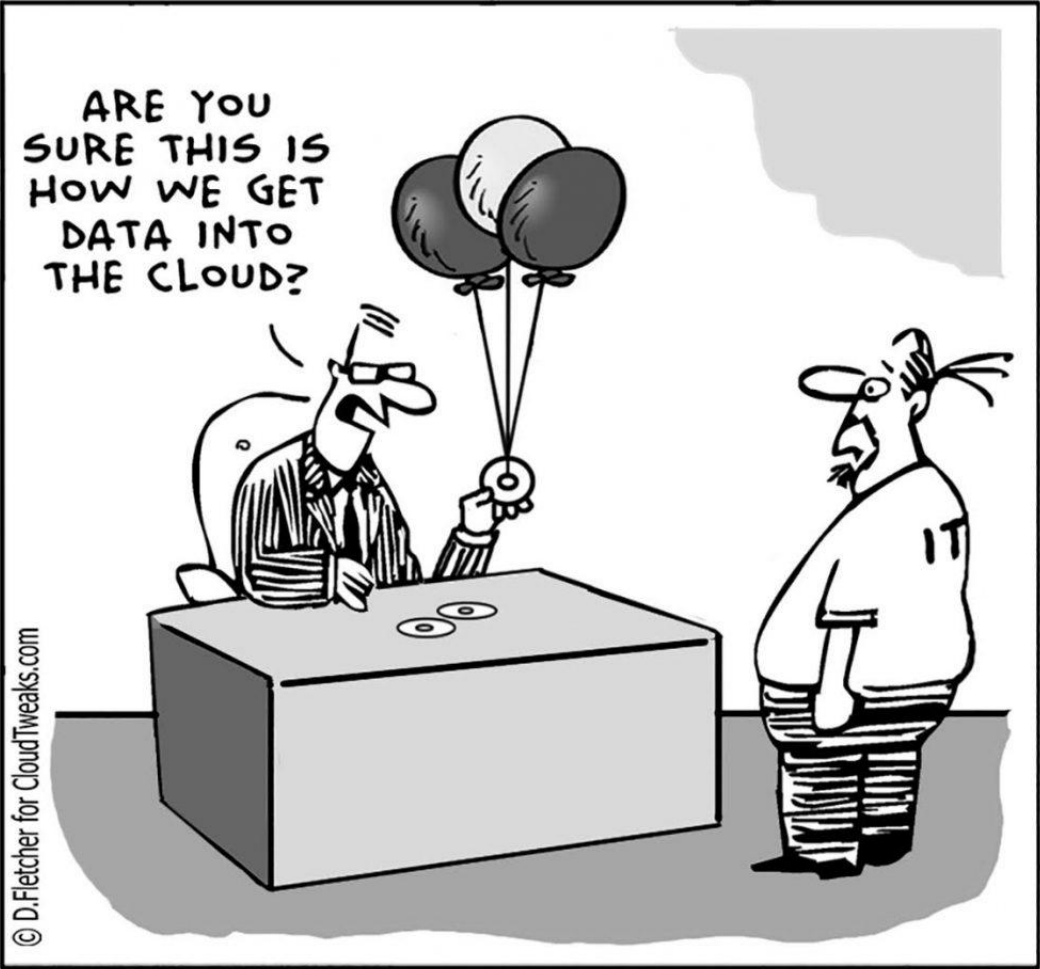


Waiting Room:

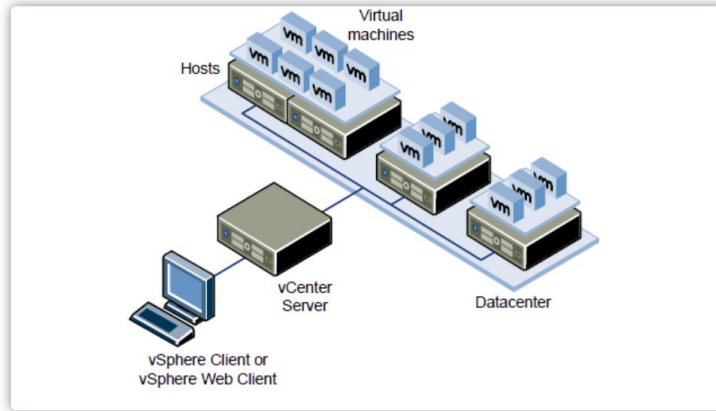


# **Lab Experiment 2. Installation and Configuration of Vcenter Server**

## VCENTER 6 OVERVIEW

vCenter Server unifies resources from individual hosts so that those resources can be shared among virtual machines in the entire datacenter. It accomplishes this by managing the assignment of virtual machines to the hosts and the assignment of resources to the virtual machines within a given host based on the policies that the system administrator sets.

## VSPHERE V6 COMPONENTS



The above diagram shows how vCenter fits in the vSphere stack. With vCenter installed, you have a central point of management. vCenter Server allows the use of advanced vSphere features such as vSphere Distributed Resource Scheduler (DRS), vSphere High Availability (HA), vSphere vMotion, and vSphere Storage vMotion.

The other component is the vSphere Web Client. The vSphere Web Client is the interface to vCenter Server and multi-host environments. It also provides console access to virtual machines. The vSphere Web Client lets you perform all administrative tasks by using an in-browser interface.

**vCenter Server** is an application that enables you to manage your vSphere infrastructure from a centralized location. It acts as a central administration point for ESXi hosts and their respective virtual machines.

vCenter Server can be installed on a supported version of Windows or you can use a preconfigured Linux version known as **vCenter Server Appliance**. vCenter Server is required for some advanced vSphere features, such as vSphere High Availability, vSphere Fault Tolerance, vSphere Distributed Resource Scheduler (DRS), VMware vSphere vMotion, and VMware vSphere Storage vMotion.

A single vCenter Server instance can support a maximum of **1,000** hosts, **10,000** powered-on virtual machines and **15,000** registered virtual machines.

# Quick Overview of Domain Controller [ Prerequisite for Installation ]

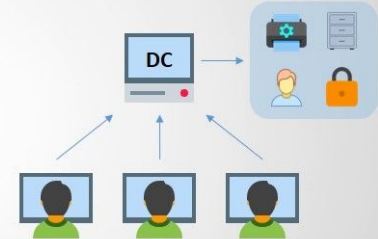
What is



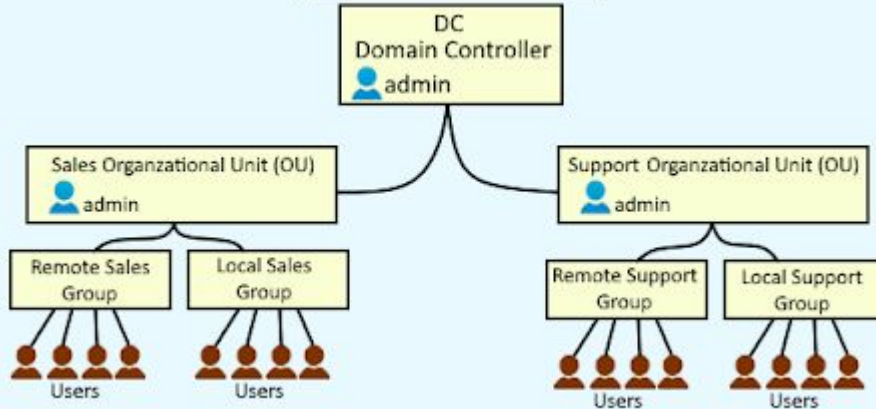
a domain controller?

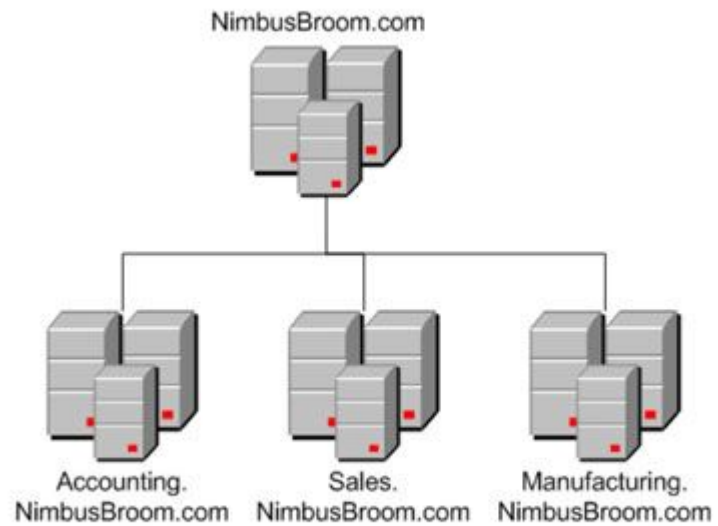
# Windows Domain Controller

- Directory Service called “Active Directory Users and Computers”



Active Directory (AD) Hierarchy







# Steps to Configure [ Vcenter Server ]

Before that, First we need to create  
Domain

# Steps:

**Following Steps :** Create and Configure Window 2012 r2 Server Virtual Machine  
[ Inshort Create a Domain for installing Vcenter Server ]

Demo System Requirement : **VM - min 1 GB RAM**

## Following Tasks

**Change the Destination server name** - For Example CSSP\_Server

**Assign Manual IP Address :** For Example **192.168.1.10** 255.255.255.0

# Next

Configure ADDS [Active Directory Domain Service] : [Add a new forest - For Example ashwini.com \(Domain name\)](#)

[Configure the admin password for ADDS](#)

**Once the ADDS is properly configured then time to configure DNS**

**Configure the DNS server [ Add a new primary zone ] for newly created domain.**

**Turn off the firewall settings**

**#ADDS and DNS is successfully installed and Configured !!!!! [Example shown in below snapshot]**

ADDS

Server Manager

Server Manager ▸ Local Server

Manage Tools View Help

Dashboard

Local Server

All Servers

PROPERTIES

For CSSPServer

TASKS

Computer name	CSSPServer	Last installed updates
Domain	ashwini.com	Windows Update
		Last checked for updates
Windows Firewall	Public: On	Windows Error Reporting
Remote management	Enabled	Customer Experience Improvement Program
Remote Desktop	Disabled	IE Enhanced Security Configuration
NIC Teaming	Disabled	Time zone
Ethernet0	192.168.1.10, IPv6 enabled	Product ID
Operating system version	Microsoft Windows Server 2012 R2 Standard Evaluation	Processors
Hardware information	VMware, Inc. VMware Virtual Platform	Installed memory (RAM)
		Total disk space

EVENTS

All events | 0 total

TASKS

Filter

Server Name	ID	Severity	Source	Log	Date and Time
-------------	----	----------	--------	-----	---------------

Server Manager

Server Manager ▸ Local Server

Manage Tools View Help

Dashboard

Local Server

All Servers

PROPERTIES

For CSSPServer

TASKS

Computer name	CSSPServer	Last installed updates
Domain	ashwini.com	Windows Update
		Last checked for updates
Windows Firewall	Public: On	Windows Error Reporting
Remote management	Enabled	Customer Experience Improvement Program
Remote Desktop	Disabled	IE Enhanced Security Configuration
NIC Teaming	Disabled	Time zone
Ethernet0	192.168.1.10, IPv6 enabled	Product ID
Operating system version	Microsoft Windows Server 2012 R2 Standard Evaluation	Processors
Hardware information	VMware, Inc. VMware Virtual Platform	Installed memory (RAM)
		Total disk space

EVENTS

All events | 0 total

TASKS

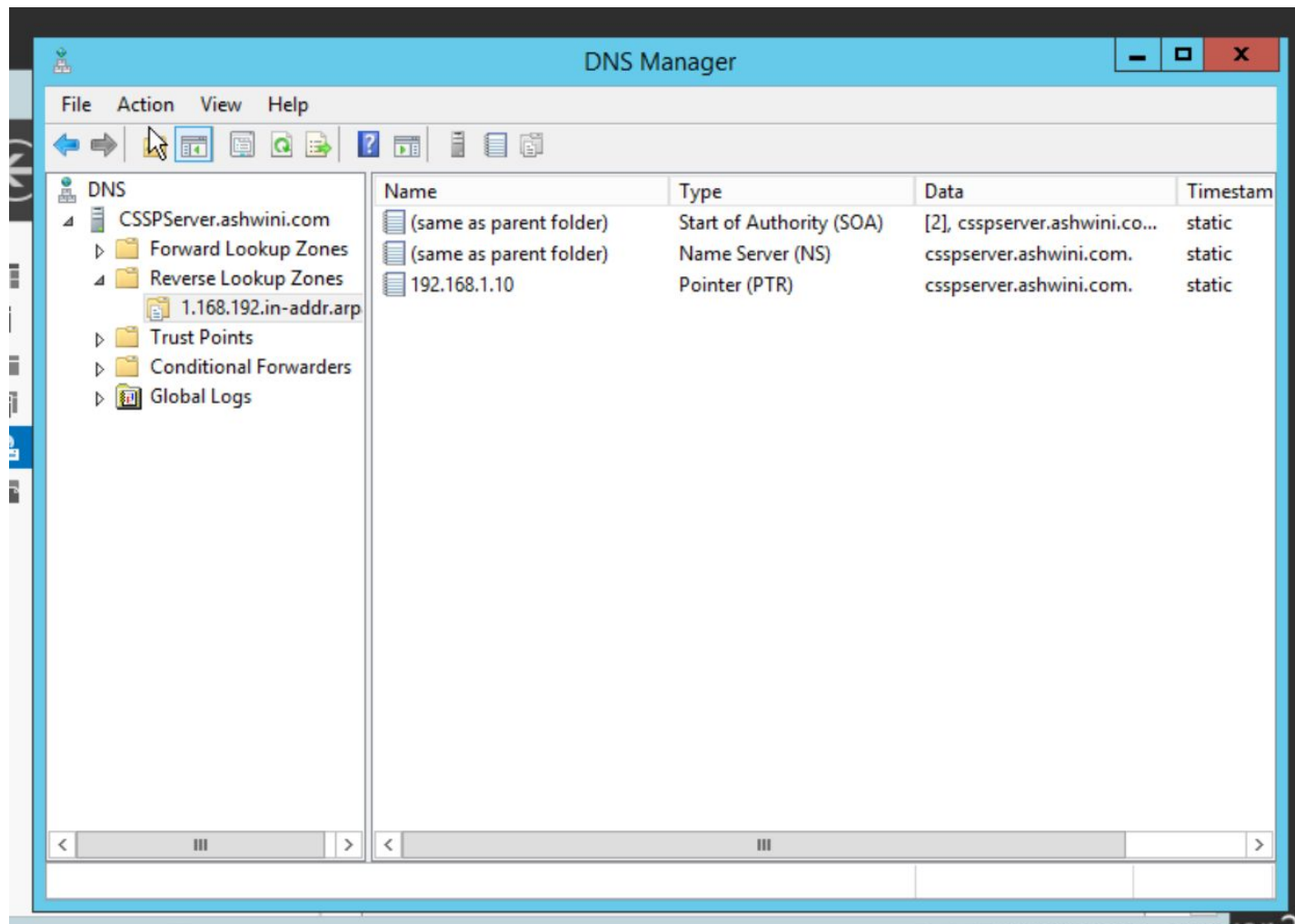
Filter

Server Name	ID	Severity	Source	Log	Date and Time
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9:58 PM

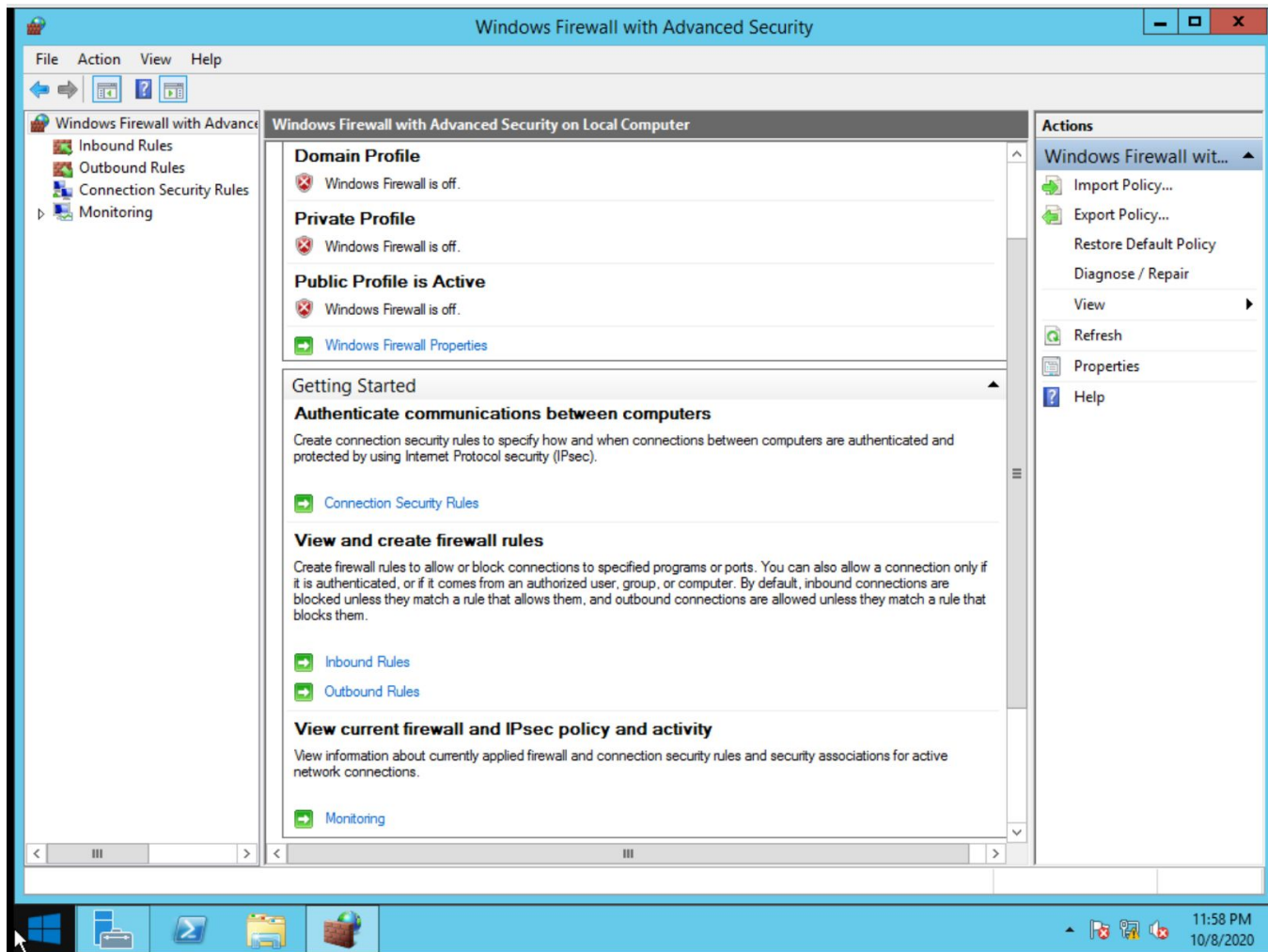
10/7/2020

DNS





Firewall Setting ..



Time to Create a New VM [ Window 2012 R2 Server ]  
[ For Installation of Vcenter Server ]

Min **RAM** required 8 GB

# Steps

First Step - Change the Destination Server Name : For Example Vcenter Server

Assign Static IP Address :

For Example 192.168.1.20 255.255.255.0 and Primary DNS : 192.168.1.10

**Add this Destination server as a member of Domain [ ashwini.com ]**

System Properties

Computer Name/Domain Changes

You can change the name and the membership of this computer. Changes might affect access to network resources.

Computer name:  
Vcenter

Full computer name:  
Vcenter

More...

Member of

☒ Domain:  
ashwini.com

☐ Workgroup:  
WORKGROUP

OK Cancel

Computer Name/Domain Changes

Welcome to the ashwini.com domain.

OK

Microsoft Windows Server 2012 R2 Standard Evaluation  
VMware, Inc. VMware Virtual Platform

Windows Server 2012 R2

Windows Server 2012 R2 Standard Evaluation  
Windows License valid for 180 days  
Build 9600

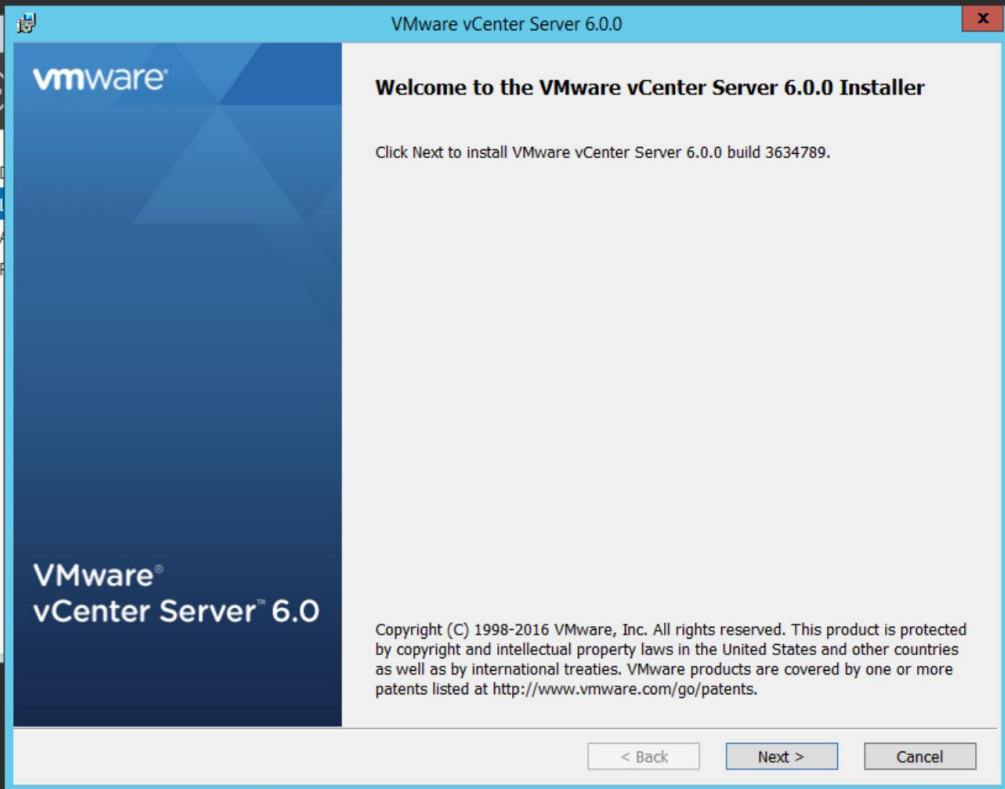
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Mount the ISO image of Vcenter Server  
in Virtual CD/DVD Drive

Start the installation steps of Vcenter



Recycle



2

Hard Evaluation

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Recycle



VMware vCenter Server 6.0.0



## End User License Agreement

Read the following license agreement before proceeding with the installation.

### VMWARE END USER LICENSE AGREEMENT

**PLEASE NOTE THAT THE TERMS OF THIS END USER LICENSE AGREEMENT SHALL GOVERN YOUR USE OF THE SOFTWARE, REGARDLESS OF ANY TERMS THAT MAY APPEAR DURING THE INSTALLATION OF THE SOFTWARE.**

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☒ I accept the terms of the license agreement.

&lt; Back

Next &gt;

Cancel

Standard Evaluation

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Recycle



### VMware vCenter Server 6.0.0

## Select deployment type

Select the component to deploy.

vCenter Server 6.0.0 requires a Platform Services Controller, which contains shared services such as vCenter Single Sign-On, Licensing, and Certificate Management. An embedded Platform Services Controller is deployed on the same Windows Host as vCenter Server. An external Platform Services Controller is deployed in a separate Windows Host. For smaller installations, consider vCenter Server with an embedded Platform Services Controller. For larger installations with multiple vCenter Servers, consider one or more Platform Services Controllers. Refer to product documentation for more information.

Note: Once you deploy vCenter Server, you can only change from an embedded to an external Platform Services Controller with a fresh install.

### Embedded Deployment

☒ vCenter Server and Embedded Platform Services Controller

### External Deployment

☐ Platform Services Controller

☐ vCenter Server

A previously installed Platform Services Controller is required

< Back   Next >   Cancel

2

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VMware vCenter Server 6.0.0

### System Network Name

Configure the name of this system.

Enter the system name to use for managing the local system. The system name will be encoded in the SSL certificate of the system so that the components can communicate with each other by using this name. Enter the system name as a fully-qualified domain name (FQDN). If DNS is not available, you can provide a static IPv4 address. IPv6 is supported only by using a name.

System Name:

**Note:** The System Network Name cannot be changed after deployment.

< Back   Next >   Cancel

2

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VMware vCenter Server 6.0.0

### vCenter Single Sign-On Configuration

Create or join a vCenter Single Sign-On domain.

☒ **Create a new vCenter Single Sign-On domain**

Domain name: vsphere.local

user name vCenter Single Sign-On: administrator

password vCenter Single Sign-On: .....

Confirm password: .....

Site name: Default-First-Site

☐ **Join a vCenter Single Sign-On domain**

Platform Services Controller EQDN or IP address:

HTTPS port vCenter Single Sign-On: 443

user name vCenter Single Sign-On: administrator

password vCenter Single Sign-On:

**Note:** vCenter Single Sign-On configuration cannot be changed after deployment.

< Back Next > Cancel

2

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VMware vCenter Server 6.0.0



## vCenter Server Service Account

Enter the vCenter Server service account information.

By default, the vCenter Server instance runs in the Windows Local System account. To run in another administrative user account, select the option to specify a user service account and provide the account credentials. The user service account must be granted the 'Log on as a service' privilege.

☒ Use Windows Local System Account

Note: If you select this option, you cannot connect to an external database using Integrated Windows authentication.

☐ Specify a user service account

Account user name:

Account password:

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Next >

Cancel



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VMware vCenter Server 6.0.0

### Database Settings

Configure the database for this deployment.

☒ Use an embedded database (vPostgres)

☐ Use an external database

DSN Name:  Refresh

DB user name:

DB password:

< Back Next > Cancel

2

Hard Evaluation

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Configure network settings and ports for this deployment.

HTTP Port:	80
HTTPS Port:	443
Syslog Service Port:	514
Syslog Service TLS Port:	1514

Secure Token Service Port: 7444

Auto Deploy Management Port:	6502
Auto Deploy Service Port:	6501
ESXi Dump Collector Port:	6500
ESXi Heartbeat Port:	902
vSphere Web Client Port:	9443

**i** The follo  
88, 389,

deployment:  
11, and 11712

[< Back](#)

Next >

Cancel

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VMware vCenter Server 6.0.0



## Destination Directory

Select the storage location for this deployment.

Install vCenter Server with an embedded Platform Services Controller to:

C:\Program Files\VMware\

Change...

Store data for vCenter Server with an embedded Platform Services Controller in:

C:\ProgramData\VMware\

Change...

< Back

Next >

Cancel



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VMware vCenter Server 6.0.0

## Ready to install

Review your settings before starting the installation.

<b>System Name:</b>	Vcenter.ashwini.com
<b>Deployment type:</b>	vCenter Server with an embedded Platform Services Controller
<b>vCenter Single Sign-On configuration:</b>	Create a new vCenter Single Sign-On domain
<b>vCenter Single Sign-On user name:</b>	administrator
<b>vCenter Single Sign-On domain:</b>	vsphere.local
<b>vCenter Single Sign-On site name:</b>	Default-First-Site
<b>vCenter Server service account:</b>	Windows Local System Account
<b>Database type:</b>	embedded (vPostgres)
<b>Installation directory:</b>	C:\Program Files\VMware\
<b>Data directory:</b>	C:\ProgramData\VMware\

< Back   Install   Cancel

2

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VMware vCenter Server 6.0.0

**Installation progress**  
Wait until vCenter Server with an embedded Platform Services Controller is configured.

Status: Processing packages...

VMware CIS Component Manager.

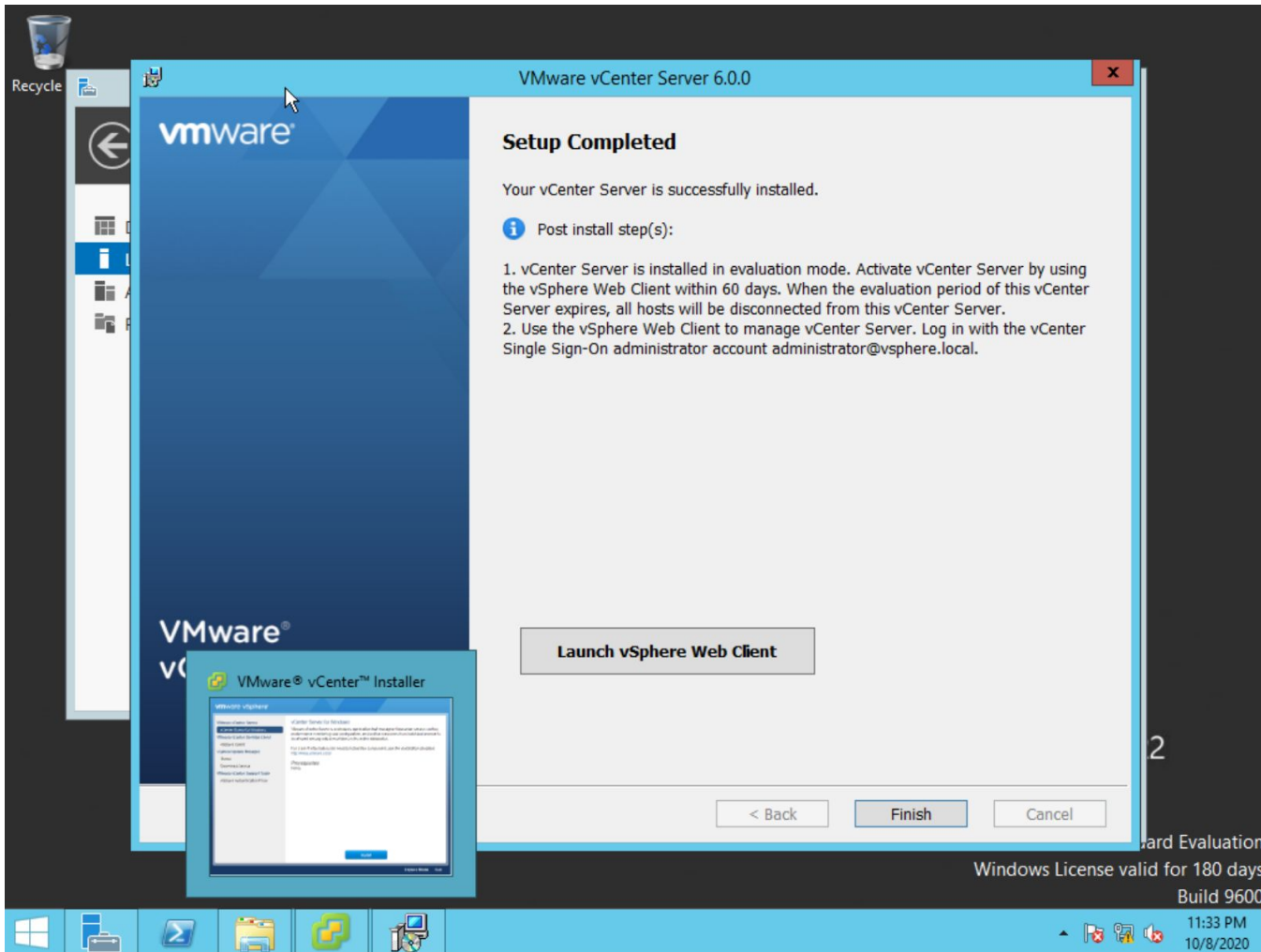
< Back

Next >

Cancel

2





VMware vCenter Server 6.0.0

vmware

## Setup Completed

Your vCenter Server is successfully installed.

**i** Post install step(s):

1. vCenter Server is installed in evaluation mode. Activate vCenter Server by using the vSphere Web Client within 60 days. When the evaluation period of this vCenter Server expires, all hosts will be disconnected from this vCenter Server.
2. Use the vSphere Web Client to manage vCenter Server. Log in with the vCenter Single Sign-On administrator account administrator@vsphere.local.

Launch vSphere Web Client

< Back

Finish

Cancel

VMware vCenter™ Installer



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Installation Successfully Done !!!

# Accessing Vcenter Server via Vsphere Client

vmware

VMware vSphere™  
Client

All vSphere features introduced in vSphere 5.5 and beyond are available only through the vSphere Web Client. The traditional vSphere Client will continue to operate, supporting the same feature set as vSphere 5.0.

To directly manage a single host, enter the IP address or host name.  
To manage multiple hosts, enter the IP address or name of a vCenter Server.

IP address / Name: 192.168.1.20

User name: vsphere.local\Administrator

Password: \*\*\*\*\*

☐ Use Windows session credentials

Login

Close

Vcenter.ashwini.com

ComputerScience\_Specilization

## ComputerScience\_Specilization

Getting Started Summary Virtual Machines Hosts IP Pools Performance Tasks &amp; Events Alarms Permissions Maps

close tab X

- 1 Create a datacenter
- 2 Add a host
- 3 Add a virtual machine
- 4 Complete set-up

## Add a host

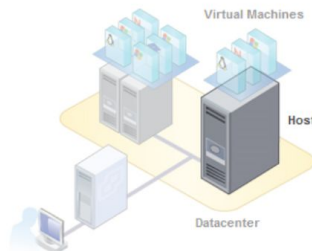
A host is a computer that uses virtualization software, such as ESX or ESXi, to run virtual machines. Adding a host to the inventory brings it under vCenter Server management.

You need a computer running ESX or ESXi software. If you don't have ESX or ESXi software, visit the [VMware Web site](#) for information about this product.

To add a host, you need to know the location of the host on the network and the administrative account (typically Administrator or root).





To continue vCenter Server setup, click Add a host.

 Add a host



## Recent Tasks

Name, Target or Status contains:  Clear X

Name	Target	Status	Details	Initiated by	Requested Start Time	Start Time	Completed Time
 Rename datacenter	 NewDatacenter	Completed		VSPHERE.LOCAL\Administrator	10/9/2020 12:40:16 ...	10/9/2020 12:40:16 ...	10/9/2020 12:40:16 ...
 Create datacenter	 Vcenter.ashwin...	Completed		VSPHERE.LOCAL\Administrator	10/9/2020 12:40:02 ...	10/9/2020 12:40:02 ...	10/9/2020 12:40:02 ...

Done !!