



## **Active Directory Coexistence between an existing On-Premise Domain Controller and a CloudConnect Private Domain**

**In this example, we will demonstrate how to create a Private Domain on CloudConnect, which replicates with an existing on-premise Active Directory Domain. This greatly reduces the risk and time to migrate complex existing environments or use CloudConnect as a hybrid solution**

This procedure requires a working knowledge of managing Active Directory Domain Services as well as VPN/IPSec tunnels.

This procedure requires an on premise VPN capable firewall. In this example we use a SonicWALL NSA running SonicOS.


This procedure takes approximately 2 hours to complete. After running through this procedure, existing user accounts in the existing domain will be able to logon to CloudConnect using their existing Active Directory Identity, username and password.

Once authenticated on either side of the VPN tunnel, the user will not be prompted for authentication between on premise and Cloud resources, as Kerberos authentication will be used.

Hosted Desktops & External Applications

https://www.cloudconnect.net

Desktop LoginSupport Portal



SolutionsPartner ProgramInfrastructureGetting StartedCompany

REMARKABLE DESKTOPS AND INFRASTRUCTURE

Providing Turn-Key Windows Desktop  
And Extensive Managed Infrastructure

Partner Request


Schedule A Tutorial


vmware

CITRIX

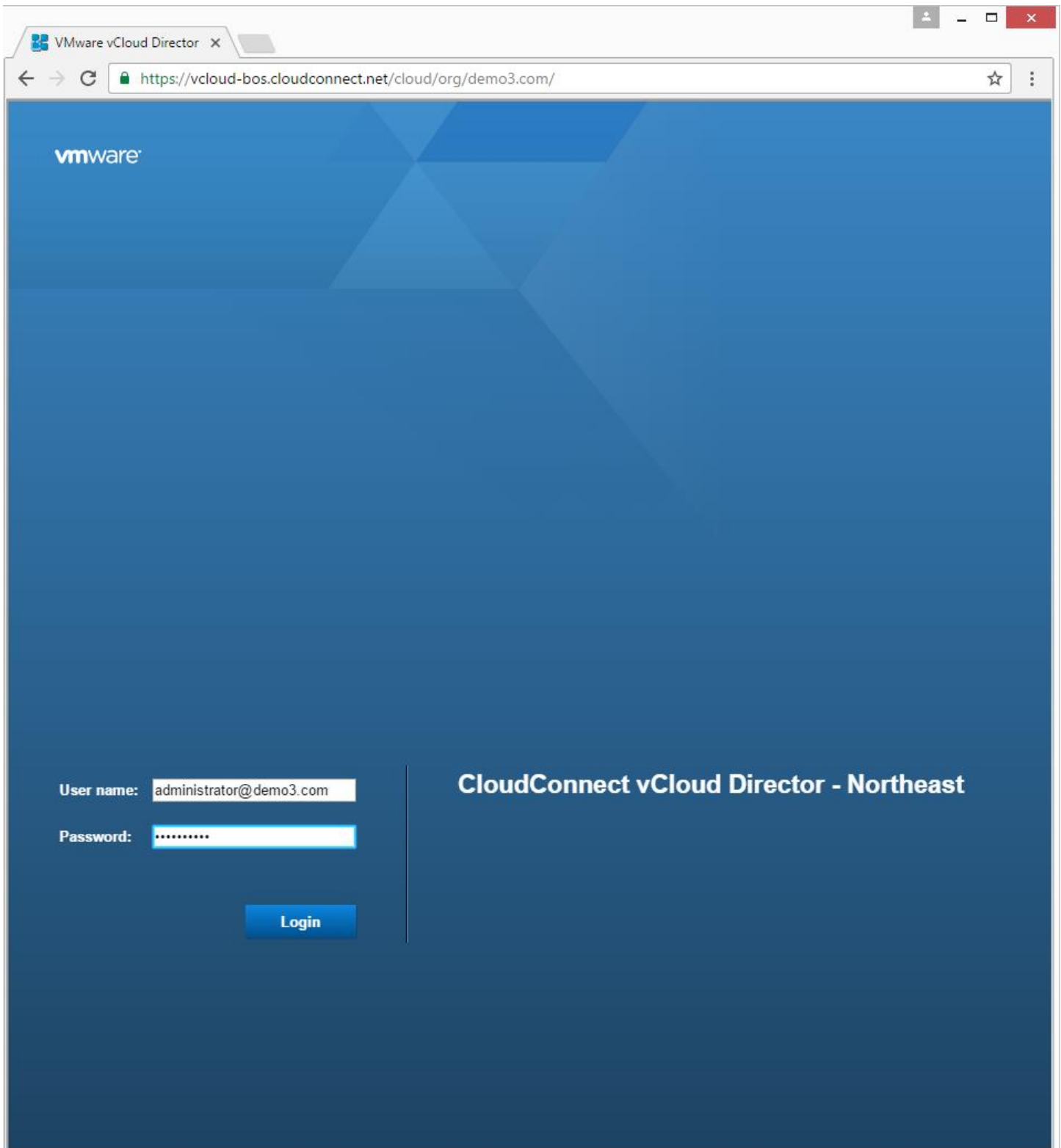
Easy Access

SMB to enterprise, users gain access  
to a Windows Desktop from anywhere  
using any internet capable device.



Log in to  
CloudConnect

LoginCancel







VMware vCloud Director x Solutions : Partner Support x

← → ↻ <https://support.cloudconnect.net/solution/categories> 🔍 📌 ☆ ⋮


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 Solutions 🔍 Manage New Article ▾

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VMware vCloud Director x Forms - Private Domain : x

https://support.cloudconnect.net/solution/folders/1000108493

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**Forms - Private Domain**  
Visible to: Logged In Users

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[Add a New Private Domain](#)  
Last Published by CloudConnect Portal Support, 6 months ago

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Created by CloudConnect Portal Support, 10 months ago

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VMware vCloud Director x Private Domain Request x

Formsite (Vroman Systems, Inc.) [US] | https://fs8.formsite.com/CloudConnect/form37/index.html

Please complete the form below to initiate provisioning of a new Virtual Data Center.

CC-VDCEX-112015

### Add a Virtual Data Center - Existing Partner

Please complete the form below to initiate provisioning of a new virtual data center. Please allow at least 48 hours for the Activation Team to provision the new environment.

#### Contact Information

Your Information (as primary contact):

**First \*** John **Middle Initial**

**Last \*** Smith

**Title \*** Systems Architect

**Contact Email Address \*** jsmith@demo3.com **Contact Phone Number \*** 555-867-5309

**Your Organization's Name \*** Demo 3 IT Company, Inc.

#### VDC Information

Please provide specific domain and user group information.

**User Group Name (Client Name) \*** Acme 3, Inc.

**Domain Name Requested \*** acme3.local

Please note that every Virtual Data Center requires a dedicated Active Directory domain.

**I would like to: \*** ADD a VDC to an existing vCloud Organization ▼

If you chose to provision a NEW vCloud Organization (indicated above), please complete the [Partner Enrollment Form](#).







New Organization VDC Network

Select Network Type

Configure Network

Name and Description

Ready to Complete

Select Network Type

Create a network for use by vApps in this virtual datacenter.

You can create a routed network that provides controlled access to machines and networks outside of the VDC via an edge gateway, or an isolated network that only machines in this VDC can connect to. You can also create a network that connects directly to an external network.

☐ Create an isolated network within this virtual datacenter.

☒ Create a routed network by connecting to an existing edge gateway.

All

Name	# External Networ...	# Organization V...	Available Networks
EdgeGateway-00	2	0	8

1-1 of 1

1-1 of 1

Back

Next

Finish

Cancel

New Organization VDC Network

Select Network Type

Configure Network

Name and Description

Ready to Complete

Configure Network

Enter the network settings of the new organization VDC network for this virtual datacenter.

Gateway address:

10.39.0.1

\*

Network mask:

255.255.255.0

\*

☐ Use gateway DNS

Select this option to use DNS relay of the gateway. DNS relay must be pre-configured on the gateway.

Primary DNS:

192.168.3.10

The Primary DNS should be initially set to the IP address of the existing on-premise Domain Controller

Secondary DNS:

DNS suffix:

acme3.local

The DNS suffix should be set to the active directory domain name

Static IP pool:

Enter an IP range (format: 192.168.1.2 - 192.168.1.100) or IP address and click Add.

10.39.0.10-10.39.0.99

Add

10.39.0.10 - 10.39.0.99

Modify

Remove

Total: 90

Back

Next

Finish

Cancel

New Organization VDC Network

?

×

Select Network Type

Configure Network

**Name and Description**

Ready to Complete

**Name this Organization VDC Network**

Enter the name and description of this new Org VDC network.

Name:  \*

Description:

☐ Share this network with other VDCs in the organization

Back

**Next**

Finish

Cancel

New Organization VDC Network

?

×

Select Network Type

Configure Network

Name and Description

Ready to Complete

Ready to Complete

You are about to create an organization VDC network. Review these settings and click Finish.

Name:Acme3 Network

Description:

Network Type:Routed Org VDC Network

Gateway:EdgeGateway-004-052

Gateway address:10.39.0.1/24

Primary DNS:192.168.3.10

Secondary DNS:

DNS suffix:acme3.local

Static IP pool:10.39.0.10 - 10.39.0.99

Back

Next

Finish

Cancel

VMware vCloud Director

<https://vcloud-bos.cloudconnect.net/cloud/org/demo3.com/#/OrgVdcNetworkList?orgVdc=73f1b5df-ee45-46c9-a629-908d02d1f659>

DEMO3 administrator@demo3.com (Organization Administrator)

Home My Cloud Catalogs Administration

Administration

- Cloud Resources
  - Virtual Datacenters
    - Recent Items
    - PrivateDomain:acme3.local
      - Members
        - Users
        - Lost & Found
      - Settings
        - General
        - Email
        - Policies
        - Guest Personalization
        - Federation
        - Metadata

PrivateDomain:acme3.local

vApps vApp Templates Media & Other Storage Policies Edge Gateways Org VDC Networks

Name	Status	Gateway Address	Type	Connected To	IP Pool (Used/Total)
Acme3 Network	✓	10.39.0.1/24	Routed	EdgeGateway-004-i	0.00%
CloudConnect	✓	172.17.4.1/22	Direct	CloudConnect	17.55%

VMware vCloud Director

https://vcloud-bos.cloudconnect.net/cloud/org/demo3.com/#/OrgVdcGatewayList?orgVdc=73f1b5df-ee45-46c9-a629-908d02d1f659

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      - Settings
        - General
        - Email
        - Policies
        - Guest Personalization
        - Federation
        - Metadata

PrivateDomain:acme3.local

vApps vApp Templates Media & Other Storage Policies **Edge Gateways** Org VDC Networks

Name	Status	Multi-Interface Mode	# Used NICs	# External Networks	# Orgs
EdgeGateway-004-052		✓	3	2	1
Actions: EdgeGateway-004-052					
Edge Gateway Services...					
External IP Allocations					
Re-Apply Service Configuration...					
Re-Deploy...					
Synchronize Syslog Server Settings					
Properties...					

For a Site-to-Site VPN Setup example, see CloudConnect Knowledge Base Article: CCT-20151121 - Establishing a VPN Tunnel between vCloud Edge Gateway and an External Network



DELL SonicWALL - Administrator

https://192.168.3.1/main.html?\_=fbbbc

**DELL** SonicWALL | Network Security Appliance

Register | Wizards | Help | Log Out

Mode: Configuration

VPN / Settings

**VPN Global Settings**

☒ Enable VPN

Unique Firewall Identifier: COEAE45EB870

View IP Version: ☒ IPv4 ☐ IPv6

**VPN Policies**

#	Name	Gateway	Destinations	Crypto Suite	Enable	Configure
1	WAN GroupVPN			ESP: 3DES/HMAC SHA1 (IKE)	<input type="checkbox"/>	
2	WLAN GroupVPN			ESP: 3DES/HMAC SHA1 (IKE)	<input checked="" type="checkbox"/>	
3	To Acme 3 CloudConnect Network	192.203.253.235 108.26.236.235	10.39.0.0 - 10.39.0.255	ESP: AES-256/HMAC SHA1 (IKE)	<input checked="" type="checkbox"/>	

Administrator: Windows PowerShell

```
Windows PowerShell
Copyright (C) 2009 Microsoft Corporation. All rights reserved.

PS C:\Users\Administrator> ping 10.39.0.1

Pinging 10.39.0.1 with 32 bytes of data:
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64

Ping statistics for 10.39.0.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 3ms, Maximum = 3ms, Average = 3ms
PS C:\Users\Administrator>
```

IPSec VPN service helps you create secure VPNs between gateways. Site-to-Site VPN can be configured between edge gateways in this organization, across organizations and even to third party VPN gateways.

[Configure Public IPs...](#)[illegible]

Peer settings...

Cancel

VMware vCloud Director CCT-201511121 - Establish

https://vcloud-bos.cloudconnect.net/cloud/org/demo3.com/#/publishedCatalogVAppTemplateList?

DEMO3 administrator@demo3.com (Organization Administrator) | Preferences | Help

Home My Cloud **Catalogs** Administration

Catalogs

My Organization's Catalogs **Public Catalogs**

Public Catalogs

Catalogs vApp Templates Media & Other

All Catalogs All

Name	Ver...	Status	Gold ...	Catalog	Organization	Created On	Last Successful Sync	Storag...	Shadow
Windows 7 Emulated Desktop w/Citrix X...	4	Ready		CloudC	CloudConn	02/18/2016 11		40.00 GB	0
Windows 8.1 Emulated Desktop w/Citrix ...	4	Ready		CloudC	CloudConn	02/18/2016 11		40.00 GB	0
Windows Server 2008 R2 Standalone	1	Ready		CloudC	CloudConn	02/18/2016 9:0		40.00 GB	0
Windows Server 2012 R2 RDS	1	Ready		CloudC	CloudConn	11/23/2015 5:3		40.00 GB	0
Windows Server 2012 R2 Standalone	1	Ready		CloudC	CloudConn	02/18/2016 9:0		40.00 GB	0

Actions: Windows Server 2012 R2 Standalone

- Open
- Add to My Cloud...**
- Download...
- Upload new version...
- Sync
- Copy to Catalog...
- Move to Catalog...
- Delete
- Properties

Add to My Cloud

Select Name and Location

Configure Resources

Configure Networking

Customize Hardware

Ready to Complete

Select Name and Location

A vApp is a cloud computer system that contains one or more virtual machines. Describe this vApp and select its Virtual Datacenter.

Name:

PrivateDomain:acme3.local

Description:

Virtual Datacenter

Select the Virtual Datacenter (VDC) in which this vApp is stored and runs when it is started.

PrivateDomain:acme3.local

All

Name	Description	Allocation Model	Hardware Version
msoCloud:demo3.l...		Pay-As-You-Go	10
PrivateDomain:ac...		Pay-As-You-Go	10

1-2 of 2

FinishCancel

at any time by going to the vApps

20

Add to My Cloud

Select Name and Location

Configure Resources

Configure Networking

Customize Hardware

Ready to Complete

Configure Resources

Select what Storage Policies this vApp's virtual machines will use when deployed.

Virtual Machine	Storage Policy	Template VM Default Storage Policy
CloudDC	ENTERPRISE	

Back

Next

Finish

Cancel

Add to My Cloud

Select Name and Location

Configure Resources

Configure Networking

Customize Hardware

Ready to Complete

Configure Networking

Select the networks to which you want each virtual machine to connect. You can configure additional properties for virtual machines after you complete this wizard.

Virtual Machine	Computer Name	Networks
CloudDC	CloudDC *	NIC 0 <div>Acme3 Network Static - IP Pool</div> <div>None</div> <div>Acme3 Network</div> <div>CloudConnect</div> <div>Add Network...</div>

☐ Switch to the advanced networking workflow

Back

Next

Finish

Cancel

Add to My Cloud

Select Name and Location

Configure Resources

Configure Networking

Customize Hardware

Ready to Complete

Ready to Complete

You are about to create a vApp with these specifications. Review the settings and click Finish.

Name:

PrivateDomain:acme3.local

Description:

Owner:

administrator@demo3.com

Virtual datacenter:

PrivateDomain:acme3.local

Runtime lease:

Never Expires

Runtime lease expiration:

Never

Storage lease:

Never Expires

Storage lease expiration:

Never

Networks - 1:

Acme3 Network

VMs - 1:

Virtual Machine	Guest OS	Storage Policy	CPUs	Memory	Storage
CloudDC	Microsoft Windo	ENTERPRISE	2	6 GB	40 GB

DO NOT CHECK THIS BOX

☐ Power on vApp after this wizard is finished.

Back

Next

Finish

Cancel

VMware vCloud Director x

https://vcloud-bos.cloudconnect.net/cloud/org/demo3.com/#/orgUserHome?

DEMO3 administrator@demo3.com (Organization Administrator) | Preferences

Home My Cloud Catalogs Administration


Set up this organization

**Quick Access**

To start a vApp, click Start. To use a powered on vApp, click on its thumbnail.

+ Add vApp from Catalog + Add vApp from OVF + Build New vApp


**Diamond Staffing**



Running  
Lease never expires

Open


**PrivateDomain:acme3.local**



Pending  
Creating...

Open

**Domain Controllers**



Running  
Lease never expires

Open

**Organizations**

- Org Setting
- Manage VT

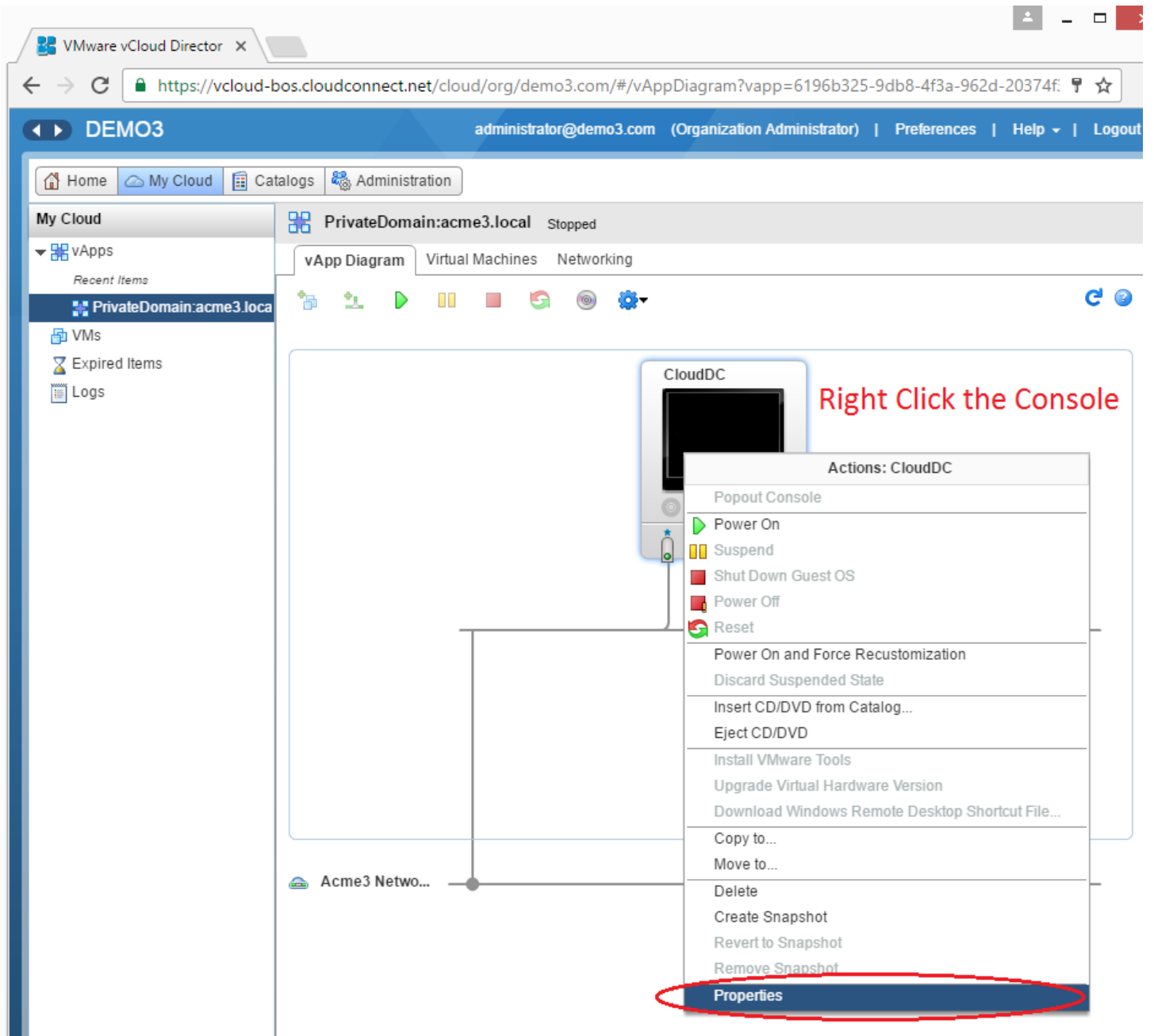
**Content**

- Manage vApp
- Add vApp
- Add vApp f
- Build New
- Manage C
- New Catal

**Users & Groups**

- Administer
- Notify User





Virtual Machine Properties: CloudDC

General Hardware **Guest OS Customization** Guest Properties Resource Allocation Metadata

☒ Enable guest customization

The computer name and network settings configured for this VM are applied to its Guest OS when the VM is powered on. The following settings are only applied the 1st time the VM is powered on or if "Power on and Force Recustomization" is performed: Change SID, Password Reset, Join Domain and Customization Script. Guest customization should not be enabled if the VM uses Guest Properties for customization.

☒ Change SID

Applicable for Windows VMs and will run Sysprep to change Windows SID. On Windows NT, VCD uses Sidgen. Running sysprep is a prerequisite for completing domain join.

**Password Reset**

☒ Allow local administrator password

☒ Auto generate password

☐ Specify password

☐ Automatically log on as Administrator

Number of times to logon automatically:

☐ Require administrator to change password on first login

**Join Domain**

☒ Enable this VM to join a domain

☐ Use organization's domain ☒ Override organization's domain

Domain name:  \*

User name:  \*

Password:  \*

Account organizational unit:

**Customization Script**

Supply credentials for joining to the on-premise / existing domain

VMware vCloud Director

https://vcloud-bos.cloudconnect.net/cloud/org/demo3.com/#/vAppDiagram?vapp=6196b325-9db8-4f3a-962d-20374f

DEMO3 administrator@demo3.com (Organization Administrator) | Preferences | Help | Logout

Home My Cloud Catalogs Administration

My Cloud

- vApps
  - Recent Items
  - PrivateDomain:acme3.local
    - VMs
    - Expired Items
    - Logs

PrivateDomain:acme3.local Stopped

vApp Diagram Virtual Machines Networking

CloudDC

Right click on the VM

Actions: CloudDC

- Popout Console
- Power On
- Suspend
- Shut Down Guest OS
- Power Off
- Reset
- Power On and Force Recustomization**
- Discard Suspended State
- Insert CD/DVD from Catalog...
- Eject CD/DVD
- Install VMware Tools
- Upgrade Virtual Hardware Version
- Download Windows Remote Desktop Shortcut File...
- Copy to...
- Move to...
- Delete
- Create Snapshot
- Revert to Snapshot
- Remove Snapshot
- Properties

Acme3 Netwo...

VMware vCloud Director

https://vcloud-bos.cloudconnect.net/cloud/org/demo3.com/#/vAppDiagram?vapp=6196b325-9db8-4f3a-962d-20374f

DEMO3 administrator@demo3.com (Organization Administrator) | Preferences | Help | Logo

Home My Cloud Catalogs Administration

My Cloud

PrivateDomain:acme3.local Running

vApp Diagram Virtual Machines Networking

Recent Items

PrivateDomain:acme3.local

VMs

Expired Items

Logs

CloudDC

Right Click on the VM

Actions: CloudDC

Popout Console

Power On

Suspend

Shut Down Guest OS

Power Off

Reset

Power On and Force Recustomization

Discard Suspended State

Insert CD/DVD from Catalog...

Eject CD/DVD

Install VMware Tools

Upgrade Virtual Hardware Version

Download Windows Remote Desktop Shortcut File...

Copy to...

Move to...

Delete

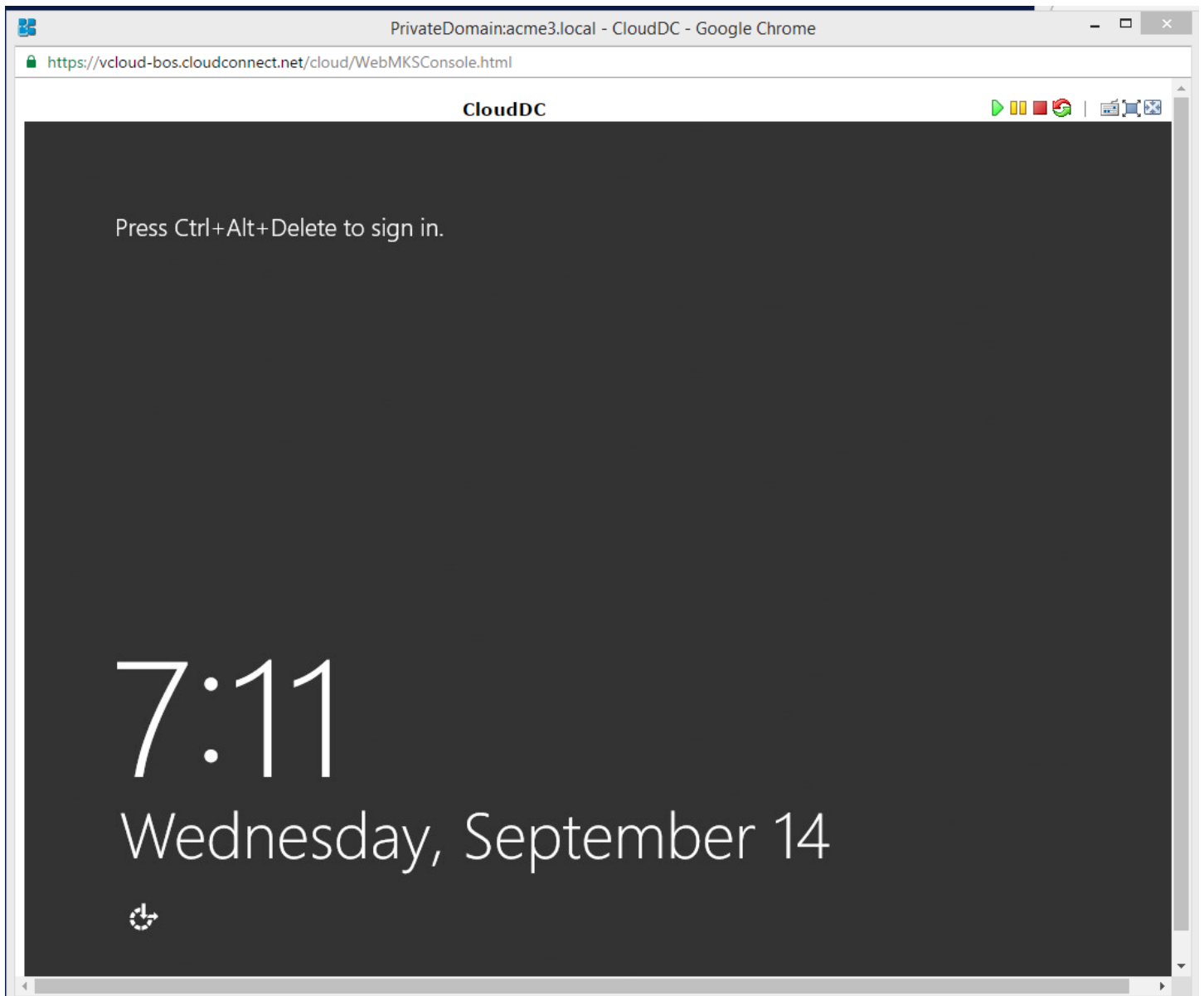
Create Snapshot

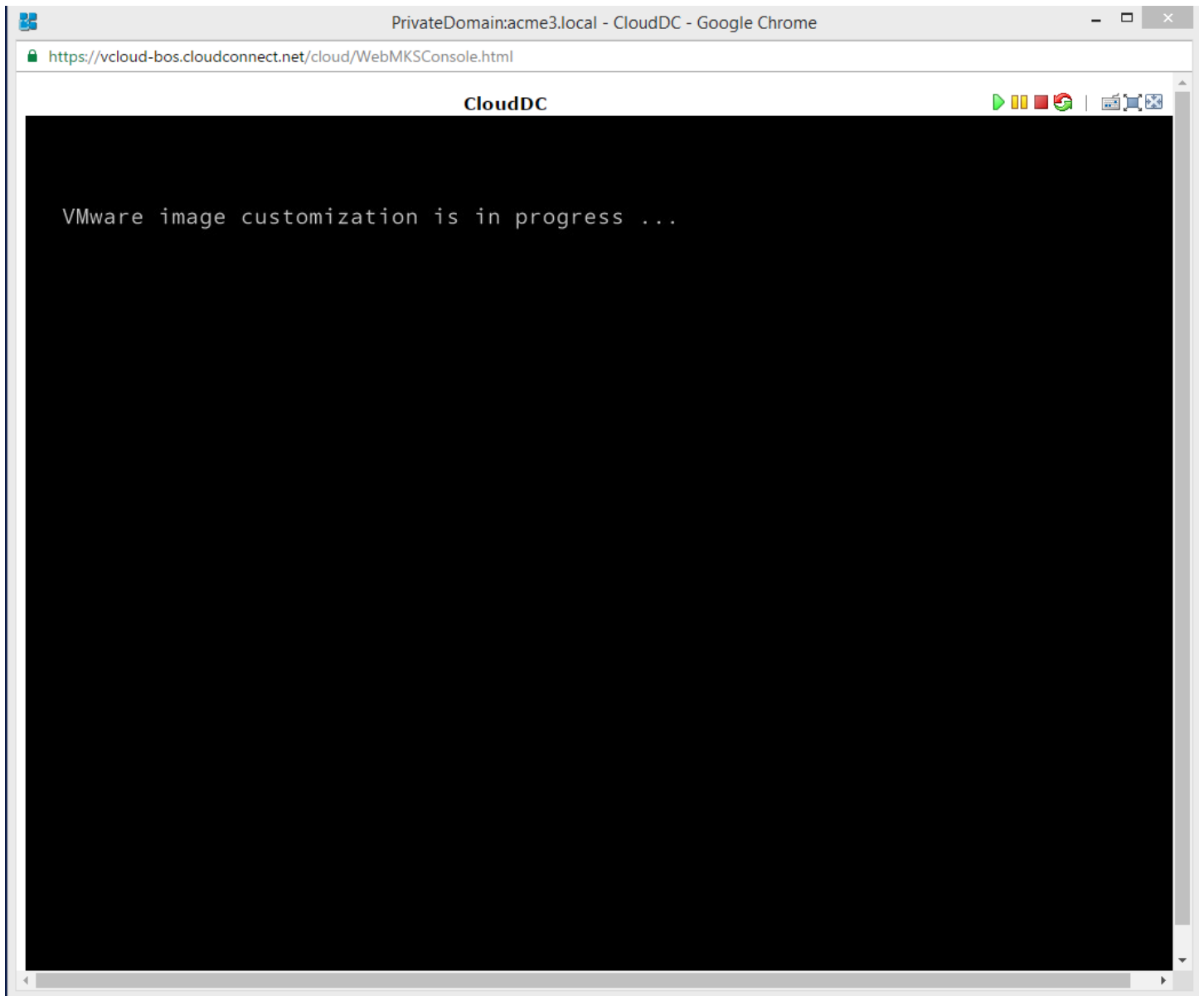
Revert to Snapshot

Remove Snapshot

Properties

Acme3 Netwo...

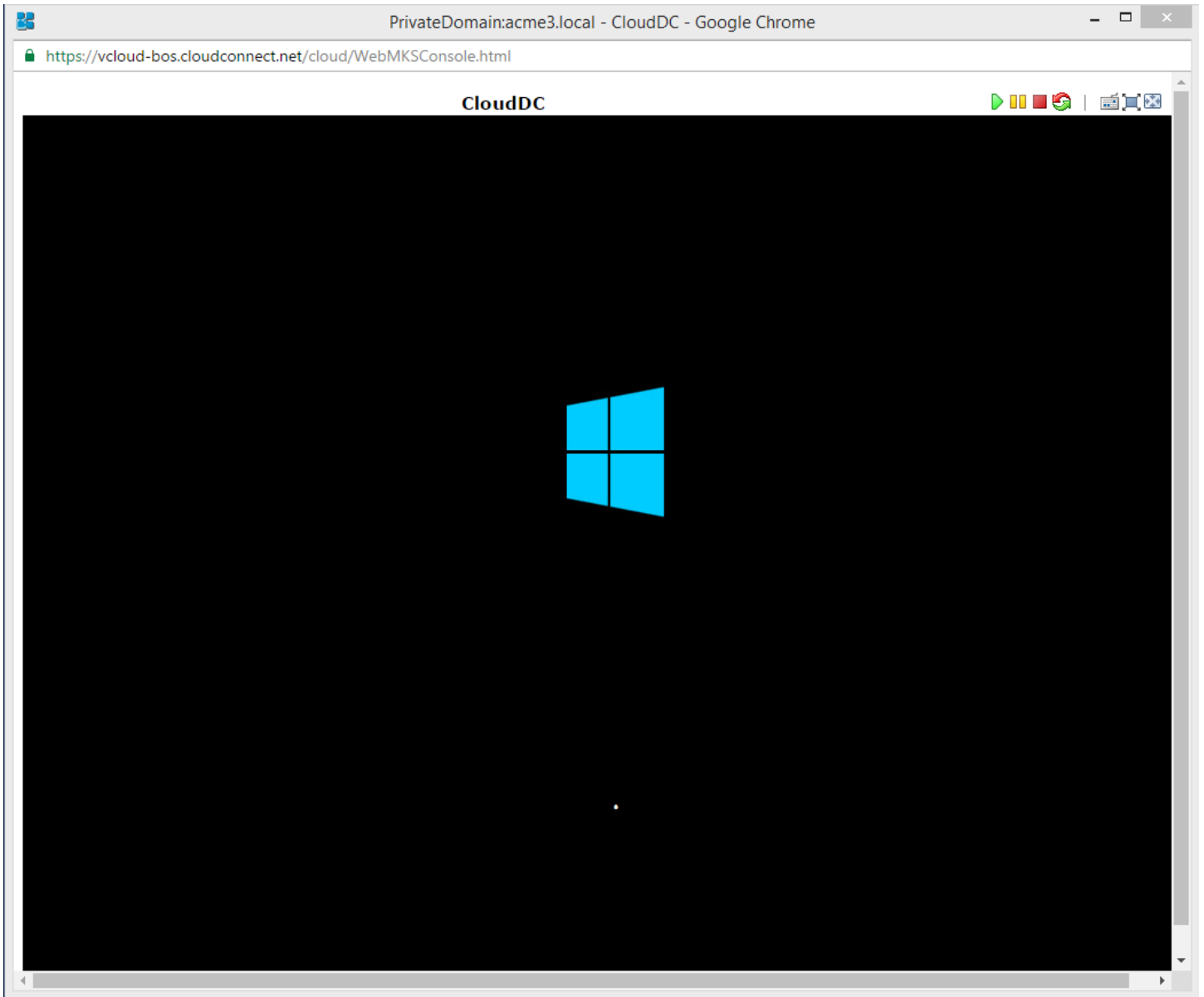




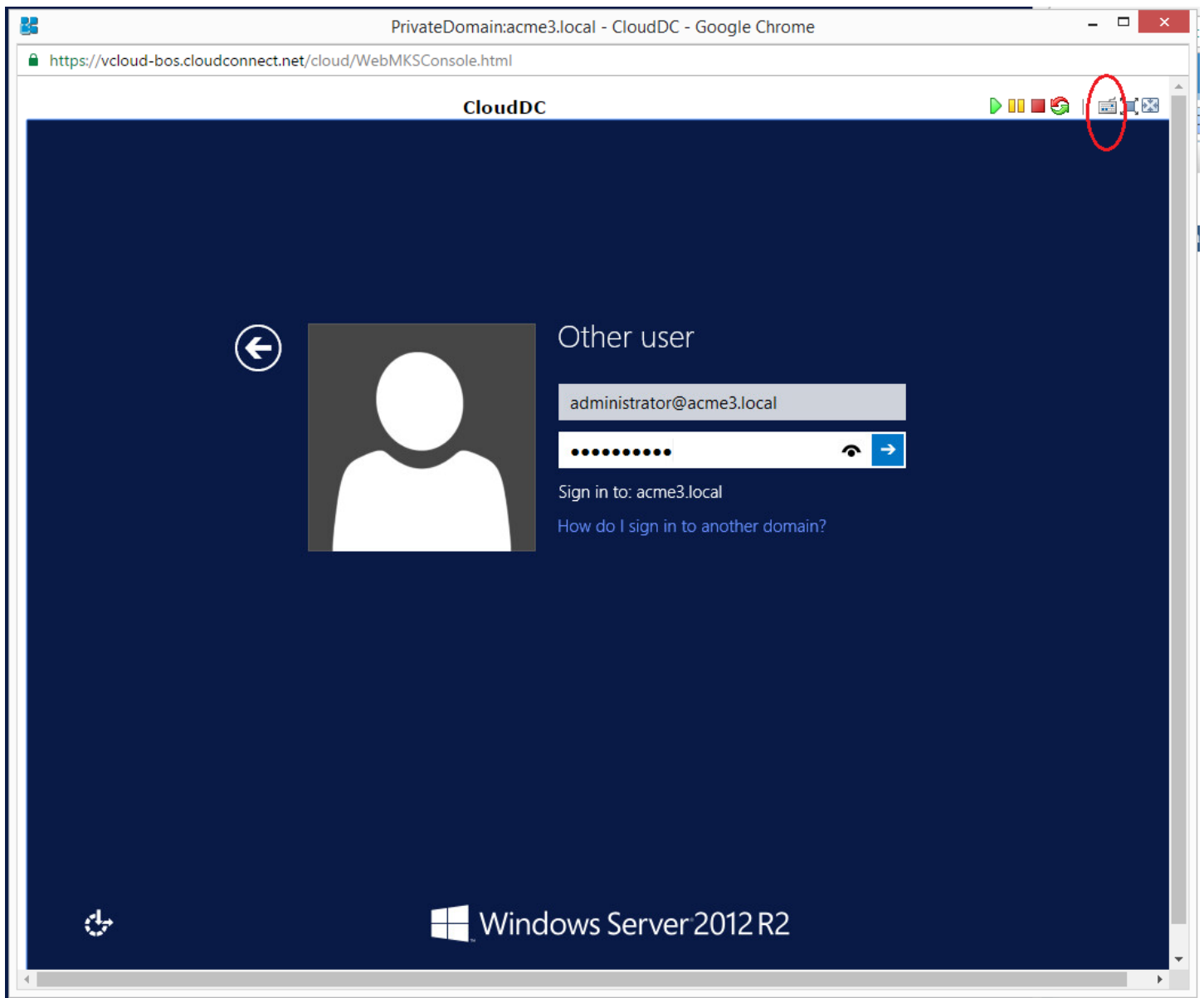
Wait 10-15 minutes for the Cloud Server to prepare itself. Do not try to log on to the Cloud Server until the on-premise Domain Controller shows it is joined to the domain.

Note: The Cloud Server will reboot itself several times during the sysprep process.

Administrator: Windows PowerShell  
Windows PowerShell  
Copyright (C) 2009 Microsoft Corporation. All rights reserved.  
PS C:\Users\Administrator> ping 10.39.0.1  
Pinging 10.39.0.1 with 32 bytes of data:  
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64  
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64  
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64  
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64  
Ping statistics for 10.39.0.1:







PrivateDomain:acme3.local - CloudDC - Google Chrome

https://vcloud-bos.cloudconnect.net/cloud/WebMKSConsole.html

### CloudDC

#### Server Manager

Server Manager ▸ Dashboard

Manage Tools View Help

Add Roles and Features

Remove Roles and Features

Add Servers

Create Server Group

Server Manager Properties

#### Dashboard

- Local Server
- All Servers
- File and Storage Services ▸

#### WELCOME TO SERVER MANAGER

QUICK START

WHAT'S NEW

LEARN MORE

1 Configure this local server

2 Add roles and features

3 Add other servers to manage

4 Create a server group

5 Connect this server to cloud services

Hide

#### ROLES AND SERVER GROUPS

Roles: 1 | Server groups: 1 | Servers total: 1

<p>File and Storage Services 1</p> <p>Manageability</p> <p>Events</p> <p>Performance</p> <p>BPA results</p>	<p>Local Server 1</p> <p>Manageability</p> <p>Events</p> <p>Services</p> <p>Performance</p> <p>BPA results</p>
---	--

PrivateDomain:acme3.local - CloudDC - Google Chrome

https://vcloud-bos.cloudconnect.net/cloud/WebMKSConsole.html

### CloudDC

#### Server Manager

Server Manager ▸ Dashboard

Manage Tools View Help

Dashboard

Local Server

All Servers

File and Storage

### WELCOME TO SERVER MANAGER

### Add Roles and Features Wizard

DESTINATION SERVER  
CloudDC.acme3.local

### Select server roles

Before You Begin

Installation Type

Server Selection

**Server Roles**

Features

AD DS

Confirmation

Results

Select one or more roles to install on the selected server.

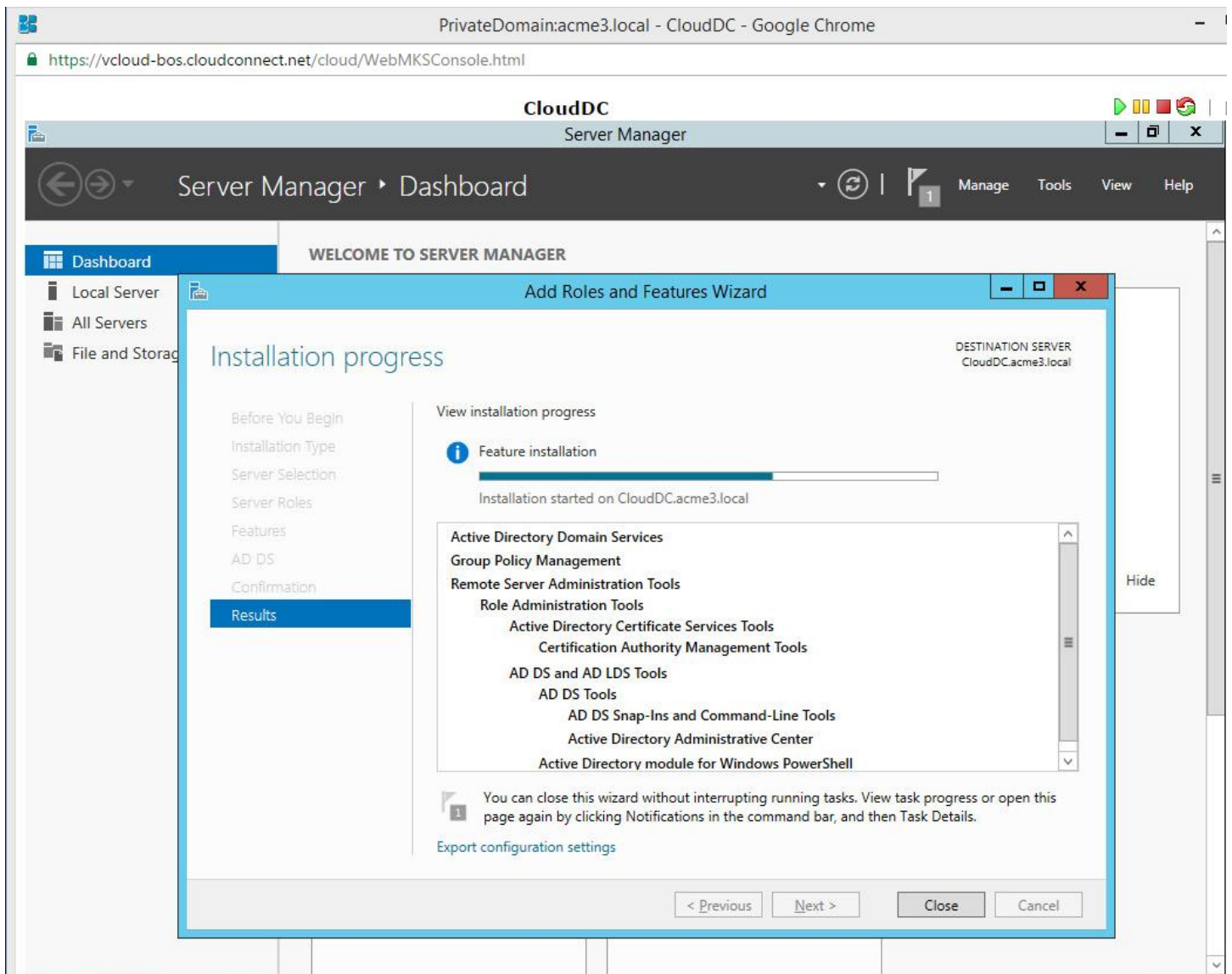
Roles	Description
<input type="checkbox"/> Active Directory Certificate Services	
<input checked="" type="checkbox"/> Active Directory Domain Services	Active Directory Domain Services (AD DS) stores information about objects on the network and makes this information available to users and network administrators. AD DS uses domain controllers to give network users access to permitted resources anywhere on the network through a single logon process.
<input type="checkbox"/> Active Directory Federation Services	
<input type="checkbox"/> Active Directory Lightweight Directory Services	
<input type="checkbox"/> Active Directory Rights Management Services	
<input type="checkbox"/> Application Server	
<input type="checkbox"/> DHCP Server	
<input type="checkbox"/> DNS Server	
<input type="checkbox"/> Fax Server	
<input checked="" type="checkbox"/> File and Storage Services (1 of 12 installed)	
<input type="checkbox"/> Hyper-V	
<input type="checkbox"/> Network Policy and Access Services	
<input type="checkbox"/> Print and Document Services	
<input type="checkbox"/> Remote Access	
<input type="checkbox"/> Remote Desktop Services	

< Previous

**Next >**

Install

Cancel



PrivateDomain:acme3.local - CloudDC - Google Chrome

https://vcloud-bos.cloudconnect.net/cloud/WebMKSConsole.html

CloudDC

Server Manager

Server Manager ▸ AD DS

Dashboard  
Local Server  
All Servers  
AD DS  
File and Storage Services ▸

SERVERS

All servers | 1 total

Configuration required for Active Directory Domain Services at CLOUDDC

Filter

Server Name IPv4 Address Manageability Last Update Windows Activation

CLOUDDC 10.39.0.10 Online - Performance counters not started 9/14/2016 7:28:14 PM Not activated

TASKS

More...

EVENTS

All events | 0 total

Filter

Server Name ID Severity Source Log Date and Time

PrivateDomain:acme3.local - CloudDC - Google Chrome

https://vcloud-bos.cloudconnect.net/cloud/WebMKSConsole.html

CloudDC Server Manager

Server Manager ▸ AD DS

All Servers Task Details

### All Servers Task Details and Notifications

All Tasks | 1 total

Status	Task Name	Stage	Message	Action	Notifications
⚠	Post-deployment Configuration	Not Sta...	Configuration required for Active Directory Do...	<a href="#">Promote this server to a domain...</a>	1

Status	Notification	Time Stamp
ℹ	Additional steps are required to make this machine a domain controller.	9/14/2016 7:28:11 PM

Active Directory Domain Services Configuration Wizard

Deployment Configuration

TARGET SERVER  
CloudDC.acme3.local

Deployment Configuration

Domain Controller Options

Additional Options

Paths

Review Options

Prerequisites Check

Installation

Results

Select the deployment operation

☒ Add a domain controller to an existing domain

☐ Add a new domain to an existing forest

☐ Add a new forest

Specify the domain information for this operation

Domain: acme3.local Select...

Supply the credentials to perform this operation

ACME3\Administrator (Current user) Change...

More about deployment configurations

< Previous Next > Install Cancel

the selections pre-populate, and should look like this



Active Directory Domain Services Configuration Wizard

Domain Controller Options

TARGET SERVER  
CloudDC.acme3.local

Deployment Configuration

Domain Controller Options

DNS Options

Additional Options

Paths

Review Options

Prerequisites Check

Installation

Results

Specify domain controller capabilities and site information

☒ Domain Name System (DNS) server

☒ Global Catalog (GC)

☐ Read only domain controller (RODC)

Site name: Default-First-Site-Name

Type the Directory Services Restore Mode (DSRM) password

Password: .....

Confirm password: .....

You can use the same DSRM password as the existing DC, or create a new one for this new DC

[More about domain controller options](#)

< Previous

Next >

Install

Cancel



Active Directory Domain Services Configuration Wizard

Prerequisites Check

Warning, before installing, verify you have a system-state backup of the on-premise existing DC

TARGET SERVER  
CloudDC.acme3.local

✔ All prerequisite checks passed successfully. Click 'Install' to begin installation.

Show more

✕

Deployment Configuration

Domain Controller Options

DNS Options

Additional Options

Paths

Preparation Options

Review Options

Prerequisites Check

Installation

Results

Prerequisites need to be validated before Active Directory Domain Services is installed on this computer

[Rerun prerequisites check](#)

^ View results

⚠ Windows Server 2012 R2 domain controllers have a default for the security setting named "Allow cryptography algorithms compatible with Windows NT 4.0" that prevents weaker cryptography algorithms when establishing security channel sessions.

For more information about this setting, see Knowledge Base article 942564 (<http://go.microsoft.com/fwlink/?LinkId=104751>).

⚠ A delegation for this DNS server cannot be created because the authoritative parent zone cannot be found or it does not run Windows DNS server. If you are integrating with an existing DNS infrastructure, you should manually create a delegation to this DNS server in the parent zone to ensure reliable name resolution from outside the domain "acme3.local". Otherwise, no action is required.

⚠ If you click Install, the server automatically reboots at the end of the promotion operation.

[More about prerequisites](#)

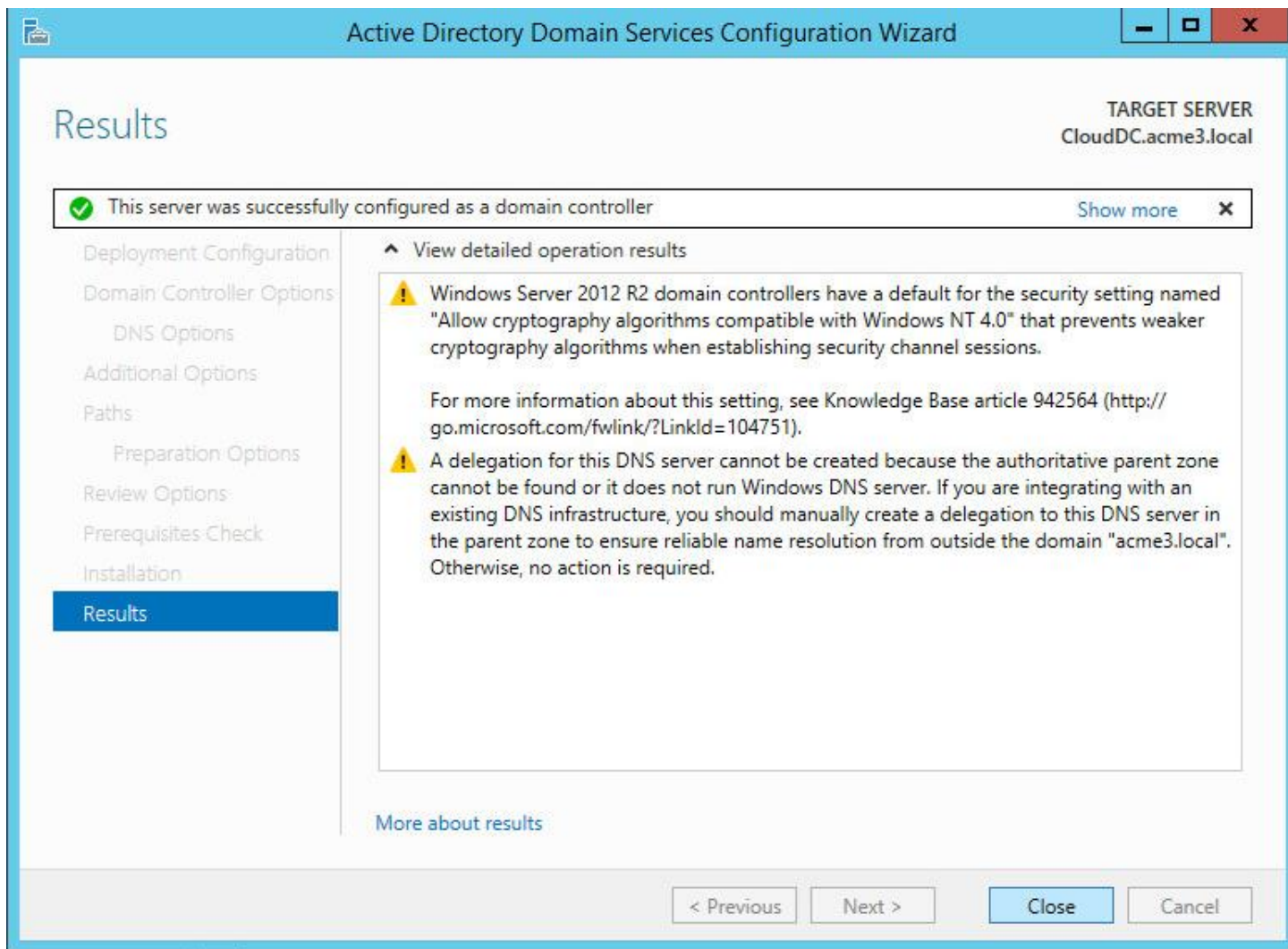
< Previous

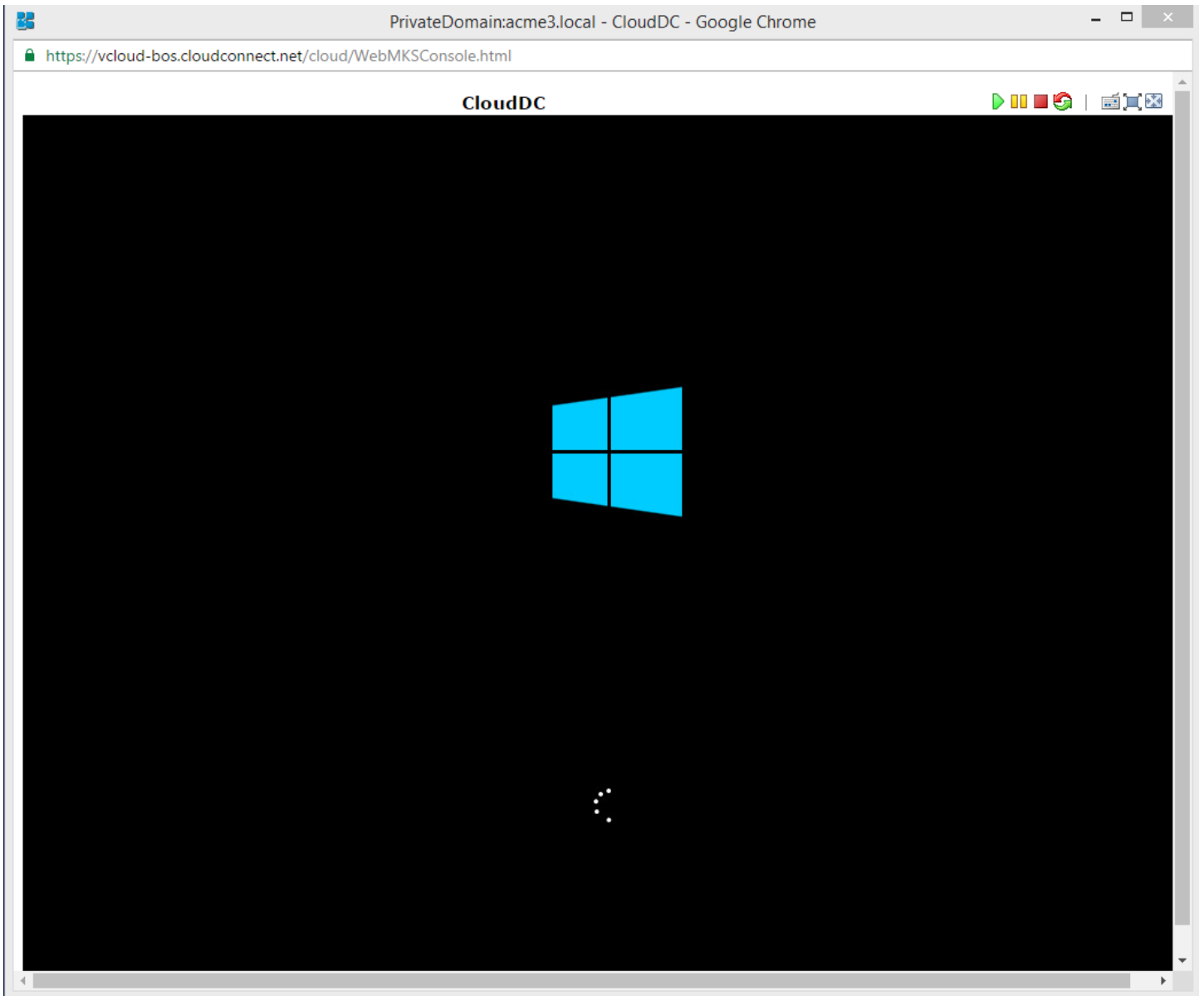
Next >

Install

Cancel

41





Active Directory Users and Computers

File Action View Help

Active Directory Users and Computers

- acme3.local
  - Builtin
  - Computers
  - Domain Controllers**
  - ForeignSecurityPrincipals
  - Managed Service Accounts
  - Users

Name	Type	DC Type	Site	Description
CLOUDDC	Computer	GC	Default-First-Sit...	
DC3	Computer	GC	Default-First-Sit...	

CloudDC now appears in the Domain Controllers OU in Active Directory Users and Computers!

Register | Wizard

View IP Version

per page 50 Items 1 to 3

Crypto Suite

ESP: 3DES/HMAC SHA1 (IKE)

ESP: 3DES/HMAC SHA1 (IKE)

ESP: AES-256/HMAC SHA1 (IKE)

Users

Security Services

WAN Acceleration

Log

Status: **Ready**

Administrator: Windows PowerShell

Windows PowerShell

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```
PS C:\Users\Administrator> ping 10.39.0.1

Pinging 10.39.0.1 with 32 bytes of data:
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64
Reply from 10.39.0.1: bytes=32 time=3ms TTL=64
```

## Transfer FSMO Roles to the Cloud

CloudConnect requires all registered Domain Controllers runnign on CloudConnect hold the 5 FSMO roles. Before running Domain Controller Configuration Utility, you must transfer the roles following Microsoft KB 255504:

On any DC, open a PowerShell Terminal or a Command Prompt and type the following:

```
ntdsutil      </ENTER>
roles         </ENTER>
connections   </ENTER>
connect to server CloudDC  </Enter>
q             </ENTER>
transfer schema master </ENTER>
transfer infrastructure master </ENTER>
transfer RID master </ENTER>
transfer naming master </ENTER>
transfer pdc </ENTER>
q             </ENTER>
q             </ENTER>
exit          </ENTER>
```

Note: **CloudDC** is the DNS name of the newly created Domain Controller. Wait approximately 5 minutes for replication to complete.

PrivateDomain:acme3.local - CloudDC - Google Chrome

https://vcloud-bos.cloudconnect.net/cloud/WebMKSConsole.html

### CloudDC

Administrator: Windows PowerShell

```
Windows PowerShell
Copyright (C) 2014 Microsoft Corporation. All rights reserved.

PS C:\Users\Administrator> ntdsutil
C:\Windows\system32\ntdsutil.exe: roles
fsmo maintenance: connections
server connections: connect to server CloudDC
Binding to CloudDC ...
Connected to CloudDC using credentials of locally logged on user.
server connections: q
fsmo maintenance: transfer schema master
Server "CloudDC" knows about 5 roles
Schema - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
Naming Master - CN=NTDS Settings,CN=DC3,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
PDC - CN=NTDS Settings,CN=DC3,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
RID - CN=NTDS Settings,CN=DC3,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
Infrastructure - CN=NTDS Settings,CN=DC3,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
fsmo maintenance: transfer infrastructure master
Server "CloudDC" knows about 5 roles
Schema - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
Naming Master - CN=NTDS Settings,CN=DC3,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
PDC - CN=NTDS Settings,CN=DC3,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
RID - CN=NTDS Settings,CN=DC3,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
Infrastructure - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
fsmo maintenance: transfer rid master
Server "CloudDC" knows about 5 roles
Schema - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
Naming Master - CN=NTDS Settings,CN=DC3,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
PDC - CN=NTDS Settings,CN=DC3,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
RID - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
Infrastructure - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
fsmo maintenance: transfer naming master
Server "CloudDC" knows about 5 roles
Schema - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
Naming Master - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
PDC - CN=NTDS Settings,CN=DC3,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
RID - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
Infrastructure - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
fsmo maintenance: transfer pdc
Server "CloudDC" knows about 5 roles
Schema - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
Naming Master - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
PDC - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
RID - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
Infrastructure - CN=NTDS Settings,CN=CLOUDDC,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=acme3,DC=local
fsmo maintenance: q
C:\Windows\system32\ntdsutil.exe:
```



VMware vCloud Director

https://vcloud-bos.cloudconnect.net/cloud/org/demo3.com/#/vAppDiagram?vapp=6196b325-9db8-4f3a-962d-20374f

DEMO3 administrator@demo3.com (Organization Administrator) | Preferences | Help | Logout

Home My Cloud Catalogs Administration

My Cloud

- vApps
  - Recent Items
    - PrivateDomain:acme3.local
      - VMs
      - Expired Items
      - Logs

PrivateDomain:acme3.local Running

vApp Diagram Virtual Machines Networking

CloudDC

Right Click on the VM

Actions: CloudDC

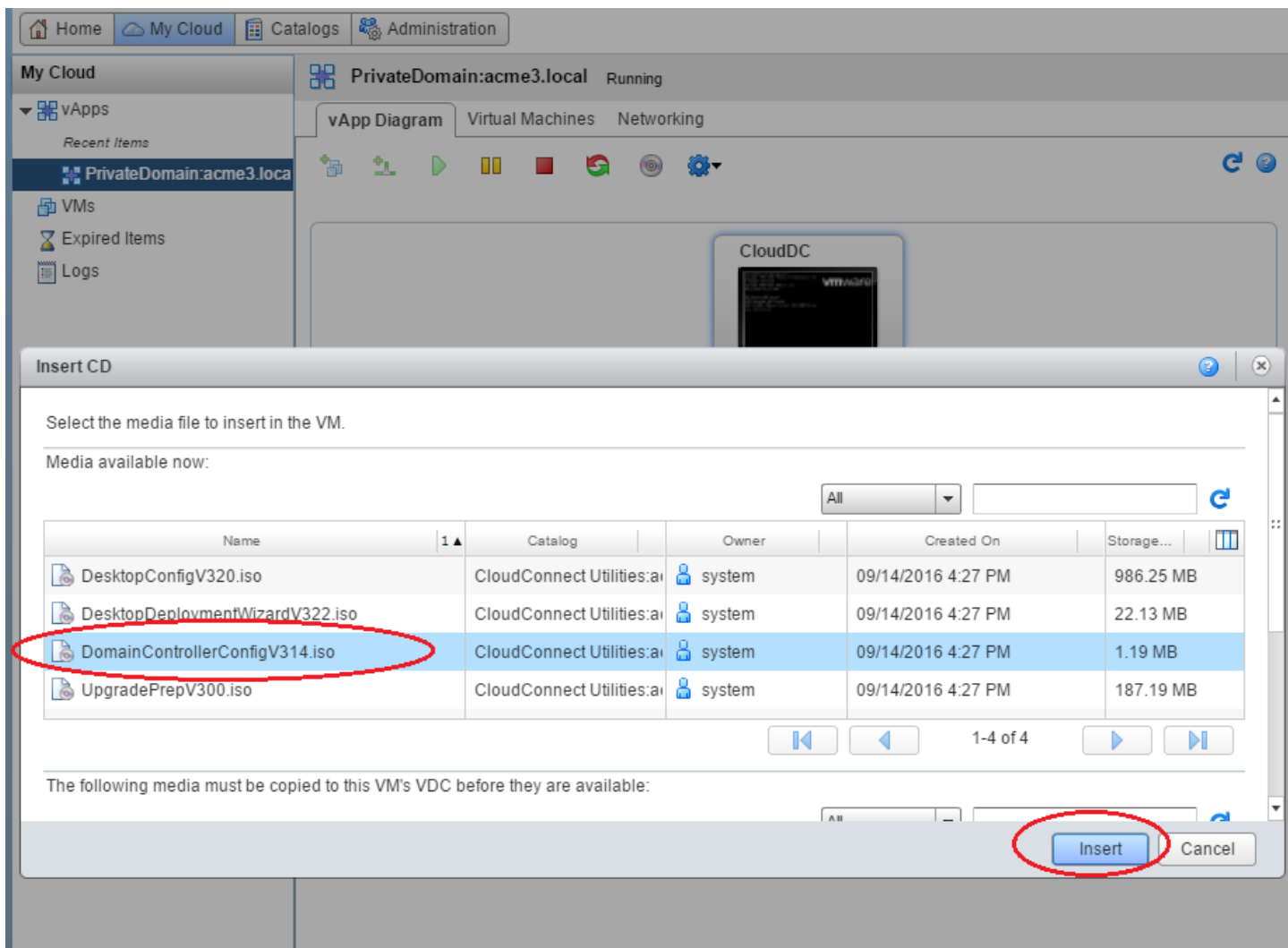
- Popout Console
- Power On
- Suspend
- Shut Down Guest OS
- Power Off
- Reset
- Power On and Force Recustomization
- Discard Suspended State
- Insert CD/DVD from Catalog...**
- Eject CD/DVD
- Install VMware Tools
- Upgrade Virtual Hardware Version
- Download Windows Remote Desktop Shortcut File...
- Copy to...
- Move to...
- Delete
- Create Snapshot
- Revert to Snapshot
- Remove Snapshot
- Properties

Acme3 Netwo...

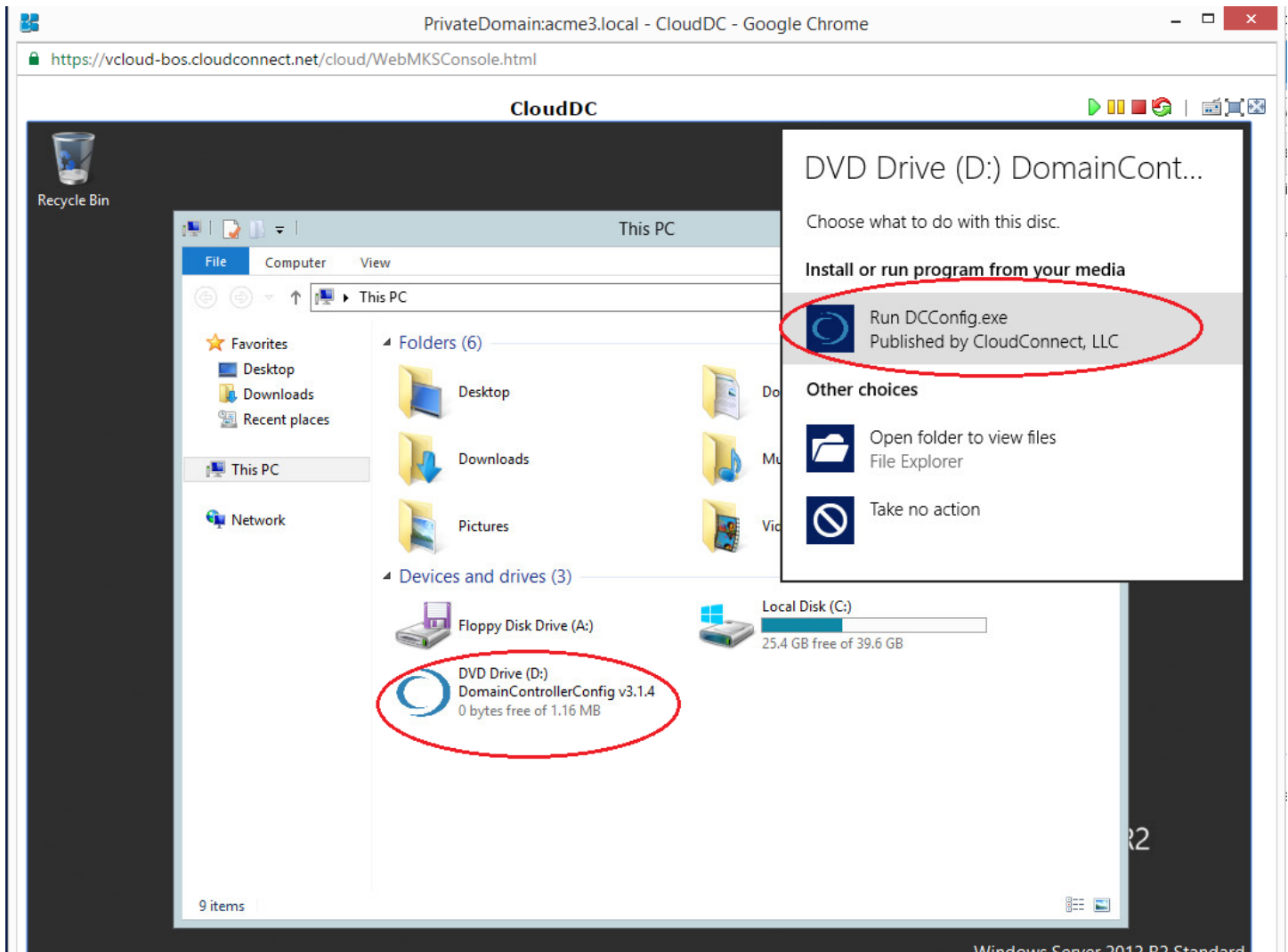
0 Running 0 Failed

CloudConnect vCloud Director - Northeast

Powered by vmware







Welcome to the CloudConnect Active Directory Domain Controller Configuration Utility. Prior to continuing, it is recommended that you backup your existing Active Directory Database using a Microsoft Supported Backup Method specific to your topology.

If this Domain Controller is replicating with another Domain Controller in the same Forest, use a System State Backup, so you may perform an Authoritative Restore of the Domain/Forest if necessary. Prior to taking a system state backup, verify your Directory Services Mode Restore Password (This is not the Domain Administrator password). You may reset the DS Restore Mode password using the Domain Administrator by following Microsoft KB 322672. Alternatively, if this is the only Domain Controller in the Forest, you may use the Virtual Machine Snapshot feature in VMware vCloud Director.

This Utility will perform the following configurations. If the utility is being rerun, these configurations will be diagnosed and re-applied if necessary:

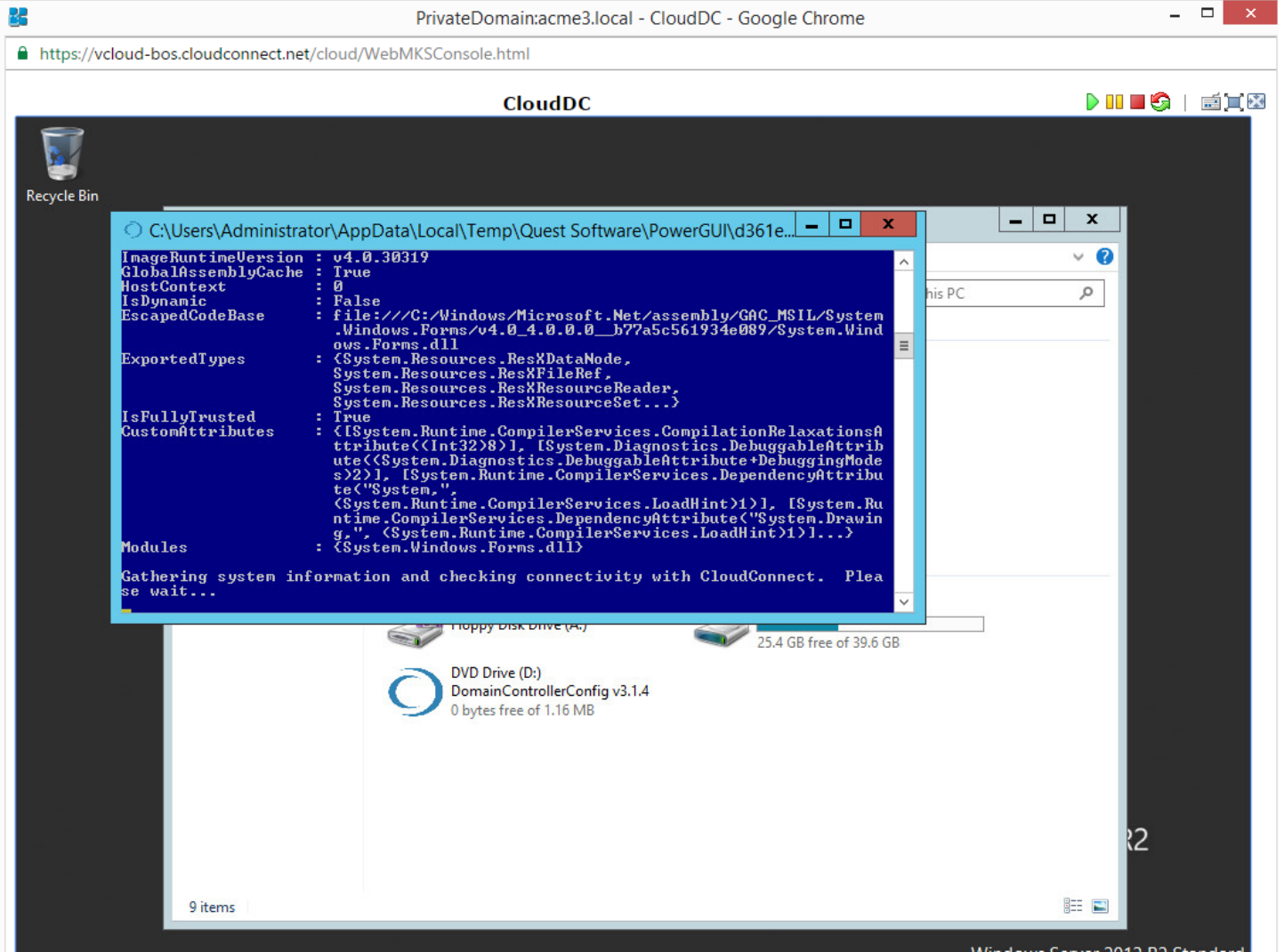
- 1) A Forest Trust will be created between this Forest and portal.cloudconnect.net. Portal.cloudconnect.net is a Microsoft Active Directory 2012 R2 Forest administered by CloudConnect, LLC. It contains certain shared computer resources that are managed by CloudConnect and made available to CloudConnect customers. Your Domain's level of exposure to these shared compute resources increases significantly if you use CloudConnect's Integrated Citrix Desktop Service.
- 2) Enterprise Administrators in the Forest 'portal.cloudconnect.net' will be granted local Administrator access to this Domain Controller.
- 3) CloudConnect Code Signing and Certification Authority CA Certificates will be added to the Trusted Publishers, CA, and Root Certificate Stores on this computer. These certificates are used to authenticate certain CloudConnect resources and computer code.
- 4) The CloudConnect Security Baseline Group Policy Object will be applied to this Domain. This GPO requires domain users to adopt complex passwords, enables account lockout, deploys Authenticated PowerShell Remoting, and enables IPSec Negotiation on IPSec-compatible network nodes.
- 5) Three Scheduled Tasks will be created on this Domain Controller, they collectively work together to run and maintain Digitally Signed Remote Powershell Scripts hosted by portal.cloudconnect.net. These scripts gather licensing usage data on the domain.
- 6) A special Domain Administrator Account will be created to run these Scheduled Tasks. The password for this account is discarded after generating the Scheduled Tasks. The password will renew periodically and the Tasks will be updated with this password for enhanced security.
- 7) If necessary, the networking configuration of the vCloud Director Organization Virtual Datacenter hosting this Domain Controller will be examined and default NAT Rules, Firewall Rules, and Static Routes will be added to the Edge Gateway associated with this Organization Virtual Datacenter. This will enable communication with backend CloudConnect resources as well as enable Internet Access.
- 8) Please note that vCloud Director accounts with access to this Virtual Machine's Guest OS Customization feature are able to reset the Built-in Administrator account and thus gain access to Domain Administrator Privileges. Restrict vCloud Director access to trusted administrators only.

If you cannot agree to these configuration settings, this Domain cannot run on CloudConnect. Click Cancel to Abort.

**WARNING!!!** This Utility and any code contained herein is protected by international copyright law. The distribution, reverse engineering, alteration, or copying to (or execution on) any computer system not hosted by CloudConnect, LLC is strictly prohibited by the Copyright Holder and is a violation of International Copyright Law.

OK

Cancel





## CloudDC



Recycle Bin

C:\Users\Administrator\AppData\Local\Temp\Quest Software\PowerGUI\d361e...

```
HostContext : 0
IsDynamic   : False
EscapedCodeBase : file:///C:/Windows/Microsoft.Net/assembly/GAC_MSIL/System
.Windows.Forms/v4.0.0.0.0__b77a5c561934e089/System.Windows.Forms.dll
ExportedTypes : {System.Resources.ResXDataNode,
System.Resources.ResXFileRef,
System.Resources.ResXResourceReader,
System.Resources.ResXResourceSet...}
IsFullyTrusted : True
CustomAttributes : {ISystem.Runtime.InteropServices.WindowsForm}
Modules : {System.Windows.Forms}

cmdlet Get-Credential at command
Supply values for the following
Credential
```

Windows PowerShell credential req...

Enter your credentials.

User name: administrator@demo3.com

Password: .....

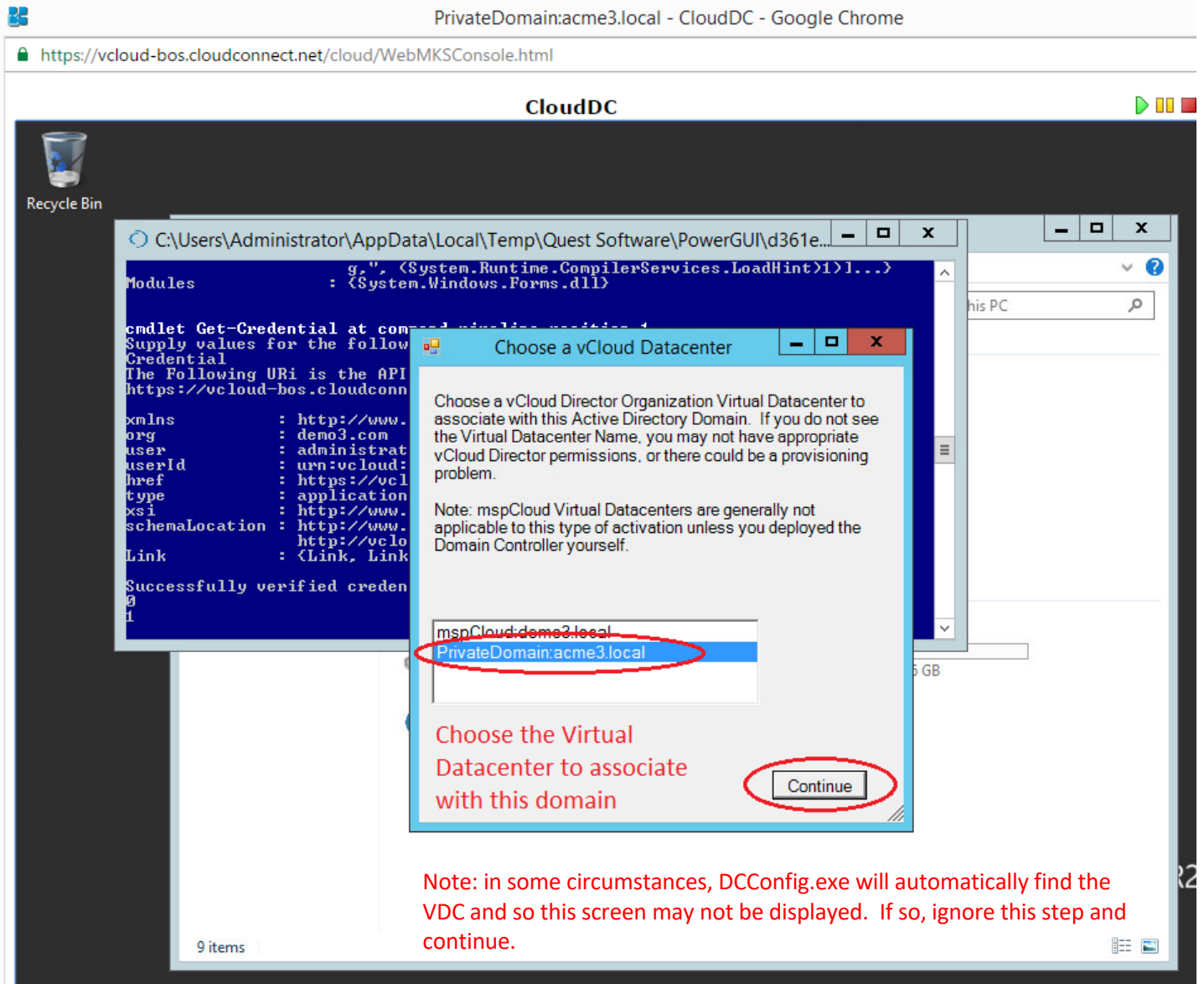
OK Cancel

Note: You will need to provide your vCloud Director credentials to submit the domain registration for CALs. The credential is not your Domain Administrator account, rather it is the account you used to logon to the vCloud control panel. The username is generally your email address.

9 items







Note: in some circumstances, DCConfig.exe will automatically find the VDC and so this screen may not be displayed. If so, ignore this step and continue.

## CloudDC



Recycle Bin

C:\Users\Administrator\AppData\Local\Temp\Quest Software\PowerGUI\d361e...

ImageRuntimeVersion : v4.0.30319  
GlobalAssemblyCache : True  
HostContext : 0  
IsDynamic : False  
EscapedCodeBase : file:///C:/Windows/Microsoft.Net/assembly/GAC\_MSIL/System.Windows.Forms/v4.0.4.0.0\_\_b77a5c561934e089/System.Windows.Forms.dll  
ExportedTypes : {System.Resources.ResXDataNode, System.Resources.ResXFileRef, System.Resources.ResXResourceReader, System.Resources.ResXResourceSet...}  
IsFullyTrusted : True  
CustomAttributes :  
Modules :

CloudConnect Domain Controller Configuration Utility Version 3.1.4

Domain Controller Configuration Completed Successfully! Please allow up to 30 minutes for CloudConnect to complete the registration of this Domain after which CloudConnect services will become available to this Forest. We recommend you restart this system. Click OK to restart now, or Cancel to restart later.

OK Cancel

9 items

VMware vCloud Director

https://vcloud-bos.cloudconnect.net/cloud/org/demo3.com/#/OrgVdcNetworkList?orgVdc=73f1b5df-ee45-46c9-a629-

DEMO3 administrator@demo3.com (Organization Administrator) | Preferences | Help | Logout

Home My Cloud Catalog Administration 1

Administration

Cloud Resources

Virtual Datacenters

Recent Items

PrivateDomain:acme3.local 2

Members

Users

Lost & Found

Settings

General

Email

Policies

Guest Personalization

Federation

Metadata

PrivateDomain:acme3.local

vApps vApp Tem... Media & ... Storage P... Edge Gat... Org VDC ... 3

All

Acme3 Network 4

CloudConnect

Actions: Acme3 Network

- Configure Services
- IP Allocations
- Connected vApps
- Reset Network
- Delete
- Properties 5

Name	1	St...	Gateway Add...	T...	Connecte...	IP Pool (Used/T...	Sh...	Owner
Route	EdgeGate	1.11%	-	PrivateDomain				
Direct	CloudCor	17.55%	-	PrivateDomain				

Network Properties: Acme3 Network

General | **Network Specification** | Metadata

Gateway address: 10.39.0.1 \*

Network mask: 255.255.255.0 \*

☐ Use gateway DNS

Select this option to use DNS relay of the gateway. DNS relay must be pre-configured on the gateway.

Primary DNS: 10.39.0.10

Secondary DNS:

DNS suffix: acme3.local

**Static IP pool:**

Enter an IP range (format: 192.168.1.2 - 192.168.1.100) or IP address and click Add.

Add

10.39.0.10 - 10.39.0.99

Modify

Remove

Total: 90

OK Cancel

Change the Primary DNS IP Address from the on-premise DC to the newly created Cloud Domain Controller's IP Address!!!



Congratulations!!! Active Directory is now coexisting with the on-premise domain. You may now join newly created servers to the domain and users from the existing domain will be able to access those servers with their existing domain accounts. It may take up to an hour to start receiving CALs.

If the coexistence is temporary to support a full migration to CloudConnect, then you will want to demote the on-premise Domain Controller once the migration is complete and all on-premise devices are pointing to the Cloud Domain controller over the VPN tunnel.

The following slides demonstrate the demotion and safe removal of the on-premise domain controller from the domain.

**Do not complete the following steps until you are sure it is safe to remove the on-premise Domain Controller and no devices or users are reliant upon it.**

