to **WinSCP**
- In **WinSCP**
  - browse to **/tmp** folder
  - In the TMP folder
    - paste **pam\_pkcs11.conf**

```
vmware@linuxmaster-1a: /tmp  
vmware@linuxmaster-1a:/tmp$ sudo cp pam_pkcs11.conf /etc/pam_pkcs11/  
vmware@linuxmaster-1a:/tmp$  
vmware@linuxmaster-1a:/tmp$
```

16. In your Putty session

**cd /tmp**

**sudo cp pam\_pkcs11.conf /etc/pam\_pkcs11/**

vmware@linuxmaster-1a: /tmp

```
vmware@linuxmaster-1a:/tmp$ sudo chmod 777 /etc/pam_pkcs11/pam_pkcs11.conf
vmware@linuxmaster-1a:/tmp$ ls -l /etc/pam_pkcs11/pam_pkcs11.conf
-rwxrwxrwx 1 root root 10851 Apr 18 10:44 /etc/pam_pkcs11/pam_pkcs11.conf
vmware@linuxmaster-1a:/tmp$
```

17. In your Putty session, modify the permission of **pam\_pkcs11.conf** that we just copied in step 16

- **sudo chmod 777 /etc/pam\_pkcs11/pam\_pkcs11.conf**
- **ls -l /etc/pam\_pkcs11/pam\_pkcs11.conf**

vmware@linuxmaster-1a: ~/Downloads/VMware-horizonagent-linux-x86\_64-2303-8.9.0-21434177

```
vmware@linuxmaster-1a:~/Downloads/VMware-horizonagent-linux-x86_64-2303-8.9.0-21434177$ sudo chmod 644 /etc/krb5.conf
vmware@linuxmaster-1a:~/Downloads/VMware-horizonagent-linux-x86_64-2303-8.9.0-21434177$ ls -l /etc/krb5.conf
-rw-r--r-- 1 root root 3076 Apr 18 08:35 /etc/krb5.conf
vmware@linuxmaster-1a:~/Downloads/VMware-horizonagent-linux-x86_64-2303-8.9.0-21434177$
```

18. Set the access permissions for the /etc/krb5.conf configuration file to 644

- **sudo chmod 644 /etc/krb5.conf**
- **ls -l /etc/krb5.conf**

## Section 4. Predefining settings for seamless app launches

Many applications on first launch require a range of configurations. We will mitigate these challenges with the following command line functions

```
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Wed Apr  5 16:37:21 2023 from 192.168.1.100
vmware@linuxmaster-1a:~$ sudo -i
[sudo] password for vmware:
```

1. In the Putty Console

- enter **sudo -i**
  - with your **keyboard**
    - press **ENTER**
- when prompted for password for vmware:

- enter **VMware1!**

```
Last login: Wed Apr  5 16:37:21 2023 from 192.168
vmware@linuxmaster-1a:~$ sudo -i
[sudo] password for vmware:
root@linuxmaster-1a:~# cd /etc/
root@linuxmaster-1a:/etc# mv skel ske.bak
root@linuxmaster-1a:/etc#
```

## 2. In the **Putty Console**

- enter **cd /etc/**
  - with your **keyboard**
    - press **ENTER**
- enter **mv skel skel.bak**
  - with your **keyboard**
    - press **ENTER**

```
Last login: Wed Apr  5 16:37:21 2023 from 192.168.110.10
vmware@linuxmaster-1a:~$ sudo -i
[sudo] password for vmware:
root@linuxmaster-1a:~# cd /etc/
root@linuxmaster-1a:/etc# mv skel ske.bak
root@linuxmaster-1a:/etc# cp -R /home/vmware skel
root@linuxmaster-1a:/etc# ls skel
Desktop  Documents  Downloads  Music  Pictures  Public  snap  Templates  Videos
root@linuxmaster-1a:/etc#
```

## 3. In the **Putty Console**

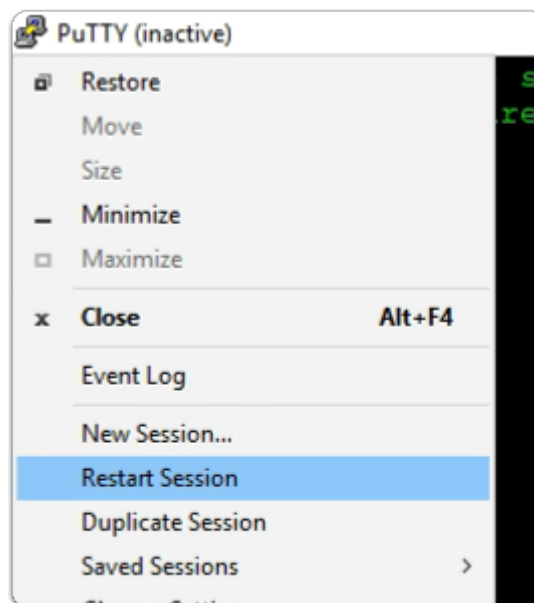
- enter **cp -R /home/vmware skel**
  - with your **keyboard**
    - press **ENTER**
- enter **ls skel**
  - with your **keyboard**
    - press **ENTER**

```
root@linuxmaster-1a:/etc# ls skel
Desktop  Documents  Downloads  Music  Pictures  Public
root@linuxmaster-1a:/etc# chown root:root -R skel
root@linuxmaster-1a:/etc# reboot
```

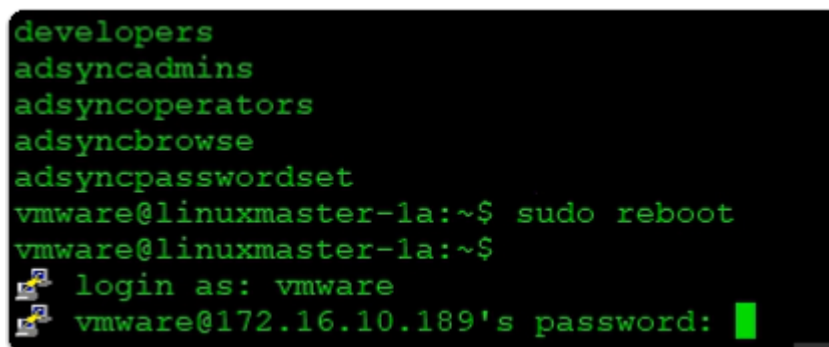
## 4. In the **Putty Console**

- enter **chown root:root -R skel**
  - with your **keyboard**

- press **ENTER**
- enter **reboot**
  - with your **keyboard**
    - press **ENTER**



5. In the **Putty window (inactive)**
  - select the **top left corner icon**
  - From the drop down menu
    - select **Restart Session**



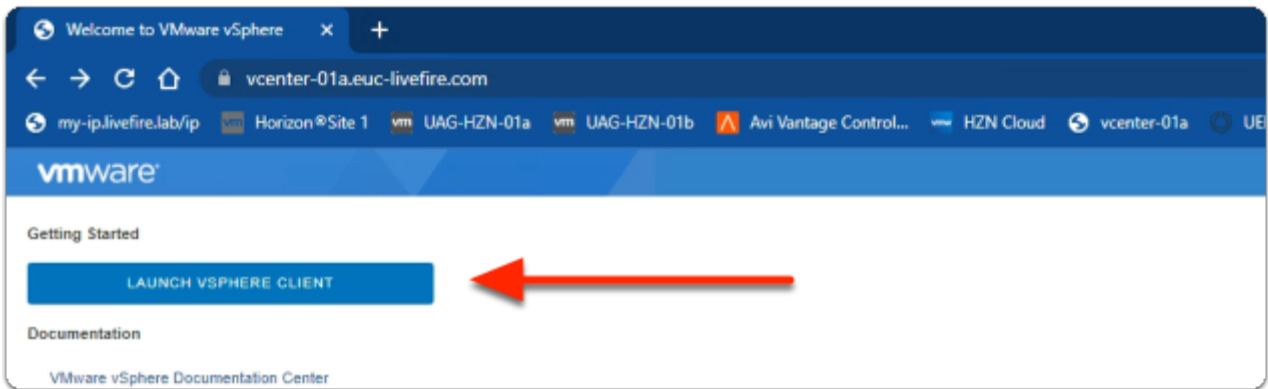
6. In the **Putty window**
  - next to **login as :**
    - enter **vmware**
      - with your **keyboard**
        - press **ENTER**
  - next to **password :**
    - enter **VMware1!**
      - with your **keyboard**
        - press **ENTER**

## Part 2. Configuring Horizon to Deploy a Linux Multi-Session Farm for Site 1

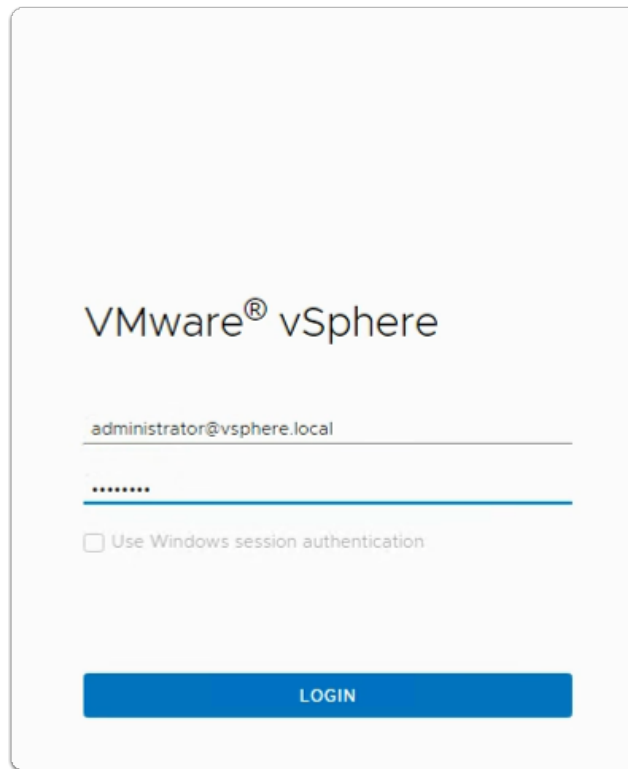
Introduction. We will configure the following

- Configure the Linux Farm for Site 1
- The Site 2 Farm Configuration has already been done

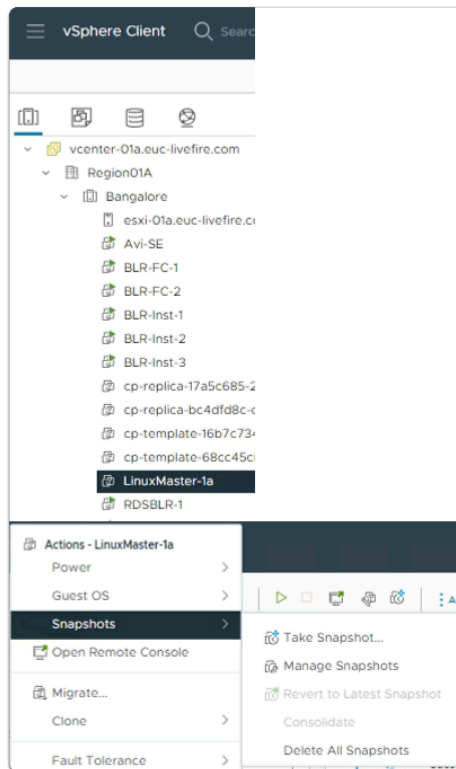
### Configuring the Linux Farm



1. On your **ControlCenter** server
  - Open your **Site 1 Chrome Browser**
  - In the **Favourites** Bar
    - select the **vcenter-01a** shortcut
    - Under **Getting Started**
      - select **LAUNCH VSPHERE CLIENT**



2. In the VMware vSphere client
  - In the **Username** area
    - type **administrator@vsphere.local**
  - In the **Password** area
    - type **VMware1!**
  - Select **LOGIN**



3. In the **VMware vSphere client**
  - **Hosts & Clusters** Inventory
    - **Right Click and ShutDown** the **LinuxMaster**
    - Once the VM is Powered off
      - Right- click **LinuxMaster-1a**
        - In the **Menu**, select **Snapshots > Take Snapshot...**

### Take snapshot

✕

Name Horizon Linux Agent

Description

☐ Include virtual machine's memory

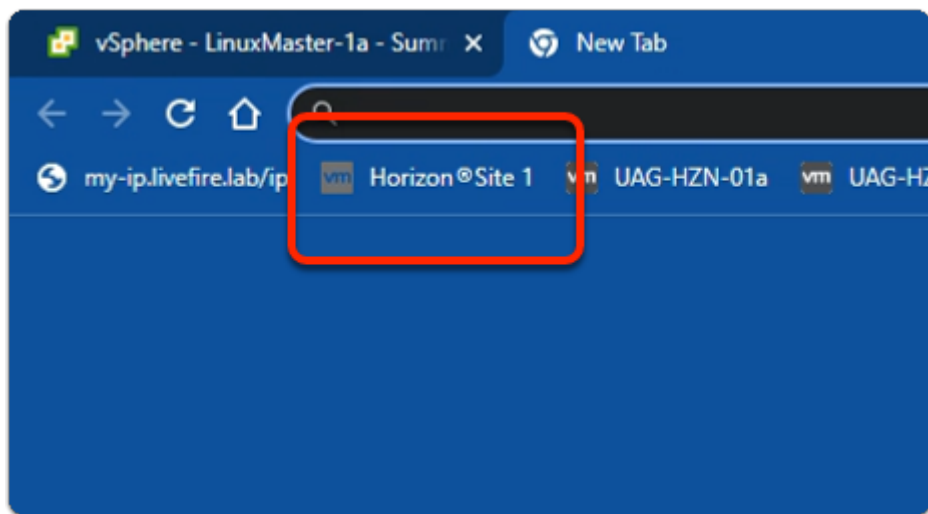
☐ Quiesce guest file system(requires VM tools)

CANCEL
CREATE

4. In the **Take snapshot** window



- Next to **Name**
  - Type **Horizon Linux Agent**
- At the bottom of the window
  - select **CREATE**

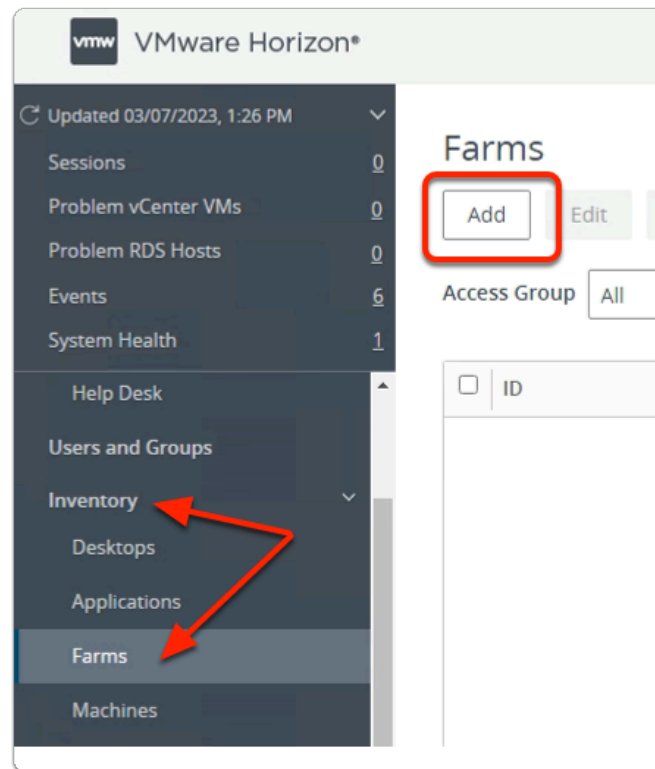


5. On your **Site 1, Chrome Browser**
  - In the **Favourites Bar**
    - select the **Horizon Site 1** shortcut

A screenshot of the VMware Horizon login console. The page has a white background with the 'VMware Horizon' logo at the top, followed by 'Version 2212'. Below the logo, there is a login form. The 'Username' field is pre-filled with 'administrator'. The 'Password' field is masked with dots. Below the password field, there is a dropdown menu currently showing 'EUC-LIVEFIRE'. A checkbox labeled 'Remember user name' is checked. At the bottom of the form is a green 'Sign in' button.

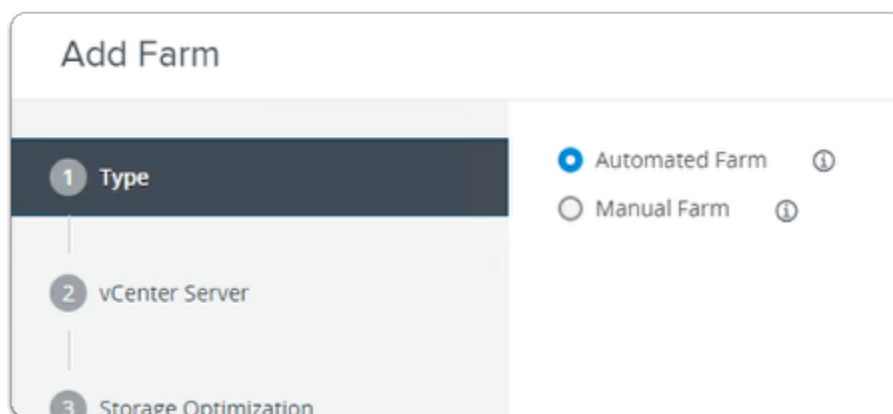
6. In the **Horizon Login Console**
  - In the **Username** area
    - enter **administrator**

- In the **Password** area
  - enter **VMware1!**
- select **Sign In**



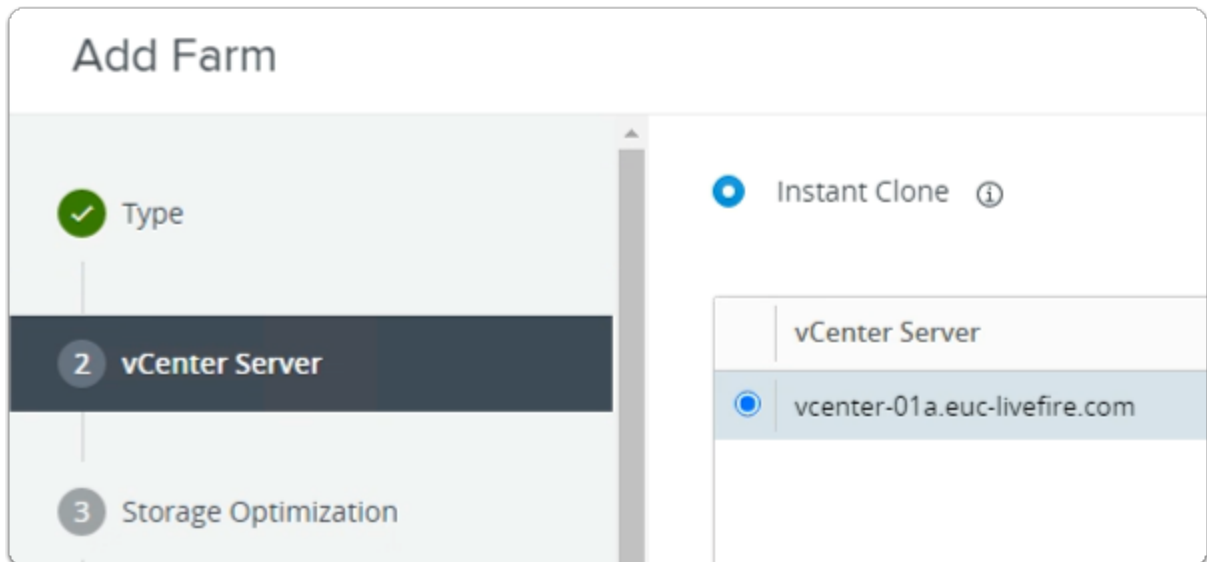
7. In the VMware Horizon Admin Console

- Expand **Inventory**
  - Select **Farms**
- In the **Farms** area
  - Select **Add**

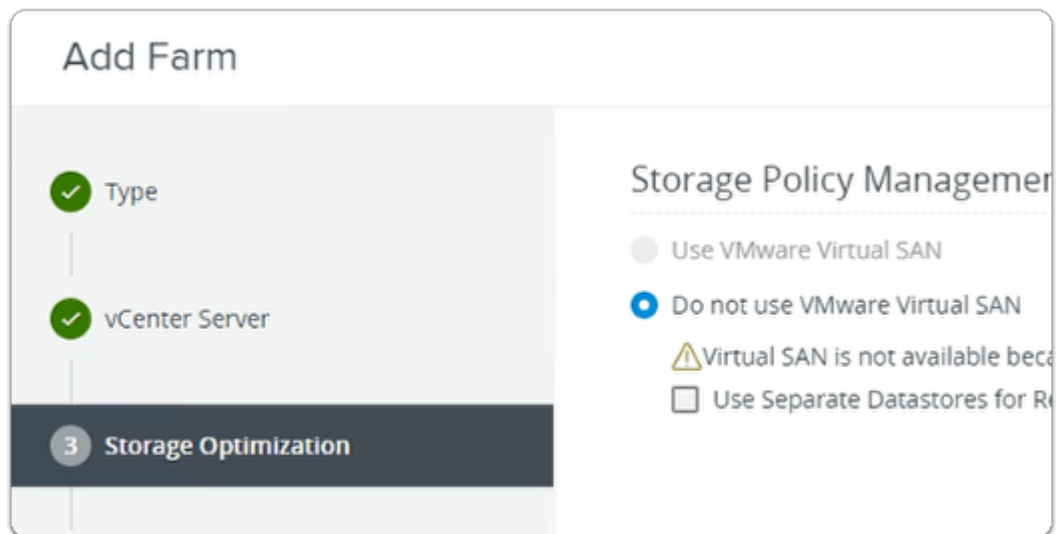


8. In the **Add Farm** wizard

1. **Type** area
  - Accept the default
  - In the bottom right corner
    - Select **Next**



9. In the **Add Farm** wizard
  2. **vCenter Server** area
    - Accept the default
    - In the bottom right corner
      - Select **Next**



10. In the **Add Farm** wizard
  3. **Storage Optimization** area
    - Accept the default
    - In the bottom right corner
      - Select **Next**

**Add Farm - LinuxBLRFarm**

✓ Type

✓ vCenter Server

✓ Storage Optimization

**4 Identification and Settings**

Asterisk (\*) denotes required

\* ID

LinuxBLRFarm

Description

Access Group

/

11. In the **Add Farm** wizard
  4. **Identification and Settings** area
    - Configure the following:-
      - Under **\*ID**
        - enter **LinuxBLRFarm**

Pre-launch Session Timeout (Applications Only) ⓘ

Never

Empty Session Timeout (Applications Only) ⓘ

Immediate

When Timeout Occurs

Log Off

Logoff Disconnected Sessions

Immediate

☐ Bypass Session Timeout ⓘ

Allow Session Collaboration ☐ Enabled ⓘ

Requires VMware Blast Protocol.

Max Sessions Per RDS Host

No More Than 3

Maximum sessions allowed per RDS Host is 150.

12. In the **Add Farm** wizard
  4. **Identification and Settings** area

- Configure the following:-
  - Under **Farm Settings**
    - **Default Display Protocol**
      - **Blast**
    - **Allow Users to Choose Protocol**
      - **No**
  - Under **Pre-launch Session Timeout (Applications Only)**
    - select **Never**
  - Under **Empty Session Timeout (Applications Only)**
    - select **Immediate**
  - Under **When Timeout Occurs**
    - select **Log Off**
  - Under **Logoff Disconnected Sessions**
    - select **Immediate**
  - Under **Max Sessions Per RDS Host**
    - select **No More Than** enter **3**
- Select **Next**

**Add Farm - RDSH25-01a**

- ✓ Type
- ✓ vCenter Server
- ✓ Storage Optimization
- ✓ Identification and Settings
- ✓ **Load Balancing Settings**

Use Custom Script ☐ Enabled

Include Session Count ☒ Enabled

Asterisk (\*) denotes required field

- \* CPU Usage Threshold: 0
- \* Memory Usage Threshold: 0
- \* Disk Queue Length Threshold: 0
- \* Disk Read Latency Threshold: 0

13. In the **Add Farm** wizard
  5. **Load Balancing Settings** area
    - Accept the default
    - In the bottom right corner
      - Select **Next**

**Add Farm - LinuxBLRFarm**

Asterisk (\*) denotes required field

**Basic**

☒ Enable Provisioning ⓘ

☒ Stop Provisioning on Error

**Virtual Machine Naming**

\* Naming Pattern

LinuxBLR-

**Farm Sizing**

\* Maximum Machines

2

\* Minimum Number of Ready (Provisi

0

14. In the **Add Farm** wizard
  6. **Provisioning Settings** area
    - Configure the following:-
      - Under **\*Naming Pattern**
        - enter **LinuxBLR-**
      - Under **\*Maximum Machines**
        - enter **2**
    - Select **Next**

**Add Farm - LinuxBLRFarm**

- Storage Optimization
- Identification and Settings
- Load Balancing Settings
- Provisioning Settings
- 7 vCenter Settings**

**Default Image**

Asterisk (\*) denotes required field

- \* Golden Image in vCenter  **Browse**
- \* Snapshot  **Browse**

**Virtual Machine Location**

- \* VM Folder Location

**Select Golden Image**

Select the virtual machines to be used as the golden image for this Automated Farm.

☐ Show All Golden Images ⓘ Operating System: All Filter

| Name  | Path  |
|---|---|
| <input type="radio"/> Avi-SE                    | /Region01A/vm/Discovered virtual machine/Avi-SE   |
| <input type="radio"/> RDSH-01a                  | /Region01A/vm/Discovered virtual machine/RDSH-01a |
| <input checked="" type="radio"/> LinuxMaster-1a | /Region01A/vm/LinuxMaster-1a                      |

Rows per page: 20 1 - 3 of 3 rows

**Submit** **Cancel**

15. In the **Add Farm** wizard
  7. **vCenter Settings** area
    - Configure the following:-
      - Under **\*Golden Image in vCenter**
        - Select **Browse**
    - In the **Select Golden Image** window
      - next to **LinuxMaster-1a**
        - select the **radio button**
    - Select **Submit**

**Default Image**

Asterisk (\*) denotes required field

\* Golden Image in vCenter

/Region01A/vm/LinuxMaster-1a Browse

\* Snapshot

Browse

**Virtual Machine Location**

**Select Default Image** ×

Golden Image in vCenter /Region01A/vm/LinuxMaster-1a

The Carbon Black scan percentage reflects the value at the time the snapshot was taken. Before cloning the snapshot, run the Carbon Black scan in the golden image to the recommended 100%.

Snapshot Details ↻

| Snapshot   | Time Created         | Carbon Black Scan (% Complete) | Description | Path   |
|--|----------------------|--------------------------------|-------------|--------|
| <input checked="" type="radio"/> Horizon Linux Agent | 03/07/2023, 12:57 PM |                                |             | /Horiz |

Rows per page: 20 1 - 1 of 1 row(s)

Submit Cancel

16. In the **Add Farm** wizard
  7. **vCenter Settings** area
    - Configure the following:-
      - Under **\*Snapshot**
        - Select **Browse**
    - In the **Select Default Image** window
      - next to **Horizon Linux Agent**
        - select the **radio button**
    - Select **Submit**



**Default Image**

Asterisk (\*) denotes required field

\* Golden Image in vCenter

/Region01A/vm/LinuxMaster-1a Browse

\* Snapshot

/Horizon Linux Agent Browse

**Virtual Machine Location**

\* VM Folder Location Browse

**VM Folder Location**

Select the folder to store the VM.

☐ Show All Folders ⓘ

Region01A

- Discovered virtual machine
- RDSHFARM01
- VCLS

Submit

17. In the **Add Farm** wizard
  7. **vCenter Settings** area
    - Configure the following:-
      - Under **\*VM Folder Location**
        - Select **Browse**
      - In the **VM Folder Location** window
        - select the **Region01A**
    - Select **Submit**

\* VM Folder Location

/Region01A/vm [Browse](#)

Resource Settings

\* Cluster

[Browse](#)

\* Resource Pool

[Browse](#)

Select Cluster

Select a cluster on which to run the

Region01A

Bangalore

[Submit](#) [Cancel](#)

18. In the **Add Farm** wizard
  7. **vCenter Settings** area
    - Configure the following:-
      - Under **\*Cluster**
        - Select **Browse**
      - In the **Select Cluster** window
        - select the **Bangalore**
    - Select **Submit**

Resource Settings

\* Cluster

/Region01A/host/Bangalore Browse

\* Resource Pool

Browse

\* Datastores

Click Resource to select

Resource Pool

Select a resource pool to use for this Farm.

Bangalore

Submit Cancel

19. In the **Add Farm** wizard
  7. **vCenter Settings** area
    - Configure the following:-
      - Under **\*Resource Pool**
        - Select **Browse**
      - In the **Resource Pool** window
        - select the **Bangalore**
    - Select **Submit**

**Resource Pool**

/Region01A/host/Bangalore/Resources Browse

**Datastores**

Click Browse to select. Browse

**Network**

**Select Instant Clone Datastores**

Select the instant clone datastores to use for this Automa can be selected.

| Datastore                                      | Capacity (GB) | F |
|--|---------------|---|
| <input checked="" type="checkbox"/> CorpLun01a | 599.75        | 2 |

**Warning** X

You have selected a local datastore for your instant clone farm. Please note the following:

1. If you are deploying instant clones on a single ESXi host with local datastore, you must configure a cluster containing that single ESXi host. If you have a cluster of two or more ESXi hosts with local datastores, select the local datastore from each of the hosts in the cluster. Instant clone creation fails otherwise.
2. VMotion, VMware High Availability, and vSphere Distributed Resource Scheduler (DRS) are not supported.
3. We recommend that you use direct Solid-State Disks (SSDs). Local spinning-disk drives may not have the throughput required by instant clones.

Cancel OK

20. In the **Add Farm** wizard
  7. **vCenter Settings** area
    - Configure the following:-
      - Under **\*Datastores**
        - Select **Browse**
    - In the **Resource Pool** window
      - next to **CorpLun01a**
        - select the **radio button**
    - Select **Submit**
    - In the **Warning** window
      - Select **OK**

Add Farm - RDSH25-01a

- Type
- vCenter Server
- Storage Optimization
- Identification and Settings
- Load Balancing Settings
- Provisioning Settings
- vCenter Settings**
- Guest Customization
- Ready to Complete

**Default Image**

Asterisk (\*) denotes required field

- \* Golden Image in vCenter  
/Region01A/vm/Discovered virtual machine/RDSH-01a Browse
- \* Snapshot  
/baseline Browse

**Virtual Machine Location**

- \* VM Folder Location  
/Region01A/vm Browse

**Resource Settings**

- \* Cluster  
/Region01A/host/Bangalore Browse
- \* Resource Pool  
/Region01A/host/Bangalore/Resources Browse
- \* Datastores  
1 selected Browse
- Network  
Golden image network selected Browse

**VM Compute Profile Settings**

Review the default VM Compute Profile settings and modify if needed.

- \* CPU  
2 ⓘ
- \* RAM  
4 GB
- Cores per Socket  
2 ⓘ

Cancel Previous Next

21. In the **Add Farm** wizard

7. **vCenter Settings** area

- Leave the **VM Compute Profile Settings** as default
- Review your configurations
- In the bottom right corner
  - Select **Next**

Add Farm - RDSH25-01a

Asterisk (\*) denotes required field

Domain: euc-livefire.com(administrator@euc-livefire.com)

\* AD Container: CN=Computers

☐ Allow Reuse of Existing Computer Accounts ⓘ

Image Publish Computer Account

Submit

22. In the **Add Farm** wizard
8. **Guest Customization** area
- Configure the following:-
    - Under **\*AD Container**
      - Select **Browse**
    - In the **AD Container** window
      - expand **OU=Corp**
        - select **OU=Computers, OU=Corp**
  - Select **Submit**

Add Farm - RDSH25-01a

Asterisk (\*) denotes required field

Domain: euc-livefire.com(administrator@euc-livefire.com)

\* AD Container: OU=Computers,OU=Corp

☒ Allow Reuse of Existing Computer Accounts ⓘ

Image Publish Computer Account

23. In the **Add Farm** wizard

8. **Guest Customization** area

- Configure the following:-
  - Under **\*AD Container**
    - Next to **Allow Reuse of Existing Computer Accounts**
      - Select the **CHECKBOX**
- In the bottom right corner
  - Select **Next**

The screenshot shows the 'Add Farm - RDSH25-01a' wizard. The left sidebar has a vertical list of steps: Type, vCenter Server, Storage Optimization, Identification and Settings, Load Balancing Settings, Provisioning Settings, vCenter Settings, Guest Customization, and Ready to Complete. 'Ready to Complete' is the active step. The main panel displays the following settings:

| Field  | Value                       |
|--|-----------------------------|
| ID   | RDSH25-01a                  |
| Description                                    | -                           |
| Access Group                                   | /                           |
| Farm Settings                                  |                             |
| Default Display Protocol                       | VMware Blast                |
| Allow Users to Choose Protocol                 | Yes                         |
| 3D Renderer                                    | Manage using vSphere Client |
| Pre-launch Session Timeout (Applications Only) | Never                       |
| Empty Session Timeout (Applications Only)      | Immediate                   |
| When Timeout Occurs                            | Log Off                     |
| Logout Disconnected Sessions                   | Immediate                   |
| Bypass Session Timeout                         | Disabled                    |
| Allow Session Collaboration                    | Disabled                    |
| Load Balancing Settings                        |                             |
| Use Custom Script                              | Disabled                    |
| Include Session Count                          | Enabled                     |
| CPU Usage Threshold                            | 0                           |

At the bottom right, there are three buttons: 'Cancel', 'Previous', and 'Submit'. The 'Submit' button is highlighted with a red circle.

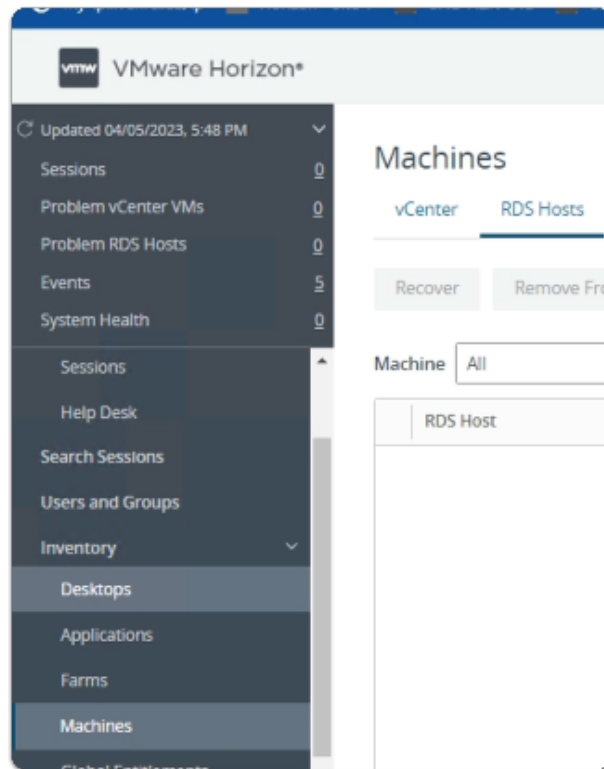
24. In the **Add Farm** wizard

9. **Ready to Complete** window

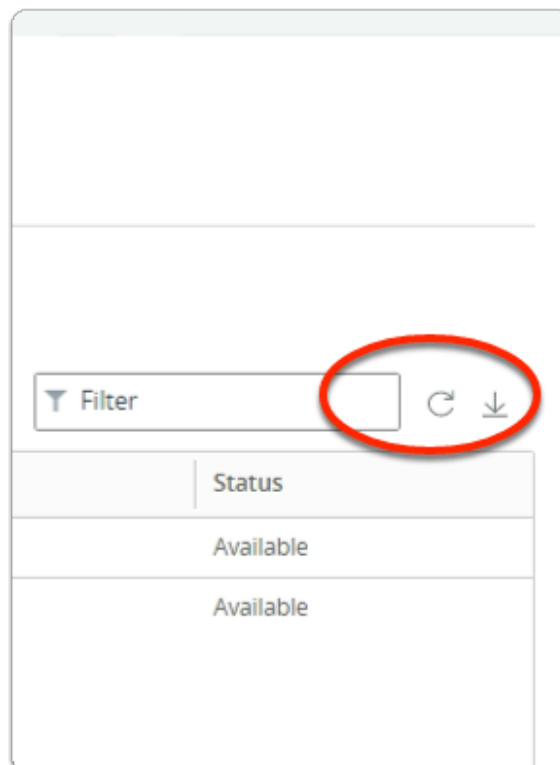
- Review your configuration
- Select **Submit**



Wait for at least 20 minutes for the provisioning to complete



25. In VMware Horizon Admin Console
- under **Inventory**
    - select **Machines**
      - In the **Machines** area
        - select the **RDS Hosts** tab





26. In the **Machines / RDS** area

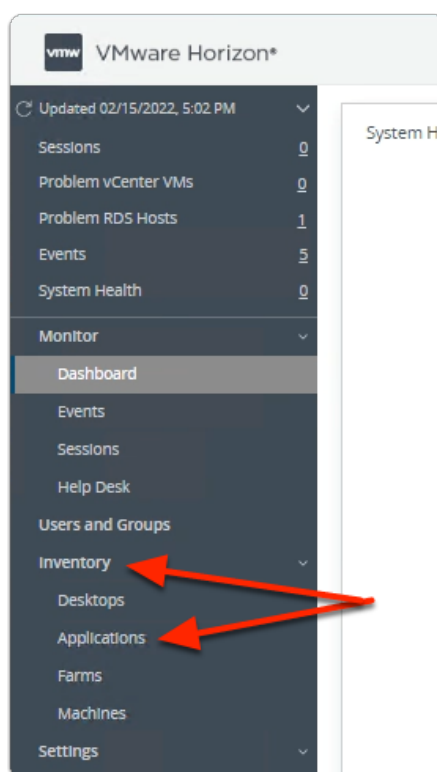
- **scroll** to the right
- wait & keep refreshing the page until the **Status** says **Available** for both servers

! There is a known bug which we are trying to resolve where both the newly created VMs may have the duplicate IP. However as a workaround, we would need to remove the network adaptor and re-add them for both the newly created VMs

## Part 3. Configuring Horizon Linux Multi-session published applications in VMware Horizon

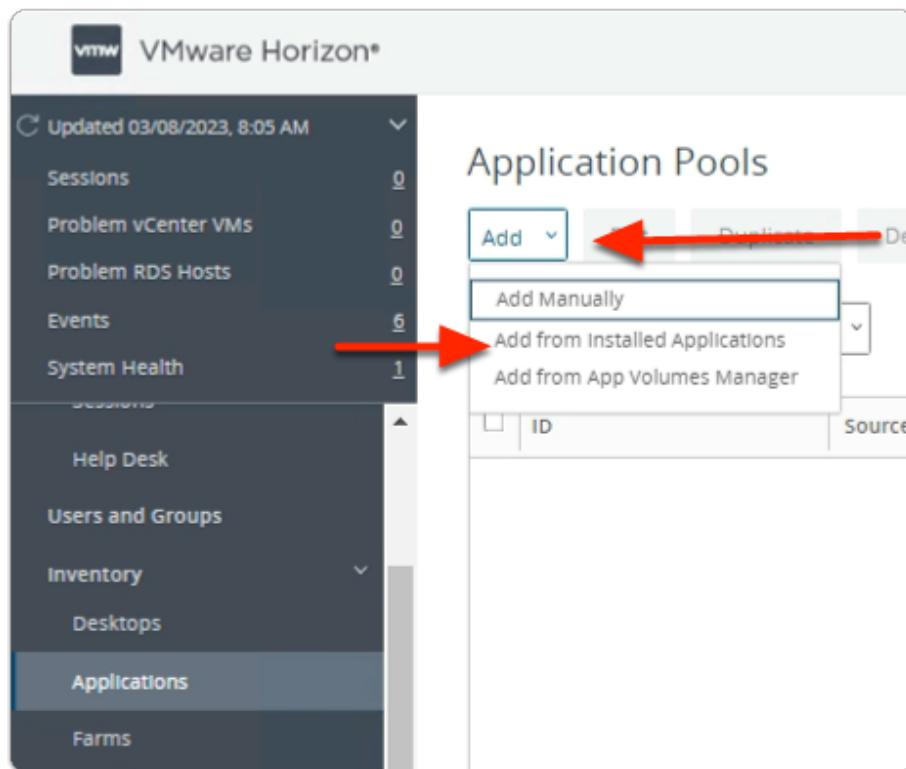
We first publish applications in Site 1 and repeat the process in Section 2 for Site 2

### Section 1. Linux Multi-session assignments with VMware Horizon for Site 1

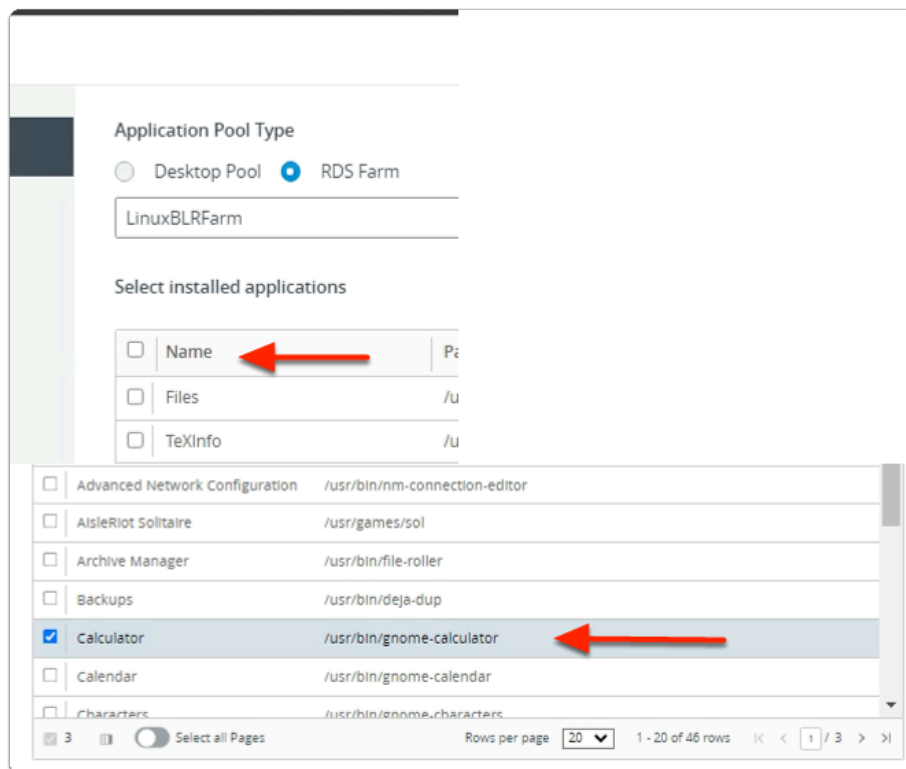


1. In the Horizon Administration Console

- Select **Inventory** > **Applications**

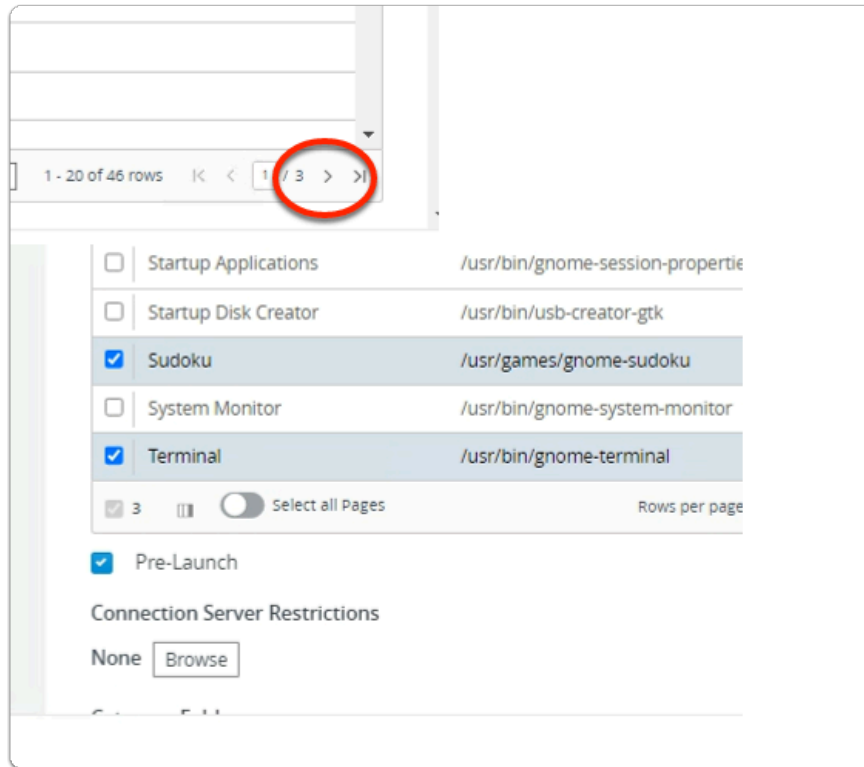


2. In the **Application Pools** area
  - Select **Add**
  - Select **Add from installed Applications**

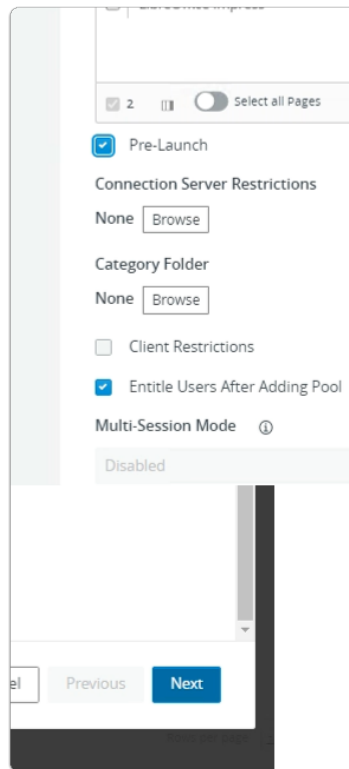


3. In the **Add Application Pool** wizard
  1. **Select Applications** area

- To display alphabetically
  - select **Name**
- Under **Name**
  - Select the **checkbox** next to:-
    - **Calculator**



4. In the **Add Application Pool** wizard
  1. **Select Applications** area
    - To move to page 2 of the menu
      - In the bottom right,
        - select **the arrow**
    - Under **Name**
      - **select**
        - **Sudoku**
        - **Terminal**



5. In the **Add Application Pool** wizard
  - **Select Applications** area
    - **scroll down**
    - select the **checkbox** next to:-
      - **Pre-Launch**
    - select **Next**

**Add Application Pool**

✓ Select Applications

2 Edit Applications

Edit the ID and display name for selected applications.

| ID         | Display Name | Path     |
|------------|--------------|----------|
| Terminal   | Terminal     | /usr/bin |
| Calculator | Calculator   | /usr/bin |
| Sudoku     | Sudoku       | /usr/ga  |

Cancel Previous Submit

6. In the **Add Application Pool** wizard
  2. **Edit Applications** area
    - Select **Submit**

**Add Entitlements**

Add new users and groups who can use the selected pool(s).

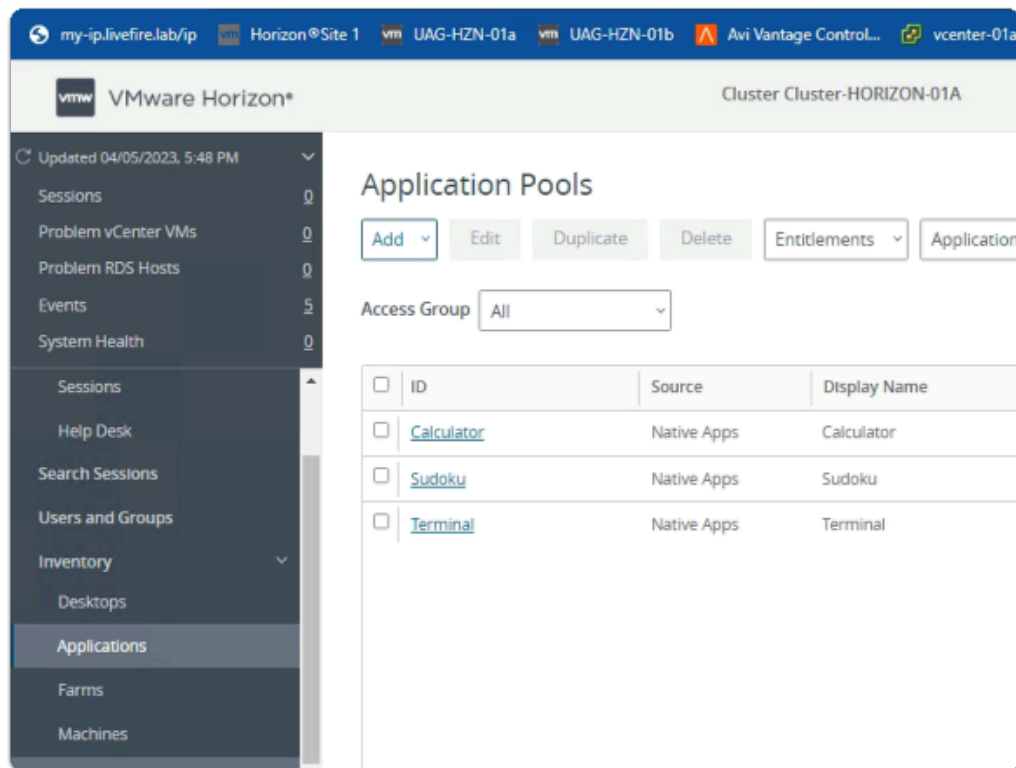
Add Remove

| Name                  | Domain | Email |
|-----------------------|--------|-------|
| No records available. |        |       |

Cancel OK

7. In the **Add Entitlements** window
  - select **Cancel**

- i In a later exercise, Instead of creating a local Entitlement, we will create a single multi-site Global Entitlement



## 8. In the **Application Pools** area

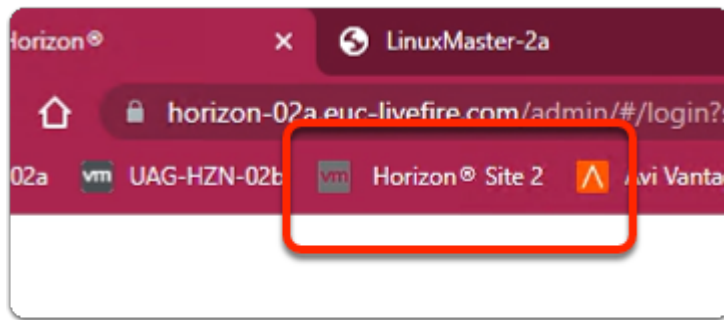
- Note the Site 1 published Linux Multi-session applications

## Section 2. Linux Multi-session assignments with VMware Horizon for Site 2



### 1. On your ControlCenter server

- from the **Taskbar**
  - select the **Site 2 Browser** Profile (red browser)

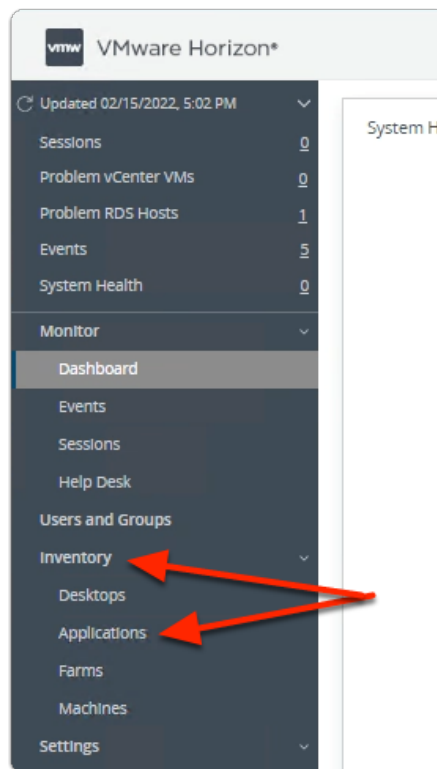


2. In the Site 2 browser profile
  - from the **Favourites bar**
    - select the **Horizon Site 2** shortcut

3. In **VMware Horizon login** page
  - in the **Username** area
    - enter **administrator**
  - in the **Password** area
    - enter **VMware1!**
  - select **Sign in**

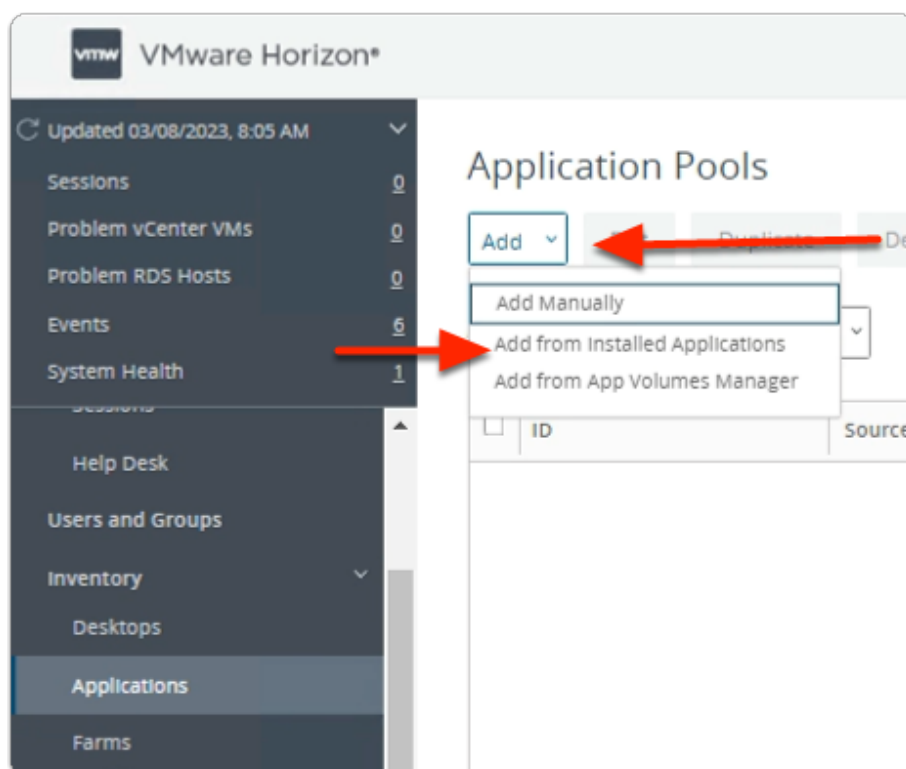


If login fails, note the message to REFRESH your browser and try again



4. In the Horizon Administration Console

- Select **Inventory** > **Applications**



5. In the **Application Pools** area

- Select **Add**
- Select **Add from installed Applications**



**Add Application Pool**

**1 Select Applications**
  
2 Edit Applications

**Application Pool Type**

☐ Desktop Pool
☒ RDS Farm

sea-FARM

**Select installed applications**

| <input type="checkbox"/> Name                           | Path                          |
|---|-------------------------------|
| <input type="checkbox"/> Additional Drivers             | /usr/bir                      |
| <input type="checkbox"/> Advanced Network Configuration | /usr/bin/nm-connection-editor |
| <input type="checkbox"/> AisleRiot Solitaire            | /usr/games/sol                |
| <input type="checkbox"/> Archive Manager                | /usr/bin/file-roller          |
| <input type="checkbox"/> Backups                        | /usr/bin/deja-dup             |
| <input checked="" type="checkbox"/> Calculator          | /usr/bin/gnome-calculator     |
| <input type="checkbox"/> Calendar                       | /usr/bin/gnome-calendar       |
| <input type="checkbox"/> Characters                     | /usr/bin/gnome-characters     |

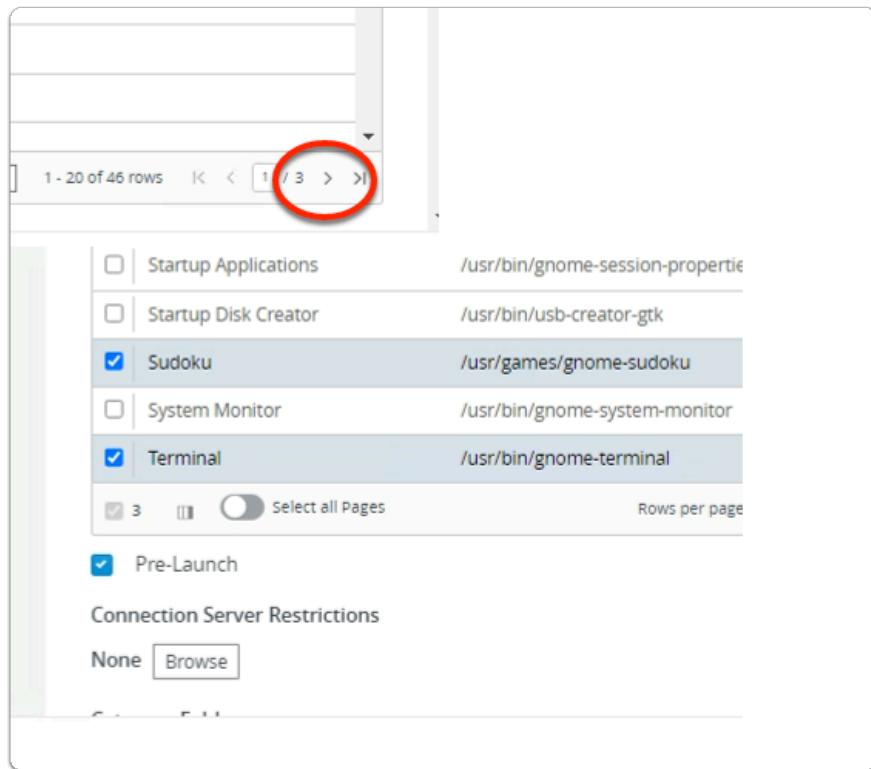
☒ 3
☐ Select all Pages

Rows per page: 20
1 - 20 of 46 rows

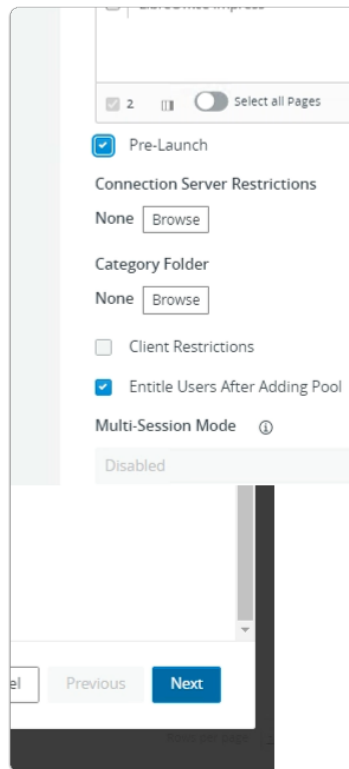
6. In the **Add Application Pool** wizard

1. **Select Applications** area

- To display alphabetically
  - select **Name**
- Under **Name**
  - Select the **checkbox** next to:-
    - Calculator**



7. In the **Add Application Pool** wizard
  1. **Select Applications** area
    - To move to page 2 of the menu
      - In the bottom right,
        - select **the arrow**
    - Under **Name**
      - **select**
        - **Sudoku**
        - **Terminal**



8. In the **Add Application Pool** wizard
  - **Select Applications** area
    - **scroll down**
    - select the **checkbox** next to:-
      - **Pre-Launch**
    - select **Next**

**Add Application Pool**

✓ Select Applications

2 Edit Applications

Edit the ID and display name for selected applications.

| ID         | Display Name | Path     |
|------------|--------------|----------|
| Terminal   | Terminal     | /usr/bin |
| Calculator | Calculator   | /usr/bin |
| Sudoku     | Sudoku       | /usr/ga  |

Cancel Previous Submit

9. In the **Add Application Pool** wizard
  2. **Edit Applications** area
    - Select **Submit**

**Add Entitlements**

Add new users and groups who can use the selected pool(s).

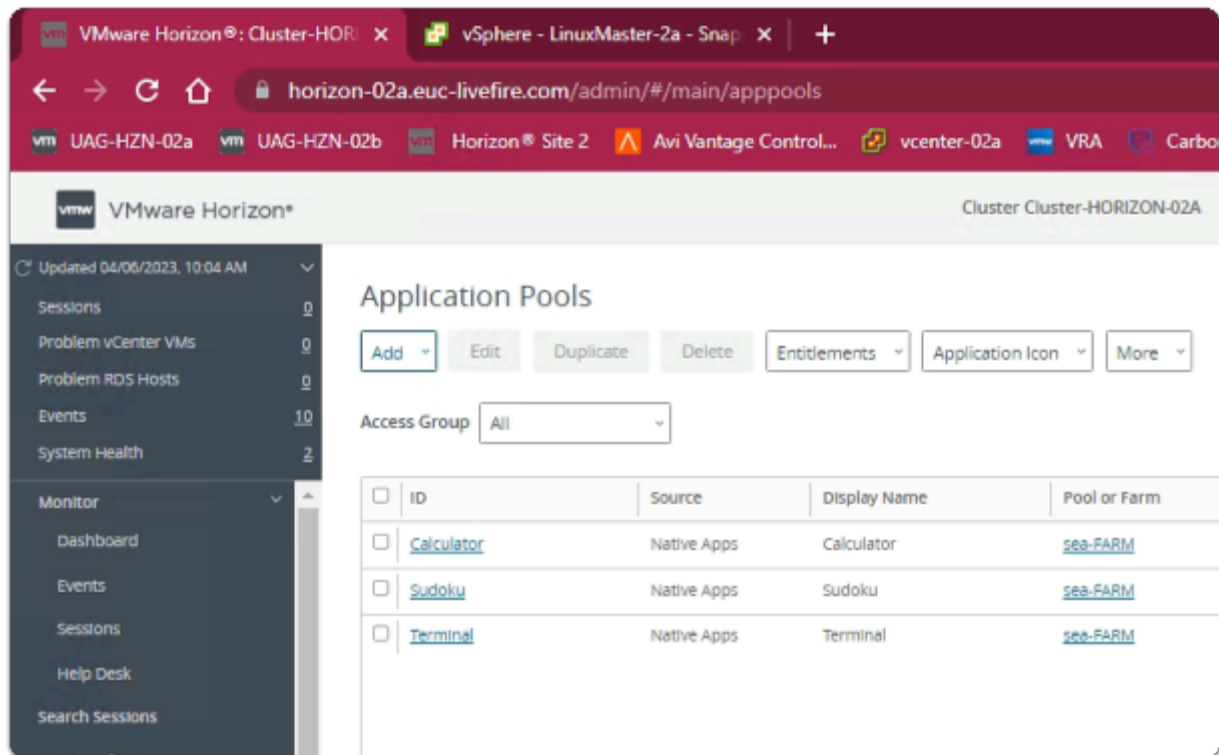
Add Remove

| Name                  | Domain | Email |
|-----------------------|--------|-------|
| No records available. |        |       |

Cancel OK

10. In the **Add Entitlements** window
  - select **Cancel**

- i** In a later exercise, Instead of creating a local Entitlement, we will create a single multi-site Global Entitlement



11. In the **Application Pools** area

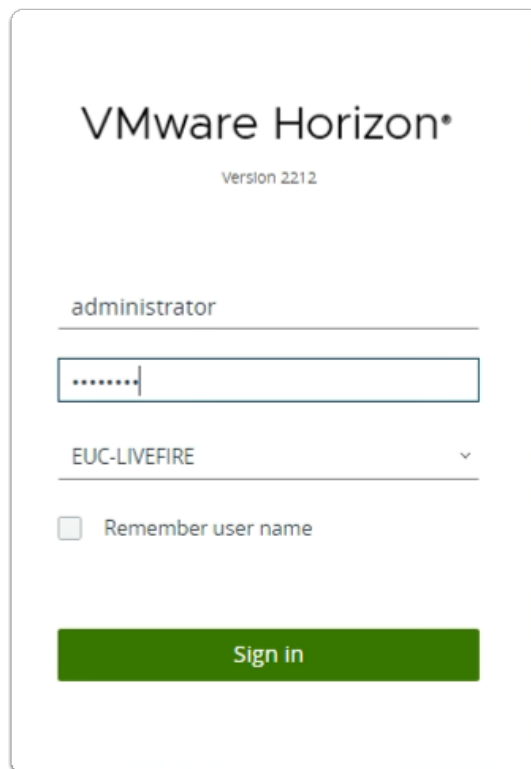
- Note the Site 2 published Linux Multi-session applications

**💡** In preparation for Part 4, switch to your Horizon Admin Console on Site 1

## Part 4. Configuring Global Entitlements for the Multi-session Assignments

In a multi-site setup, USABILITY of Enterprise applications can be critical. Users require a seamless user experience. As part of Cloud Pod Architecture we are able to setup Global Entitlements that give administrators the ability, to entitle users to Applications and Desktops in a multi-site scenario. This makes the application more USABLE in an Enterprise. In Part 4, we fulfill the first steps in setting up a multi-site solution

## Section 1. Configuring Global Entitlements for Published Applications on Site 1



VMware Horizon®

Version 2212

administrator

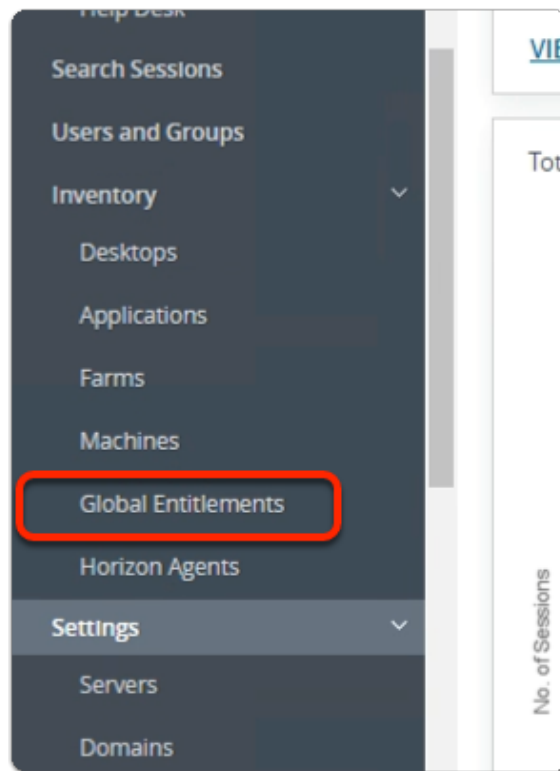
.....

EUC-LIVEFIRE

☐ Remember user name

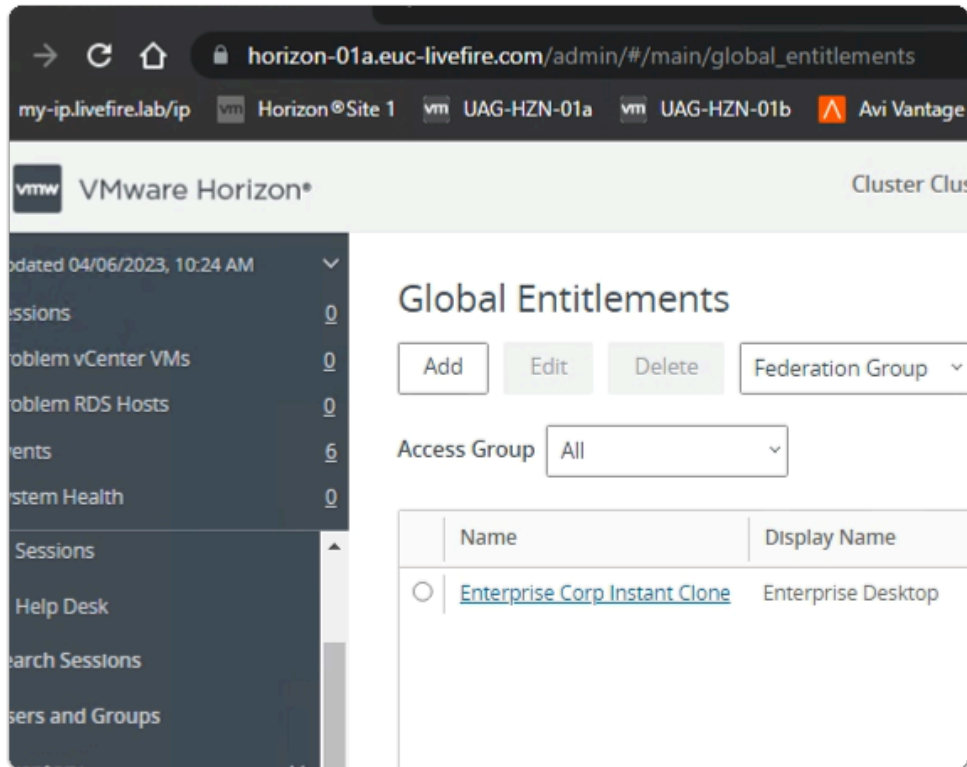
Sign in

1. On your **Site 1 Browser**
  - **Horizon Admin Console** login
    - In the **Username** area
      - enter **administrator**
    - In the **Password** area
      - enter **VMware1!**
    - select **Sign in**

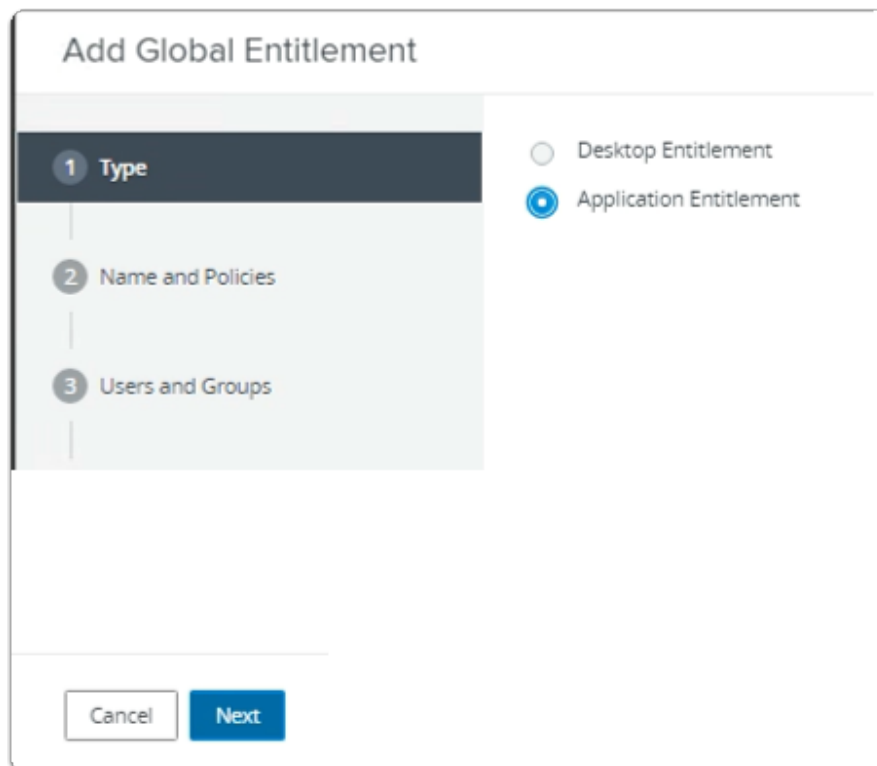


2. In the Horizon Admin console
  - **Menu** pane
    - below **Inventory**
      - select **Global Entitlements**

## Step 1. Adding Calculator to Global Entitlements for Site 1



1. In the Global Entitlements area
  - select **Add**





2. In the **Add Global Entitlement** window
  - next to :
    1. **Type**
      - Next to **Application entitlement** a
        - select the **radio button**
  - In the bottom right-corner
    - select **Next**

The screenshot shows the 'Add Global Entitlement' window. On the left, a vertical progress bar has four steps: 1. Type (completed with a green checkmark), 2. Name and Policies (highlighted in dark blue), 3. Users and Groups, and 4. Ready to Complete. On the right, the 'General' tab is active. It contains a red note: 'Asterisk (\*) denotes required field'. Below this, the 'Name' field is required and contains the text 'Enterprise Corp Calculator'. The 'Display Name' field contains the text 'Calculator'. The 'Federation Access Group' field has a help icon and contains a forward slash '/'. The 'Description' field is empty.

3. In the **Add Global Entitlement** window
  - **next to :**
    2. **Name and Policies**
      - under **Name**
        - enter **Enterprise Corp Calculator**
      - under **Display Name**
        - enter **Calculator**

4. In the **Add Global Entitlement** window

- next to :

2. **Name and Policies**

- under **Policies** > **Scope**
  - select the **radio button**
    - **All Sites**
- under **Default Display Protocol**
  - from the **dropdown**
    - select **VMware Blast**
- below **Allow Users to Choose Protocol**
  - from the **dropdown**
    - select **NO**
- next to **Pre - Launch**
  - select the **Checkbox**
- In the bottom right-corner
  - select **Next**

**Add Global Entitlement**

1 Type

2 Name and Policies

**3 Users and Groups**

4 Ready to Complete

Add users or groups to the global entitlement.

Add Remove

| User Name |
|-----------|
| No        |

5. In the **Add Global Entitlement** window

- next to :

3. **Users and Groups**

- under **Add users or groups to the global entitlement**
- select **Add**

**Find User or Group**

Type ☒ Users ☒ Groups

Domain Entire Directory

Name/User Name Starts with Sales

Description Starts with

Find

| Name  | User Name              | Email | Description | In Folder                   |
|-------|------------------------|-------|-------------|-----------------------------|
| Sales | Sales/euc-livefire.com |       |             | euc-livefire.com/Corp/Sales |

1 Deselect all Pages Rows per page 20 1 of 1 row(s)

Cancel OK

6. In the **Find User or Group** window

- in line with **Name/User Name**
- next to **Starts with**
- enter **Sales**

- under **Description**
  - select **Find**
- under **Name**
  - next to **sales**
    - select the **checkbox**
- in the bottom right-corner
  - select **OK**

**Add Global Entitlement**

1 ✓ Type

2 ✓ Name and Policies

3 **Users and Groups**

4 Ready to Complete

Add users or groups to the global entitlement.

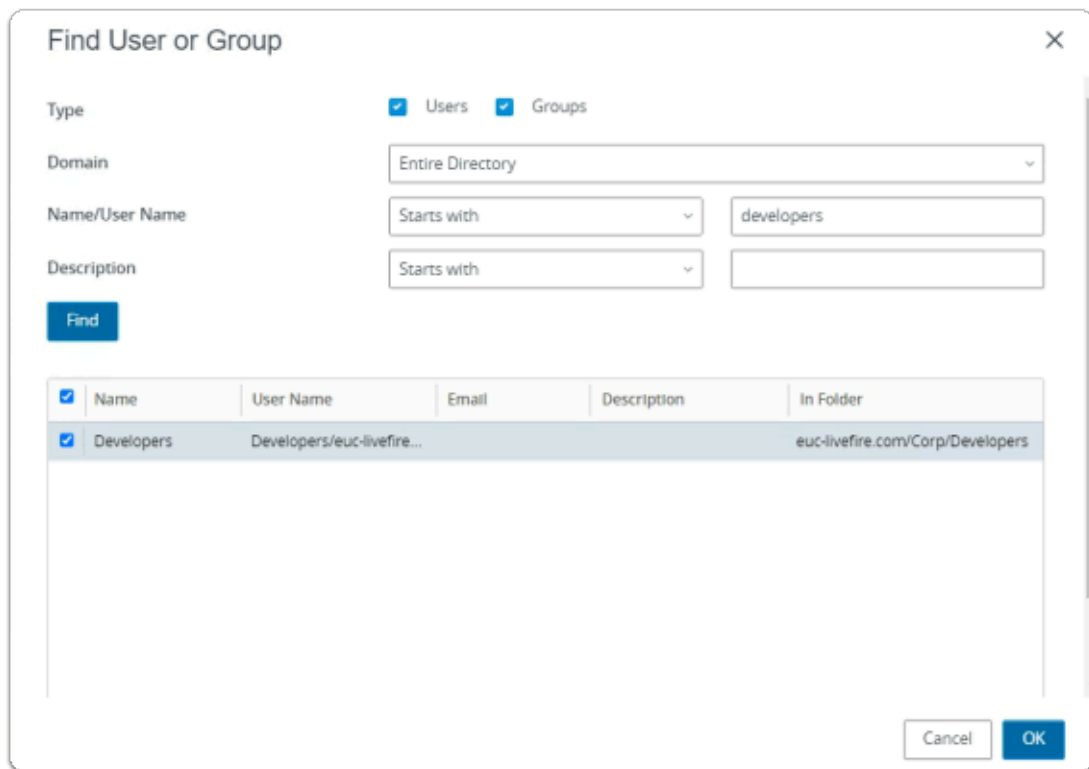
**Add** Remove

| <input type="checkbox"/> User Name | Domains          | Email |
|------------------------------------|------------------|-------|
| <input type="checkbox"/> Sales     | euc-lhelfire.com |       |

☐ Select all Pages Rows per page: 20 1 - 1 of 1 row(s)

Cancel Previous **Next**

7. In the **Add Global Entitlement** window
- next to :
    - **Users and Groups**
      - under **Add users or groups to the global entitlement**
  - select **Add**



8. In the **Find User or Group** window

- in line with **Name/User Name**
  - next to **Starts with**
    - enter **Developers**
- under **Description**
  - select **Find**
- under **Name**
  - next to **sales**
    - select the **checkbox**
- in the bottom right-corner
  - select **OK**

**Add Global Entitlement**

✓ Type

✓ Name and Policies

**3 Users and Groups**

4 Ready to Complete

Add users or groups to the global entitlement.

[Add](#) [Remove](#)

| <input type="checkbox"/> | User Name  | Domains          | Email |
|--------------------------|------------|------------------|-------|
| <input type="checkbox"/> | Sales      | euc-liveware.com |       |
| <input type="checkbox"/> | Developers | euc-liveware.com |       |

☐ Select all Pages Rows per page: 20 1 - 2 of 2 rows

[Cancel](#) [Previous](#) [Next](#)

9. In the **Add Global Entitlement** window
- select **Next**

**Add Global Entitlement**

✓ Type

✓ Name and Policies

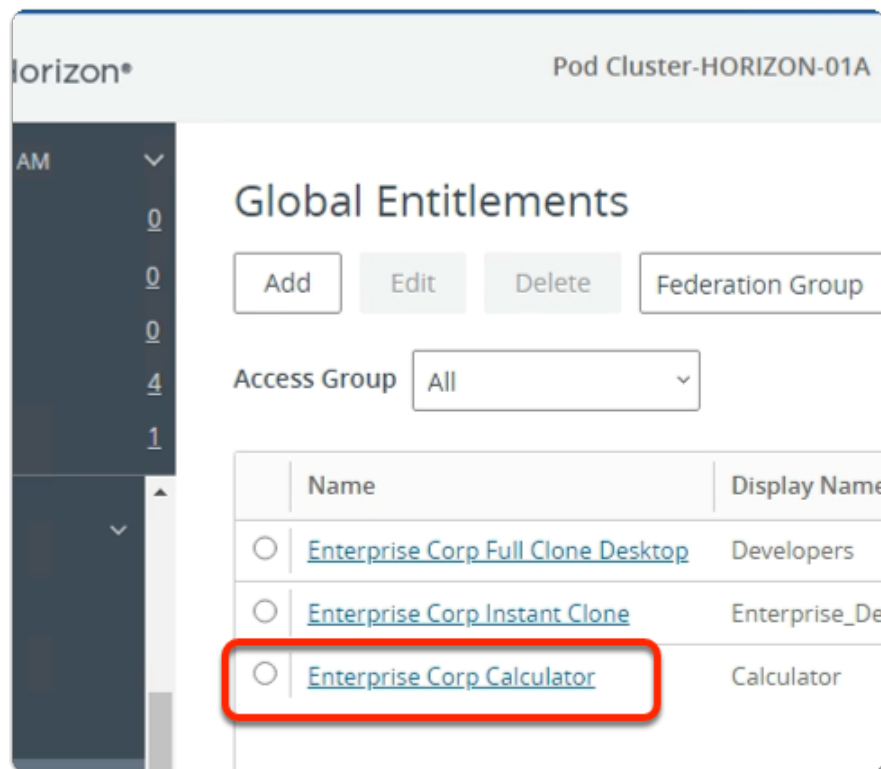
✓ Users and Groups

**4 Ready to Complete**

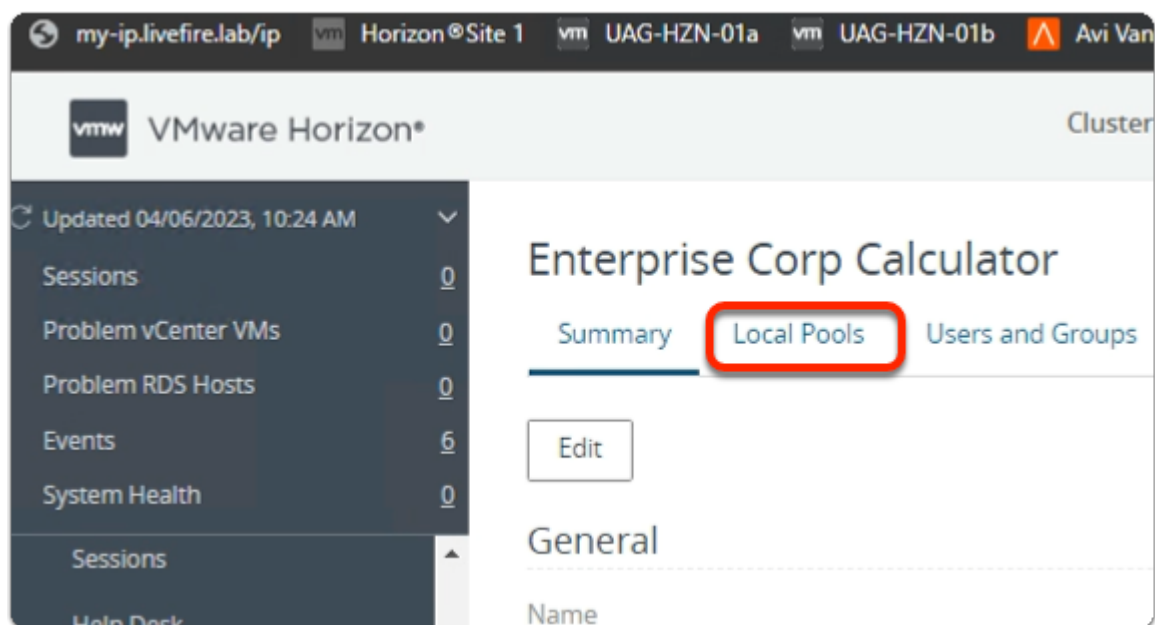
|   |                            |
|---|----------------------------|
| Name                                      | Enterprise Corp Calculator |
| Display Name                              | Calculator                 |
| Federation Access Group                   | /                          |
| Connection Server Restrictions            | None                       |
| Category Folder                           | None                       |
| User Assignment                           | Floating                   |
| Scope                                     | All Sites                  |
| Use Home Site                             | Disabled                   |
| Automatically Clean Up Redundant Sessions | Disabled                   |
| Default Display Protocol                  | VMware Blast               |
| Allow Users to Choose Protocol            | Yes                        |

[Cancel](#) [Previous](#) [Finish](#)

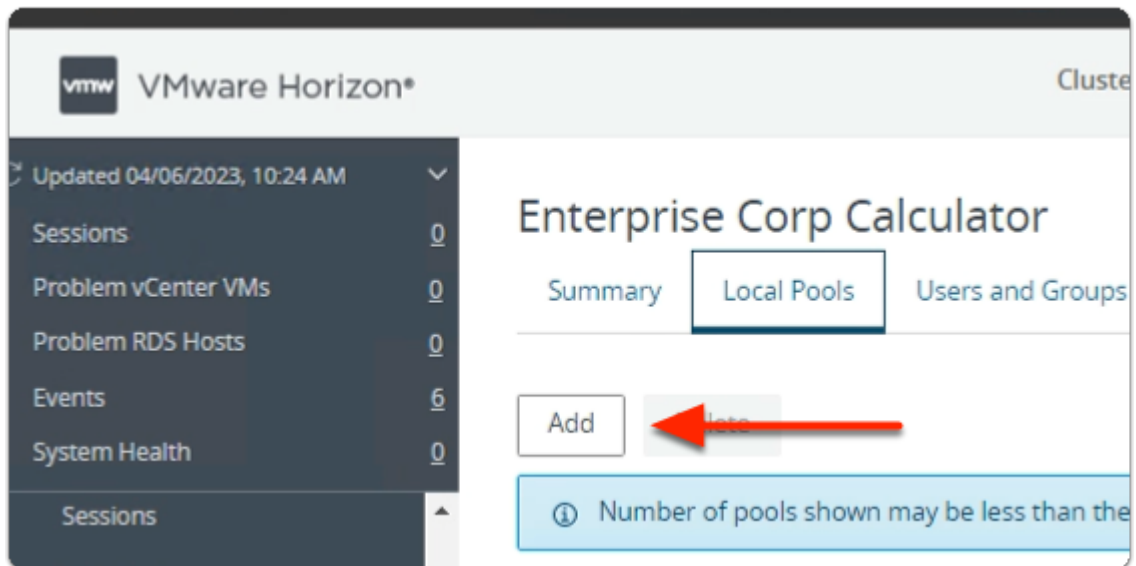
10. In the **Add Global Entitlement** window
4. **Ready to Complete** section
- in the bottom right-corner
  - select **Finish**



11. In the Global Entitlements area
- select **Enterprise Corp Calculator**

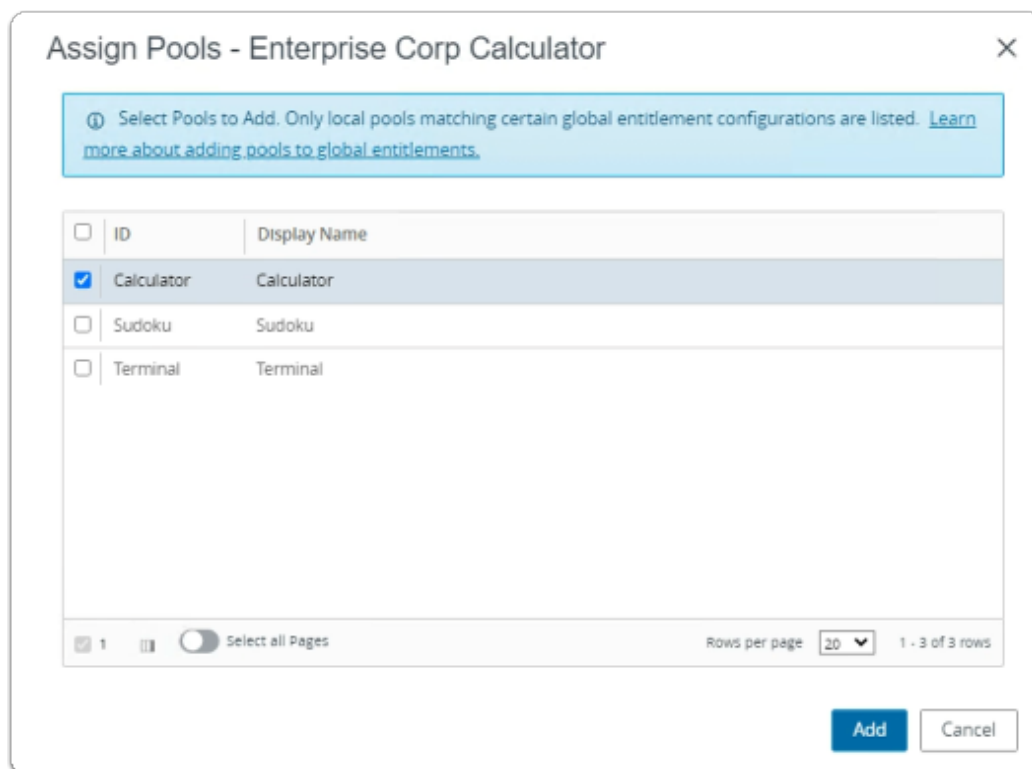


12. In the **Enterprise Corp Calculator** window
- select the **Local Pools** tab



13. In the **Enterprise Corp Calculator** window

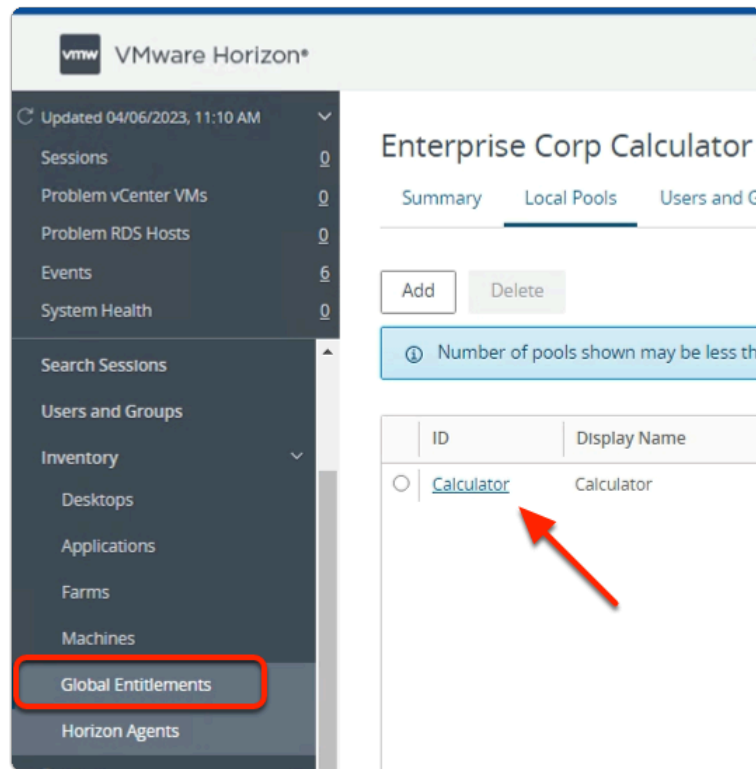
- In the **Local Pools** tab area
- select **Add**



14. In the **Assign Pools - Enterprise Corp Calculator** window

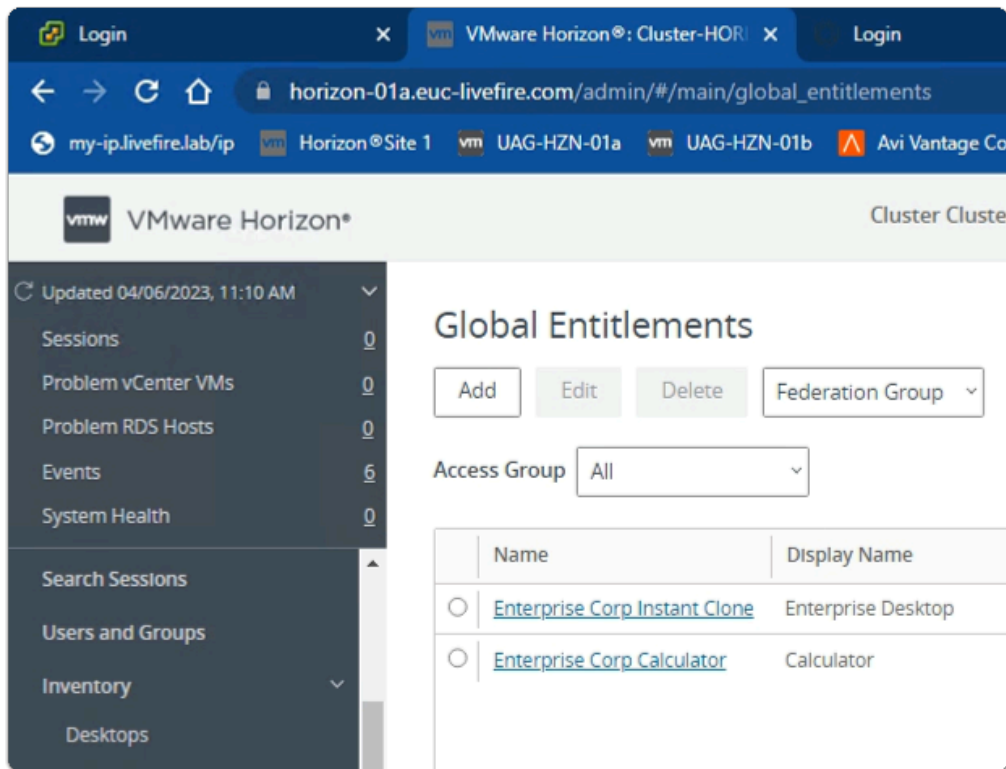
- under **ID**
  - next to **Calculator**
    - select the **checkbox**
- select **Add**



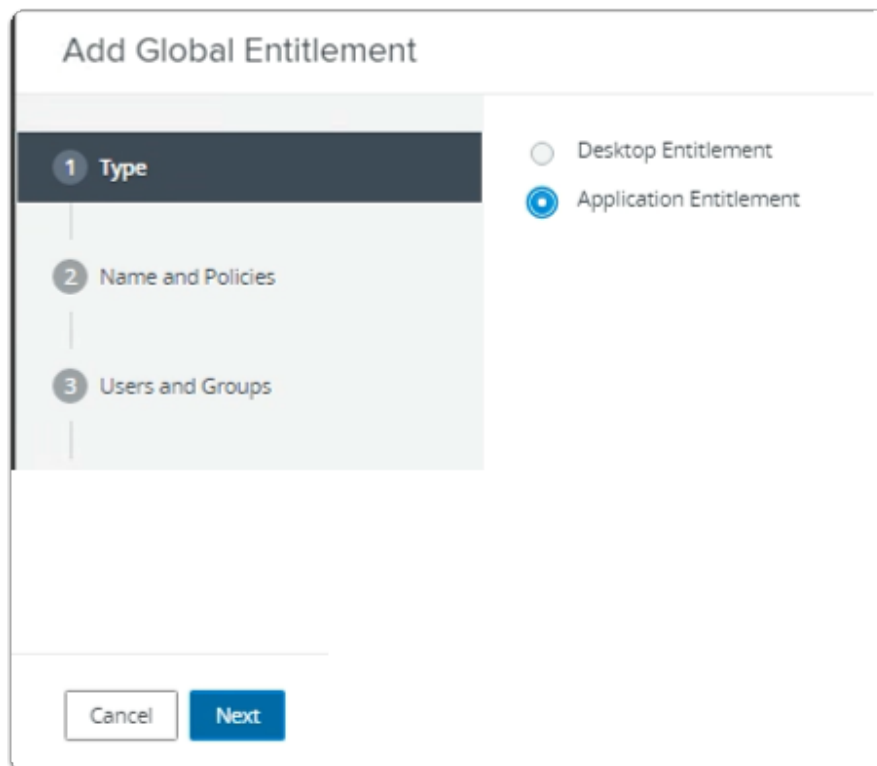


15. In the **VMware Horizon Admin** console
- Note your Global Entitlement now has a local assignment
    - called **Calculator**
  - In menu pane
    - under **Inventory**
      - select **Global Entitlements**

## Step 2. Adding Sudoku to Global Entitlements for Site 1



1. In the **Global Entitlements** area
  - select **Add**



2. In the **Add Global Entitlement** window
  - next to :
    1. **Type**
      - Next to **Application entitlementment**
        - select the **radio button**
  - In the bottom right-corner
    - select **Next**

The screenshot shows the 'Add Global Entitlement' window. On the left, a vertical progress bar has four steps: 1. Type (marked with a green checkmark), 2. Name and Policies (highlighted in dark blue), 3. Users and Groups, and 4. Ready to Complete. On the right, the 'General' section contains the following fields: 'Name' (with a red asterisk indicating it is required) containing 'Enterprise Corp Sudoku', 'Display Name' containing 'Sudoku', 'Federation Access Group' (with an information icon) containing '/', and 'Description' (empty).

3. In the **Add Global Entitlement** window
  - next to :
    2. **Name and Policies**
      - under **Name**
        - enter **Enterprise Corp Sudoku**
      - under **Display Name**
        - enter **Sudoku**

**Add Global Entitlement**

1 ✓ Type

2 ✓ **Name and Policies**

3 Users and Groups

4 Ready to Complete

**Scope**

☒ All Sites

☐ Within Site

☐ Within Pod

☐ Use Home Site

☐ Entitled user must have Home Site

☐ Automatically Clean Up Redundant Sessions

**Default Display Protocol**

VMware Blast

**Allow Users to Choose Protocol**

No

☒ Pre-Launch

☐ Client Restrictions

**Multi-Session Mode**

Disabled

Cancel Previous **Next**

4. In the **Add Global Entitlement** window

- next to :

2. **Name and Policies**

- under **Policies** > **Scope**
  - select the **radio button**
    - **All Sites**
- under **Default Display Protocol**
  - from the **dropdown**
    - select **VMware Blast**
- below **Allow Users to Choose Protocol**
  - from the **dropdown**
    - select **NO**
- next to **Pre - Launch**
  - select the **Checkbox**
- In the bottom right-corner
  - select **Next**

**Add Global Entitlement**

1 Type

2 Name and Policies

**3 Users and Groups**

4 Ready to Complete

Add users or groups to the global entitlement.

Add Remove

☐ User Name

No

5. In the **Add Global Entitlement** window

- next to :

3. **Users and Groups**

- under **Add users or groups to the global entitlement**
- select **Add**

**Find User or Group**

Type ☒ Users ☒ Groups

Domain

Name/User Name

Description

**Find**

| <input checked="" type="checkbox"/> | Name  | User Name              | Email | Description | In Folder                   |
|-------------------------------------|-------|------------------------|-------|-------------|-----------------------------|
| <input checked="" type="checkbox"/> | Sales | Sales/euc-livefire.com |       |             | euc-livefire.com/Corp/Sales |

☐ 1 ☐ Deselect all Pages Rows per page 20 1 of 1 row(s)

Cancel OK

6. In the **Find User or Group** window

- in line with **Name/User Name**
- next to **Starts with**
- enter **Sales**

- under **Description**
  - select **Find**
- under **Name**
  - next to **sales**
    - select the **checkbox**
- in the bottom right-corner
  - select **OK**

**Add Global Entitlement**

1 ✓ Type

2 ✓ Name and Policies

3 **Users and Groups**

4 Ready to Complete

Add users or groups to the global entitlement.

**Add** Remove

| <input type="checkbox"/> User Name | Domains         | Email |
|------------------------------------|-----------------|-------|
| <input type="checkbox"/> Sales     | euc-lhcfire.com |       |

☐ Select all Pages Rows per page: 20 1 - 1 of 1 row(s)

Cancel Previous **Next**

7. In the **Add Global Entitlement** window
- next to :
    - **Users and Groups**
      - under **Add users or groups to the global entitlement**
  - select **Add**

**Find User or Group**

Type ☒ Users ☒ Groups

Domain: Entire Directory

Name/User Name: Starts with: developers

Description: Starts with:

**Find**

| <input checked="" type="checkbox"/> | Name       | User Name                 | Email | Description | In Folder                       |
|-------------------------------------|------------|---------------------------|-------|-------------|---------------------------------|
| <input checked="" type="checkbox"/> | Developers | Developers/euc-livfire... |       |             | euc-livfire.com/Corp/Developers |

Cancel OK

8. In the **Find User or Group** window

- in line with **Name/User Name**
  - next to **Starts with**
    - enter **Developers**
- under **Description**
  - select **Find**
- under **Name**
  - next to **sales**
    - select the **checkbox**
- in the bottom right-corner
  - select **OK**

**Add Global Entitlement**

✓ Type

✓ Name and Policies

**3 Users and Groups**

4 Ready to Complete

Add users or groups to the global entitlement.

[Add](#) [Remove](#)

| <input type="checkbox"/> | User Name  | Domains          | Email |
|--------------------------|------------|------------------|-------|
| <input type="checkbox"/> | Sales      | euc-livefire.com |       |
| <input type="checkbox"/> | Developers | euc-livefire.com |       |

☐ Select all Pages
 Rows per page: 20 1 - 2 of 2 rows

[Cancel](#) [Previous](#) [Next](#)

9. In the **Add Global Entitlement** window

- select **Next**

**Add Global Entitlement**

✓ Type

✓ Name and Policies

✓ Users and Groups

**4 Ready to Complete**

|                                |                        |
|--------------------------------|------------------------|
| Federation Access Group        | /                      |
| Connection Server Restrictions | None                   |
| Category Folder                | None                   |
| Scope                          | All Sites              |
| Use Home Site                  | Disabled               |
| Default Display Protocol       | VMware Blast           |
| Allow Users to Choose Protocol | No                     |
| Multi-Session Mode             | Disabled               |
| Pre-Launch                     | Enabled                |
| Client Restrictions            | Disabled               |
| Users and Groups               | euc-livefire.com\Sales |

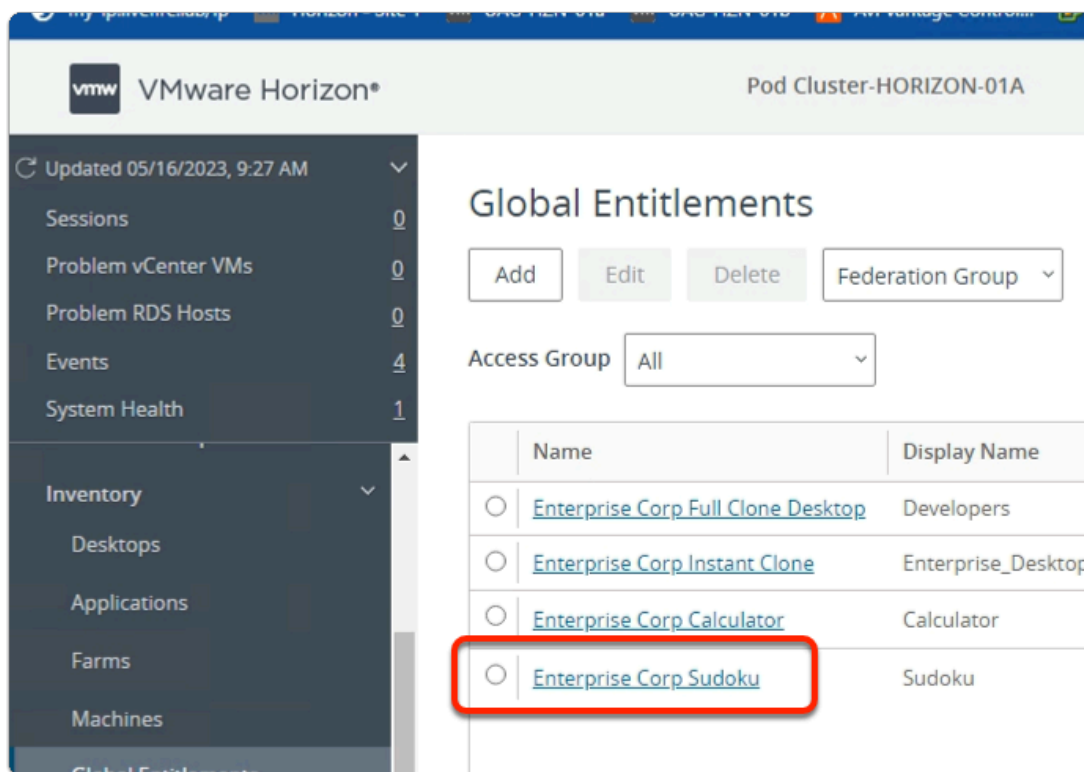
[Cancel](#) [Previous](#) [Finish](#)

10. In the **Add Global Entitlement** window

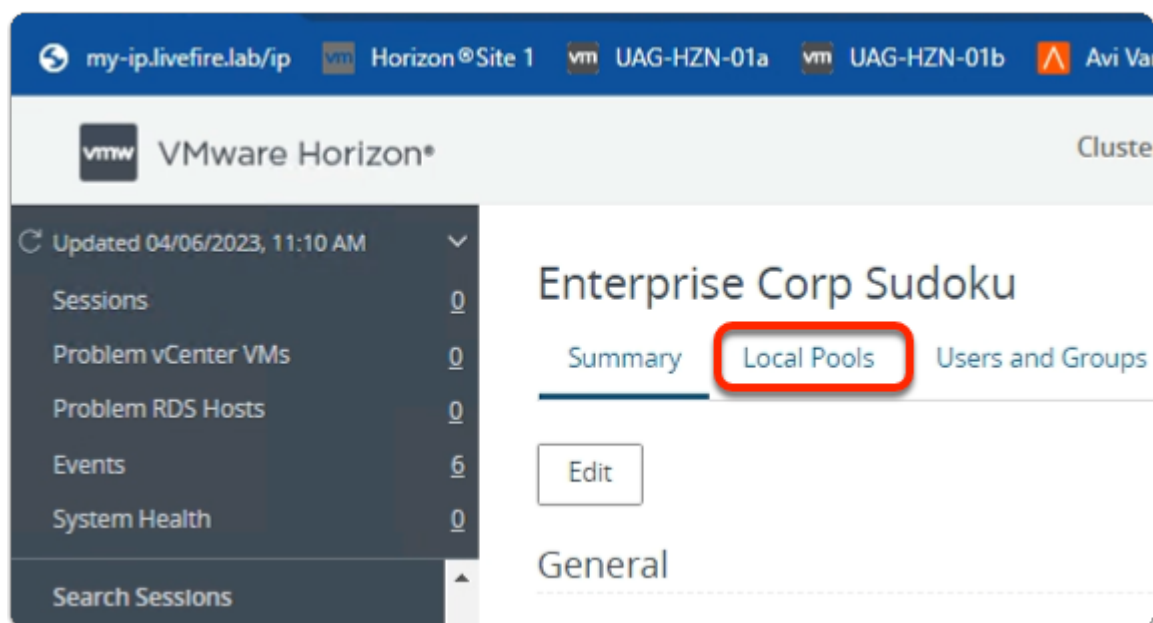
4. **Ready to Complete** section

- in the bottom right-corner
  - select **Finish**

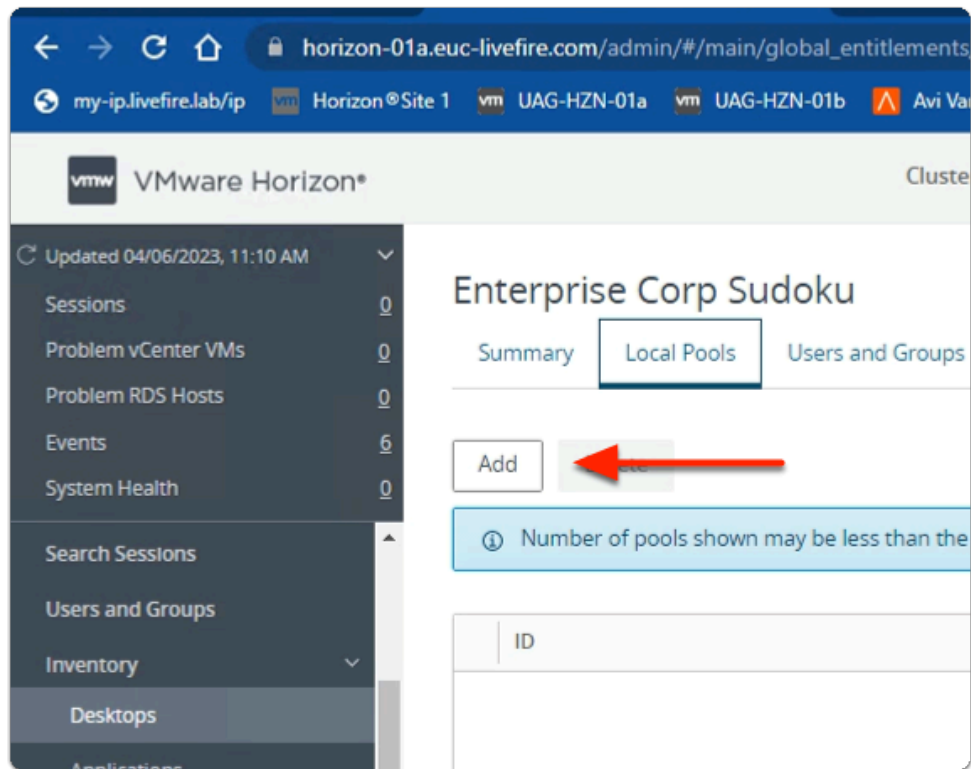




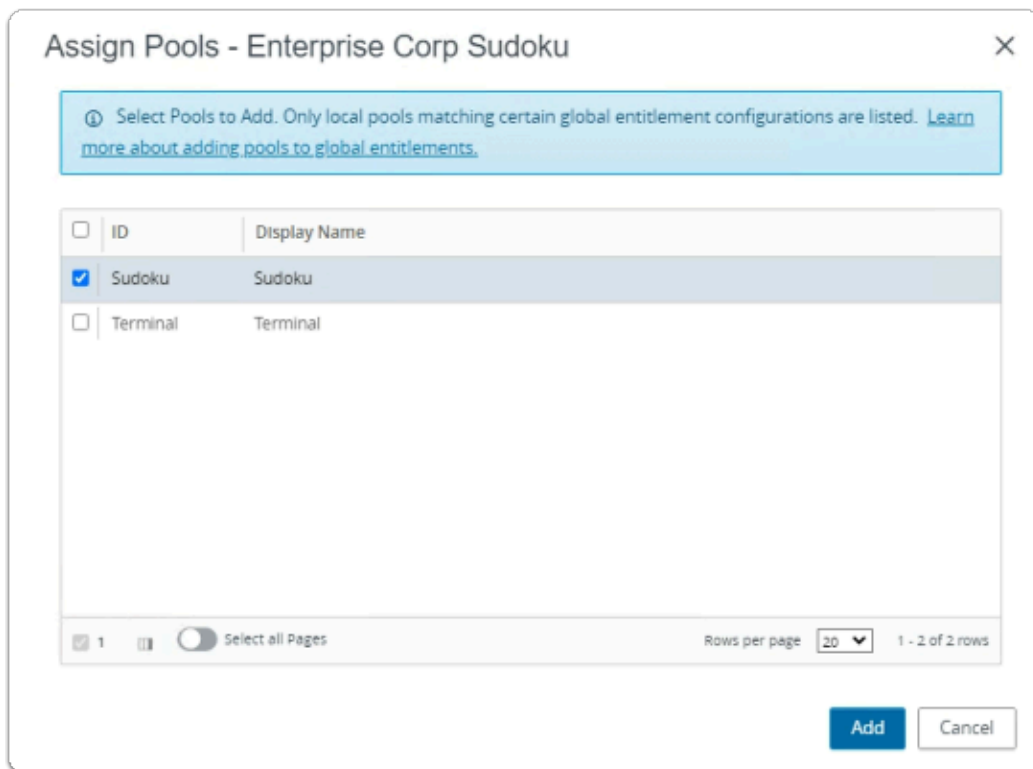
11. In the **Global Entitlements** window
- select **Enterprise Corp Sudoku**



12. In the **Enterprise Corp Sudoku** window
- select the **Local Pools** tab

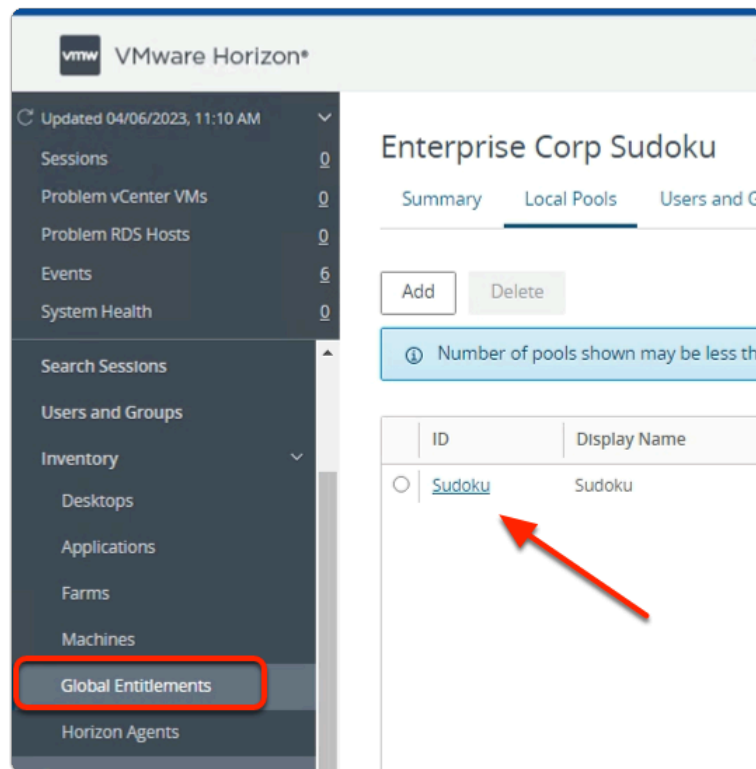


13. In the **Enterprise Corp Sudoku** window
  - In the **Local Pools** tab area
    - select **Add**



14. In the **Assign Pools - Enterprise Corp Sudoku** window
  - under **ID**

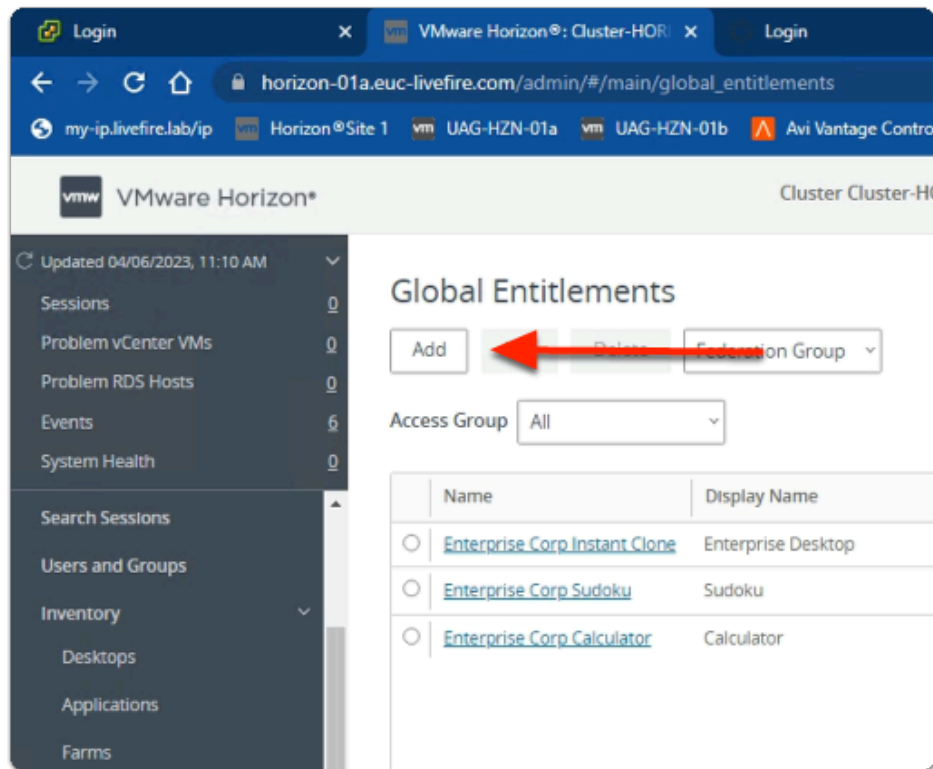
- next to **Sudoku**
  - select the **checkbox**
- select **Add**



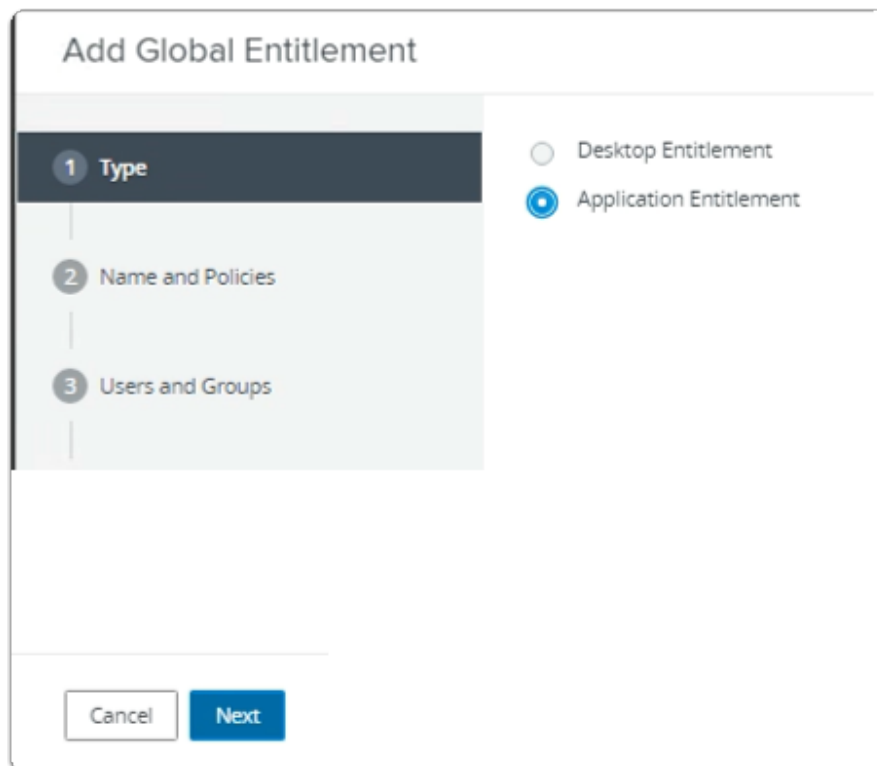
15. In the **VMware Horizon Admin** console

- Note your **Global Entitlement** now has a local assignment
- called **Sudoku**
- In menu pane
  - under **Inventory**
    - select **Global Entitlements**

## Step 3. Adding Terminal to Global Entitlements for Site 1



1. In the **Global Entitlements** area
  - select **Add**



2. In the **Add Global Entitlement** window
  - next to :
    1. **Type**
      - Next to **Application entitlement**
        - select the **radio button**
  - In the bottom right-corner
    - select **Next**

The screenshot shows the 'Add Global Entitlement' window. On the left, a vertical progress bar has four steps: 1. Type (marked with a green checkmark), 2. Name and Policies (highlighted in dark blue), 3. Users and Groups, and 4. Ready to Complete. The main area on the right is titled 'General' and contains the following fields:

- A red note: 'Asterisk (\*) denotes required field'
- A required field labeled '\* Name' with the value 'Enterprise Corp Terminal'.
- A field labeled 'Display Name' with the value 'Terminal'.
- A field labeled 'Federation Access Group' with a help icon and the value '/'.
- A field labeled 'Description' which is currently empty.

3. In the **Add Global Entitlement** window
  - next to :
    2. **Name and Policies**
      - under **Name**
        - enter **Enterprise Corp Terminal**
      - under **Display Name**
        - enter **Terminal**

**Add Global Entitlement**

**1** Type

**2** Name and Policies

**3** Users and Groups

**4** Ready to Complete

**Scope**

☒ All Sites

☐ Within Site

☐ Within Pod

☐ Use Home Site

☐ Entitled user must have Home Site

☐ Automatically Clean Up Redundant Sessions

**Default Display Protocol**

VMware Blast

**Allow Users to Choose Protocol**

No

☒ Pre-Launch

☐ Client Restrictions

**Multi-Session Mode**

Disabled

Cancel Previous **Next**

4. In the **Add Global Entitlement** window

- next to :

2. **Name and Policies**

- under **Policies** > **Scope**
  - select the **radio button**
    - **All Sites**
- under **Default Display Protocol**
  - from the **dropdown**
    - select **VMware Blast**
- below **Allow Users to Choose Protocol**
  - from the **dropdown**
    - select **NO**
- next to **Pre - Launch**
  - select the **Checkbox**
- In the bottom right-corner
  - select **Next**

**Add Global Entitlement**

1 Type

2 Name and Policies

**3 Users and Groups**

4 Ready to Complete

Add users or groups to the global entitlement.

Add Remove

| <input type="checkbox"/> | User Name |
|--------------------------|-----------|
|                          |           |

5. In the **Add Global Entitlement** window

- next to :

3. **Users and Groups**

- under **Add users or groups to the global entitlement**
- select **Add**

**Find User or Group**

Type ☒ Users ☒ Groups

Domain Entire Directory

Name/User Name Starts with Sales

Description Starts with

Find

| <input checked="" type="checkbox"/> | Name  | User Name              | Email | Description | In Folder                   |
|-------------------------------------|-------|------------------------|-------|-------------|-----------------------------|
| <input checked="" type="checkbox"/> | Sales | Sales/euc-livefire.com |       |             | euc-livefire.com/Corp/Sales |

1 Deselect all Pages Rows per page 20 1 of 1 row(s)

Cancel OK

6. In the **Find User or Group** window

- in line with **Name/User Name**
- next to **Starts with**
- enter **Sales**

- under **Description**
  - select **Find**
- under **Name**
  - next to **sales**
    - select the **checkbox**
- in the bottom right-corner
  - select **OK**

**Add Global Entitlement**

1 ✓ Type

2 ✓ Name and Policies

3 **Users and Groups**

4 Ready to Complete

Add users or groups to the global entitlement.

**Add** Remove

| <input type="checkbox"/> User Name | Domains         | Email |
|------------------------------------|-----------------|-------|
| <input type="checkbox"/> Sales     | euc-lhcfire.com |       |

Select all Pages Rows per page 20 1 - 1 of 1 row(s)

Cancel Previous **Next**

7. In the **Add Global Entitlement** window
- next to :
    - **Users and Groups**
      - under **Add users or groups to the global entitlement**
  - select **Add**



**Find User or Group**

Type: ☒ Users ☒ Groups

Domain: Entire Directory

Name/User Name: Starts with: developers

Description: Starts with:

**Find**

| <input checked="" type="checkbox"/> | Name       | User Name                 | Email | Description | In Folder                       |
|-------------------------------------|------------|---------------------------|-------|-------------|---------------------------------|
| <input checked="" type="checkbox"/> | Developers | Developers/euc-livfire... |       |             | euc-livfire.com/Corp/Developers |

Cancel OK

8. In the **Find User or Group** window

- in line with **Name/User Name**
  - next to **Starts with**
    - enter **Developers**
- under **Description**
  - select **Find**
- under **Name**
  - next to **sales**
    - select the **checkbox**
- in the bottom right-corner
  - select **OK**

**Add Global Entitlement**

1 ✓ Type

2 ✓ Name and Policies

3 **Users and Groups**

4 Ready to Complete

Add users or groups to the global entitlement.

[Add](#) [Remove](#)

| <input type="checkbox"/> | User Name  | Domains          | Email |
|--------------------------|------------|------------------|-------|
| <input type="checkbox"/> | Sales      | euc-liveware.com |       |
| <input type="checkbox"/> | Developers | euc-liveware.com |       |

☐ Select all Pages Rows per page: 20 1 - 2 of 2 rows

[Cancel](#) [Previous](#) [Next](#)

9. In the **Add Global Entitlement** window

- select **Next**

**Add Global Entitlement**

1 ✓ Type

2 ✓ Name and Policies

3 ✓ Users and Groups

4 **Ready to Complete**

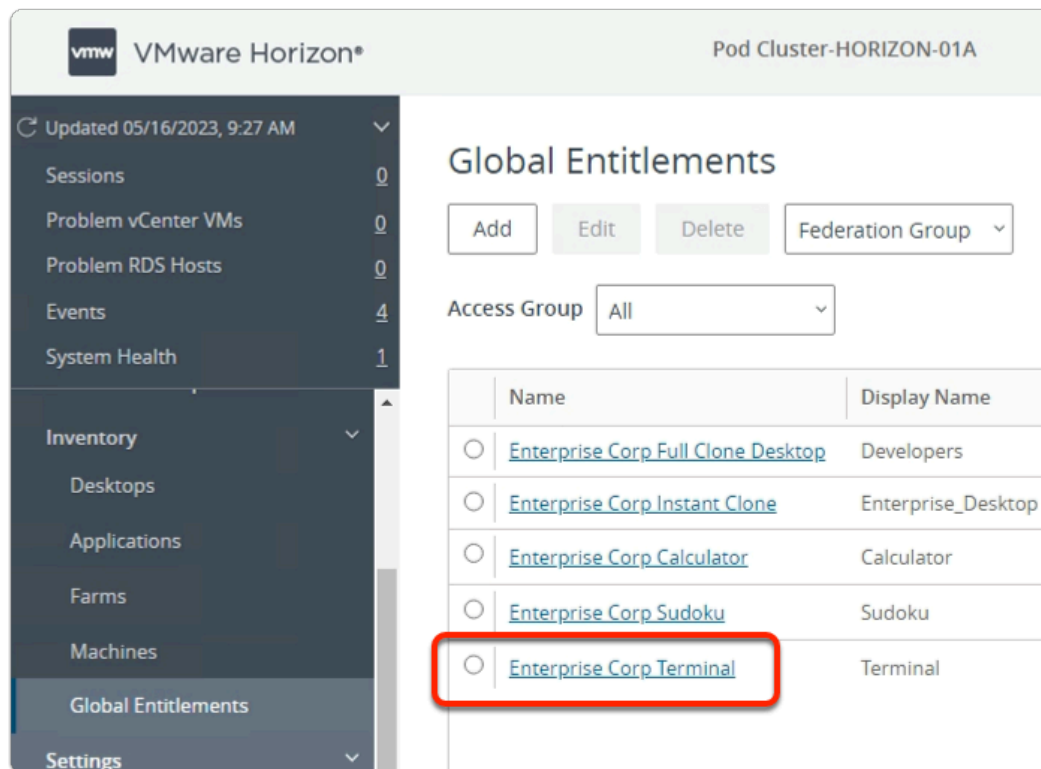
|                                |                          |
|--------------------------------|--------------------------|
| Name                           | Enterprise Corp Terminal |
| Display Name                   | Terminal                 |
| Federation Access Group        | /                        |
| Connection Server Restrictions | None                     |
| Category Folder                | None                     |
| Scope                          | All Sites                |
| Use Home Site                  | Disabled                 |
| Default Display Protocol       | VMware Blast             |
| Allow Users to Choose Protocol | No                       |
| Multi-Session Mode             | Disabled                 |
| Profil search                  | Enabled                  |

[Cancel](#) [Previous](#) [Finish](#)

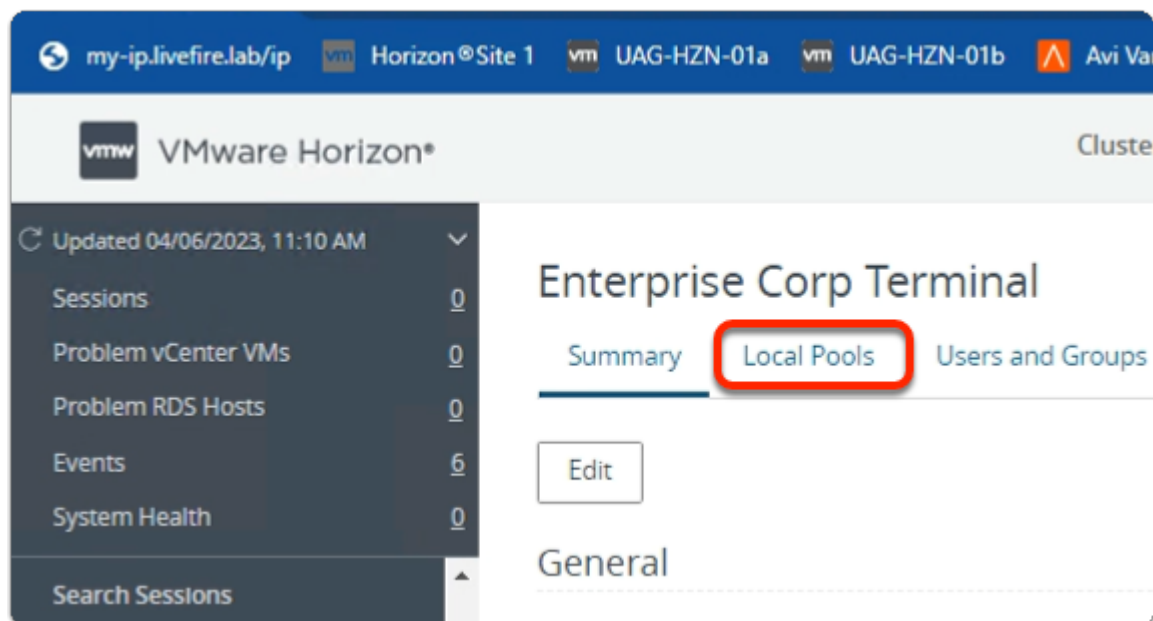
10. In the **Add Global Entitlement** window

4. **Ready to Complete** section

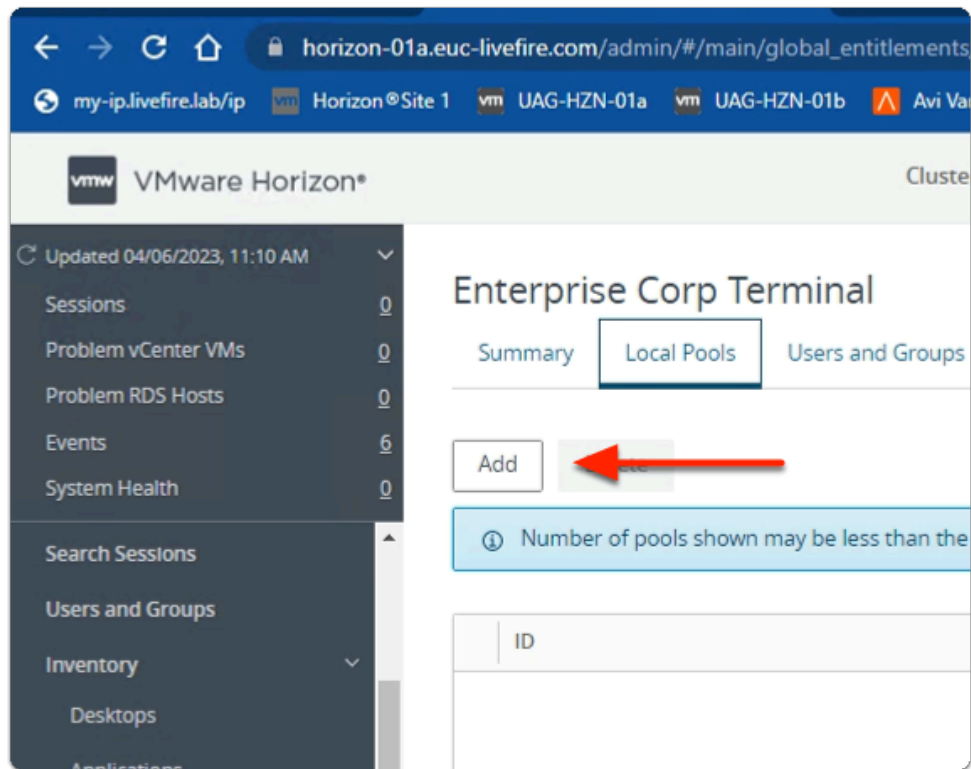
- in the bottom right-corner
- select **Finish**



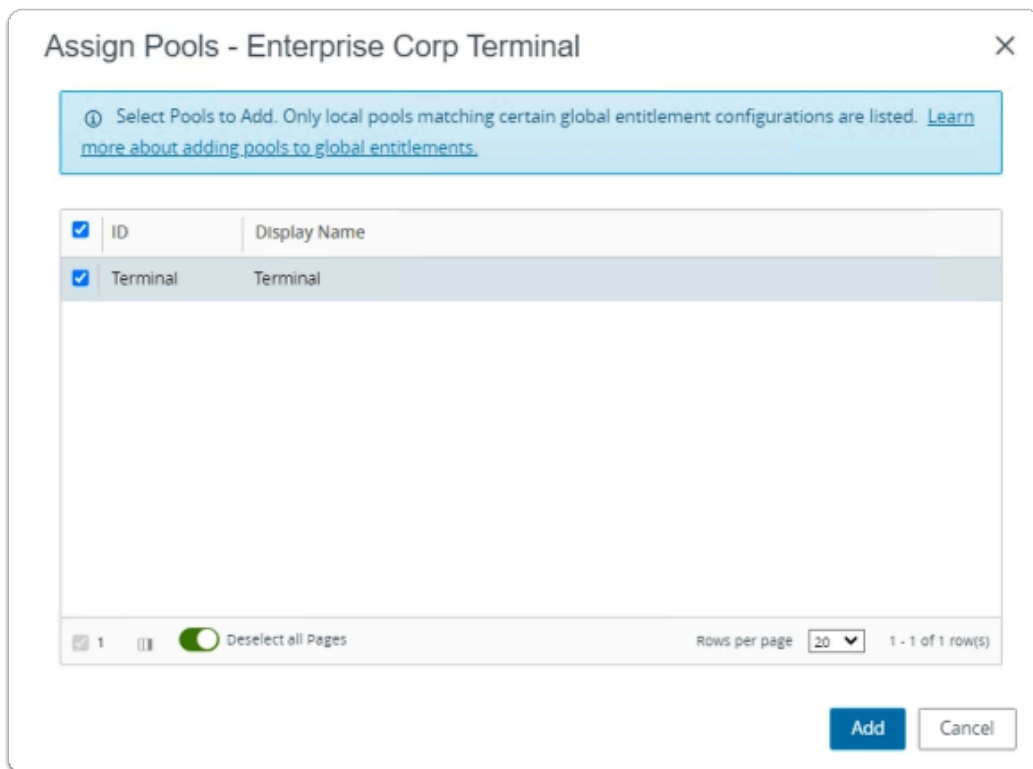
11. In the **Global Entitlements** window
- select **Enterprise Corp Terminal**



12. In the **Enterprise Corp Terminal** window
- select the **Local Pools** tab

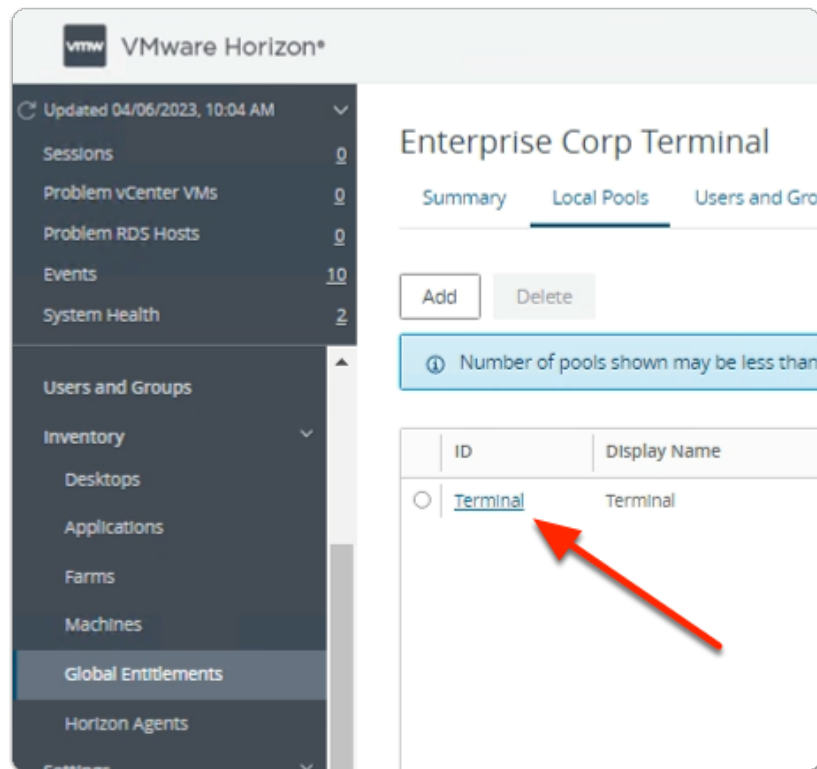


13. In the **Enterprise Corp Terminal** window
  - In the **Local Pools** tab area
    - select **Add**



14. In the **Assign Pools - Enterprise Corp Terminal** window
  - under **ID**

- next to **Terminal**
  - select the **checkbox**
- select **Add**



15. In the **VMware Horizon Admin** console

- Note your **Global Entitlement** now has a local assignment
- called **Terminal**

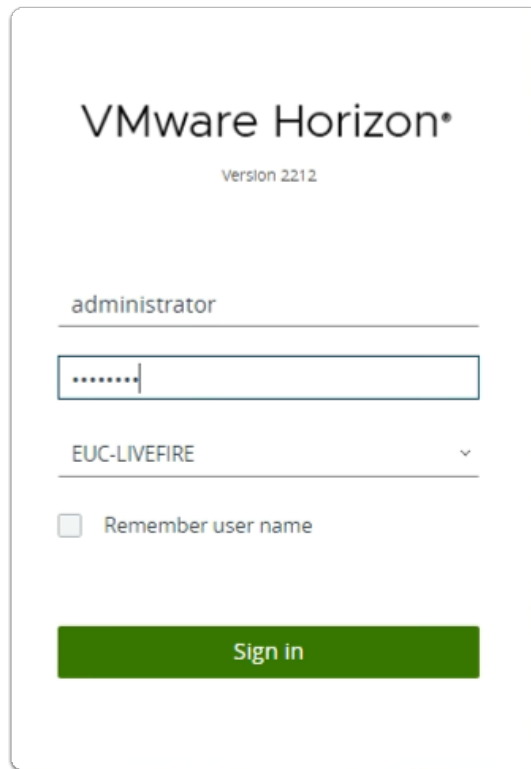


In preparation for Section 2, switch over to your Site 2 Browser

## Section 2. Configuring Global Entitlements for Published Applications on Site 2



Use your Site 2 Browser in this section

The image shows a VMware Horizon login interface. At the top, it says "VMware Horizon" with "Version 2212" below it. There is a text input field containing "administrator". Below that is a password input field with "\*\*\*\*\*" and a cursor. Under the password field is a dropdown menu showing "EUC-LIVEFIRE" with a downward arrow. Below the dropdown is a checkbox labeled "Remember user name". At the bottom is a green button labeled "Sign in".

VMware Horizon<sup>®</sup>

Version 2212

administrator

\*\*\*\*\*

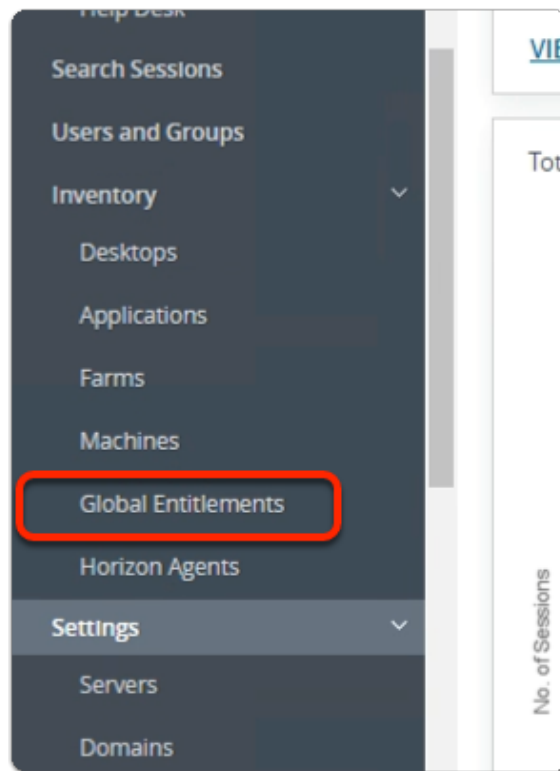
EUC-LIVEFIRE

☐ Remember user name

Sign in

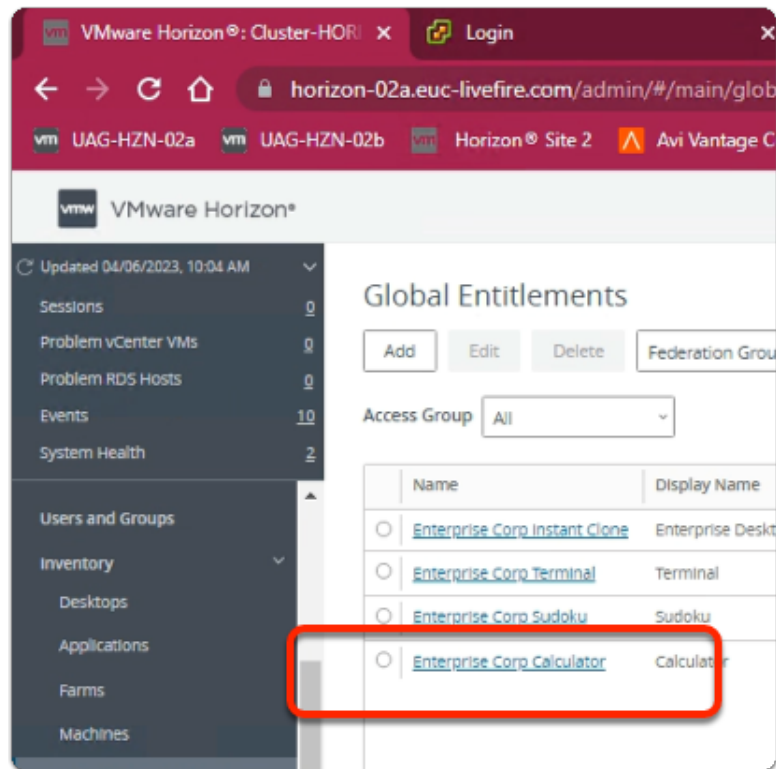
1. On your **Site 2 Browser**

- **Horizon Admin Console** login
  - In the **Username** area
    - enter **administrator**
  - In the **Password** area
    - enter **VMware1!**
  - select **Sign in**

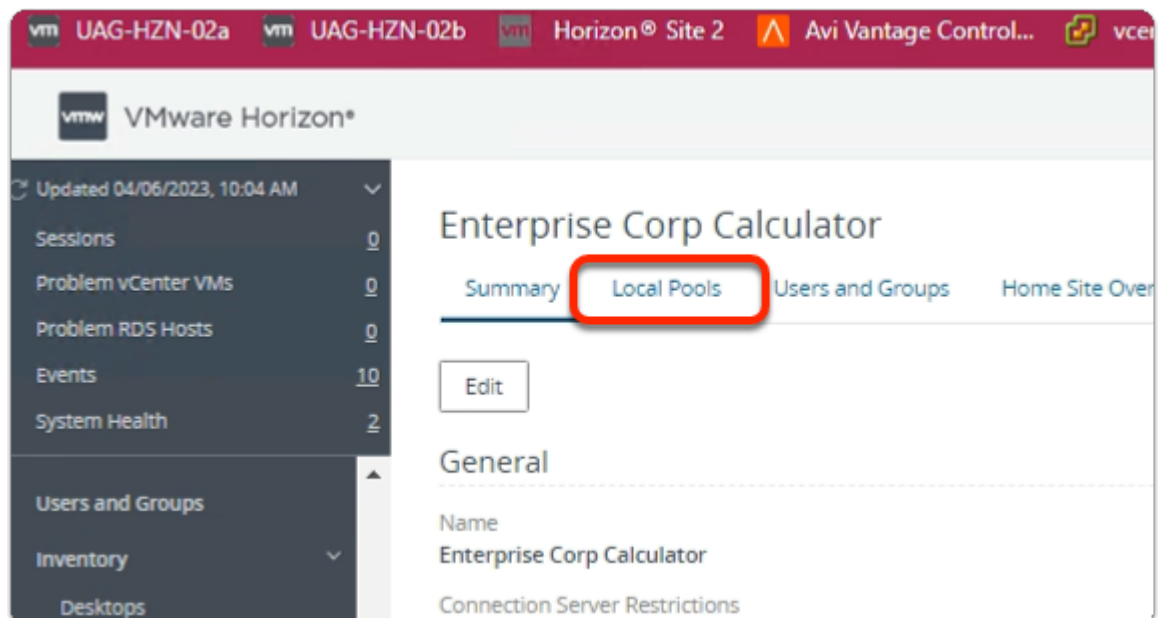


2. In the Horizon Admin console
  - **Menu** pane
    - below **Inventory**
      - select **Global Entitlements**

## Step 1. Adding Calculator to Global Entitlements for Site 2

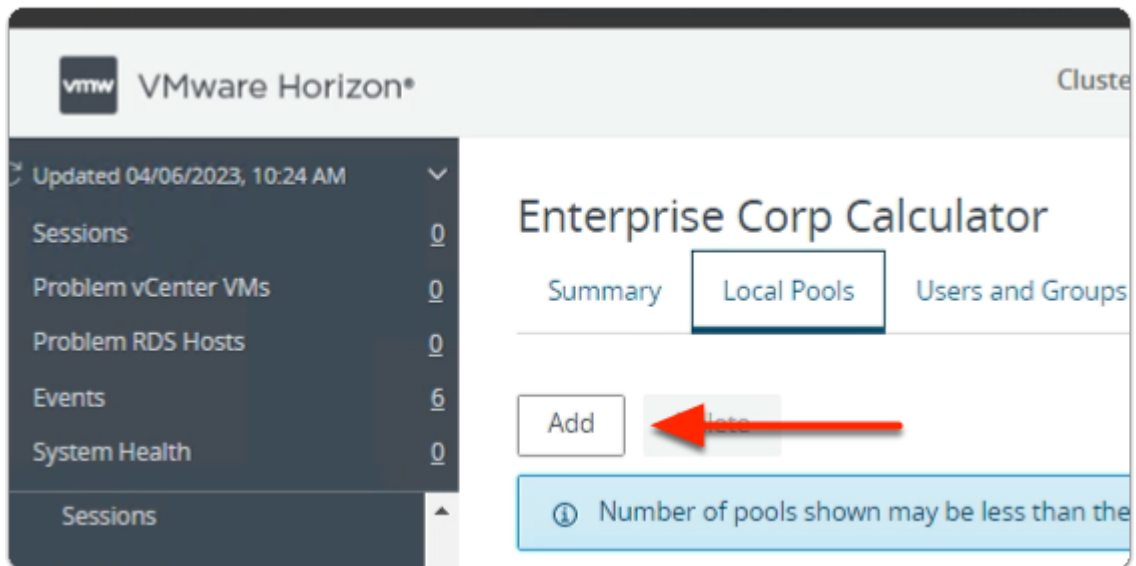


1. In the **Global Entitlements** window
  - select **Enterprise Corp Calculator**



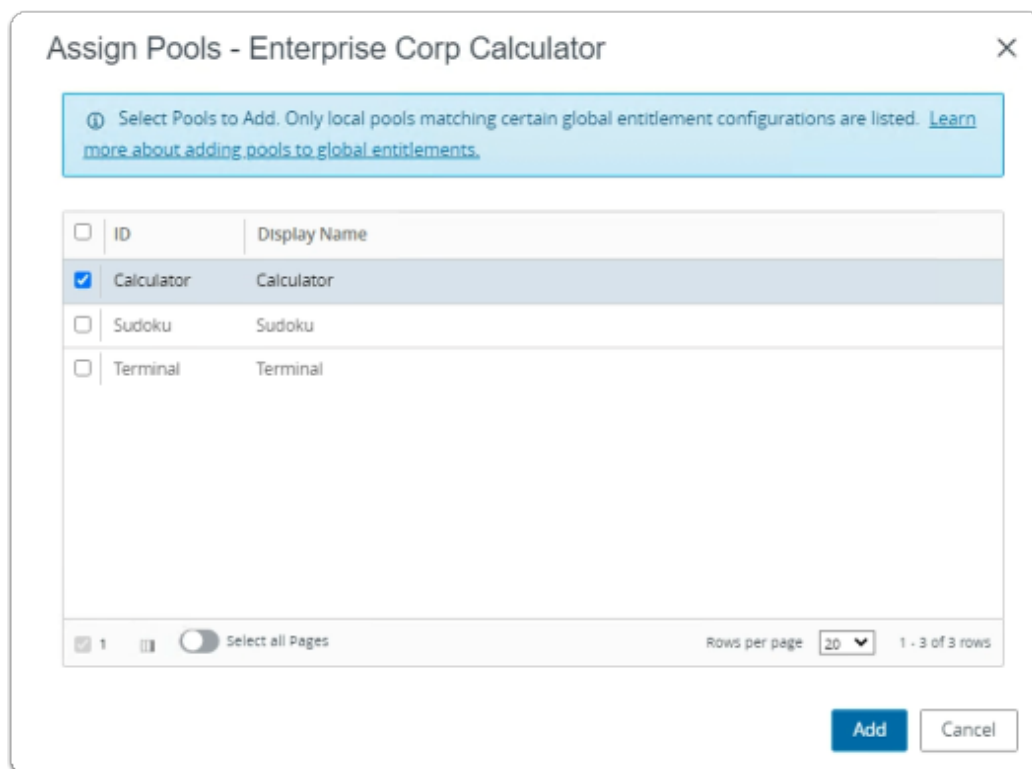
2. In the **Enterprise Corp Calculator** window
  - select the **Local Pools** tab





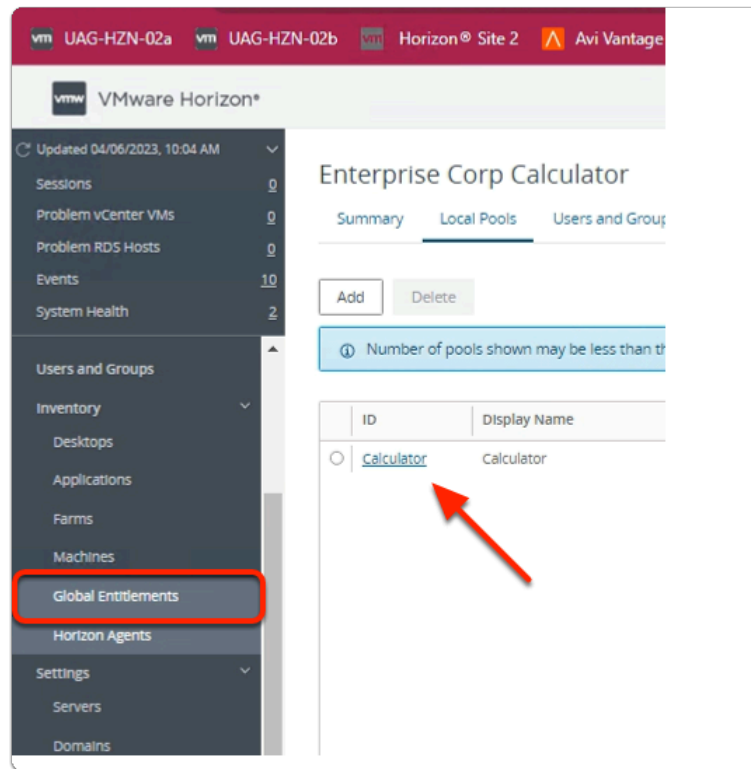
3. In the **Enterprise Corp Calculator** window

- In the **Local Pools** tab area
- select **Add**



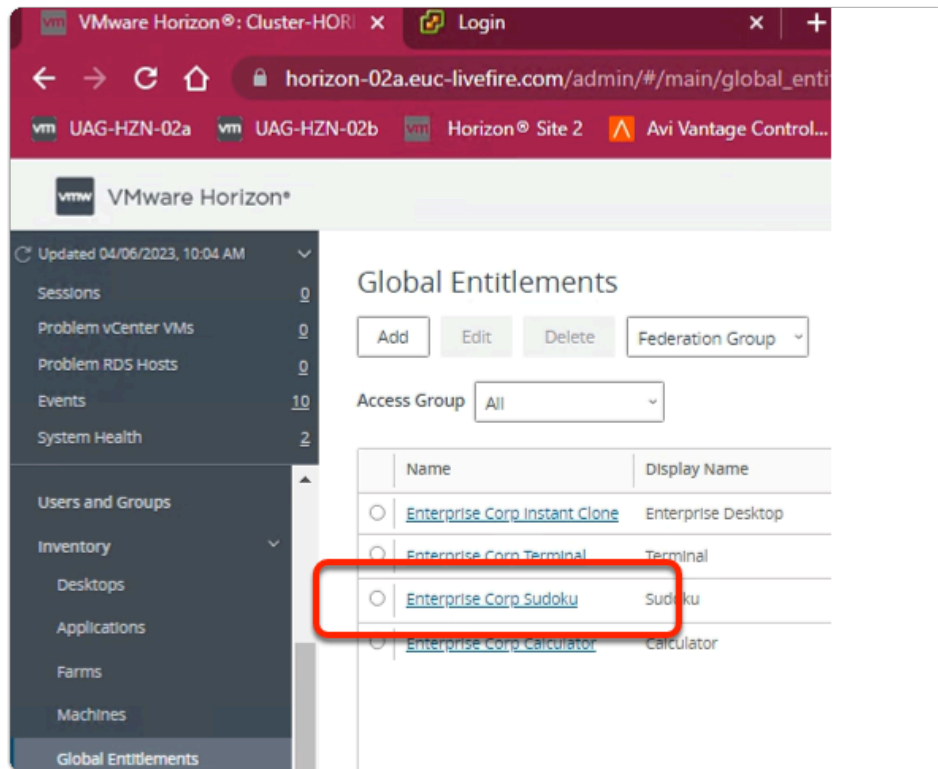
4. In the **Assign Pools - Enterprise Corp Calculator** window

- under **ID**
  - next to **Calculator**
    - select the **checkbox**
- select **Add**

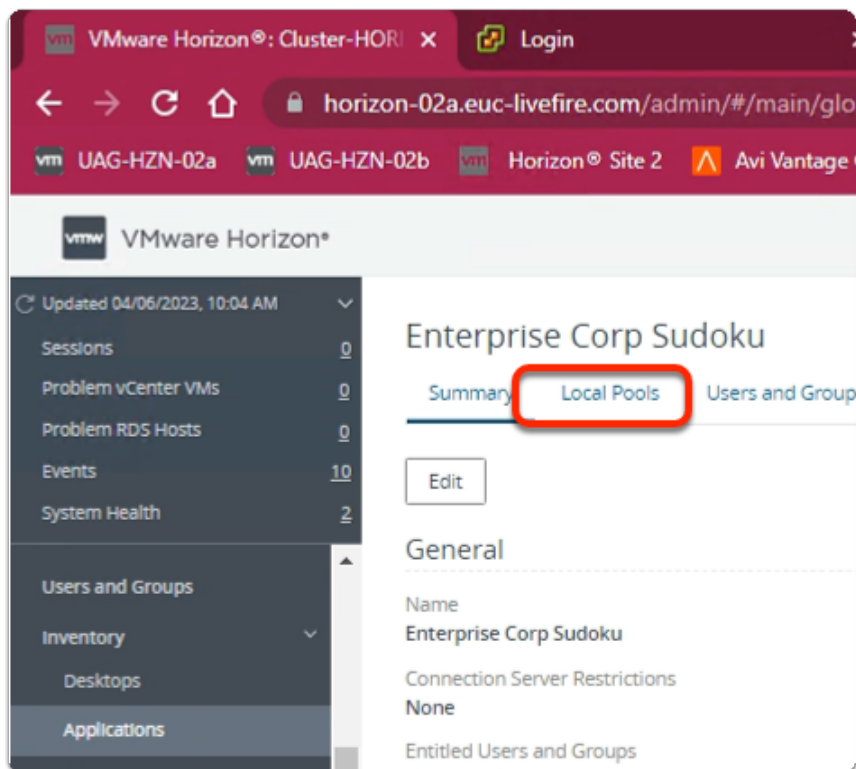


5. In the **VMware Horizon Admin** console
  - Note your Global Entitlement now has a local assignment
    - called **Calculator**
  - In menu pane
    - under **Inventory**
      - select **Global Entitlements**

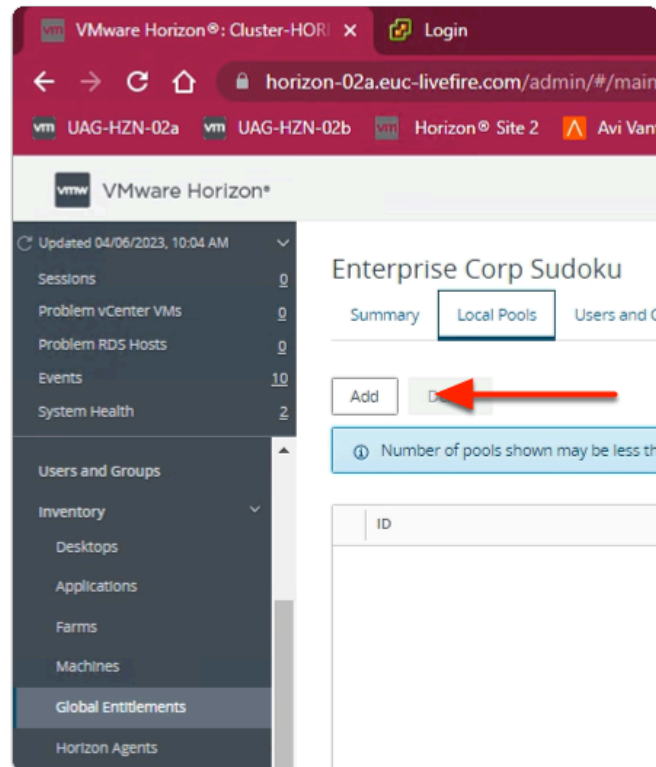
## Step 2. Adding Sudoku to Global Entitlements for Site 2



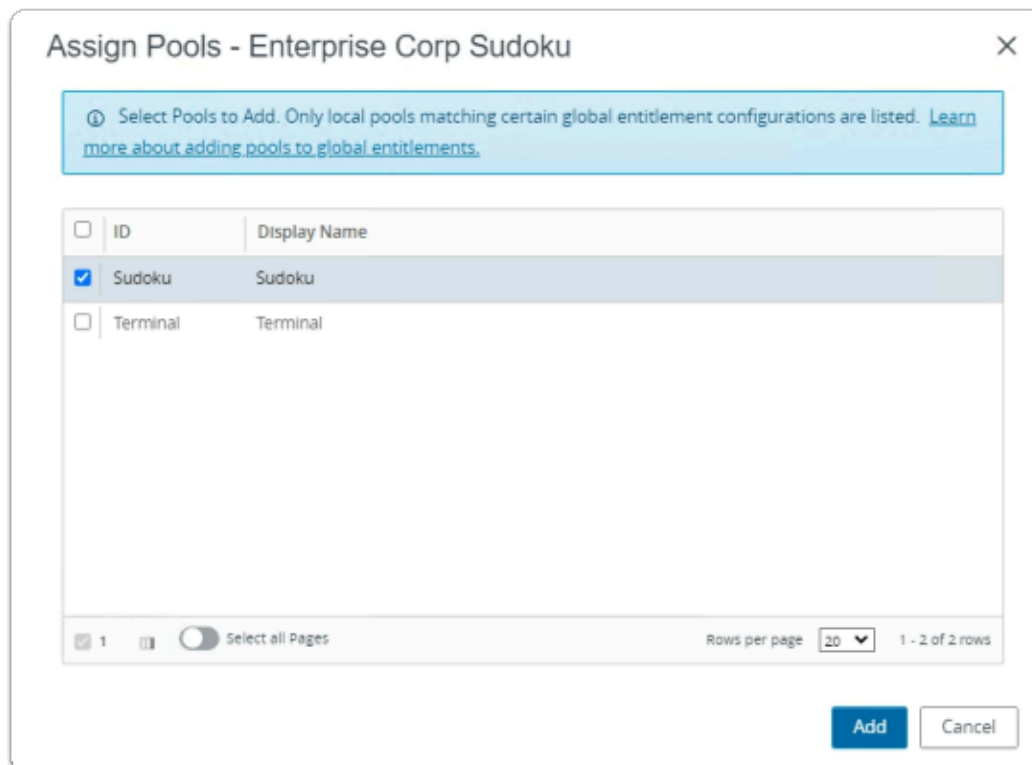
1. In the **Global Entitlements** window
  - select **Enterprise Corp Sudoku**



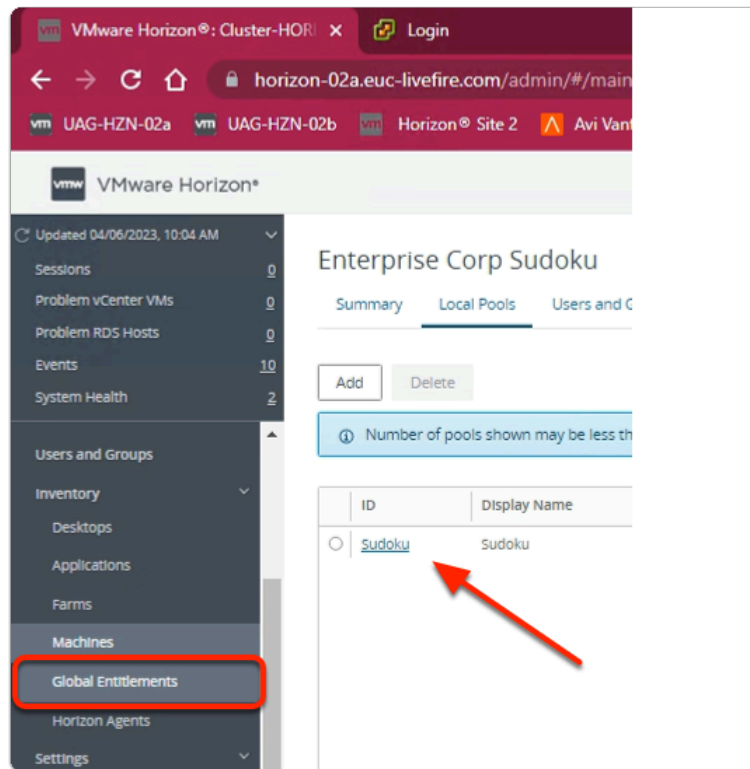
2. In the **Enterprise Corp Sudoku** window
  - select the **Local Pools** tab



3. In the **Enterprise Corp Sudoku** window
  - In the **Local Pools** tab area
    - select **Add**

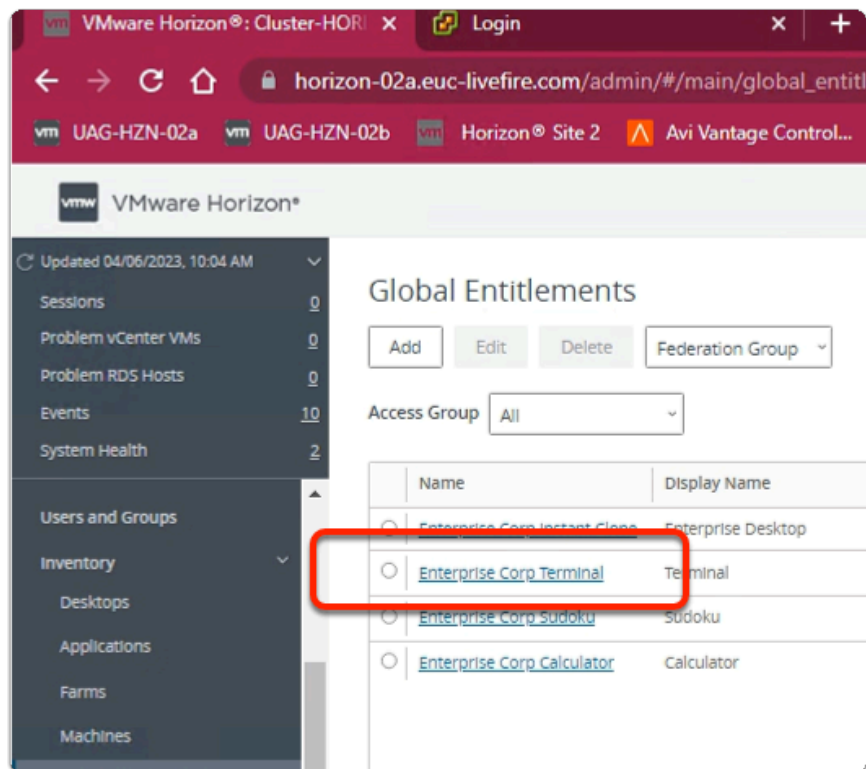


4. In the **Assign Pools - Enterprise Corp Sudoku** window
  - under **ID**
    - next to **Sudoku**
      - select the **checkbox**
  - select **Add**

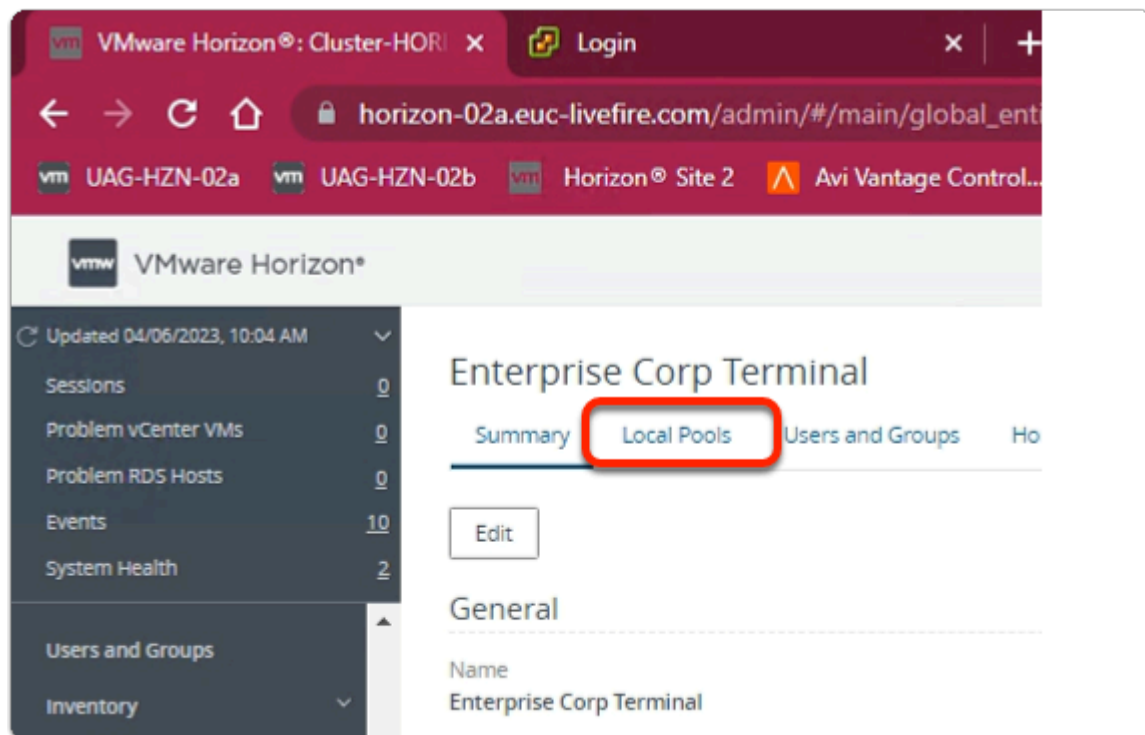


5. In the **VMware Horizon Admin** console
  - Note your **Global Entitlement** now has a local assignment
  - called **Sudoku**
  - In menu pane
    - under **Inventory**
      - select **Global Entitlements**

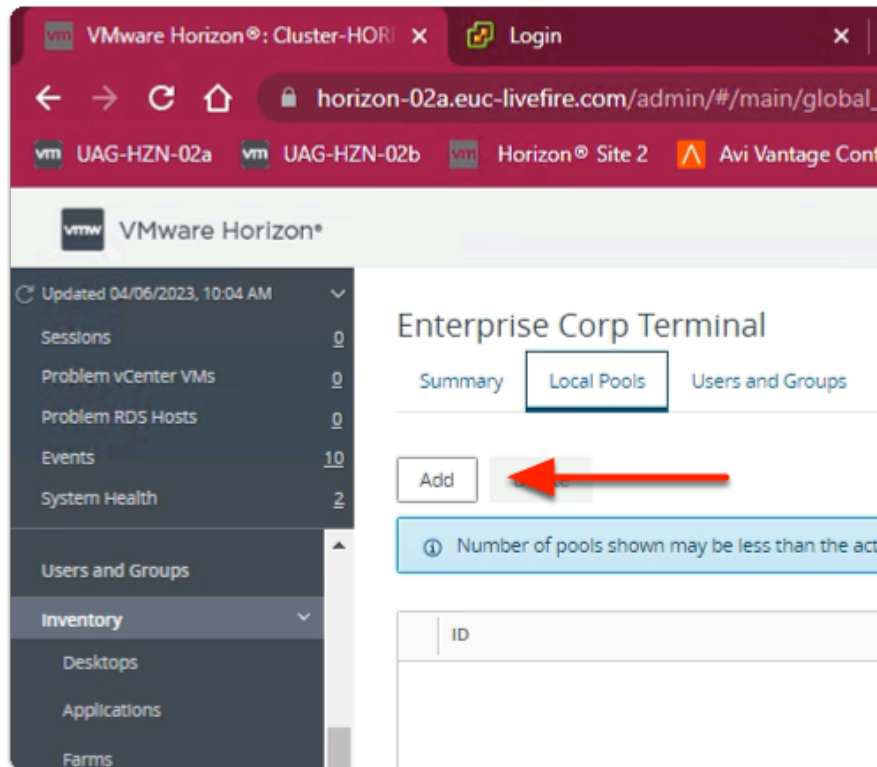
## Step 3. Adding Terminal to Global Entitlements for Site 2



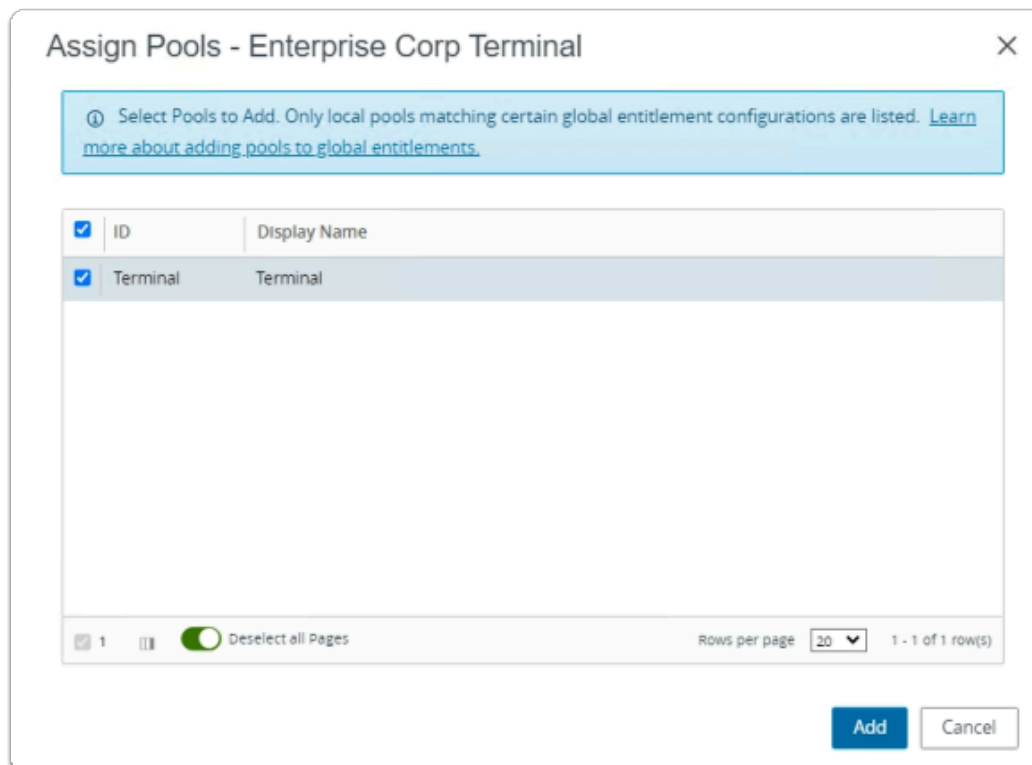
1. In the **Global Entitlements** window
  - select **Enterprise Corp Terminal**



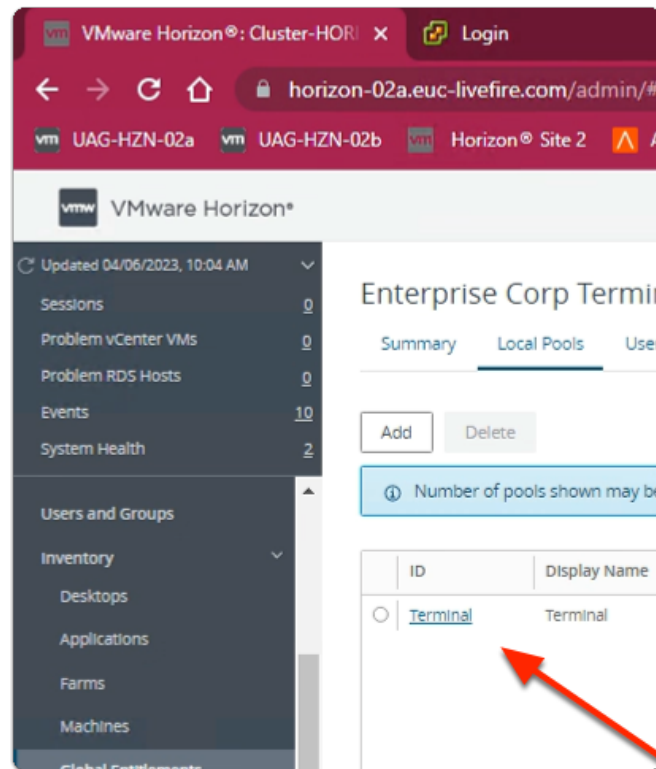
2. In the **Enterprise Corp Terminal** window
  - select the **Local Pools** tab



3. In the **Enterprise Corp Terminal** window
  - In the **Local Pools** tab area
    - select **Add**



4. In the **Assign Pools - Enterprise Corp Terminal** window
- under **ID**
    - next to **Terminal**
      - select the **checkbox**
  - select **Add**



15. In the **VMware Horizon Admin** console
- Note your **Global Entitlement** now has a local assignment
  - called **Terminal**

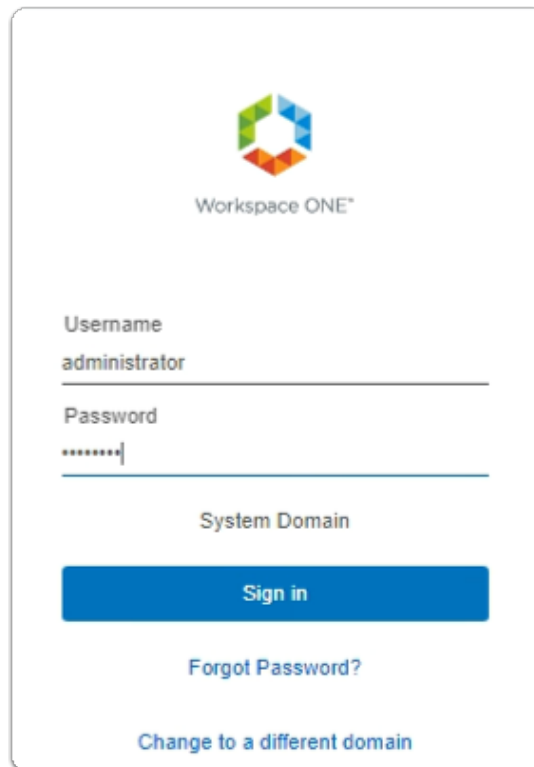
## Part 5. Integrating Multi-session apps with Workspace ONE Access

### In Part 5

- We will create Deep Links that will point to the Published Multi session Applications
- Each Web App link will then be assigned to the relevant security groups

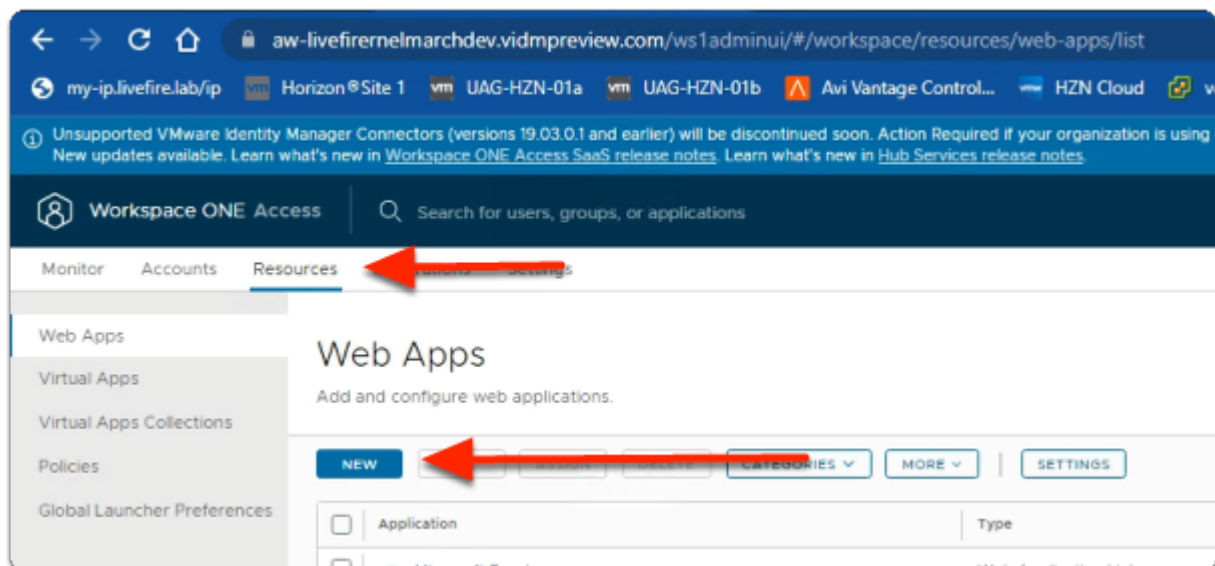


## Step 1. Deploying a Deep link for the Enterprise Corp Calculator Global Entitlement



The image shows a login form for Workspace ONE. At the top is the Workspace ONE logo, which consists of a hexagon made of six colored triangles (green, blue, orange, red, yellow, and purple) arranged in a circular pattern. Below the logo is the text "Workspace ONE". The form has three input fields: "Username" with the value "administrator", "Password" with masked characters "\*\*\*\*\*", and "System Domain". Below these fields is a blue "Sign in" button. At the bottom of the form are two links: "Forgot Password?" and "Change to a different domain".

1. On your ControlCenter server
  - Open your **Workspace ONE Access**, Admin console URL
    - Under **Username**
      - enter **Administrator**
    - Under **Password**
      - enter **VMware1!**
    - Select **Sign In**



2. In the **Workspace ONE Access Console**

- select **Resources**
- Under **the Resources > WEB Apps** area
  - select **NEW**

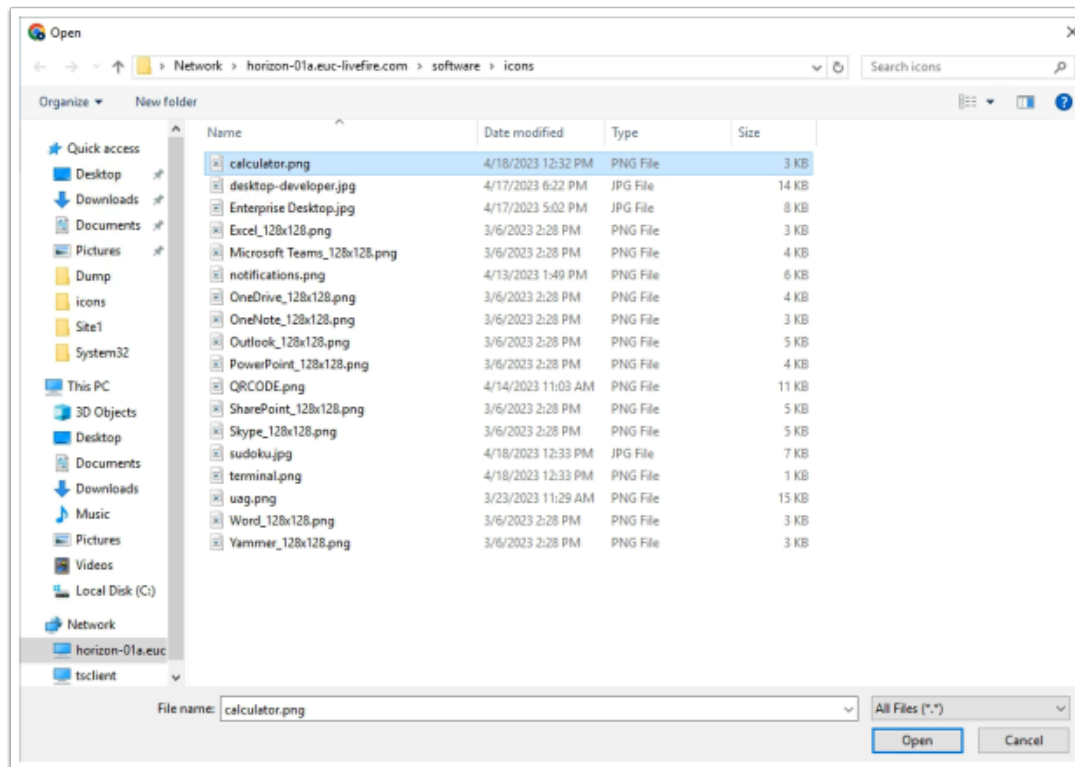
The screenshot shows the 'New SaaS Application' window. The 'Definition' tab is selected. The 'Name' field is filled with 'Enterprise Corp Calculator'. The 'Icon' field has a 'SELECT FILE...' button highlighted with a red box. The 'Description' field is empty.

3. In the **New SaaS Application** window

1. **In the Definition** area

- under **Name**
  - enter **Enterprise Corp Calculator**
- under **Icon**

- select **SELECT FILE ...**



- In the **File Explorer > Open** window
  - In the **Quick Access** pane
    - select **Desktop**
  - in the **Desktop** area
    - select **software > software > Icons**
      - in the **Icons** folder
        - select **calculator.png**
    - select **Open**

**New SaaS Application**

1 Definition  
2 Configuration  
3 Access Policies  
4 Summary


**Definition**

Search ⓘ  
Q

OR BROWSE FROM CATALOG

Name ⓘ ⓘ  
Enterprise Corp Calculator

Description ⓘ

Icon ⓘ  
SELECT FILE...  


Category ⓘ

CANCEL NEXT

5. In the **New SaaS Application** window
  1. In the **Definition** area
    - Select **NEXT**

**New SaaS Application**

1 Definition  
2 Configuration  
3 Access Policies  
4 Summary

**Single Sign-On**

Authentication Type \* ⓘ  
SAML 2.0  
OpenID Connect  
SAML 1.1  
SAML 2.0  
Web Application Link

6. In the **New SaaS Application** window
  2. In the **Configuration** area
    - below **Authentication Type \***
      - from the **dropdown**
        - select **Web Application Link**

New SaaS Application

1 Definition  
2 Configuration  
3 Summary

Single Sign-On

Authentication Type \* ⓘ  
Web Application Link

Target URL \*  
<https://corp.euc-liveware.com/portal/webclient/index.html?applicationName=Calculator>

Open in Workspace ONE Web ⓘ  
☐ No

CANCEL BACK NEXT

7. In the **New SaaS Application** window
  2. In the **Configuration** area
    - below **Target URL \***
      - enter the following URL

<https://corp.euc-liveware.com/portal/nativeclient/Calculator?action=start-session&desktopProtocol=BLAST&launchMinimized=false>

- In the bottom right corner
  - select **NEXT**

**New SaaS Application**

1 Definition  
2 Configuration  
3 Summary

**Definition**

Name  
Enterprise Corp Calculator

Description  
—

Icon

Categories  
—

**Configuration**

Authentication Type  
None

Target URL  
https://corp.euc-liveware.com/portal/webclient/index.html?applicationName=Calculator

**Access Policies**

Open in Workspace ONE Web  
No

CANCEL BACK SAVE & ASSIGN SAVE

8. In the **New SaaS Application** window,
3. In the **Summary** section
  - Select **SAVE & ASSIGN**

**Assign**

Selected App(s): Enterprise Corp Calculator

Users / User Groups

Q devel

Developers@euc-liveware.com

Deployment Type

9. In the **Assign** window
  - Under **Users / Groups**
    - Enter **Devel**
    - Select **Developers@euc-liveware.com**

Assign

Selected App(s): Enterprise Corp Calculator

Users / User Groups

Q sales

| Users / User Groups         | Deployment Type |
|-----------------------------|-----------------|
| Sales@euc-livefire.com      | Automatic       |
| Developers@euc-livefire.com | Automatic       |

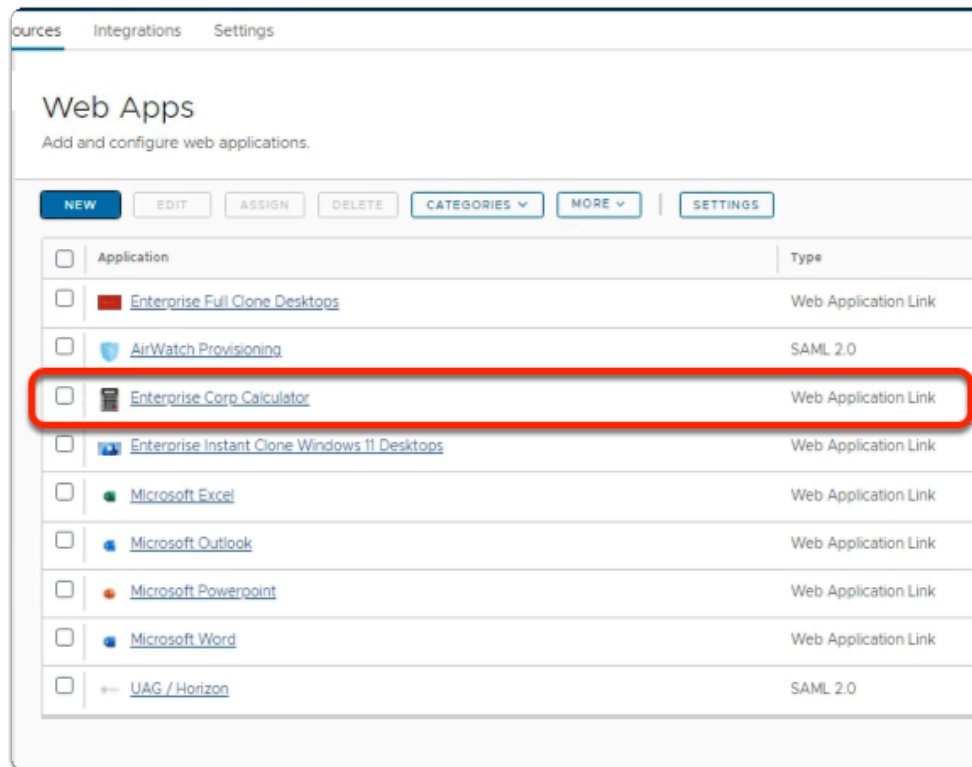
Selected Users / User Groups

| Selected Users / User Groups | Deployment Type |
|------------------------------|-----------------|
| Developers@euc-livefire.com  | Automatic       |
| Sales@euc-livefire.com       | Automatic       |

CANCEL SAVE

10. In the **Assign** window

- Under **Users / Groups**
  - Enter **sales**
    - select **sales@euc-livefire.com**
- Under **Deployment** type
  - From the **dropdowns**
    - Ensure both **Sales** and **Developers** are set to
      - **Automatic**
- In the bottom right corner
  - select **SAVE**

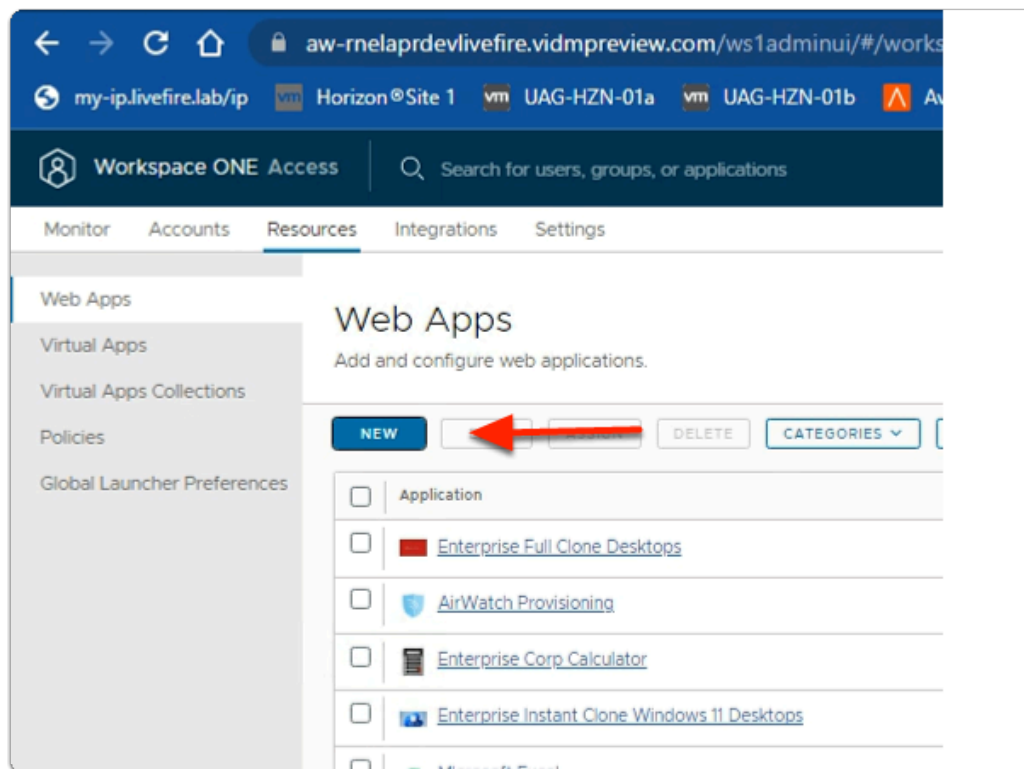


11. In your **Workspace ONE Access** Console

- **Web Apps** interface
  - Note your **Enterprise Corp Calculator** Web Application Link



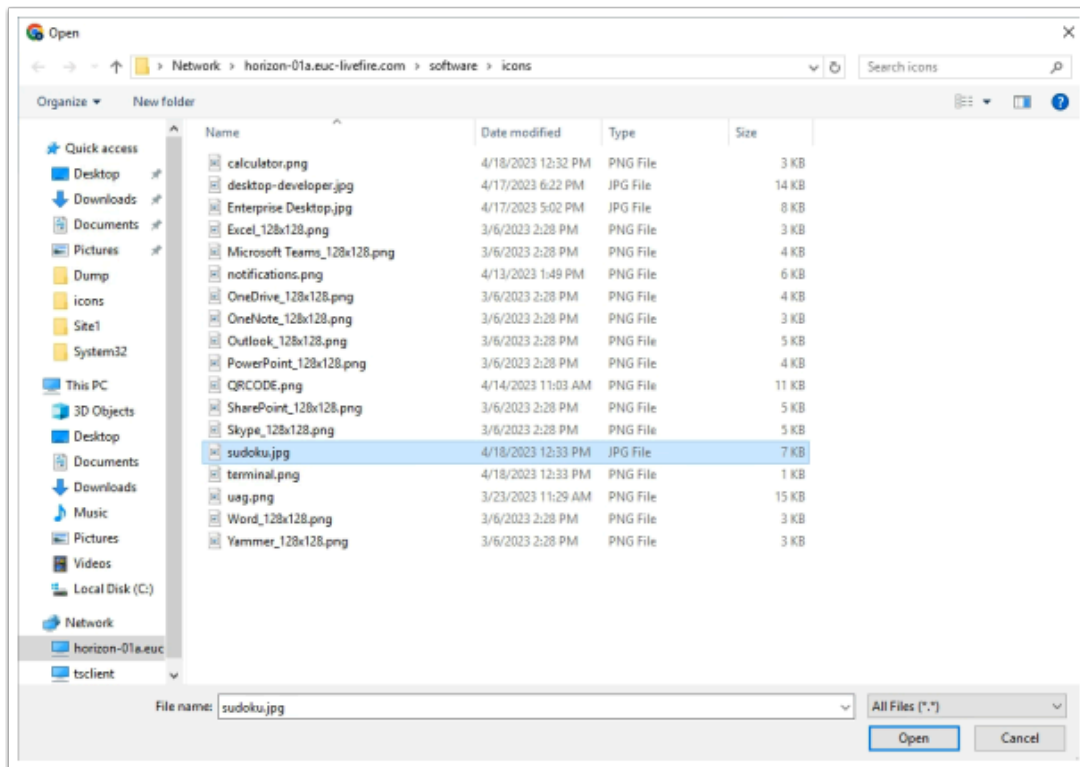
## Step 2. Deploying a Deep link for the Enterprise Corp Sudoku Global Entitlement



1. In the **Workspace ONE Access Console**
  - under **the Resources > WEB Apps** area
  - select **NEW**

The screenshot shows a web interface for creating a new SaaS application. On the left is a sidebar with four tabs: '1 Definition' (selected), '2 Configuration', '3 Access Policies', and '4 Summary'. The main area is titled 'Definition' and contains several input fields. The 'Search' field has a magnifying glass icon. Below it is a link that says 'OR BROWSE FROM CATALOG'. The 'Name' field is required (indicated by an asterisk and a help icon) and contains the text 'Enterprise Sudoku'. The 'Description' field is optional (indicated by a question mark icon) and is empty. The 'Icon' field is optional (indicated by a question mark icon) and contains a button labeled 'SELECT FILE...'. This button is highlighted with a red rectangle.

2. In the **New SaaS Application** window
  1. **In the Definition** area
    - under **Name**
      - enter **Enterprise Sudoku**
    - under **Icon**
      - select **SELECT FILE ...**



3. In the **File Explorer > Open** window
  - In the **Quick Access** pane
    - select **Desktop**
    - in the **Desktop** area
      - select **software > software > Icons**
        - in the **Icons** folder
          - select **sudoku.jpg**
      - select **Open**

**New SaaS Application**

1 Definition  
2 Configuration  
3 Access Policies  
4 Summary

**Definition**

Search ⓘ

Q

OR BROWSE FROM CATALOG

Name \* ⓘ  
Enterprise Sudoku

Description ⓘ

Icon ⓘ  
SELECT FILE...

Category ⓘ

CANCEL NEXT

4. In the **New SaaS Application** window
  1. In the **Definition** area
    - Select **NEXT**

**New SaaS Application**

1 Definition  
2 Configuration  
3 Access Policies  
4 Summary

**Single Sign-On**

Authentication Type \* ⓘ

SAML 2.0  
OpenID Connect  
SAML 1.1  
SAML 2.0  
Web Application Link

5. In the **New SaaS Application** window
  2. In the **Configuration** area
    - below **Authentication Type \***
      - from the **dropdown**
        - select **Web Application Link**

New SaaS Application

1 Definition  
2 Configuration  
3 Summary

Single Sign-On

Authentication Type \* ⓘ  
Web Application Link

Target URL \*  
<https://corp.euc-liveware.com/portal/webclient/index.html?applicationName=Sudoku>

Open in Workspace ONE Web ⓘ  
☐ No

CANCEL BACK NEXT

6. In the **New SaaS Application** window

2. In the **Configuration** area

- below **Target URL \***
  - enter the following URL

<https://corp.euc-liveware.com/portal/nativeclient/Sudoku?action=start-session&desktopProtocol=BLAST&launchMinimized=false>

• In the bottom right corner

- select **NEXT**


**New SaaS Application**

1 Definition  
2 Configuration  
3 Summary

**Definition**

Name  
Enterprise Sudoku

Description  
—

Icon  


Categories  
—

**Configuration**

Authentication Type  
None

Target URL  
https://corp.euc-liveware.com/portal/webclient/index.html?applicationName=Sudoku

**Access Policies**

Open in Workspace ONE Web  
No

CANCEL BACK SAVE & ASSIGN SAVE


7. In the **New SaaS Application** window,
  3. In the **Summary** section
    - Select **SAVE & ASSIGN**

**Assign**

Selected App(s): Enterprise Sudoku

Users / User Groups

Q dev

 Developers@euc-liveware.com

Deployment Type Entitlement

No assignments found.

8. In the **Assign** window
  - Under **Users / Groups**
    - Enter **Devel**
    - Select **Developers@euc-liveware.com**

**Assign**

Selected App(s): Enterprise Sudoku

Users / User Groups

Q Search for Users or Groups

| Selected Users / User Groups  | Deployment Type | Entitlement Type |
|-------------------------------|-----------------|------------------|
| 👤 Developers@euc-liveware.com | Automatic       | Include          |

9. In the **Assign** window
  - Under **Deployment** type
    - From the **dropdown**
      - **Developers** are set to
        - **Automatic**

**Assign**

✔ Application: 'Enterprise Sudoku' added successfully.

Selected App(s): Enterprise Sudoku

Users / User Groups

Q sales

|                               |                 |                  |
|-------------------------------|-----------------|------------------|
| 👤 Sales@euc-liveware.com      | Deployment Type | Entitlement Type |
| 👤 Developers@euc-liveware.com | Automatic       | Include          |

10. In the **Assign** window
  - under **Users / Groups**
    - enter **Sales**
      - select **Sales@euc-liveware.com**

Assign

✓ Application: 'Enterprise Sudoku' added successfully.

Selected App(s): Enterprise Sudoku

Users / User Groups

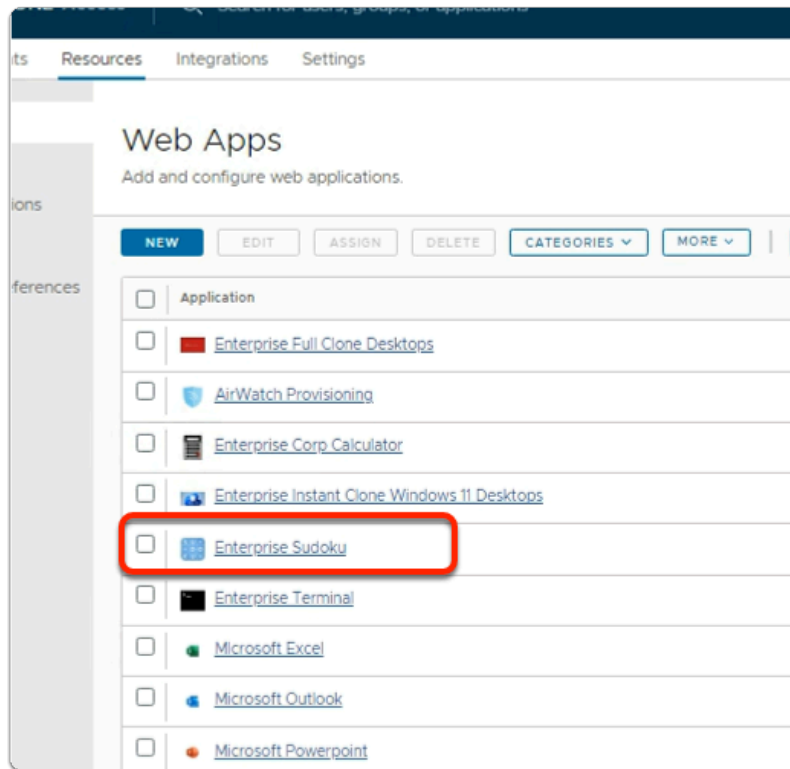
Q sales

| Selected Users / User Groups  | Deployment Type |
|-------------------------------|-----------------|
| 🔗 Developers@euc-livewire.com | Automatic       |
| 🔗 Sales@euc-livewire.com      | Automatic       |

CANCEL SAVE

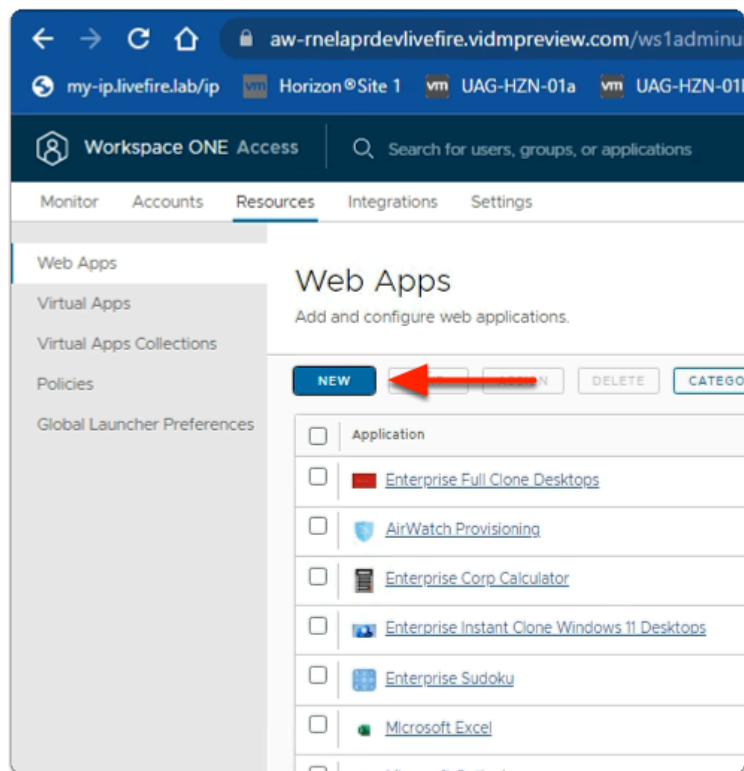
11. In the **Assign** window
  - Under **Deployment** type
    - From the **dropdown**
      - **Developers** are set to
        - **Automatic**
  - In the bottom right corner
    - select **SAVE**





12. In your **Workspace ONE Access** Console
  - **Web Apps** interface
    - Note your **Enterprise Sudoku Web Application Link**

## Step 3. Deploying a Deep link for the Enterprise Corp Terminal Global Entitlement



1. In the **Workspace ONE Access Console**
  - under **the Resources > WEB Apps** area
  - select **NEW**

New SaaS Application

1 Definition

2 Configuration

3 Access Policies

4 Summary

Definition

Search ⓘ

OR BROWSE FROM CATALOG

Name \* ⓘ

Enterprise Terminal

Description ⓘ

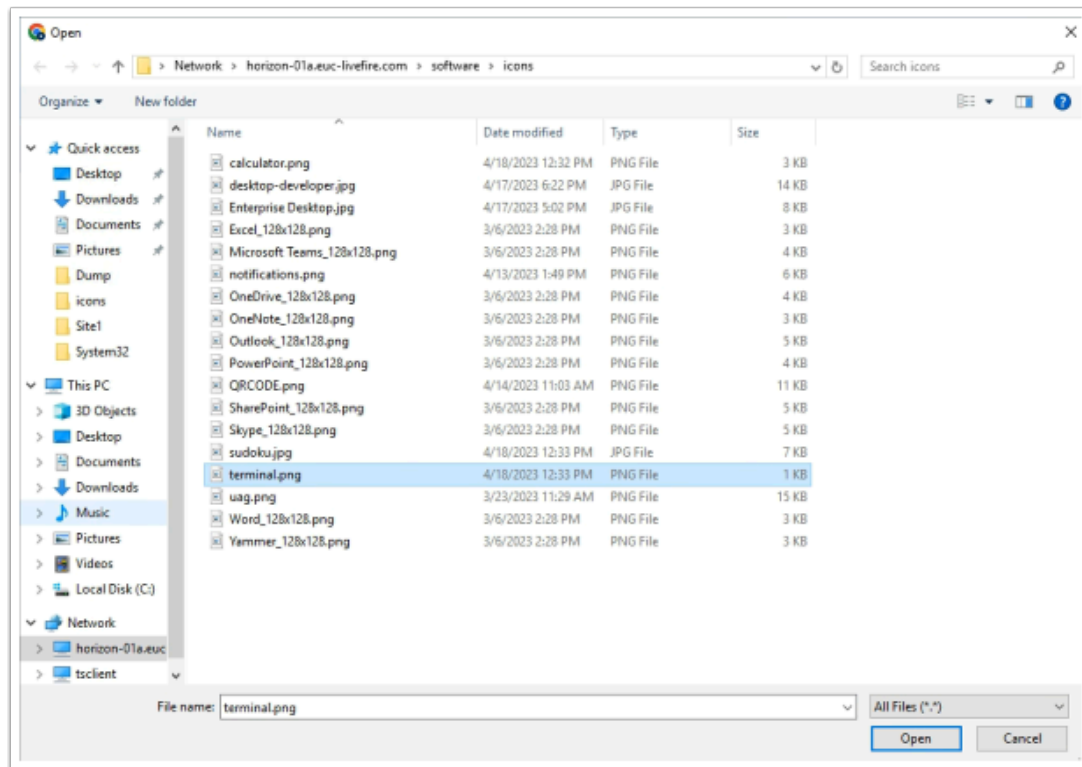
Icon ⓘ

SELECT FILE...

2. In the **New SaaS Application** window

1. **In the Definition** area

- under **Name**
  - enter **Enterprise Terminal**
- under **Icon**
  - select **SELECT FILE ...**



3. In the **File Explorer > Open** window
  - In the **Quick Access** pane
    - select **Desktop**
    - in the **Desktop** area
      - select **software > software > Icons**
        - in the **Icons** folder
          - select **terminal.png**
      - select **Open**

The screenshot shows the 'New SaaS Application' window with the 'Definition' tab selected. The left sidebar contains a list of steps: 1 Definition, 2 Configuration, 3 Access Policies, and 4 Summary. The main area is titled 'Definition' and contains the following fields:

- Search** (with a magnifying glass icon)
- OR BROWSE FROM CATALOG** (a blue link)
- Name \*** (with an information icon): Enterprise Terminal
- Description** (with an information icon): A large text area.
- Icon** (with an information icon): A 'SELECT FILE...' button and a placeholder image showing a terminal icon.
- Category** (with an information icon): A dropdown menu.

At the bottom right, there are 'CANCEL' and 'NEXT' buttons.

4. In the **New SaaS Application** window
  1. In the **Definition** area
    - Select **NEXT**

The screenshot shows the 'New SaaS Application' window with the 'Configuration' tab selected. The left sidebar contains a list of steps: 1 Definition, 2 Configuration, 3 Access Policies, and 4 Summary. The main area is titled 'Single Sign-On' and contains the following fields:

- Authentication Type \*** (with an information icon): A dropdown menu with the following options: SAML 2.0, OpenID Connect, SAML 1.1, SAML 2.0, and Web Application Link (which is highlighted in blue).

5. In the **New SaaS Application** window
  2. In the **Configuration** area
    - below **Authentication Type \***
      - from the **dropdown**
        - select **Web Application Link**

New SaaS Application

1 Definition  
2 Configuration  
3 Summary

Single Sign-On

Authentication Type \* ⓘ

Web Application Link

Target URL \*

<https://corp.euc-liveware.com/portal/webclient/index.html?applicationName=Terminal>

Open in Workspace ONE Web ⓘ

☐ No

CANCEL BACK NEXT

6. In the **New SaaS Application** window

2. In the **Configuration** area

- below **Target URL \***
  - enter the following URL

<https://corp.euc-liveware.com/portal/nativeclient/Terminal?action=start-session&desktopProtocol=BLAST&launchMinimized=false>

- In the bottom right corner
  - select **NEXT**

**New SaaS Application**

1 Definition  
2 Configuration  
3 Summary

**Definition**

Name  
Enterprise Terminal

Description  
—

Icon  
[Icon]

Categories  
—

**Configuration**

Authentication Type  
None

Target URL  
https://corp.euc-livewire.com/portal/webclient/index.html?applicationName=Terminal

**Access Policies**

Open in Workspace ONE Web  
No

CANCEL BACK SAVE & ASSIGN SAVE

7. In the **New SaaS Application** window,
  3. In the **Summary** section
    - Select **SAVE & ASSIGN**

**Assign**

✓ Application: 'Enterprise Terminal' added successfully.

Selected App(s): Enterprise Terminal

Users / User Groups

Q Search for Users or Groups

Selected Users / User Groups

Deployment Type

Developers@euc-livewire.com Automatic

8. In the **Assign** window
  - Under **Users / Groups**
    - Enter **Devel**
    - Select **Developers@euc-livewire.com**

Assign

✓ Application: 'Enterprise Terminal' added successfully.

Selected App(s): Enterprise Terminal

Users / User Groups

🔍 Search for Users or Groups

| Selected Users / User Groups  | Deployment Type |
|-------------------------------|-----------------|
| 👤 Developers@euc-liveware.com | Automatic       |

9. In the **Assign** window
- Under **Deployment** type
    - From the **dropdown**
      - **Developers** are set to
        - **Automatic**

Assign

✓ Application: 'Enterprise Terminal' updated successfully.

Selected App(s): Enterprise Terminal

Users / User Groups

🔍 sales

|                               |                 |
|-------------------------------|-----------------|
| 👤 Sales@euc-liveware.com      | Deployment Type |
| 👤 Developers@euc-liveware.com | Automatic       |

10. In the **Assign** window
- under **Users / Groups**
    - enter **Sales**
      - select **Sales@euc-liveware.com**



Assign

Application: "Enterprise Terminal" updated successfully.

Selected App(s): Enterprise Terminal

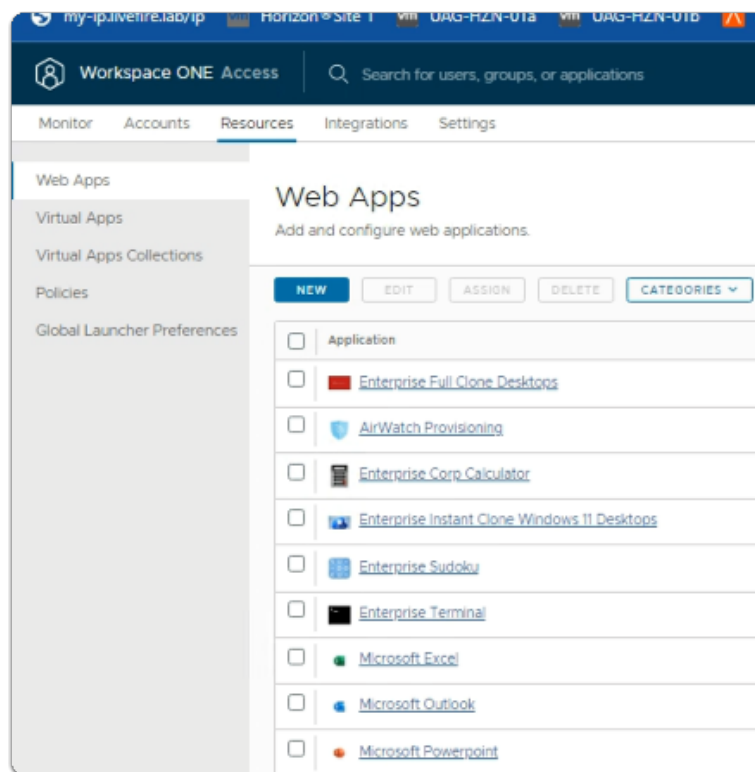
Users / User Groups

Search for Users or Groups

| Selected Users / User Groups | Deployment Type | Entitlement Type |
|------------------------------|-----------------|------------------|
| Developers@euc-liveware.com  | Automatic       | Include          |
| Sales@euc-liveware.com       | Automatic       | Include          |

CANCEL
SAVE

11. In the **Assign** window
  - Under **Deployment** type
    - From the **dropdown**
      - **Developers** are set to
        - **Automatic**
  - In the bottom right corner
    - select **SAVE**

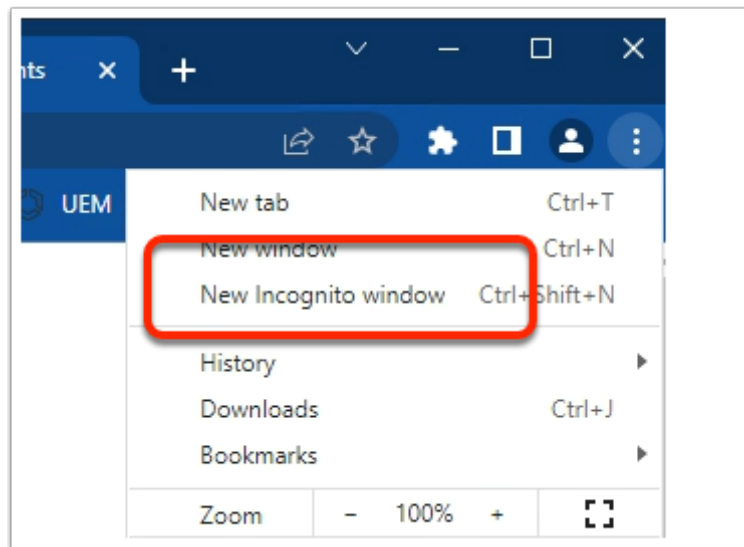


12. In your **Workspace ONE Access** Console
- **Web Apps** interface
    - Note your **Enterprise Terminal Web Application Link**

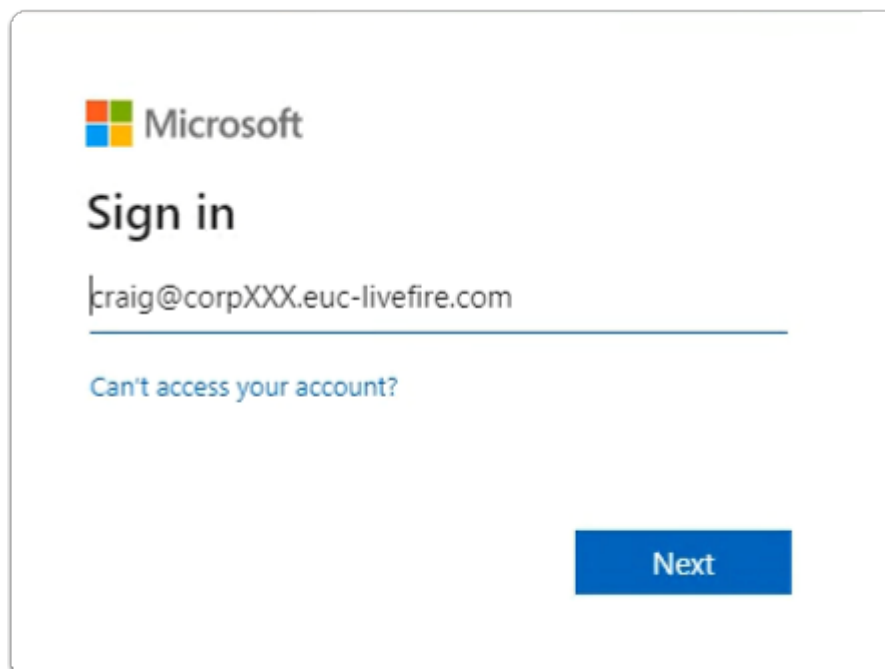
## Part 6 Testing Multi-Session Horizon integration with Workspace ONE Access using CPA Global Entitlements

We will conclude this entire lab with a test to validate the configuration we have implemented

# Testing Multi-session Horizon Integration with Workspace ONE Access



1. On your Control Center server
  - On your **Chrome browser**
    - Open up an **Incognito** session
    - In the address bar enter **your Workspace ONE Access tenant url**

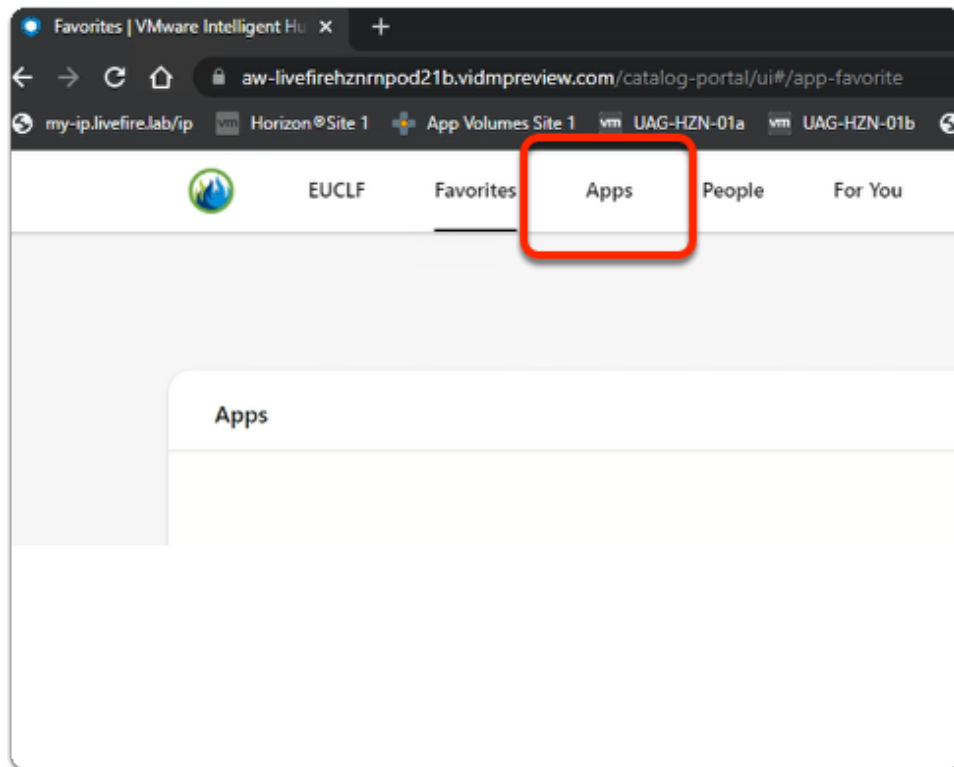


2. In the **Microsoft Sign in** window
  - enter
    - **craig@corpXXX.euc-livefire.com**
    - where XXX is your assigned Domain ID

- select **Next**

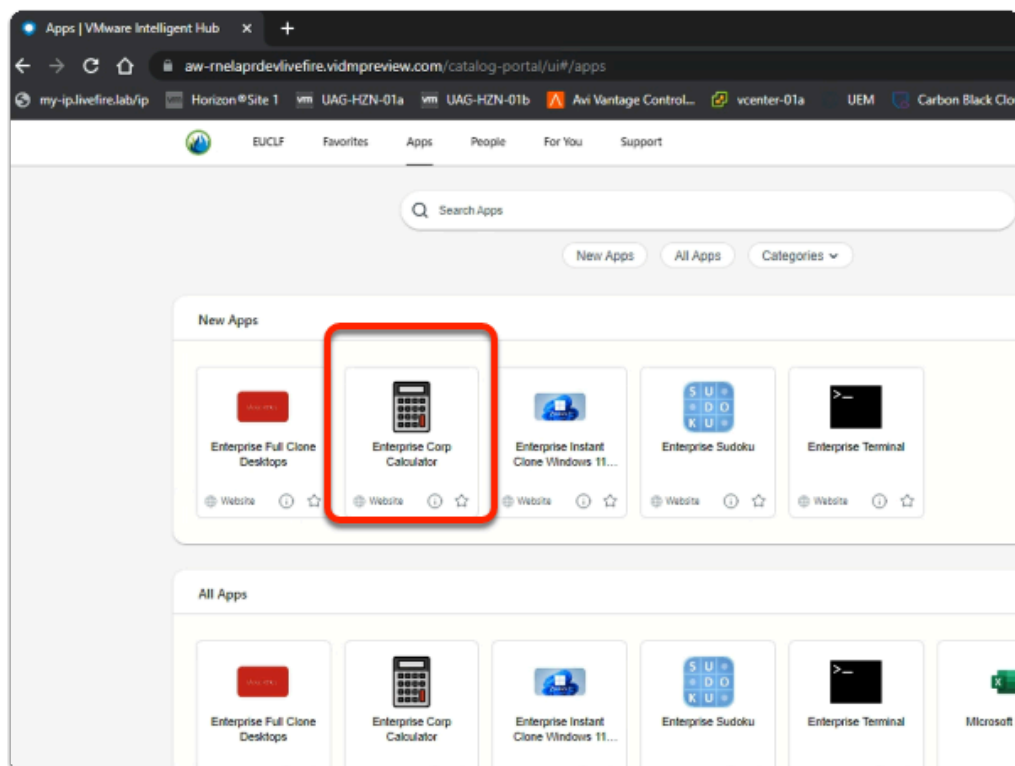
The image displays two sequential screenshots of a Microsoft sign-in interface. The top screenshot shows the 'Enter password' step, where the user's email address 'craig@corp19r.euc-liveware.com' is displayed, followed by a password field with masked characters and a 'Sign in' button. The bottom screenshot shows the 'Stay signed in?' prompt, asking the user to stay signed in to reduce the number of times they are asked to sign in. It includes a checkbox labeled 'Don't show this again' and two buttons: 'No' and 'Yes'.

3. In the **Microsoft Sign in** window
  - Under **Enter password**
    - enter **VMware1!**
  - select **Sign in**
  - In the **Stay signed in?** window
    - select **NO**



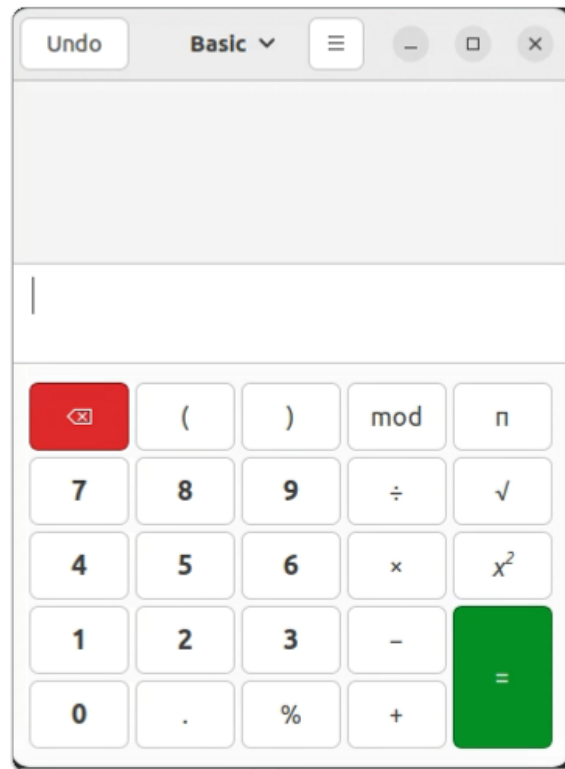
#### 4. In the **web Intelligent Hub**

- Select **Apps**



#### 5. In the **web Intelligent Hub**

- Under **New Apps**
  - select **Enterprise Corp Calculator**



6. On your ControlCenter session
- **Note your Calculator has launched**
  - **Feel free to try launch Sudoku & Terminal**