

# Horizon DaaS Platform 6.1 Enterprise Center Handbook

This document contains instructions for using the Horizon DaaS Enterprise Center.

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# 1 Getting Started

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Authentication in the Horizon DaaS portals is done via Active Directory. At least one Windows domain must be registered for every Tenant environment. The information and steps below will help to register a domain so that users and admins may access their respective portals.

## 1.1 Active Directory Preparation

Before registering an existing domain you will need to gather information on that domain. Make sure you have created the necessary accounts and groups before attempting to register the domain.

It is recommended that you use the [Microsoft Active Direct Explorer](#) as a tool to gather and verify the information collected.

**Note: If you are using a Horizon DaaS hosted Domain Controller, this has been done for you.**

Field	Example	Notes
Name	TENANT	NETBIOS name of the domain to be registered
Domain Suffix	ad.desktone.com	
Protocol	LDAP	LDAP or LDAPS
Port	389	Typically 389 or 636. This must be opened in your firewall.
Domain Controller IPs	10.1.1.1	This is optional
Context	dc=ad,dc=desktone,dc=com	
Domain Bind Account	CN=dttenant,CN=Users	Used for LDAP bind/query. This account can be read only. The context(dc) details are not needed here.
Domain Bind Account Password	*****	
Joining Account Name	user1	This account needs to have privileges to do unlimited domain joins.
Joining Account Password	*****	

Super Admin Groups	CN=SuperAdmin,CN=admins,OU=groups	This group has access to the admin portal. The context(dc) details are not needed here.
User Groups	CN=Users,OU=groups	This group has access to the desktop portal. The context(dc) details are not needed here.

## 1.2 Domain Registration

Follow these steps to register an existing domain and to add or update domain information.

**Note: If you are using a Horizon DaaS hosted Domain Controller, this has been done for you.**

1. Using a browser, load the URL for the Enterprise Center
2. If you see a dialog box prompting you to accept the Terms of Service, click **I agree** and **Submit** to accept the terms and continue. This dialog box appears only the first time you log in and only if your system administrator has configured a Terms of Service URL.

**Note: The first time you connect to the Enterprise Center, you will be prompted to register a domain. After a domain is registered, the Enterprise Center will display a login screen**

3. Begin the domain bind process entering the required information on the Domain Bind tab.

**Register a domain**

Please register your domain with the system. Save each tab once completed. Once you complete the Domain Bind tab, the other tabs will be enabled and groups will be looked up as you type.

**Domain Bind** | Group Info | Domain Join Info

\* Name   
NETBIOS domain name. For example, SALES.

\* Domain Suffix   
For example, mycompany.com

\* Protocol

\* Port

Domain Controller IPs   
Preferred domain controller IP list with comma separation

\* Context   
AD context of domain. For example, dc=mycompany,dc=com

\* Domain Bind Account DN   
Distinguished name of admin user for this domain. For example, cn=adminstrator,cn=users

\* Password   
Password for user named above.

\* Password verify

4. Click **Save**.

**Note: Once you save the information, you will be provided with a URL that you can use if you wish to return to complete the remaining tabs at another time. This is useful if different resources within your organization are responsible for different information.**

**Register a domain**

Save successful. Proceed with the other tabs or save this URL and enter it in a new browser if you wish to edit the other tabs later:  
<http://172.16.110.98/admin/config/toEditDomainFlow.action?ticket=fQdDeUcHdUpedQfCQ=>

**Domain Bind** | **Group Info** | **Domain Join Info**

\* Name:   
NETBIOS domain name. For example, SALES.

\* Domain Suffix:   
For example, mycompany.com

\* Protocol:

\* Port:

Domain Controller IPs:   
Preferred domain controller IP list with comma separation

\* Context:   
AD context of domain. For example, dc=mycompany,dc=com

\* Domain Bind Account DN:   
Distinguished name of admin user for this domain. For example, cn=adminstrator,cn=users

\* Password:   
Password for user named above.

\* Password verify:

The Group Info tab displays.

**Register a domain**

Start typing the first several characters of the group distinguished name and then wait for suggestions to appear.

**Domain Bind** | **Group Info** | **Domain Join Info**

\* Admin Groups:  Super Admin - Enterprise Admin  
  
For example, cn=admins,ou=groups

\* User Groups:   
[Add User Group](#)  
For example, CN=myusers,ou=groups

Notice: Only users assigned directly to this domain will be available. Child/trusted domain users are not currently supported.

- Enter the required information on the Group Info tab.

**Note:** Because the environment is now bound to your domain, it will dynamically query the available groups to help you with completing these fields

6. Click **Save**.

**Note:** Once you save the information, you will be provided with a URL that you can use if you wish to return to complete the remaining tabs at another time. This is useful if different resources within your organization are responsible for different information.

The screenshot shows the 'Register a domain' web interface. At the top, a green banner indicates a successful save and provides a URL: <http://172.16.110.98/admin/config/toEditDomainFlow.action?ticket=fQdDeUcHdUpedQFicQ==>. Below this, there are three tabs: 'Domain Bind', 'Group Info', and 'Domain Join Info'. The 'Group Info' tab is currently selected. It contains two sections: 'Admin Groups' and 'User Groups'. The 'Admin Groups' section has a text input field containing 'cn=enterprise\_admins,cn=users,dc=dev,dc=de:' and a label 'Super Admin - Enterprise Admin'. Below the input field is a link 'Add Admin Group' and a note 'For example, CN=admin,ou=groups'. The 'User Groups' section has a text input field containing 'ou=engineering,dc=dev,dc=deskstone,dc=com'. Below the input field is a link 'Add User Group' and a note 'For example, CN=myusers,ou=groups'. At the bottom of the 'Group Info' tab, there is a notice: 'Notice: Only users assigned directly to this domain will be available. Child/trusted domain users are not currently supported.' At the bottom of the entire form, there are 'Save' and 'Clear' buttons.

The Domain Join Info tab displays.

7. Enter required information on the Domain Join Info tab.

The screenshot shows the 'Register a domain' web interface with the 'Domain Join Info' tab selected. At the top, a blue banner contains an information icon and the text: 'In the Domain Join User field, enter the login name of a user having unlimited privileges to join computers to this domain.' Below this, the 'Domain Join Info' tab contains several fields: 'Domain Join User' with the value 'chris.deangelis' and a note 'AD login used to join VM to this domain. For example, john.doe'; 'Domain Join Password' with a masked password and a note 'Password for domain user.'; 'Domain Join Password Verify' with a masked password; 'Primary DNS server IP' with the value '172.16.110.15' and a note 'IP address of primary DNS server.'; and 'Secondary DNS server IP' with an empty field and a note 'IP address of secondary DNS server. Leave this blank if you do not have one.' At the bottom of the form, there are 'Save' and 'Clear' buttons.

8. Click **Save**.

A message displays confirming that your domain registration was successful.

**Register a domain**

✓ The domain has been registered successfully! You will now be sent to the login page.

✓ Domain Bind   ✓ Group Info   ✓ Domain Join Info

Domain Join User:   
AD login used to join VM to this domain. For example, john.doe

Domain Join Password:   
Password for domain user.

Domain Join Password Verify:

\* Primary DNS server IP:   
IP address of primary DNS server.

Secondary DNS server IP:   
IP address of secondary DNS server. Leave this blank if you do not have one.

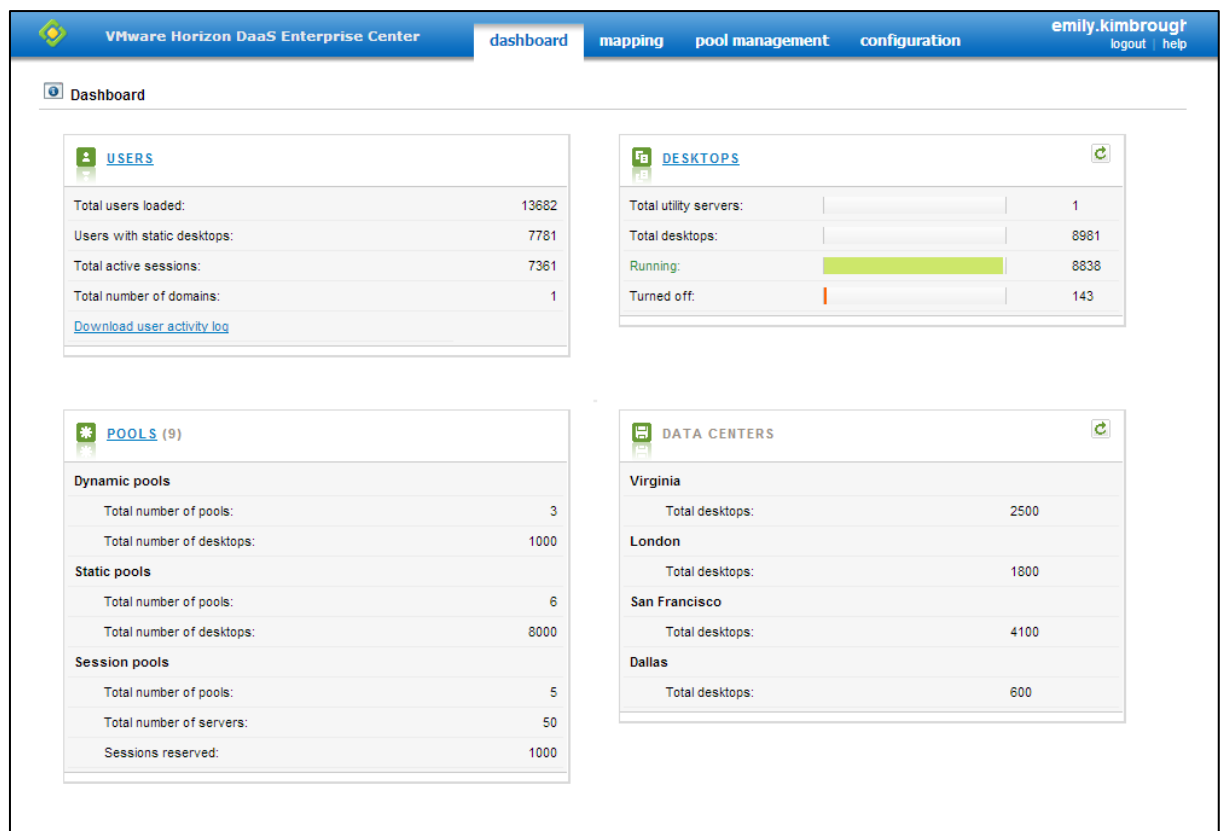
**Note:** Within moments after saving the page, you will be redirected to a login screen. When loading Enterprise Center, you will see this login screen from this point forward.

## 2 Enterprise Center Overview

There are four main tabs in the Enterprise Center: Dashboard, Mapping, Pool Management, and Configuration. These tabs allow you to manage images, desktops, users and admins. Below is an overview of each of these tabs. The next sections will cover step by step procedures in-depth.

### 2.1 Dashboard

The dashboard provides an overview of your Users, Desktops, Pools and Data Centers. Each section title provides a link to the appropriate tab and configurations.



## 2.2 Mapping

The mapping tab allows you to create, remove, and manage mappings, or assignments, between users, groups, desktops and desktop pools.

User	Add Mapping	Desktop Mappings	Power	IP Address	Action
<a href="#">Danny Allan</a>		Admin001 *	On	172.16.160.93	
<a href="#">Dave Peternell</a>		Admin005 *	On	172.16.160.100	
<a href="#">David Gilon</a>		Admin002 *	On	172.16.160.85	
<a href="#">david.stafford</a>		Admin003 *	On	172.16.160.98	
<a href="#">Emily Kimbrough</a>		Admin006 *	On	172.16.160.99	
<a href="#">Ivo Murreis</a>		Admin004 *	On	172.16.160.82	

## 2.3 Pool Management

Pool management allows you to create new desktop and session pools and to view and manage existing pools. Through these pages, you can update configurations, delete desktops and expand desktop pools.

### 2.3.1 Browse Pools

Browse Pools shows an overview of the existing desktop and session pools as well as general metrics on each pool:

Name	Pool Size	Desktop Type	Domain	Data Center	Logged in	Mode
<a href="#">Admin</a>	6	Static	ACME	andover	0	Online
<a href="#">Demo</a>	2	Dynamic	ACME	andover	0	Online
<a href="#">Executive</a>	920	Static	ACME	San Francisco	862	Online
<a href="#">General</a>	250	Session	ACME	Dallas	216	Online
<a href="#">Imported Desktops</a>	0	Static			0	Online
<a href="#">Marketing</a>	560	Static	ACME	Virginia	485	Online
<a href="#">Office Default</a>	1250	Static	ACME	London	1191	Online
<a href="#">Recycle Pool</a>	0	Static			0	Offline
<a href="#">Utility Servers</a>	0	Static			0	Online

## Pool Information – Details

Click on the name of a specific pool to see a snapshot of that pool's configuration set:

VMware Horizon DaaS Enterprise Center | dashboard | mapping | **pool management** | configuration | emily.kimbrough | logout | help

Pool Information for POC-STD

Details | Virtual Machines | Sessions

**POOL CONFIGURATION**

Name	POC-STD
Pool Type	Fixed size
Pool Size	27
Gold Pattern	WIN7-POC
Desktop Type	Static
Computer OU	ou=Computers,ou...
Desktop Model	Standard
Protocols	PCoIP RDP Blast
Default Protocol	PCoIP
Session Timeout for VM (in ms)	604800000

**WINDOWS CONFIGURATION**

VM name composition rule:	POC-STD
Assigned Groups	
Domain Join	Yes
Domain	POC
Run once script:	
Time Zone:	
Remote Applications	5
Allow full desktop	Yes

**DESKTOP CONFIGURATION**

Number of CPUs:	1
Memory (MB):	2048

**RDP DEVICE REDIRECTION OPTIONS**

Clipboard	True
Drives	True

Back to List

## Pool Information – Virtual Machines

Clicking on the Virtual Machines tab for a pool allows you to see information on all of the VMs within it, as well as information on each specific VM. Through this page you can perform a variety of mass operations such as power state and session operations. You can also rename individual desktops through this page.

VMware Horizon DaaS Enterprise Center | dashboard | mapping | **pool management** | configuration | emily.kimbrough | logout | help

Pool Information for POC-STD | 27 items found, displaying all items.

Details | **Virtual Machines** | Sessions

Filter by Name  show -- results Search

Operations Move virtual machines to: Select Pool

	Name	IP Address	Power State
<input type="checkbox"/>	<a href="#">POC-STD033</a>	192.168.5.49	On
<input type="checkbox"/>	<a href="#">POC-STD028</a>	192.168.5.58	On
<input type="checkbox"/>	<a href="#">POC-STD050</a>	192.168.5.73	On
<input type="checkbox"/>	<a href="#">POC-STD049</a>	192.168.5.31	On
<input type="checkbox"/>	<a href="#">POC-STD052</a>	192.168.5.78	On
<input type="checkbox"/>	<a href="#">POC-STD051</a>	192.168.5.77	On

**VM details for POC-STD033**

IP Address:	192.168.5.49
Power State	On
Agent Version:	6.0.0
Agent State:	Active
Tools State:	OK
Connect to guest:	<a href="#">RDP</a>
Session State	logged off
OS:	Windows7_64
H/W Version:	vmx-08
Cpu Speed:	1000 MHz
Memory:	2048 MB
CPUs:	1
Mapped Users:	jdebner

Rename VM

Back to List

Pool Information – Sessions

Clicking on the sessions tab for a pool allows you to see information on any active desktops sessions and if they are connected or disconnected:

VMware Horizon DaaS Enterprise Center

dashboardmappingpool managementconfiguration

emily.kimbrough<sup>®</sup>  
logout | help

Pool Information for POC-STD

3 items found, displaying all items.

Details

Virtual Machines

Sessions

Filter by Username

Session State

Search

<input type="checkbox"/>	Desktop	Username	Domain	Status	Login	Active Time
<input type="checkbox"/>	POC-STD050	dberk	POC	disconnected	28/Apr/14 8:09:20 PM UTC	28/Apr/14 10:43:01 PM UTC
<input type="checkbox"/>	POC-STD065	sczatt	POC	disconnected	27/Apr/14 2:20:35 AM UTC	30/Apr/14 7:50:37 PM UTC
<input type="checkbox"/>	POC-STD346	sjeff	POC	disconnected	02/Apr/14 5:23:37 AM UTC	01/May/14 3:59:01 AM UTC

Back to List

Pool Detail – Editing

From the Browse Pools page, clicking on the Edit button to the right of the pool information allows you to edit many of the configurations for that pool. This page allows you to expand both dynamic and static pools, and also allows you to delete dynamic desktops by setting the Pool size to 0.

VMware Horizon DaaS Enterprise Center

dashboardmappingpool managementconfiguration

emily.kimbrough<sup>®</sup>  
logout | help

Edit Pool

Use the fields below to change your pool settings. Click "Save" when you are finished.  
Note: Any changes you make will apply to new VMs but not to existing VMs in the pool.

Pool Info

Provisioning

Remote Applications

VM Configuration

Pool Configuration

User Experience

Data Center: andover

\* Name

Demo

\* Gold Pattern:

Win7-32

Protocols:

☒ RDP☐ NX☒ PCoIP☒ Blast

Desktop Type:

Dynamic

Desktop Model:

Standard

Pool Mode:

☐ Offline☒ Online

Maintenance Notice:

Fixed size

Pool Size

2

42 Remaining

Next

Save

Cancel

## 2.3.2 Patterns

A Gold Pattern is a master image used to provision pools of desktops. The patterns page allows you to convert desktops to Gold Patterns, and to view, manage and update them.

The screenshot shows the 'Pattern Management' page in the VMware Horizon DaaS Enterprise Center. The top navigation bar includes 'VMware Horizon DaaS Enterprise Center', 'dashboard', 'mapping', 'pool management' (selected), and 'configuration'. The user 'emily.kimbrough' is logged in. The main content area is titled 'Pattern Management Console' and includes a search box, a 'Reserve' button, and a list of 'Gold Patterns' (Linux, Server2008, Win7-32). A summary table shows the number of virtual desktops allowed to be converted to gold patterns.

Data Center	Desktops Reserved	Total Desktops Allowed
andover	3	3

## 2.3.3 Tasks and Events

The tasks and events page lets you monitor the progress of any tasks run in the Enterprise Center. This includes power operations, pool expansions, desktop deletions and Gold Pattern conversions.

**Note:** The % complete refers to the number of steps complete, not the amount of time passed.

The screenshot shows the 'Tasks and Events' page in the VMware Horizon DaaS Enterprise Center. The top navigation bar is the same as the previous screenshot. The main content area is titled 'Tasks and Events' and includes a filter by status and pools. A table lists tasks, including 'Expanding pool Admin', with columns for Date, State, Description, and % Completed. The table shows a progress bar for each task, indicating 100% completion.

Date	State	Description	% Completed
Apr 15, 2014 11:07:13 PM UTC	prepared		0
Apr 15, 2014 11:07:17 PM UTC	queued		0
Apr 15, 2014 11:07:27 PM UTC	running		0
Apr 15, 2014 11:07:29 PM UTC	running	Cloning out VM 'Admin006'	0
Apr 15, 2014 11:07:35 PM UTC	running	Starting the cloning task	4
Apr 16, 2014 12:15:13 AM UTC	running	Finished cloning folder, modifying VMX file	45
Apr 16, 2014 12:15:14 AM UTC	running	Finished modifying VMX file, modifying VMDK files	49
Apr 16, 2014 12:15:14 AM UTC	running	Finished modifying VMDK files, registering VM	54
Apr 16, 2014 12:15:19 AM UTC	running	Successfully registered the VM with the hypervisor	72
Apr 16, 2014 12:15:19 AM UTC	running	Configuring VM resources	76
Apr 16, 2014 12:15:30 AM UTC	running	Finished modifying the VM resources, proceeding to power on	81
Apr 16, 2014 12:16:15 AM UTC	running	Finished powering on VM, proceeding to post clone customization	85
Apr 16, 2014 12:16:16 AM UTC	running	Finished post clone customization, attempting to join the domain	90
Apr 16, 2014 12:24:34 AM UTC	success	Successfully cloned VM, domain join completed successfully	100

## 2.4 Configuration

The Configuration tab allows you to customize the Desktop Portal, enable a support account, manage the registered domains and view quota information.

### 2.4.1 General

The general tab provides you with information on the Tenant environment and allows you to set basic configuration settings.

VMware Horizon DaaS Enterprise Center

[dashboard](#)
[mapping](#)
[pool management](#)
[configuration](#)

**System**

**Default pool for domain**

Domain	Default Pool
PILOT	

**Default user portal domains for datacenters**

Data Center	Domain
VA:	PILOT ▼

**User Portal and Enterprise Center timeout**  
 These settings specify the maximum idle times of User Portal and Enterprise Center sessions
 

User Portal timeout (minutes):	<input type="text" value="60"/>	<a href="#">Save</a>
Enterprise Center timeout (minutes):	<input type="text" value="30"/>	<a href="#">Save</a>

**View Client Session timeout**

User Activity Heartbeat interval (minutes):	<input type="text" value="5"/>	<a href="#">Save</a>	<a href="#">Restore Default</a>
User Idle timeout (minutes):	<input type="text" value="15"/>	<a href="#">Save</a>	<a href="#">Restore Default</a>
Broker Session timeout (minutes):	<input type="text" value="600"/>	<a href="#">Save</a>	<a href="#">Restore Default</a>

**User Portal Configuration**

Help desk email:	<input type="text"/>
Trouble ticket system URL:	<input type="text"/>
External style sheet URL:	<input type="text"/>

[Save](#)

**Current Role(s):**  
 Admin Level1 - Enterprise Admin

#### Default pool for domain

This section lists the default pool assigned for a specific domain. Pools are assigned to a particular domain during the pool creation process.

## Default user portal domains for data centers

If more than one domain is registered, you may specify a geographically appropriate data center to be used as the default for a particular registered domain. Specify the default domain for each data center using these fields.

## User Portal and Enterprise Center timeout

These settings specify the maximum idle times of the User Portal and Enterprise Center sessions. After this amount of minutes the user or admin would be logged out.

### View Client Session Timeout

**User Activity Heartbeat interval:** This value controls the interval between View Client heartbeats. These heartbeats report to the Tenant the amount of idle time that has passed. Idle time occurs when there is no interaction with the end point device, as opposed to idle time in the desktop session. In large desktop deployments, it may reduce network traffic and increase performance to have the activity heartbeats at longer intervals.

**User Idle timeout:** This value controls the maximum time that a user can be idle while connected to the Tenant. When this time is reached, the user is disconnected from all active View Client Desktop sessions. Additionally, when the user returns, they will be required to re-authenticate in order to access the View Client.

**Note:** The User Idle timeout should always be greater than the User Activity Heartbeat interval, and is recommended to be at least double the User Activity Heartbeat Interval to avoid unexpected disconnects from desktops.

**Broker Session timeout:** This value controls the maximum time that a View Client can be connected to the Tenant before its authentication expires (timeout count starts each time you authenticate). When this timeout occurs, you will not be automatically disconnected from the desktop and are able to keep working, but if you then perform an action that causes communication to the broker (for example, changing settings), the system requires you to re-authenticate and also to log back into the desktop.

**Note:** The Broker Session timeout should always be greater than the User Idle timeout, and is recommended to be at least equal to the sum of the User Activity Heartbeat interval and the User Idle timeout.

### User Portal Configuration

- Help desk email and Trouble ticket system URL

You can configure the Desktop Portal to display help desk information so that users have easy access to internal resources if they have issues or questions.

- Enter the email address of your internal helpdesk or desktop administration group
- Enter the URL of your internal helpdesk or ticketing system

Users will see these links in the Desktop Portal below the listing of their desktops and pools.

Desktops (1)

Desktop or pool name	Connect	Protocol	Power state	Default	
<div>+ Allocate a new desktop</div>					
<div><div><div></div><div>Perf1PCOIP-GP</div></div></div>	<div><div><div></div><div>Desktop</div></div></div>	RDP ▾	On ▾	Yes	<a href="#">edit</a>

[Download Clients](#)

- External style sheet URL

You can white label, or brand, the Desktop Portal by entering the location of a cascading style sheet which over-writes the default style sheets. This allows you to update the portal with your logo and/or colors. The CSS file you use should be hosted on a secure server (https) to avoid security warnings.

The default style sheets are located at:

- <https://<DesktopPortalURL>/css/normal.css>
- <https://<EnterpriseCenterURL>/css/normal.css>

The #banner element changes the image for the Enterprise Center. If you want to change the image for the User Portal, change the #banner\_portal element in the style sheet.

### **Local login configuration**

This section allows you to enable a non-AD login to the Enterprise Center. This allows you to easily create an Enterprise Center account for Horizon DaaS Support in case they need to log in to assist with a support ticket. The user for the local login is always “Deskton” and the password is configured by you. You may choose to configure the account as either a Super Admin (all privileges) or Read Only (read only access).

It is highly recommended to enable this during the beginning of a deployment so that support has quick and easy access if it is needed.

### **Current Role(s)**

This section provides information on your current admin level, as configured in the Domains page of the Configuration tab.

## 2.4.2 Domains

This page displays the information that was used for the domain registration. You can also edit and add to the information used for your domain(s). You can register more than one domain as well.

Use extreme caution when updating the Access Info, editing this incorrectly can break the registration and prevent admins and users from accessing the portals. If this occurs, open a support ticket with VMware so that it can be resolved.

Note the user and admin groups configured in the Domain Policies section. More than one existing domain group may be registered for a domain. You may also assign an appropriate role for each admin group. See the Roles and Permissions section for more information on this.

- Admin Groups will have access to the Enterprise Center.
- User Groups will have access to the User Portal.

The screenshot shows the VMware Horizon DaaS Enterprise Center interface. The top navigation bar includes the VMware logo, the text "VMware Horizon DaaS Enterprise Center", and tabs for "dashboard", "mapping", "pool management", and "configuration". The user "emily.kimbrough" is logged in, with "logout" and "help" links. The main content area is titled "Domains" and includes a link to "+ register a domain". A list shows the domain "ACME" selected. The "Access Info" section contains the following details:

Name	ACME	<a href="#">Edit</a>
Protocol	Idap	
Port	389	
Directory Server Name	MicrosoftAD	
Context	dc=acme,dc=support,dc=deskstone,dc=com	
Domain Controller IPs	172.16.160.10	
Domain Bind Account DN	cn=svc1,ou=NonUsers	

The "Domain Policies" section contains the following details:

Domain Suffix	acme.support.deskstone.com
Admin Groups	cn=admin-readonly,ou=acmegroups,dc=acme,dc=support,dc=deskstone,dc=com cn=superadmin,ou=acmegroups,dc=acme,dc=support,dc=deskstone,dc=com cn=acmedemoadmins,ou=acmegroups,dc=acme,dc=support,dc=deskstone,dc=com cn=acmedemogroup,ou=acmegroups,dc=acme,dc=support,dc=deskstone,dc=com cn=development,ou=acmegroups,dc=acme,dc=support,dc=deskstone,dc=com
User Groups	cn=engineering,ou=acmegroups,dc=acme,dc=support,dc=deskstone,dc=com cn=it,ou=acmegroups,dc=acme,dc=support,dc=deskstone,dc=com cn=marketing,ou=acmegroups,dc=acme,dc=support,dc=deskstone,dc=com cn=officeworkers,ou=acmegroups,dc=acme,dc=support,dc=deskstone,dc=com cn=sales,ou=acmegroups,dc=acme,dc=support,dc=deskstone,dc=com
Domain Join User	Acme.SuperAdmin
Primary DNS server IP	172.16.161.10
Secondary DNS server IP	

## 2.4.3 Roles and Permissions

When multiple admin groups are registered, it is possible to assign different roles and permissions to different groups using predefined admin levels. This can be helpful when you wish to limit permissions for some administrators (a level 1 helpdesk for example.)

Use the drop down menu to view and change permissions. Admin Level 4 has the least amount of permissions and Super Admin has the most; Read Only allows for read-only access to all pages.

You may assign an admin level to an admin group in the domains page through the configuration tab.

The screenshot shows the VMware Horizon DaaS Enterprise Center interface. The top navigation bar includes the VMware logo, the text "VMware Horizon DaaS Enterprise Center", and tabs for "dashboard", "mapping", "pool management", and "configuration". The user "emily.kimbrough" is logged in, with "logout" and "help" links.

The "Roles" page is displayed, with a sub-header "Select a role to view the assigned permissions." and instructions:

- Add or remove permissions by double clicking on the name.
- A red check indicates permissions assigned to the role.
- Notice: Changes will take effect the next time users log in.

A dropdown menu shows "Roles: Super Admin - Enterprise Admin". Below this, a tree view lists permissions for the selected role:

- Super Admin - Enterprise Admin**
  - Core permissions**
    - View provisioning task status
      - Update provisioning task state
  - DASHBOARD**
    - View user statistics
    - View desktop statistics
    - View pool statistics
    - View data center statistics
  - MAPPING**
    - View users
    - View group mappings
    - Map groups to pools
    - View desktop list
      - Change desktops power state
      - Access desktop console
      - Access VC console
  - POOL MANAGEMENT**
    - Pattern management
    - Create pools
    - View browse pools
  - CONFIGURATION**
    - View general configuration
    - View list of domains
    - Summary information

## 2.4.4 Service Summary

The Service Summary lists the available desktop models, in line with their quota, usage and protocols. You can also view information on any VPN subnets. The information on this page is configured and managed by the service provider.

VMware Horizon DaaS Enterprise Center

dashboard

mapping

pool management

configuration

Service Summary

Desktop Model

Data Center	Desktop Manager Name	Session Based	Type	Quota	Remaining	Used	Memory	CPU	Active
andover	100119B9B668EB Standard	No	Selectable	50	12	38	2048	1	Yes
andover	100119B9B668EB Advanced	No	Selectable	2	2	0	4096	2	Yes

Protocol

Data Center	RDP	NX	PCoIP	Blast
andover	34 / Unlimited	4 / Unlimited	34 / Unlimited	34 / Unlimited

Model/Protocol Combinations

Data Center	Desktop Model	Protocols	Pools	Remaining	In Use
andover	Standard	PCoIP RDP Blast	Demo, POC-STD, Win7, TestPool	12	34
andover	Advanced	PCoIP RDP Blast	POC-ADV	2	0
andover	Standard	NX	Linux	12	4

Session Quota

Data Center	Quota	Remaining	Used
andover		0	0

Network

Internal Networks	Name
	192.168.5.0/24

Desktop model: Lists the desktop models available, whether the model is session-based (RDS), quota and usage information, and memory and CPU configuration. If a model is disabled, it does not appear in this list.

Protocol: There is one row of information for each Data Center. Each row indicates, for each protocol the Data Center uses, the number of VMs using the protocol and the total quota for that protocol. For example, in the previous illustration, the Tenant can provision a total of 66 VMs that use the PCoIP protocol and 0 VMs currently use PCoIP.

**Model/Protocol Combinations:** There is one row for each group of pools with the indicated desktop model and protocol combinations. For example, consider the second row in the previous illustration:

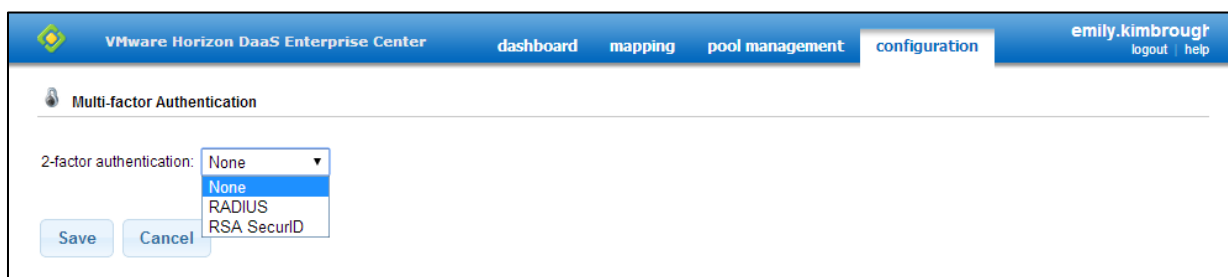
- **Pools:** 2 pools (G2 and G3) have the Normal desktop model and the RDP protocol.
- **In Use:** 2 VMs with this model/protocol combination are currently in use. The row does not indicate the pool from which the VMs are provisioned. The 2 VMs might be from pool G2 or from pool G3, or there might be 1 VM from pool G2 and 1 VM from pool G3.
- **Remaining:** A total of 52 VMs combined can be provisioned from pools G2 and G3 with this model/protocol combination. The number remaining in this example is 52 even though the Tenant has purchased unlimited RDP protocol because the Tenant's remaining quota for the Normal desktop model is 52.

**Important:** The number of desktops that can be provisioned with a specific model/protocol combination is always the smallest of the remaining quota for the Desktop Model and the individual quotas for each protocol. So in the third row of the previous illustration, the total number of additional desktops that could be provisioned with this combination is 20 because the remaining quota for NX is 20, for VNC is 74, for RDP is Unlimited, and for the Normal desktop model is 52.

## 2.4.5 Multi-Factor Authentication

The Enterprise Center and the Desktop Portal support RSA SecurID and RADIUS authentication.

Under the Configuration tab, click on Multi-factor Authentication. You will then see the screen below where you can select either RADIUS or RSA SecurID from the drop down menu.



After selecting the Multi-factor authentication option from the drop down menu, you will be brought to the configuration screens. You will see the following check box options at the top of the screen.

- **Same Username Throughout Authentication (optional):** When checked this feature locks the Domain Username field. This forces the user attempting to authenticate to have the same username credentials for both RSA and Domain Challenge. When unchecked, the username field is not locked on the Domain Challenge screen and the user may enter a different name.
- **Use Only for External Connections (optional):** If unchecked, all users, both inside and outside the network, must enter RSA credentials. If checked, users inside the network do not need to enter RSA credentials. The distinction between internal and external is configured by the Service Provider.

### 2.4.5.1 RADIUS Multi-factor Authentication

The tenant facing portals of the Horizon DaaS Platform (Enterprise Center and Desktop Portal) including PCoIP connections via the View Client can now be protected with RADIUS multi-factor authentication. The RADIUS authentication types supported are PAP, CHAP, MS-CHAPv1, and MS-CHAPv2. The Enterprise Center administrator performs the required configuration on the multi-factor authentication screen.

Once you have completed the RADIUS configurations, follow the steps below for the setup in the Enterprise Center:

1. Select RADIUS from the drop down menu.

The Primary Server and Secondary Server tabs appear as shown.

Multi-factor Authentication

2-factor authentication: **RADIUS**

☒ Same username throughout authentication

☒ Use only for external connections

**Primary Server** **Secondary Server**

\* Provider name: SafeNet

\* Hostname/Address: radius.somedomain.com

Authentication port: 1812

Accounting port: 1813

Authentication type: PAP

\* Shared secret: .....

Server timeout: 5 seconds

Max retries: 3

Realm prefix:

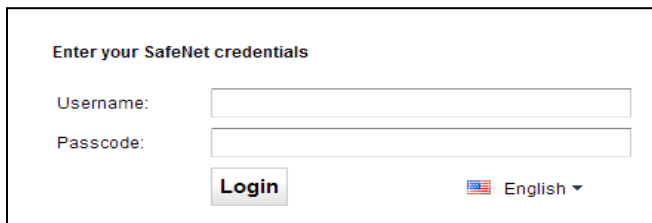
Realm suffix:

Save Cancel

2. Enter the details of the primary RADIUS authentication server on the Primary Server tab.
  - Provider name: Descriptive name for the authentication provider displayed to Enterprise Center and User Portal users at login.
  - Hostname/Address: The DNS name or IP address of the authentication server.
  - Authentication port: The UDP port configured to send/receive authentication traffic.
  - Accounting port: The UDP port configured to send/receive accounting traffic.
  - Authentication type: RADIUS authentication supports multiple authentication protocols. Select the appropriate one from the options: PAP, CHAP, MS-CHAPv1 and MS-CHAPv2.
  - Shared secret: The secret for communicating with the server. It must be exactly the same as the server configured value.
  - Server timeout: The number of seconds to wait for a response from the RADIUS server.

- Max retries: The maximum number of times to retry failed requests.
  - Realm prefix: Name and delimiter of realm to be prepended to the username during authentication.
  - Realm suffix: Name and delimiter of realm to be appended to the username during authentication.
3. If you wish to configure a secondary RADIUS authentication server that will be used when the primary server is not responding, enter information on the Secondary Server tab. (This step is optional.)
  4. Click **Save**.  
  
The Test Authentication dialog is displayed. Enter a valid username and RADIUS passcode.
  5. Click **Test**. If you are authenticated successfully, RADIUS authentication is enabled for all subsequent user logins and a success status box is displayed.

Once the RADIUS configuration is complete, users attempting to authenticate with the tenant portals will see the following screen:



**Enter your SafeNet credentials**

Username:

Passcode:

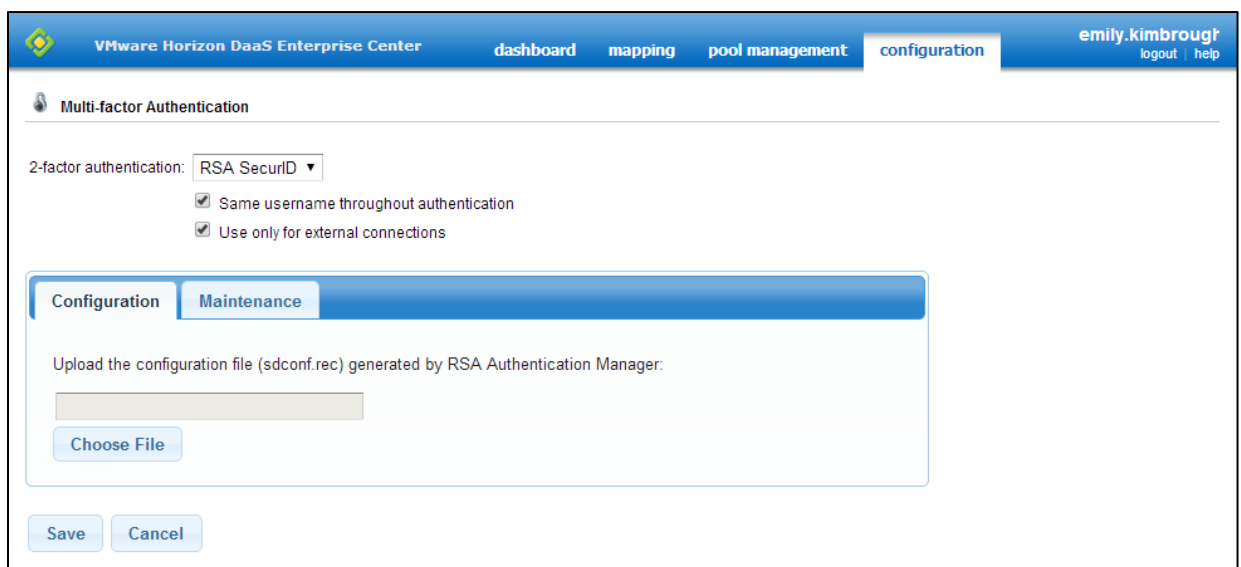
**Login** English ▼

To be authenticated and allowed access to a tenant portal, the user needs to enter their RADIUS credentials followed by their domain credentials. For further information please refer to the Enterprise Center online help.

### 2.4.5.2 RSA SecurID

We can provide you with a Technical Note with more information on Configuring RSA for complete details on how this would be setup. It includes configurations to be completed in the RSA Authentication Manager first and then in the Enterprise Center.

#### Configuration



**VMware Horizon DaaS Enterprise Center** dashboard mapping pool management **configuration** emily.kimbrough logout help

**Multi-factor Authentication**

2-factor authentication: RSA SecurID ▼

☒ Same username throughout authentication

☒ Use only for external connections

**Configuration** Maintenance

Upload the configuration file (sdconf.rec) generated by RSA Authentication Manager:

**Choose File**

**Save** **Cancel**

Once you have completed the RSA Authentication Manager configurations, follow the steps below to configure RSA SecurID in the Enterprise Center:

1. Select RSA SecurID from the drop down menu.
2. Upload the configuration file (sdconf.rec) generated by RSA Authentication Manager:
  - a. Browse for the file and then click **Save**.
  - b. The Test Authentication dialog is displayed. Enter a valid username and RSA passcode.
  - c. Click **Test**. If you are authenticated successfully, RSA authentication is enabled for all subsequent user logins and a success status box is displayed.

## Maintenance

The screenshot shows the VMware Horizon DaaS Enterprise Center interface. The top navigation bar includes 'dashboard', 'mapping', 'pool management', and 'configuration'. The user 'emily.kimbrough' is logged in. The main content area is titled 'Multi-factor Authentication'. Under '2-factor authentication', 'RSA SecurID' is selected in the dropdown menu. Two checkboxes are checked: 'Same username throughout authentication' and 'Use only for external connections'. Below this is a 'Maintenance' tab with three actions: 'Clear Local Node Secret File', 'Restart Local RSA Agent', and 'Remove Offline RSA Files Across Tenant Appliances'. Each action has an 'Apply' button. At the bottom are 'Save' and 'Cancel' buttons.

- **Clear Local Node Secret File:** If directed by RSA support, click **Apply** to delete the node secret file from the Tenant appliance running the Enterprise Center. This might be required if there is a node secret mismatch between the RSA Authentication Manager and the local agent. After you click Apply, the local RSA Agent will be restarted. This might result in a longer authentication for the first user if authentication failures occur while the Agent is being reinitialized.
- **Restart Local RSA Agent:** If directed by VMware support, click **Apply** to restart the local RSA Agent. For example, after uploading a new sdconf.rec file, you need to restart the local RSA Agent.
- **Remove Offline RSA Files Across Tenant Appliances:** If directed by RSA support, click **Apply**. This deletes the : JASatus.1 file.

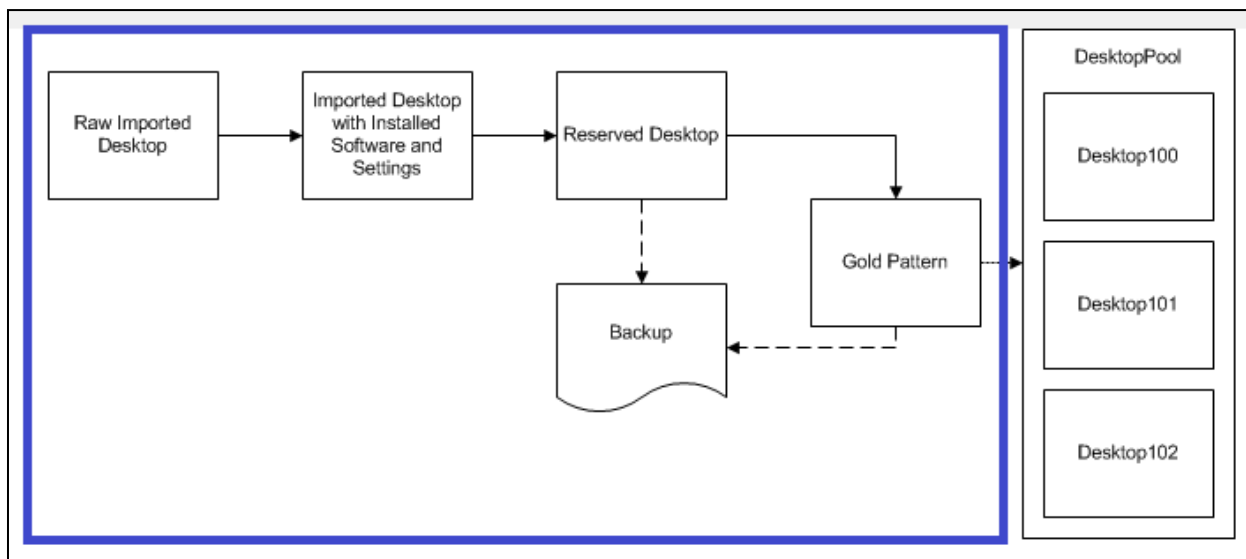
## 3 Creating and Updating Gold Patterns

To create a pool of desktops which can be mapped to users or groups, you must first create a Gold Pattern, or template, from which to create the pool. Gold Patterns help you define different image templates for different use cases or different user groups.

**Note:** The service provider places a limit on the number of Gold Patterns a tenant may have at any time. Ask your service provider if you need this limit adjusted.

### 3.1 Workflow

The workflow below depicts the stages that an image will follow from raw image to provisioned desktop. The steps below walk you through the workflow encased in the blue rectangle. The dashed lines indicate optional, but recommended steps.



### 3.2 Imported Desktops

New images, whether imported by the service provider, or uploaded by a desktop administrator, will first appear as desktops in the built-in Imported Desktops pool. Fully configured Imported Desktops are then converted into Gold Patterns to be used for desktop pools.

The imported desktops may be mapped to users for further configuration and testing. Follow the mapping process to assign to users.

It is recommended that all core software – software that is to be used by all users – be installed and tested at this point. The following is a list of considerations to keep in mind:

- Software installation and management
  - How should software be installed on each desktop? Should it be on the Gold Pattern or individual desktops?
  - How should software updates be managed? Individually, GPOs, centralized software management?
  - How/when should software licenses be applied? On the image template, individual desktops, or through a license server?
- Security
  - What security measures are required?
  - Should hardening be done via registry, settings, policies or proxy?
- Performance and behavior
  - How does the desktop perform under low/high load?
  - Do required software applications perform well?
  - Can you connect to external application or file servers? Is performance acceptable?
- Protocols
  - Are all protocols behaving as expected?
  - How should you deliver protocol clients to end users?
- Policies
  - Are all policies behaving as expected?
  - Can you manage software updates from policies?
  - Are policies assisting with desktop optimization?

### 3.3 Install the Horizon DaaS Agent

To install the DaaS Agent:

1. Copy the most recent VMware DaaS Agent file to gold pattern.
2. Run the .msi file and follow the standard installer options.
3. Log in to the Enterprise Center and select pool management -> patterns.
4. On the Pattern Management page, select Download the Horizon DaaS SSL certificate.
5. Save the cacert.pem file to the DaaS agent's cert directory (typically C:\Program Files (x86)\VMware\VMware DaaS Agent\cert). This file contains the public certificate of the DaaS internal Certificate Authority.

**Note:** Existing desktop VMs that are running Horizon DaaS Agent 6.0 will continue to function without any changes. However, to ensure secure communication, the agent should be updated to version 6.1 as soon as possible.

Once the agent is updated to version 6.1 on any existing desktop VMs, the cacert.pem file must be placed on those VMs in the cert directory.

It is not necessary to back up the cacert.pem file on the DaaS agent system. The cacert.pem file is contained on the service provider and tenant appliances and will be backed up as part of the service provider appliance backups. If the cacert.pem file is lost from the agent system it can be downloaded again from the Enterprise Center.

### Troubleshooting

You can verify that the agent is using the cacert.pem file and that the certificate verification is working by looking in the agent's log in the directory service\logs (C:\Program Files (x86)\VMware\VMware DaaS Agent\service\logs).

The following are the log messages that show the agent is using SSL validation and properly finding the certificate file:

```
2014-07-10 07:51:49 [INFO ] DaaSAgent - GSoapWithSsl server certificate validation is enabled
```

```
2014-07-10 07:51:49 [INFO ] DaaSAgent - GSoapWithSsl using certificate PEM file:
C:/Program Files (x86)/VMware/VMware DaaS Agent/service/./cert/cacert.pem
```

If the agent is unable to find the cacert.pem file it will log this as a warning message:

```
2014-07-10 07:54:31 [WARN ] DaaSAgent - GSoapWithSsl failed to stat certificate PEM
file: C:/Program Files (x86)/VMware/VMware DaaS Agent/service/./cert/cacert.pem
```

Verify that the cacert.pem file exists in the agent's cert directory and has read-only privileges for the Administrator account. If the certificate validation is failing you may see messages such as:

```
2014-07-08 23:57:01 [ERROR] DaaSAgent - Code: SOAP-ENV:Client; Actor: ; String:
SSL_ERROR_SSL
```

```
error:14090086:SSL routines:SSL3_GET_SERVER_CERTIFICATE:certificate verify failed;
Detail: SSL_connect error in tcp_connect()
```

```
2014-07-08 23:57:01 [WARN ] DaaSAgent - DomainHelper: getVmId Failed (2) time(s), will
retry after <10> seconds.
```

**Note:** It is also important to verify that the agent is connecting to the correct Tenant Appliance.

## 3.4 Reserve a Desktop

When an imported desktop is ready to be converted into a Gold Pattern, you must first reserve it. Reserving a desktop removes it from its current pool and un-maps it from any users so that no accidental changes will take place to the desktop.

1. Log into the Enterprise Center.
2. Mouse over the pool management tab and click **patterns**.
3. In the upper left corner, type in or search for the name of the image you'd like to make into a gold pattern.
4. Click **Reserve**.
5. A dialog box will pop up, notifying you that it is un-mapping any users.
6. Click **OK**.
7. In the menu on the left, select **Reserved Desktops**.
8. Select the image you reserved. Details for it will be displayed on the right.

## 3.5 Back Up the Desktop

Backing up the desktop before editing or converting it is highly recommended. You can have up to two backups of any Gold Pattern or Reserved Desktop at anytime.

1. Before backing up the desktop, you will need to power it down
  - a. Mouse over Operations
  - b. Click Power Off
  - c. A pop up will appear to confirm the action, click OK
2. Once powered off, click Backup (X used out of 2)
3. Enter an appropriate note. It's best to enter a note that will be useful should you need to roll back to the backup
4. Click Apply and wait for the backup to complete

**Note: this may take several minutes as the system performs a full disk copy**

5. Once complete, power it back up
  - a. Mouse over Operations
  - b. Click Power On
  - c. A pop up will appear to confirm the action, click OK

**Note: It may take several minutes for the desktop to be fully powered on.**

## 3.6 Convert to Gold Pattern

The final step to converting a Gold Pattern will lay down sysprep files and power off the desktop so that it can be used as a template.

1. Under the details for the desktop, select Convert to gold pattern
2. Fill out the appropriate information for:
  - Time Zone
  - Company Name
  - Local Admin Password

**Note: The password for VMware-provided images can be provided by VMware support if it is unknown. For imported images, use the local Administrator password for the original image.**

- If using MAK keys, enter the key when prompted.
  - If converting a WinXP desktop, you will be required to enter the Windows product key as well.
3. Click Convert to Pattern.

**Note: this may take several minutes.**

4. A dialog box will confirm the success or failure of the conversion process, click OK.

**Note: Microsoft places a limit on the number of times you can run sysprep and reseal a Windows 7 image. If there are not enough rearms remaining, the Gold Pattern conversion may fail. To identify how many rearms are left in Windows 7, run the following from the command line: slmgr /dlv**

A window will pop up after a moment stating how many rearm counts are remaining.

## 3.7 Enable the Pattern

Before the Gold Pattern can be used, you must enable it.

1. In the menu on the left, select **Gold Patterns**.
2. Select the new gold pattern you have created.
3. Select the radio button for yes next to "Enable".
4. Click **Update**.

The screenshot displays the VMware Horizon DaaS Enterprise Center interface. The top navigation bar includes the VMware logo and tabs for 'dashboard', 'mapping', 'pool management', and 'configuration'. The 'pool management' tab is active, leading to the 'Pattern Management' section. On the left, a sidebar shows 'Gold Patterns' with a list containing 'S2k8-64-RDS', 'Win7-64bitDemo', and 'Win8-64bitDemo'. The 'Win7-64bitDemo' pattern is selected. The main content area shows the details for this pattern, including its name, enable status (set to 'Yes'), validity, OS, hardware version, version, seal date, used in, data center, and a notes field. Below the details, there is an 'Update' button. Further down, the 'Command Options' section lists 'Modify Gold Pattern and Reseal' and 'Refresh Dynamic Pools'. A note states: 'The gold pattern cannot be converted to a desktop while it is in use by the pools shown above.' The 'Backup Options' section shows 'Backup (0 used out of 2)' and 'Current Backups:'. A message indicates 'No backups found for this Virtual Machine.' At the bottom of this section are 'Rollback' and 'Delete Backup' buttons. The footer contains copyright information and links to 'Version' and 'Legal' pages.

**VMware Horizon DaaS Enterprise Center** | dashboard | mapping | **pool management** | configuration

**Pattern Management** | [Show Summary](#)

**Gold Patterns**

- S2k8-64-RDS
- Win7-64bitDemo
- Win8-64bitDemo

**Gold Pattern - Win7-64bitDemo**

Name: Win7-64bitDemo

Enable: ☒ Yes ☐ No

Validity: OK

OS: Windows7\_64

H/W Version: vmx-09

Version: 1002

Seal date: 2014-09-08 14:24:38.82

Used in: Bright-WIN7

Data Center : VA (5 of 8 Used)

Notes:

**Update**

**Command Options**

- [Modify Gold Pattern and Reseal](#)
- [Refresh Dynamic Pools](#)

Note: The gold pattern cannot be converted to a desktop while it is in use by the pools shown above.

**Backup Options**

- [Backup \(0 used out of 2\)](#)
- Current Backups:

No backups found for this Virtual Machine.

**Rollback** **Delete Backup**

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## 3.8 Update a Pattern – Reseal Process

It is the customer's responsibility to make updates to Gold Patterns for any software upgrades, including upgrading the DaaS Agent when new versions are released by VMware. If you need to update a pattern (software upgrades, configuration changes, etc.) that has pools associated to it, you must go through this process to reseal the pattern. Follow these steps closely.

**Note:** If you only want to reseal the gold pattern, then you follow the steps below, but without making any changes.

To update the gold pattern:

1. Select **pool management** → **patterns**.
2. On the **Pattern Management** page, select a gold pattern to update.
3. Click the **Modify Gold Pattern and Reseal** link under Command Options. The **Modify Gold Pattern and Reseal** page opens. You are prompted to turn on the gold pattern before making changes.

VMware Horizon DaaS Enterprise Center   dashboard   mapping   pool management   configuration

### Modify Gold Pattern and Reseal

Please Turn On The Gold Pattern Before Making Changes.

**Power Operations**

Name: Win7-64bitDemo

Power State: off

IP Address:

DaaS agent status:

**Step 1:** Connect and make changes once the IP address is reported

[Connect via RDP](#) (use local administrator credentials)

**Step 2:** Fill out the fields below and click Save to reseal

Override Licensing ☐ Override the default licensing scheme (KMS or MAK) by using a licensing key

\* Company Name:

\* Time Zone:

**Password for local administrator: Administrator**

\* Password:

\* Password verify:

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4. Click the **Power On** button (do not fill out the rest of the page).

5. Wait approximately five to ten minutes for the desktop to be available, as it runs sysprep after being powered on. Once powered on, the gold pattern can no longer be used for provisioning desktops and the Validity status on the Pattern Management screen changes from OK to "The gold pattern needs to be resealed."
6. Click the **Connect via RDP** button and connect as the local administrator (not as a domain user). Do not fill out the rest of the page.

Contact your Service Provider if you do not know the password for Service Provider supplied images. If the image has been imported, use the local Administrator password for the original image.

You must access the imported desktops from within a network which connects to the virtual desktop subnet via VPN or from within the virtual desktop subnet itself. If you find you cannot RDP directly to the imported desktop, contact your service provider.

7. While connected to the desktop, make any necessary changes.
8. When complete, return to the Modify Gold Pattern and Reseal page and enter the Company Name, Time Zone, and Password for Local Administrator. Contact your Service Provider if you do not know the password for Service Provider supplied images. If the image has been imported, use the local Administrator password for the original image.
9. If resealing a Windows XP pattern you must enter in the Windows product key as well.
10. (Optional) It is recommended that you take a backup of the image before sealing it.
11. Click the Save button to reseal the desktop. This may take several minutes.

**Rollback:** To rollback a gold pattern to its previous configuration after you have completed an update, select the radio button for a backup and click Rollback.

**Static Desktops:** Any updates to the gold pattern will only take effect on new desktops created from this gold pattern. Users whose desktops are based on prior versions will not receive the updates unless they are given new static desktops. It is recommended that you use a Software Lifecycle Management System available from various 3rd party vendors to maintain existing static desktops.

**Dynamic Desktops:** When you update a gold pattern, by default the updates are pushed out only to new desktops that you add to the dynamic pool. To update existing desktops in the dynamic pool so that they also use the latest gold pattern, you refresh the dynamic pool on the Patterns screen. You can also refresh a single pool at a time on the Browse Pools screen.

## 3.9 Convert a Gold Pattern to a Desktop

If a Gold Pattern has no pools or desktops associated with it, you may convert it back to a desktop. This is sometimes done as a way of updating the Gold Pattern:

1. Log into the Enterprise Center.
2. Mouse over pool management and click **patterns**.
3. Select the Gold Pattern which you want to convert to a desktop.
4. Click **Convert to desktop**.

The screenshot shows the VMware Horizon DaaS Enterprise Center interface. The top navigation bar includes 'VMware Horizon DaaS Enterprise Center', 'dashboard', 'mapping', 'pool management', and 'configuration'. The 'pool management' tab is active, and the 'Pattern Management' section is selected. A search bar and a 'Reserve' button are at the top left. The left sidebar shows a list of 'Gold Patterns' (S2k8-64-RDS, Win7-64bitDemo, Win8-64bitDemo) and a 'Reserved Desktops' section. The main content area displays the details for the 'Gold Pattern - Win8-64bitDemo'. The details include: Name (Win8-64bitDemo), Enable (Yes/No radio buttons), Validity (OK), OS (Windows8\_64), H/W Version (vmx-08), Version (1001), Seal date (2014-09-08 14:20:29.247), Used in (VA (5 of 8 Used)), and a Notes field. Below the details is an 'Update' button. The 'Command Options' section includes a red box around the 'Convert to desktop' link and a 'Modify Gold Pattern and Reseal' link. The 'Backup Options' section shows 'Backup (0 used out of 2)' and 'Current Backups: No backups found for this Virtual Machine.' with 'Rollback' and 'Delete Backup' buttons. The footer contains the VMware logo, 'VMware Horizon DaaS™ Platform', copyright information, and links for 'Version' and 'Legal'.

5. Click **OK** to confirm. This will move the pattern to the Reserved Desktops container.
6. Expand the Reserved Desktops container.
7. Click on the Reserved Desktop.

8. Click **Unreserve Desktop**.

The screenshot shows the VMware Horizon DaaS Enterprise Center interface. The top navigation bar includes 'VMware Horizon DaaS Enterprise Center', 'dashboard', 'mapping', 'pool management', and 'configuration'. The 'pool management' tab is active. On the left, under 'Pattern Management', there is a search bar and a 'Reserve' button. Below this, a list of 'Reserved Desktops' is shown, including 's2k8-64-rds-lic' and 'Server2008-Demo'. The main content area displays details for 'Desktop - Server2008-Demo', including IP Address (10.1.3.102), Power State (on), OS (Windows2k8R2\_64), H/W Version (vmx-09), Storage Location ([Pilot\_Desktops\_B] Server2008-Demo/Server2008-Demo.vmx), Memory (4096), CPUs (2), Cpu Speed (1000), DaaS agent status (N/A), and an 'Operations' icon. Under 'Command Options', the 'Unreserve Desktop' link is highlighted with a red box. Other options include 'Connect via RDP' and 'Convert to gold pattern'. Under 'Backup Options', it shows 'Backup (0 used out of 2)' and 'Current Backups:'. At the bottom, there are 'Rollback' and 'Delete Backup' buttons. The footer contains copyright information and links to 'Version' and 'Legal'.

9. The desktop will now appear in the pool it originated from (typically Imported Desktops).

## 4 Creating and Updating Desktop Pools

---

After creating one or more Gold Patterns, you may create one or more pools from a chosen Gold Pattern. A pool is a group of desktops that are based on the same gold pattern and that use the same specs and configurations. Pools are often mapped to user groups as an efficient way of assigning desktops to similar user types.

It is recommended that you read through all of these steps before proceeding so that you are aware of what different configurations are available.

### 4.1 Creating a new pool of desktops

1. Log into the Enterprise Center.
2. Mouse over the pool management tab and click create pool.
3. Select the appropriate pool type from the drop down.
4. Select Individual Desktop Based from the drop down.
  - Individual Desktop Based – for desktop pools
  - Session based – For session pools

VMware Horizon DaaS Enterprise Center   dashboard   mapping   **pool management**   configuration   emily.kimbrough  
logout   help

Create New Pool

A pool is a collection of desktops or servers that share basic properties (Image, Hardware Model, etc.) and can be managed as a group.

**Individual (single user) Desktop Based:** Personal desktops (Windows 7 or 8, WinServer, or Linux) where only one user can connect at a time to a desktop or applications on that desktop.

**Session Based:** Shared RDS Servers (WinServer) where multiple users can connect to a single server at one time to access a Terminal Services desktop session or applications.

Please select the pool type:  
 ▼

5. Select an appropriate data center for the pool
6. Enter an appropriate name for the pool

7. Select the appropriate desktop model

**Note: Do not chose “Normal”**

8. Select the Protocols that users should be able to access their desktops through
9. Select the appropriate desktop type (static for persistent vs. dynamic for non-persistent)
10. Choose the Gold Pattern from which to create the pool.

11. To map a Network to a Pool, select the Network from the drop down menu.

**Note: This feature must be enabled by your Service Provider to be used. If you do not see this option and need it, please contact your Service Provider for more information.**

12. If the field “Based On” is showing, select a pool template to base the configurations on.

**Note: If no other pools are created, this field will not appear. This field is available for additional pools as a convenience for choosing previously used pool configurations**

13. Enter a pool size.

**Note: If you are already using your quota of desktops (this number can be found in service summary under the configuration tab), you will have to delete some desktops before you can increase the pool**

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logout help

Create New Pool

Please fill in the Pool specifications below.

Data Center Dallas

\* Name

\* Gold Pattern Select

\* Desktop Model Select

\* Protocols: ☐ RDP ☐ NX ☐ PCoIP ☐ Blast

Desktop Type Dynamic

Based On Demo

Pool Size 0  
0 Remaining

Clear Review Pool OR Customize Pool

14. Click **Customize Pool** if you wish like to customize pool settings. If you wish to use the “Based On” settings, skip to step 22.

15. Define the pool’s policies:

- VM name composition rule – This defines the naming convention for the desktops inside the pool. Desktops will be named incrementally based on this name.
- Computer OU – Enter an OU if you want the desktops to be automatically added to an existing OU. This OU must exist before specifying entering it into the field.

- Domain join – Enable this for Windows desktops that aren't joined to the domain via a run once script.
- **Note: If the Yes button is grayed out, this is because of a known issue in IE; try this with a different browser**
- Domain – Choose an appropriate domain to join the desktop to
- Assigned Groups – If you want to automatically map the pool to a particular domain group.

16. Click **Next**.

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Create New Pool > andover > Test > Policies

The provisioning policy defines all the attributes required for provisioning new virtual desktops in this pool.

\* VM name composition rule:  + incremental number  
1-12 character base name

Computer OU:   
ou=DesktopsVMs. This is an optional field

Domain Join: ☐ No ☒ Yes  
Allow the desktop to join the selected domain

Domain:   
NETBIOS domain this pool belongs to

Assigned Groups: **Assigned Groups**  
[Add User Group](#)  
AD groups to assign to this pool. For example, cn=desktopusers,ou=groups

Next

Back Review Pool

17. Set up Remote Applications.

Use the Remote Applications panel to specify applications that users can access remotely through the Desktop Portal. Users can connect to remote applications residing on a desktop or an RDS server. The desktop administrator controls which applications are published on a per pool basis.

- Click the **Add New Application** link.

The Add Application dialog displays.

Add Application

\* Name

\* Application Path

Runtime Parameters

Add Application Cancel

b. Enter information as follows.

- **Name:** Enter the name of the application to be displayed in Desktop Portal.
- **Application Path:** Enter the path to the executable on the Gold Pattern image.
- **Command LineParameters:** (optional) Any command line parameters for the application to execute with at runtime. Must follow the syntax of the given application.

c. Click **Add Application**.

The application appears in the application list as shown below.

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logout help

**Edit Session Pool**

Use the fields below to change your pool settings. Click "Save" when you are finished.  
**Note:** These changes will apply to all current and future VMs in the pool.

Pool Info  
Provisioning  
Remote Applications  
Pool Configuration  
User Experience  
Previous Next

Specify applications that users can access remotely.  
**Note:** Applications for session pools can **only** be launched via RDP or PCoIP.  
[+ Add New Application](#)

☒ Allow full desktop

Name	Application Path	Icon	Runtime Parameters	Action
Calculator	c:\windows\system32\calc.exe			<a href="#">Edit</a> <a href="#">Delete</a>
Excel	c:\program files\microsoft office\office14\excel.exe			<a href="#">Edit</a> <a href="#">Delete</a>
Outlook	c:\program files\microsoft office\office14\outlook.exe			<a href="#">Edit</a> <a href="#">Delete</a>
Word	c:\program files\microsoft office\office14\winword.exe			<a href="#">Edit</a> <a href="#">Delete</a>

[Save](#) [Cancel](#)

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**Note:** The Icon column contains an image associated with the application in the user portal. If you do not have Horizon DaaS Agent version 6.1, this column will display a question mark icon or an icon from the existing URL if there is one. If not specified, a generic icon is displayed in the Desktop Portal; however, no icon is displayed in the Enterprise Center if not specified. If the icon is not reachable, the system displays a message to the user and a question mark is displayed in place of the icon. When you add an application, the icon may not be immediately available, even if it is available in other pools.

- d. To add additional applications, click **Add New Application** and repeat the steps above.
- e. Allow full desktop (optional): This gives the user the option to launch the entire desktop.

The administrator can control access to a full desktop session for pools with remote applications via the Allow full desktop checkbox. When the box is checked, users can choose whether to connect to individual applications or a full desktop session. When the box is unchecked, users will only be able to connect to individual applications and not to a full desktop session.

**Note:** If you clear the Allow Full Desktop checkbox but have no applications added, the system will automatically re-check the box and change the setting back.

18. View or update the VM configuration:

**Note:** The first three fields here are typically static, depending on the desktop model chosen. If the model chosen allows for configurable specs, you may update the spec details here.

- If provisioning Dynamic desktops, check the box for Reset desktops.
- Optionally, enter the location of a run once script that should run after sysprep completes.

**Note:** if there is more than one script, they must be combined into a parent file which can call the remaining scripts.

VMware Horizon DaaS Enterprise Center dashboard mapping pool management configuration

Create New Pool > andover > Test > Policies

Provisioning

Remote Applications

VM Configuration

Pool Configuration

Utilization

User Experience

Previous Next

The VM configuration policy defines the characteristics of the virtual machine hosting the virtual desktop.

Number of CPUs: 1

\* Memory: 2048 MB  
Minimum 256 MB

Number of NICs: 1  
Number of network interface cards (1)

Run once script:   
File path of the script. This is an optional field

19. Click **Next**.

20. Define Pool Configurations

- If configuring a dynamic pool, specify the minimum and maximum number of desktops which will be powered on at any time. You may want to keep this low to save resources, or make it higher to ensure quick availability.
- Specify an idle timeout. After the desktop is idle for this amount of time, it will log the user off.

VMware Horizon DaaS Enterprise Center dashboard mapping pool management configuration

Create New Pool > andover > Test > Policies

Provisioning

Remote Applications

VM Configuration

Pool Configuration

Utilization

User Experience

Previous Next

Pool Configuration defines policies, applied to each VM in a pool.

\* Minimum number of VMs available: 10  
minimum number of VMs available in Powered On state

\* Maximum number of VMs available: 50  
maximum number of VMs available in Powered On state

\* Session Timeout for VM (in ms): 604800000  
Session timeout interval (in ms) - default 1 hour [3600000]

21. Click **Next**.

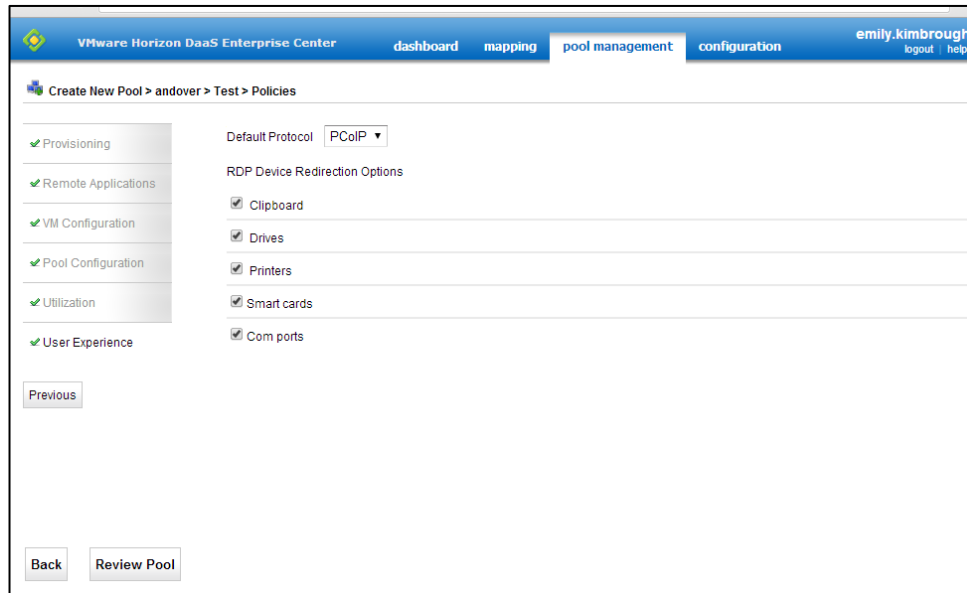
22. View Utilization

- For Dynamic pools, this will be “Reboot”
- For Static pools, this will be “Performance”

23. Click **Next**.

24. Configure User Experience

- Choose any desired RDP redirection options (clipboard, drives, etc.).
- If you wish to define an alternate protocol as a default, chose it from the drop down menu.



25. Click **Review Pool** and review the configurations chosen for the pool. Update as necessary using the back button.

26. When ready to proceed, click **Create**.

27. You will be redirected to the Browse Pools page where you can see the new pool name and “X|Y” displaying the number of desktops already provisioned next to the number of desktops requested.

28. To monitor the pool creation progress, mouse over Pool Management and click **Tasks and Events**.

Up to 4 desktops will be provisioned at a time, and the rest will queue behind them.

## 5 Creating and Browsing Session Pools

### 5.1 Create Session Profiles

Before creating a Session Pool, you need to be sure a Session Profile is created with the specifications you require. A Session Profile specifies the memory and CPUs dedicated to each user session. The profile determines the slice of a given session-based VM that each user will have. There are three built-in Session Profiles already created. If you need a custom profile, follow the steps below to create it.

1. In the Enterprise Center, select Pool Management → Session Profiles. The Session Profiles screen displays.
2. Click the Add Session Profile link. The page expands to display the following fields:
  - Name: Choose a naming scheme for session profiles that indicates the level of resources allocated for each session, for example Small, Medium, and Large.
  - Memory (MB): The memory dedicated to each user session.
  - Number of CPUs: The fractional part of one or more CPUs dedicated to each user session, for example .5 or 1.85.
3. After entering the required information, click the Add Session Profile button.

For example:

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### Session Profiles

Session profiles are used for creating session pools. Each profile specifies the approximate virtual machine configuration that is used if all available sessions in the pool are used simultaneously.

[+ Add Session Profile](#)

\* Name:

\* Memory (MB):

\* Number of CPUs:

Name	Memory (MB)	CPUs	Session Pools Using	Action
Small	512	0.5	0	<input type="button" value="Delete"/>
Medium	1024	1.0	0	<input type="button" value="Delete"/>
Large	2048	2.0	0	<input type="button" value="Delete"/>

## 5.2 About Session Pools

Once a Session Profile has been created that meets your specifications, you can create Session Pools. Session Pools are an efficient way of assigning desktop sessions to similar user types. Session pools are based on the same session profile and gold pattern and use the same specs and configurations.

Session pools enable users to connect to their Microsoft Windows desktop remotely using one of the following protocols:

- Remote Desktop Protocol (RDP) - Protocol used by Remote Desktop Services (RDS), formerly known as Terminal Services, to allow a user to access applications and data on a remote computer over a network.. Remote Desktop Connection (RDC), formerly known as Microsoft Terminal Services Client, is the client application for RDS.
- PCoIP, which is a high performance display protocol containing both WAN optimization and support for 3D graphics, which can be enabled on a per pool basis. Support for 3D graphics is provided using Soft 3D, also known as vSGA (see pages 3-4 of the VMware [white paper](#) on Graphics Acceleration for more information). In order for you to use 3D graphics feature, the following must be true:
  - The virtual hardware version must be 8 or higher.
  - Desktop must have the Windows Aero theme
  - Servers must have appropriate hardware installed

**Note: The 3D functionality is not supported for Windows Server environments.**

Session pools are often mapped to user groups as an efficient way of assigning desktop sessions to similar user types. Session pools are based on the same session profile and gold pattern and use the same specs and configurations.

**Note the following:**

- The Service Provider determines the type of services available to the Tenant and every session is identical, supporting the same applications. Users cannot install applications or customize the environment.
- RDS desktops are dynamic. Dynamic desktops are assigned on an as-needed basis. An end user receives a session from an available desktop in the pool when connecting to it. When the user disconnects or logs off, the session becomes available to someone else. The number of users assigned to the pool cannot exceed the limit established when the pool is created unless you subsequently edit the Number of Sessions field to increase this number.
- There are a number of limitations when using PCoIP with RDS servers. For more information, see the Horizon View [documentation](#).

## 5.3 Create Session Pools

In the Enterprise Center, select pool management → create pool. The Create Pool screen displays (see image below).

The screenshot shows the 'Create New Pool' screen in the VMware Horizon DaaS Enterprise Center. The top navigation bar includes 'dashboard', 'mapping', 'pool management' (selected), and 'configuration'. The user 'emily.kimbrough' is logged in. The main content area explains that a pool is a collection of desktops or servers sharing basic properties. It defines two pool types: 'Individual (single user) Desktop Based' (personal desktops) and 'Session Based' (shared RDS servers). A dropdown menu labeled 'Please select the pool type:' has 'Session Based' selected. A 'Next' button is at the bottom.

The Enterprise Center Administrator completes the following four steps on the Create Session Pool screen:

- Pool Composition Input
- Set Session Count
- Configuration
- Confirm Pool

These tasks are described in the following sections. After entering the required values in each step, click Next to save the values and advance to the next step. Fields marked with a red asterisk (\*) require input.

The screenshot shows the 'Create Session Pool' screen, Step 1: Pool Composition Input. A progress bar at the top indicates four steps: 1. Pool Composition Input > (active), 2. Set Session Count >, 3. Configuration >, and 4. Confirm Pool. The main heading is 'Step 1: Pool Composition Input'. Below it, a note states: 'Please provide the below inputs. The system will then determine the number of allowable sessions.' The form includes a 'Data Center' dropdown set to 'MultiDC1'. A table lists required fields: 'Name' (text input), 'Session Profile' (dropdown set to 'Select'), and 'Gold Pattern' (dropdown set to 'Select'). A 'Next >>' button is at the bottom.

### 5.3.1 Create Session Pool ► Pool Composition Input

In this step, the Enterprise Center Administrator determines the characteristics of each session in a pool:

1. Data Center: Select the Data Center which to create the pool.
2. Name: Enter a name for the pool.
3. Session Profile: A Session Profile specifies the memory and CPUs dedicated to each user in the pool. The profile determines the slice of a given session-based VM each user has. The Service Provider determines the available Session Profiles.
4. Gold Pattern: Select a gold pattern to base the pool on. The only gold patterns in the list are those using the Windows Server 2008 R2 operating system, as this is the only supported OS capable of running a Microsoft RDS host.

### 5.3.2 Create Session Pool ► Set Session Count

The system displays the maximum number of sessions the pool can accommodate. This number is calculated based on the system resources required by each session, the available quota for the session-based desktop models used by other pools, and the remaining quota of sessions for all VMs.

**Create Session Pool**

1. Pool Composition Input >
2. **Set Session Count >**
3. Configuration >
4. Confirm Pool

#### Step 1: Pool Composition Input

Please provide the below inputs. The system will then determine the number of allowable sessions.

Data Center: Lexington

---

\* Name: SessionPool1

\* Session Profile: Small 512 MB 0.5 CPUs

\* Gold Pattern: ChrisW2k8GP

#### Step 2: Set Session Count

The pool can accommodate **24 sessions at most**.

This is based on your selected profile, session quota of 228 available sessions and quotas for session based desktop models.

Number of Sessions: 10

[Show Session Hosts](#)

#### Sessions to Add to Existing Hosts

Additional sessions will be added to these existing hosts.

Name	Memory	CPUs	Sessions Reserved	Session Capacity	Capacity Used
nrds100	2048	2	4	4	100%
nrds101	2048	2	4	4	100%

#### New Hosts

Based on your input and available desktop model quotas, the following session hosts will be provisioned.

Desktop Model	Memory	CPUs	Sessions Reserved	Session Capacity	Capacity Used
RDS 1	2048	2	4	4	100%
RDS 1	2048	2	2	4	50%

1. Number of Sessions: Enter a value no greater than the maximum displayed by the system.

**Note: If maximum number of sessions displayed by the system is not large enough, select a different Session Profile that presents a smaller slice of the VM to each user and click Next. The system will recalculate the maximum number of sessions and display the new value.**

2. Show Session Hosts: Click this link to display a table that indicates the VMs that will host the sessions in this pool and how many sessions will be hosted on each VM. Session hosts are a collection of VMs (possibly mixed footprint) that can be partially or completely dedicated to hosting one or more session pools. The system determines the appropriate number of VMs by considering the system resources each session requires, as specified by the Session Profile; and the footprint specified by the desktop model.

### 5.3.3 Create Session Pool ► Configuration

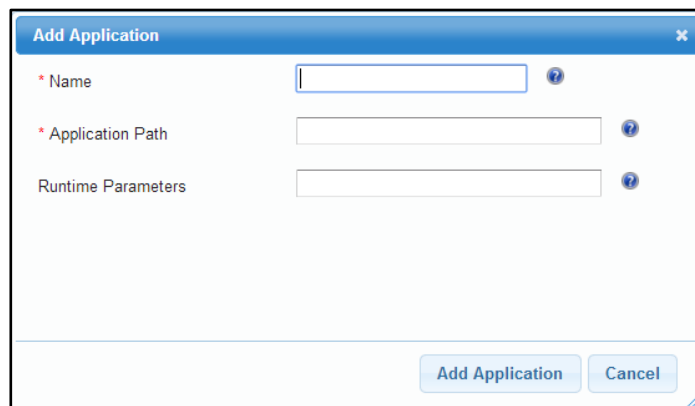
The configuration screen has four panels: Provisioning, Remote Applications, Pool Configuration, and User Experience.

1. Provisioning Panel: Use this panel to change the following desktop provisioning characteristics:
  - VM Name Composition Rule: A base name for the VMs in this pool. By default, the system provides a base name derived from the pool name. Desktops are named incrementally based on this name.
  - Computer OU: The VMs in a pool can optionally belong to an AD organizational unit that the Administrator specifies here. This defines a specific organizational unit for this pool. This organizational unit must exist before specifying it in this field.
  - Domain Join: Select No to prevent desktops from joining the specified domain (default=Yes). Enable only for Windows desktops that aren't joined to the domain via a run once script, etc.
  - Domain: Select the NETBIOS domain to which this pool of desktops should belong.
  - Assigned Groups: Enter the AD groups map the pool to automatically. For example, CN=MyCompanyUsers,OU=Groups. Enter cn or ou to see a list of valid groups. Groups can also be assigned easily to pools from the Mapping screen.
2. Set up Remote Applications.

Use the Remote Applications panel to specify applications that users can access remotely through the Desktop Portal. Users can connect to remote applications residing on a desktop or an RDS server. The desktop administrator controls which applications are published on a per pool basis.

- a. Click the **Add New Application** link.

The Add Application dialog displays.



b. Enter information as follows.

- **Name:** Enter the name of the application to be displayed in Desktop Portal.
- **Application Path:** Enter the path to the executable on the Gold Pattern image.
- **Command LineParameters:** (optional) Any command line parameters for the application to execute with at runtime. Must follow the syntax of the given application.

c. Click **Add Application**.

The application appears in the application list as shown below.

**Edit Session Pool**

Use the fields below to change your pool settings. Click "Save" when you are finished.  
**Note:** These changes will apply to all current and future VMs in the pool.

Specify applications that users can access remotely.  
**Note:** Applications for session pools can **only** be launched via RDP or PCoIP.

[+ Add New Application](#)

☒ Allow full desktop

Name	Application Path	Icon	Runtime Parameters	Action
Calculator	c:\windows\system32\calc.exe			<a href="#">Edit</a> <a href="#">Delete</a>
Excel	c:\program files\microsoft office\office14\excel.exe			<a href="#">Edit</a> <a href="#">Delete</a>
Outlook	c:\program files\microsoft office\office14\outlook.exe			<a href="#">Edit</a> <a href="#">Delete</a>
Word	c:\program files\microsoft office\office14\winword.exe			<a href="#">Edit</a> <a href="#">Delete</a>

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

[Save](#) [Cancel](#)

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**Note:** The Icon column contains an image associated with the application in the user portal. If you do not have Horizon DaaS Agent version 6.1, this column will display a question mark icon or an icon from the existing URL if there is one. If not specified, a generic icon is displayed in the Desktop Portal; however, no icon is displayed in the Enterprise Center if not specified. If the icon is not reachable, the system displays a message to the user and a question mark is displayed in place of the icon. When you add an application, the icon may not be immediately available, even if it is available in other pools.

d. To add additional applications, click **Add New Application** and repeat the steps above.

e. Allow full desktop (optional): This gives the user the option to launch the entire desktop.

The administrator can control access to a full desktop session for pools with remote applications via the Allow full desktop checkbox. When the box is checked, users can choose whether to connect to individual applications or a full desktop session. When the box is unchecked, users will only be able to connect to individual applications and not to a full desktop session.

**Note:** If you clear the Allow Full Desktop checkbox but have no applications added, the system will automatically re-check the box and change the setting back.

3. Pool Configuration Panel: Use this panel to define policies to be applied to the pool.
  - a. Session Timeout for VM: Enter the session idle timeout interval in milliseconds. The default is one hour (3,600,000 ms).
  - b. Run Once Script (optional): The location of a run once script that should run after sysprep completes. If there is more than one script, combine them into a parent file that calls the remaining scripts.
4. User Experience Panel: Use this panel to choose any desired RDP redirection options (clipboard, drives, etc.). RDP redirection options specify which local devices on a rich client (for example, a laptop computer) get redirected to the desktop environment. Any device that gets redirected will show up as a device in the virtual desktop.

### 5.3.4 Create Session Pool ► Confirm Pool

1. Review the pool characteristics.
2. Click **Back** to change any of the information.
3. Click **Create** to create the session pool.

## 5.4 Browsing Session Pools

After creating a new Session Pool, to view the available session pools, select **Pool Management ► Browse Pools**. For example:

The screenshot shows the VMware Horizon DaaS Enterprise Center interface. The top navigation bar includes 'dashboard', 'mapping', 'pool management', and 'configuration'. The 'pool management' dropdown menu is open, showing options: 'browse pools', 'create pool', 'patterns', 'session profiles', and 'tasks and events'. The 'Browse pools' page displays a table of session pools with the following data:

Name	Pool Size	Desktop Type	Domain	Mode
<a href="#">Admin</a>	6	Static	ACME	Online
<a href="#">Demo</a>	2	Dynamic	ACME	Online
<a href="#">Executive</a>	920	Static	ACME	Online
<a href="#">General</a>	250	Session	ACME	Online
<a href="#">Imported Desktops</a>	0	Static		Online
<a href="#">Marketing</a>	560	Static	ACME	Online
<a href="#">Office Default</a>	1250	Static	ACME	Online
<a href="#">Recycle Pool</a>	0	Static		Offline
<a href="#">Utility Servers</a>	0	Static		Online

- Editing a Session Pool: Select the Edit button for a pool to edit that pool's characteristics.
- Deleting a Session Pool: The Delete button is present only after the Administrator first edits the session pool to decrease the Session Count to zero.

## 5.5 Updating an Existing Pool

### 5.5.1 Updating Existing Pool Configurations

You can update many of the configurations for existing pools.

Follow these steps to access the configurations.

1. Log into the Enterprise Center.
2. Mouse over the pool management tab and click browse pool.
3. Click the **Edit** button to the far right of the name of the pool you wish to update.

See the document on How to Create a Pool for details and recommendations on many of the configurable fields.

4. Change the configurations as necessary.

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**Edit Pool**

Use the fields below to change your pool settings. Click "Save" when you are finished.  
**Note:** Any changes you make will apply to new VMs but not to existing VMs in the pool.

**Pool Info**

Data Center: andover

\* Name: Demo

\* Gold Pattern: Win7-32

Fixed size

Pool Size: 2

42 Remaining

Protocols: ☒ RDP ☐ NX  
☒ PCoIP ☒ Blast

Desktop Type: Dynamic

Desktop Model: Standard

Pool Mode: ☐ Offline ☒ Online

Maintenance Notice:

Next

Save Cancel

5. Click **Save**. Configurations will take effect within minutes.

## 5.5.2 Updating an Existing Pool after Updating a Gold Pattern

Depending on the pool type (static or dynamic), you may choose to update the existing pool or rebuild the pool entirely. Note that after you have updated a Gold Pattern, the updates will only apply to newly provisioned desktops – not existing desktops.

### 5.5.2.1 Dynamic Pools

#### Option A: Delete and Re-provision

This option is faster and cleaner, but requires downtime.

1. Mouse over the pool management tab and click patterns.
2. Click on the pattern you need to update.
3. Update the Gold pattern through the resale process (See the section “Update a Pattern”).
4. Change the pool size to 0.
5. Change the pool size to the desired number.

#### Option B: Dynamic Pool Refresh

This option can be slower, but eliminates downtime.

The dynamic pool refresh feature allows a pool of non-persistent dynamic desktops to be refreshed without being taken offline. When a pool is selected for refresh, the Enterprise Admin can specify what percentage of the pool must remain available as desktops at all times. For example, if the admin specifies a 60% reserve in a pool of 10, then 6 desktops will always be available for users to log into while the refresh takes place. Each non-persistent dynamic desktop now has a version that indicates which version of the gold pattern was used to clone that desktop. This version is made available in the desktop listing for the pool as shown in the image below.



<input type="checkbox"/>	Name	IP Address	Power State	Gold Pattern Version
<input type="checkbox"/>	<a href="#">dPool101</a>	172.18.115.115	On	1002
<input type="checkbox"/>	<a href="#">dPool100</a>	172.18.115.110	On	1002
<input type="checkbox"/>	<a href="#">dPool103</a>	172.18.115.112	On	1002
<input type="checkbox"/>	<a href="#">dPool104</a>	172.18.115.114	On	1002
<input type="checkbox"/>	<a href="#">dPool102</a>	172.18.115.116	On	1002

If the version of a desktop is already the same version as the gold pattern then a refresh of that desktop is not required and will be skipped. If a desktop is in use, it will not be replaced until it has been recycled (e.g. a user either logged out of the session or the session timed out). The Dynamic Pool Refresh can be kicked off from two locations in the Enterprise Center, the Patterns page or the Browse Pools page by following the instructions below.

#### *Dynamic Pool Refresh through Patterns page*

1. Mouse over the pool management tab and click patterns.
2. Click on the pattern you need to update.

3. Update the Gold pattern through the resale process (See the section “Update a Pattern”).
4. Under Command Options, click **Refresh Dynamic Pools**.

The Refresh Dynamic Pools dialog displays.

5. Enter the percentage of desktops that should always be available during the refresh process.
6. Click the check boxes for the dynamic pool(s) to be updated.
7. Click the **Submit** button.
8. This will refresh all Dynamic pools associated with this Gold Pattern.

#### *Dynamic Pool Refresh through Browse Pools page*

1. Update the Gold pattern through the resale process (See the section “Update a Pattern”).
2. Mouse over the pool management tab and click browse pools.
3. To the right of the pool you need to update, click the Refresh button.

The Refresh Dynamic Pool dialog displays.

4. In the box that appears, enter the percentage of desktops that should always be available during the refresh process.
5. Click the **Submit** button.

**Note:** This will refresh only the pool selected for refresh on the **Browse Pools** page

### **5.5.2.2 Static Pools**

#### **Option A: Delete and Re-provision**

Gives all new desktops to users.

1. Update the Gold pattern through the reseal process (See the section “Update a Pattern”).
2. Delete all desktops.
3. Re-provision all desktops.

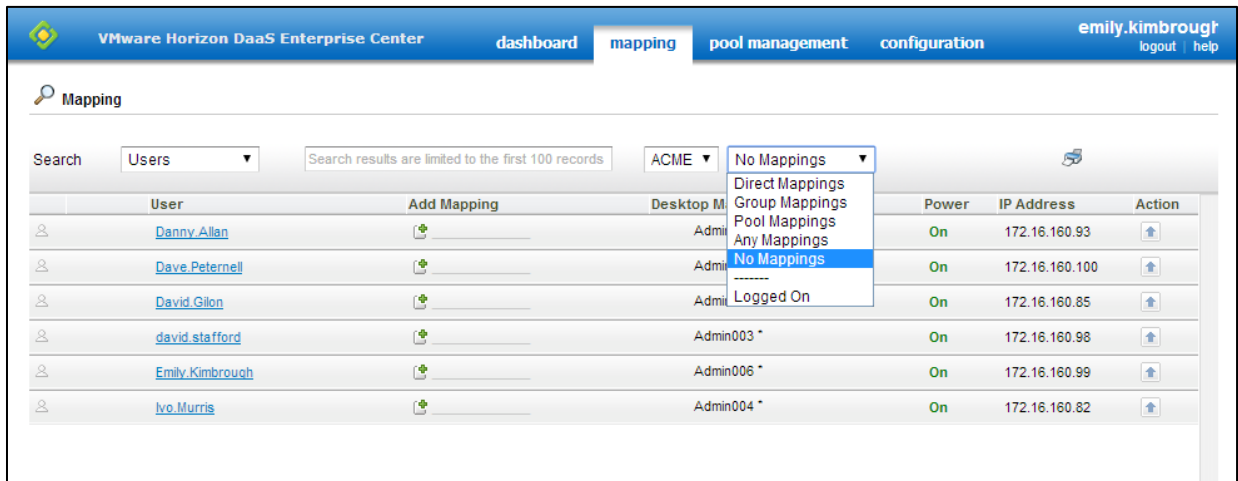
#### **Option B: Update Individually**

Update desktops on an individual basis manually or with 3rd party software/GPOs.

## 6 Mapping Users and Groups

Follow these steps to map, or assign, users and groups to any necessary desktops or pools. Users can only access desktops they are mapped to.

1. Log into the Enterprise Center.
2. Select the mapping tab.
3. Any users with a direct mapping to a desktop will be displayed.
  - To map an additional desktop to a user, stay on this page.
  - To view group mappings, select “Groups” in the left most drop down.
  - To view users or groups with no desktops mapped, select either “Users” or “Groups” in the left most drop down and “No Mappings” in the far right drop down menu. An example is displayed below:



The screenshot shows the VMware Horizon DaaS Enterprise Center interface. The top navigation bar includes 'dashboard', 'mapping', 'pool management', and 'configuration'. The 'mapping' tab is active. Below the navigation bar, there is a search bar and a dropdown menu for 'Users'. The main table displays a list of users with columns for 'User', 'Add Mapping', 'Desktop Mappings', 'Power', 'IP Address', and 'Action'. A dropdown menu is open for the 'Desktop Mappings' column, showing options: 'No Mappings', 'Direct Mappings', 'Group Mappings', 'Pool Mappings', 'Any Mappings', and 'Logged On'. The 'No Mappings' option is selected.

User	Add Mapping	Desktop Mappings	Power	IP Address	Action
<a href="#">Danny Allan</a>		Admin001	On	172.16.160.93	
<a href="#">Dave Peterrell</a>		Admin002	On	172.16.160.100	
<a href="#">David Gilon</a>		Admin003	On	172.16.160.85	
<a href="#">david.stafford</a>		Admin003 *	On	172.16.160.98	
<a href="#">Emily Kimbrough</a>		Admin006 *	On	172.16.160.99	
<a href="#">Ivo Murriss</a>		Admin004 *	On	172.16.160.82	

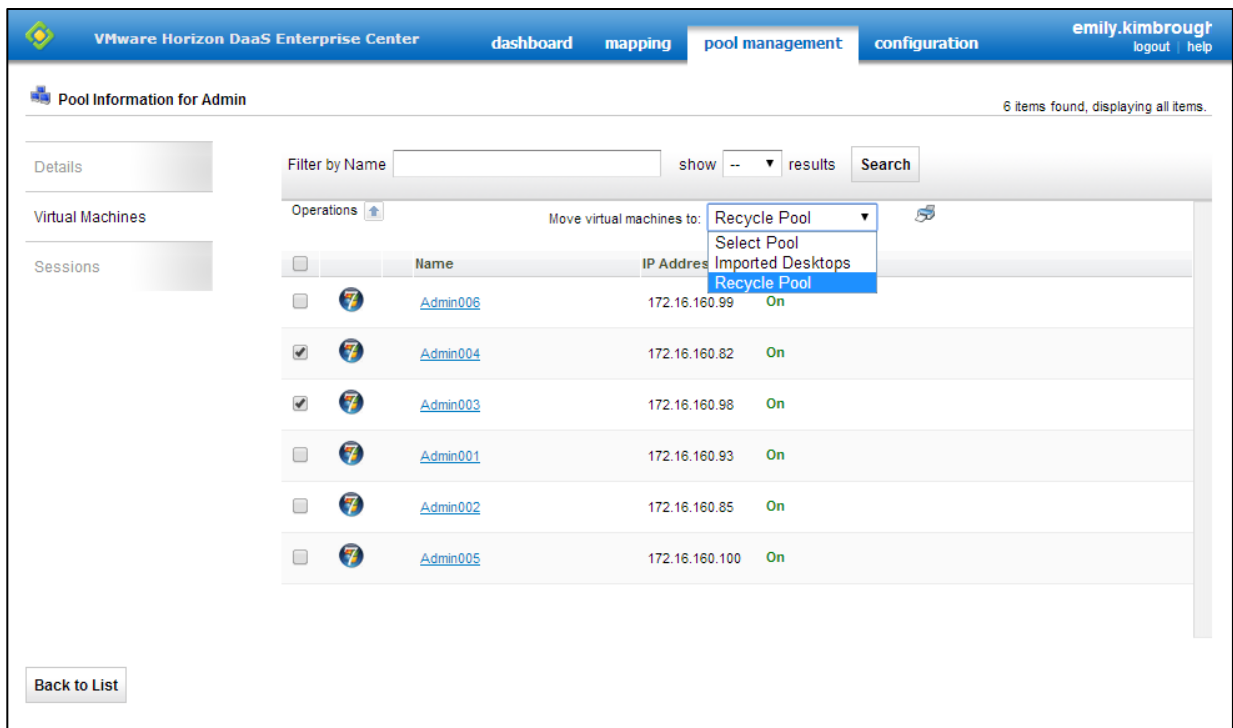
4. Click the plus icon (+) under the Add Mapping column for the user or group which you would like to map a desktop or pool.
5. Type the name of the desktop or pool which you'd like to map. A list of desktops and pools with that name will automatically appear. Note that pools are represented by icons with multiple monitors ( ) while single desktops are represented by icons with single monitors ( ).
6. Select the appropriate pool or desktop for the group or user.
7. Click **OK**.

## 7 Deleting Desktops, Pools and Gold Patterns

Deleting desktops, pools and patterns each have different implications as the three are linked within the platform. Follow these steps for the appropriate action.

### 7.1 Delete Static/Persistent Desktops

1. Log into the Enterprise Center.
2. Click **pool management**.
3. Click on the pool which contains the desktop(s) you want to delete.
4. Click on the **Virtual Machines** tab on the left.
5. Select the checkbox for each desktop you want to delete.
6. Above the list of machines, select the Recycle Pool from the “Move virtual machines to:” drop down menu:



VMware Horizon DaaS Enterprise Center

dashboard mapping **pool management** configuration

emily.kimbrough  
logout | help

Pool Information for Admin 6 items found, displaying all items.

Filter by Name show -- results Search

Operations Move virtual machines to: Recycle Pool Select Pool Imported Desktops Recycle Pool

	Name	IP Address	Status
<input type="checkbox"/>	Admin006	172.16.160.99	On
<input checked="" type="checkbox"/>	Admin004	172.16.160.82	On
<input checked="" type="checkbox"/>	Admin003	172.16.160.98	On
<input type="checkbox"/>	Admin001	172.16.160.93	On
<input type="checkbox"/>	Admin002	172.16.160.85	On
<input type="checkbox"/>	Admin005	172.16.160.100	On

Back to List

7. Click **OK** in the confirmation dialog box.

**Note:** This will not permanently delete the desktop; it will just move it to the Recycle Pool.

8. Repeat the above steps for any other desktops you wish to delete.
9. Mouse over the pool management tab and click browse pools.
10. Click **Recycle Pool** on the left.
11. Click **Virtual Machines** on the left.
12. Select the desktops to be deleted, mouse over Operations and select **Power Off**.
13. Once the desktops are powered off, mouse over pool management and click browse pools
14. Click the **Empty** button on the far right of the details for the Recycle Pool, the desktops will be deleted from the tenant.

**Note:** This may take several minutes. You will not have access to the additional quota space until this has been completed. Monitor progress through the Tasks and Events page

## 7.2 Delete Dynamic/Non-persistent Desktops

1. Log into the Enterprise Center.
2. Click **pool management**.
3. Click the **Edit** button next to the pool which contains the desktop(s) you want to delete.
4. Reduce the pool size by the desired amount.
5. Click **Save**.

**Note:** This may take several minutes. You will not have access to the additional quota space until this has been completed. Monitor progress through the Tasks and Events page

## 7.3 Delete Pools

**Note:** To delete a pool, you must first delete all desktops from that pool. Follow the steps above for this.

1. Log into the Enterprise Center.
2. Click **pool management**.
3. Click the **Delete** button next to the pool which you want to delete.
4. Click **OK** to confirm.

## 7.4 Delete Gold Patterns

**Note:** To delete a Gold Pattern, you must first delete all pools associated with the Gold Pattern. Follow the steps above for this.

1. Log into the Enterprise Center.
2. Mouse over pool management and click patterns.
3. Select the Gold Pattern you want to delete.

- Click the **Convert to desktop** link.

VMware Horizon DaaS Enterprise Center | dashboard | mapping | pool management | configuration

Pattern Management | [Show Summary](#)

Search: [ ] Reserve

**Gold Patterns**

- S2k8-64-RDS
- Win7-64bitDemo
- Win8-64bitDemo

**Gold Pattern - Win8-64bitDemo**

Name: Win8-64bitDemo

Enable: ☒ Yes ☐ No

Validity: OK

OS: Windows8\_64

H/W Version: vmx-08

Version: 1001

Seal date: 2014-09-08 14:20:29.247

Used in:

Data Center: VA (5 of 8 Used)

Notes:

Update

**Command Options**

- [Convert to desktop](#)
- [Modify Gold Pattern and Reseal](#)

**Backup Options**

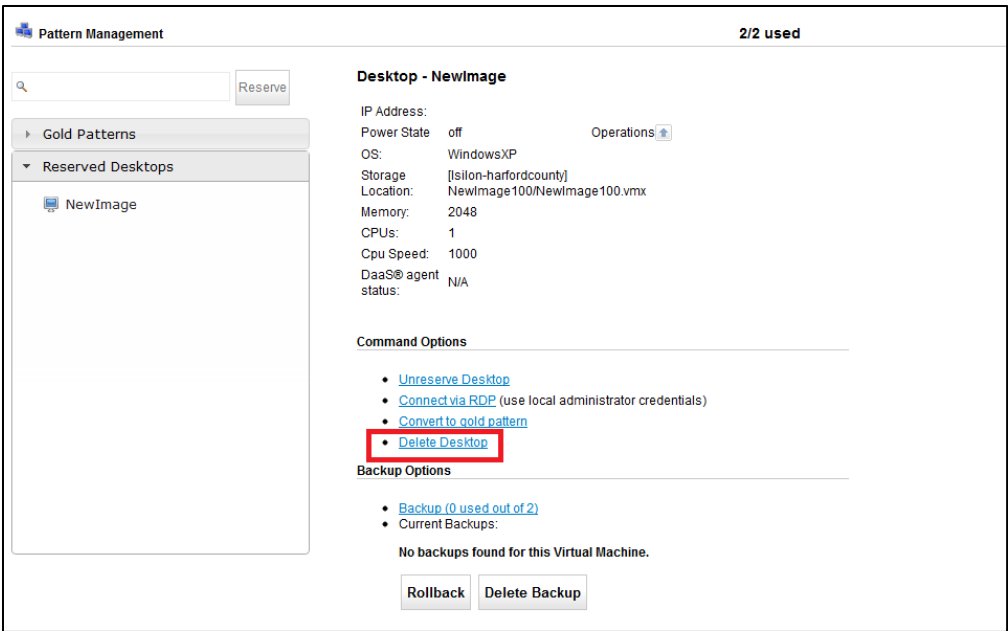
- [Backup \(0 used out of 2\)](#)
- Current Backups:

No backups found for this Virtual Machine.

Rollback Delete Backup

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- Click **OK** to confirm. This will move the pattern to the Reserved Desktops container.
- Expand the Reserved Desktops container.
- Select the Reserved Desktop.
- Click the **Delete desktop** link.



9. Click **OK** to confirm.

## 8 Adding Users and Groups

---

Follow these steps to ensure that end users and groups have the necessary permissions and group memberships to access the portals and virtual desktops.

1. Log into the Domain Controller that is used for the desktop environment
2. Select Start > Administrative Tools > Active Directory Users and Computers
3. In a new Horizon DaaS hosted DC:
  - a. Expand the folder which represents the domain
  - b. Expand the subfolder of the same domain
  - c. Expand the Users folder

In an existing or externally hosted DC:

- a. Locate the folder or container where you want to manage or create users
- b. If necessary, create an appropriate group to hold the users

**Note: if you create a new group, you will need to register this user group in Enterprise Center. See the Domain Registration section**

4. To create a new VDI user, follow these steps. If you would like to provide access to a preexisting user, skip to the next step:
  - a. Click **New > User**.
  - b. Follow the prompts to enter the appropriate user information and to set up a password
5. Configure the user to belong to the appropriate groups:
  - a. Right click on the user you'd like to grant access to.
  - b. Select **Properties**.
  - c. Select the **Member Of** tab.
  - d. Select **Add**.
  - e. Enter the names of any appropriate user groups.
  - f. Enter domain admin credentials if prompted.
  - g. Click **OK**.

**Note: it can take up to 5 minutes for users to appear in the mappings tab in Enterprise Center after they have been added to registered user groups or after new groups have been registered**

6. If creating a new User Group, be sure to enter it into the registered User Groups in the Enterprise Center by following the instructions below
  - a. Mouse over Configuration and click **Domains**.
  - b. Under the link **Register a Domain** on the left, click on the name of your Domain.
  - c. On the right, click on the **Edit** button.
  - d. Click on the second tab for Group Info.
  - e. Under User Groups, click the link to **Add User Group**.
  - f. Start typing in the distinguished name of the user group and options will show up below it, select the correct group from the list.
  - g. Click the **Save** button on the bottom left.

## 9 Mass Operations – Power States and Sessions

Through the Enterprise Center, you are able to change the power state and user access of some or all desktops at once. The section below details what and how you can control a group of desktops.

You can perform the following on one or more desktops at once:

- Power On
- Power Off
- Shutdown
- Suspend
- Reset (hard reset, similar to holding the power button)
- Reboot (soft reset, the OS will reboot cleanly)
- Logoff User
- Disconnect User

The screenshot displays the VMware Horizon DaaS Enterprise Center interface. The top navigation bar includes the VMware logo, the text "VMware Horizon DaaS Enterprise Center", and tabs for "dashboard", "mapping", "pool management" (which is active), and "configuration". The user "emily.kimbrough" is logged in, with "logout" and "help" links.

The main section is titled "Pool Information for Admin" and shows "6 items found, displaying all items." On the left, there are tabs for "Details", "Virtual Machines", and "Sessions". The "Virtual Machines" tab is selected.

The interface features a "Filter by Name" search bar and a "show -- results" dropdown. A "Search" button is also present. Below the search bar, there is an "Operations" menu with a dropdown arrow. The dropdown menu is open, showing the following options: "Power On", "Power Off", "Shutdown", "Suspend", "Reset", "Reboot", "Logoff User", and "Disconnect User".

To the right of the operations menu, there is a "Move virtual machines to:" dropdown menu with "Select Pool" selected. Below this, a table lists the virtual machines in the pool:

	IP Address	Power State
<input type="checkbox"/>	172.16.160.99	On
<input type="checkbox"/>	172.16.160.82	On
<input checked="" type="checkbox"/>	172.16.160.98	On
<input checked="" type="checkbox"/>	172.16.160.93	On
<input type="checkbox"/>	172.16.160.85	On
<input type="checkbox"/>	172.16.160.100	On

At the bottom left, there is a "Back to List" button.

To change the power state on one or more desktops:

1. Log into the Enterprise Center
2. Click on pool management
3. Select the appropriate pool

**Note: if you'd like to perform power operations on an entire pool, skip to step 6**

4. Select the Virtual Machines tab on the left
5. Select the check box of one or more the desktops
6. Above or next to the list of desktops is an Operations arrow icon ( ), and when clicked, a drop down will appear with power state operations. Choose the option you want to use
7. The Power State column will update with the progress of the chosen operation

# 10 Uploading/Migrating Existing Images to Horizon DaaS

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This process may vary depending on various factors. If you would like to upload or migrate an image into the Horizon DaaS environment for the first time, notify your service provider so that the correct process can be put in place.

## 10.1 Requirements:

1. Desktop image in the form of a .ova or .vmdk file

**Note:** It is recommended that this image be for a previously virtualized desktop. It is not recommended to use physical ► virtual images

2. The local Administrator's password to the image

## 10.2 Process Overview:

1. Notify the service provider that you will be uploading a new image and include the public IP of the computer which will be used to upload the image
2. The service provider will set up an FTP account and firewall off access to the source IP
3. The image is uploaded
4. When complete, notify the service provider and provide the local administrator password
5. The service provider will import the image into the VDI environment
6. The service provider will install any necessary software so that the image can be fully integrated
  - Up to date DaaS Agent
  - Protocol senders
7. The service provider will send notice that the image is available in Imported Desktops

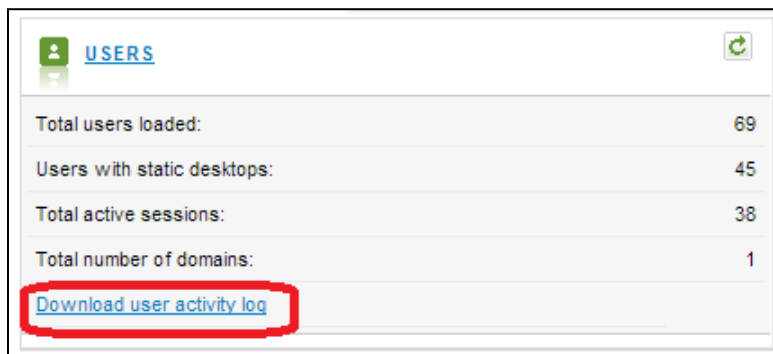
# 11 Reporting

Through the Enterprise Center you are able to run reports of User Activity and Unmapped Desktops. The information below details how to run these reports.

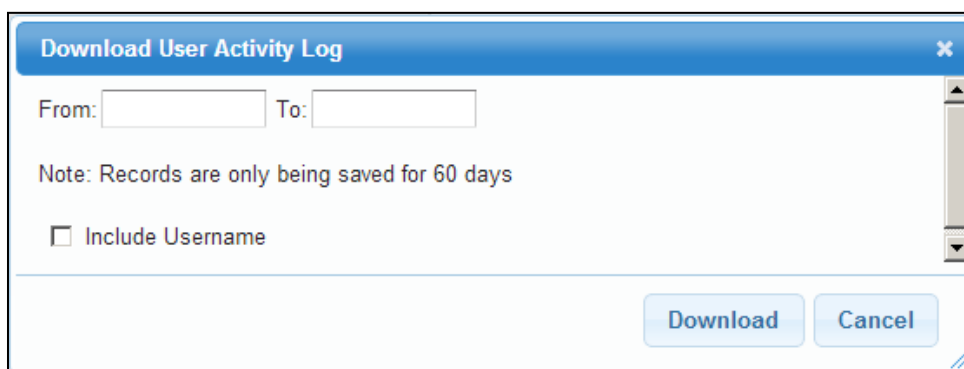
## 11.1 User Activity Report

User activity reporting that tracks all session activity is available via .csv download on the Dashboard page of the Enterprise Center. Session activity that generates a user activity log entry includes connect, connect failure, login, logout, disconnect, reconnect, and session timeout.

1. Under the Users section on the Dashboard page, click the link for Download user activity log.



2. A new screen will appear, as shown below, where you can enter a range of dates to be included in the User Activity Log that gets generated.
3. If you would like to include the username in the report, click the Include Username checkbox.
4. Click the Download button to download the .csv file containing the User Activity log.

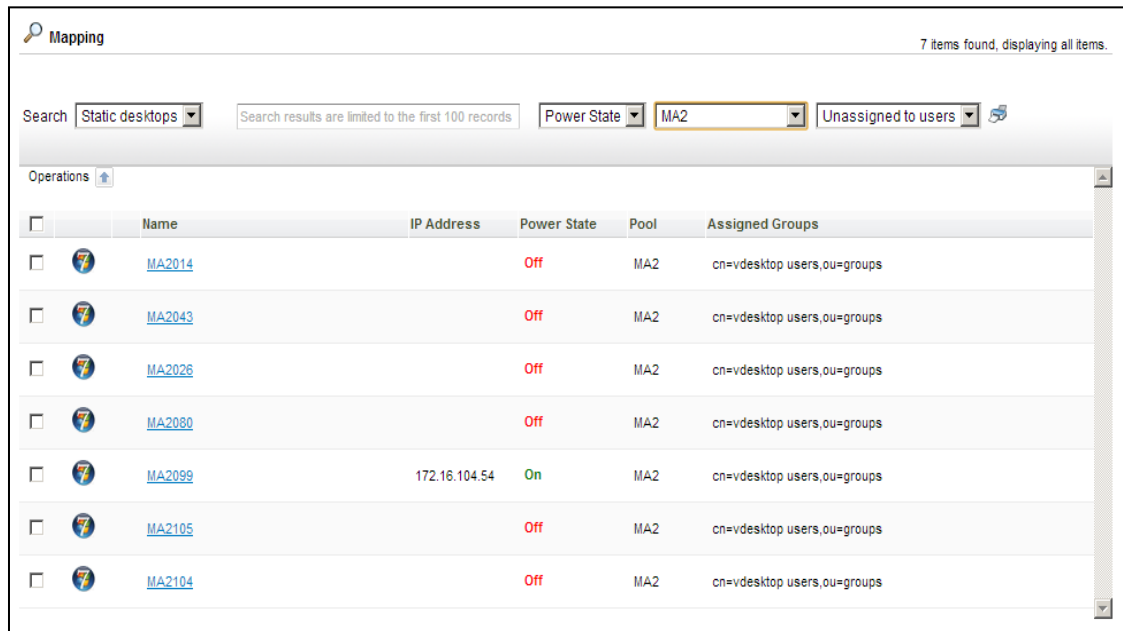
A screenshot of the 'Download User Activity Log' dialog box. The dialog has a blue title bar with the text 'Download User Activity Log' and a close button (X). Below the title bar, there are two input fields labeled 'From:' and 'To:'. Below these fields is a note that reads 'Note: Records are only being saved for 60 days'. Under the note is a checkbox labeled 'Include Username' which is currently unchecked. At the bottom right of the dialog are two buttons: 'Download' and 'Cancel'.

## 11.2 Unmapped Desktops Report

A report is available in the Mappings screen of the Enterprise Center that lists all static desktops based on their assignment to a user. There are filters available to restrict the report output by assignment state, power state, and pool.

1. On the Mapping page, select Static desktops from the drop down menu on the left.
2. Then from the drop down menus on the right, select the desired Power State, Pool, and Unassigned to users to view a list of static desktops that are not yet mapped to any users.

For example:



Mapping 7 items found, displaying all items.

Search **Static desktops** Search results are limited to the first 100 records **Power State** **MA2** **Unassigned to users**

Operations

<input type="checkbox"/>	Name	IP Address	Power State	Pool	Assigned Groups
<input type="checkbox"/>	<a href="#">MA2014</a>		Off	MA2	cn=vdesktop users,ou=groups
<input type="checkbox"/>	<a href="#">MA2043</a>		Off	MA2	cn=vdesktop users,ou=groups
<input type="checkbox"/>	<a href="#">MA2026</a>		Off	MA2	cn=vdesktop users,ou=groups
<input type="checkbox"/>	<a href="#">MA2080</a>		Off	MA2	cn=vdesktop users,ou=groups
<input type="checkbox"/>	<a href="#">MA2099</a>	172.16.104.54	On	MA2	cn=vdesktop users,ou=groups
<input type="checkbox"/>	<a href="#">MA2105</a>		Off	MA2	cn=vdesktop users,ou=groups
<input type="checkbox"/>	<a href="#">MA2104</a>		Off	MA2	cn=vdesktop users,ou=groups