

Horizon Air 16.6 Administration

VMware Horizon Cloud Service
Horizon Cloud with Hosted Infrastructure 16.6



vmware®

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VMware, Inc.
3401 Hillview Ave.
Palo Alto, CA 94304
www.vmware.com

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About Horizon[®] Air[™] Administration

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The *Horizon Air Administration Guide* provides information on how to create, deploy, and administer virtual desktops and applications.

Intended Audience

This document is intended for experienced IT system administrators who are familiar with virtual machine technology and datacenter operations.

VMware Technical Publications Glossary

VMware Technical Publications provides a glossary of terms that might be unfamiliar to you. For definitions of terms as they are used in VMware technical documentation, go to <http://www.vmware.com/support/pubs>.

Getting Started Page

When you install Horizon Air, you must perform certain tasks to configure the application before you can run it.

After you log in for the first time, register the Active Directory as described in [Register Active Directory](#). When completed, you can start working in the Administrator Console.

The Getting Started page provides a high-level overview of the work that you have done, and what you still need to do. You can access this page at any time by clicking the cloud icon located in the top left corner of the page.

Table 2-1. Getting Started Page Selections

Option	Description
General Setup	Provides details and links to editing Active Directory, and Roles and Permissions settings. See Chapter 3 General Setup .
Desktop Assignment	Provides links to pages where you can convert an image to a desktop, and create a new desktop assignment. See Chapter 5 Desktop Assignment .
App Assignment	Provides links to creating new application assignments. See Chapter 6 App Assignment .

At the bottom of the page, use the slider to indicate if you want the Getting Started page to appear at startup.

General Setup

Use the General Setup section to configure or edit Active Directory settings and define roles and permissions.

The General Setup page provides access to the Active Directory and Roles and Permissions functions.

Selection	Description
Active Directory	Register an active directory and add domain bind and domain join information. Domain registration is required in order to add Admin users to Roles and Permissions or assign Services to users. You must register your Active Directory and complete the domain join before you can do anything else. See Register Active Directory for details.
Roles and Permissions	Create roles and assign permissions to users who will be managing the environment. See Add or Change Roles and Permissions for Horizon Air .

This section includes the following topics:

- [Register Active Directory](#)
- [Add or Change Roles and Permissions for Horizon Air](#)

Register Active Directory

You must complete Horizon Air configuration by registering Active Directory, completing the domain join, and adding the Super Administrator.

Note You must complete the entire Active Directory registration process before you can work with any other services. All services are locked until you complete these tasks.

The Active Directory infrastructure must be synchronized to an accurate time source.

Procedure

- 1 From the Getting Started page, select **General Setup**.
- 2 Under Active Directory, click **Edit**.

Note If this is the first time you are configuring Active Directory, the button is labeled **Configure**.

- 3 In Register Active Directory dialog box, provide the requested registration information.

Option	Description
NETBIOS Name	Active Directory domain name
DNS Domain Name	Fully qualified Active Directory domain name
Protocol	LDAP or LDAPS, depending on your Active Directory setup
Bind Username	Domain administrator
Bind Password	Domain administrator password
Port	The defaults for this field are: LDAP -> 389 and LDAPS -> 636. You should not need to modify this field unless you are using a non-standard port.
Domain Controller IP	(Optional) Specify a single preferred domain controller IP address if you want AD traffic to use a specific domain controller.
Context	This option is autopopulated based on the DNS Domain Name information provided earlier.

- 4 Click **Domain Bind**.
- 5 Provide the domain join information.

Option	Description
Join Username	Domain administrator
Join Password	Domain administrator password
Primary DNS Server IP	IP address of primary DNS Server
Secondary DNS Server IP	(Optional) IP of secondary DNS Server

- 6 Click **Save**.
- 7 In the Add Super Administrator dialog box, use the Active Directory search function to select the AD administrator group to administer Horizon Air.
- 8 Click **Save**.
- 9 If the domain bind or domain join process fail, you must restart the registration process.
 - a Restart the browser.
 - b Log in first using your My VMware account.
 - c Log in to the Active Directory account using the domain service (bind) account login and password.
 - d Continue with the domain join process.
- 10 If you click **Cancel** before you complete the registration, you can click **Edit** at any time from the Getting Started page to continue with registration.

Add or Change Roles and Permissions for Horizon Air

Role-based access lets you control who has access to the management console.

Procedure

- 1 On the Getting Started page, select **General Setup**.
- 2 In **Roles & Permissions**, click **Edit**.
- 3 Add another group or change the selected group.
- 4 Click **Save**.

4

Creating a Desktop Image

You must create and configure an image before you can start assigning desktops.

Creating an image is a two-step process.

- First, install and configure agents on the desktop template provided by VMware, and copy the template into the file share.
- Then, convert the template to a new image in the Administration Console. See [Create an Image in the Administration Console](#). This image is used as the OS on your virtual desktops.

Once you have an image, you can start creating desktop assignments. See [Create a Dedicated or Floating Desktop Assignment](#).

This section includes the following topics:

- [Install and Configure Agents](#)
- [Copy Desktop Template to the File Share](#)

Install and Configure Agents

It is important that you install and configure the agents in a specific order before you configure the DaaS Agent.

Prerequisites

- Verify that the desktop template .ova file is imported.
- Download Horizon Agent from <http://www.vmware.com>.
- Download DaaS Agent from Myvmware.com.

Note: If you are upgrading the DaaS Agent on an existing setup, you must confirm that the Agent Pairing setting is configured correctly. See [Edit General Settings](#).

Procedure

- 1 Install the Horizon Agent.
 - a Run the installer with `viewagent-installer.exe` if using vCenter to create Master VM.
 - b If you are installing on Windows Server without RDSH enabled, select the option to install the Agent in desktop mode.

- c If you are installing on Windows Server with RDSH enabled, run the installer using this command:
VMware-viewagent-x86_64-x.y.z-nnnnnnn.exe /v "VDM_SKIP_BROKER_REGISTRATION=1"
- d Disable VMware Horizon View Composer Agent.
- e Reboot when prompted.

2 Install the DaaS Agent.

What to do next

[Configure the DaaS Agent Using DHCP](#) or [Configure the DaaS Agent Manually](#).

Configure the DaaS Agent Using DHCP

You can configure the DaaS Agent using DHCP.

DHCP is the recommended configuration option to configure the DaaS Agent. Configure DHCP option code 74 (IRC Chat) to point to the two IP addresses allocated for the tenant appliances.

Prerequisites

Install the DaaS Agent.

Procedure

- 1 Select **Control Panel > Administrative Tools** to open the DHCP configuration client..
- 2 Right-click **Server Options** and select **Configure Options**.
- 3 Click the scope and right-click **Scope Options** to configure the 074 option code for that scope only. Configuration is the same as for the entire DHCP server.

If you defined limited addresses, you can confine the options' configuration to a specific scope. Configuration is the same as for the entire DHCP server.
- 4 Scroll down to the 074 option for Internet Relay Chat (IRC) and select the check box.
- 5 Add IP addresses for tenant appliances.
- 6 On the Images page, select **Download Bootstrap** from the drop-down menu.
- 7 Enter and re-enter a password of 8-20 ASCII characters containing at least one each of the following: lowercase letter, uppercase letter, number, and symbol (!@#\$%^&*). Do not use non-ASCII characters in the password. Make a note of this password for future use.
- 8 Log in to the image candidate VM.
- 9 Open a command prompt as administrator and navigate to the DaaS Agent installation directory (C:\Program Files (x86)\VMware\VMware DaaS Agent\service).
- 10 Run the Keytool.exe file with the bootstrap file as an argument:

```
Keytool -f <absolute path to the bootstrap file>
```

11 When prompted, enter the encryption password you set in step 3 above.

Keytool performs the bootstrap and moves the certificate to the cert folder.

What to do next

Copy the desktop template to the file share. See [Copy Desktop Template to the File Share](#).

Configure the DaaS Agent Manually

After you install the DaaS Agent, you can edit the `MonitorAgent.ini` file to manually configure the agent.

Prerequisites

- Find the tenant appliance address.
- Install the DaaS Agent. See [Install and Configure Agents](#).

Procedure

- 1 Navigate to the directory that contains the `MonitorAgent.ini` file.
 - 64-bit: `C:\Program Files (x86)\VMware\VMware DaaS Agent\service`
 - 32-bit: `C:\Program Files\VMware\VMware DaaS Agent\service`
- 2 Open the `MonitorAgent.ini` file for editing.
- 3 In the `[element]` section, uncomment the `standby_address` and add the tenant appliance IP addresses, separated by a comma.

Obtain the tenant appliance IP addresses from your VMware representative.

For example: `standby_address=10.31.5.20,10.31.5.21`
- 4 Set `auto discover` to 0.
- 5 Save and close the file.
- 6 On the Images page, select **Download Bootstrap** from the drop-down menu.
- 7 Enter and re-enter a password of 8-20 ASCII characters containing at least one each of the following: lowercase letter, uppercase letter, number, and symbol (`!@#$%^&*`). Do not use non-ASCII characters in the password. Make a note of this password for future use.
- 8 Log in to the image candidate VM.
- 9 Open a command prompt as administrator and navigate to the DaaS Agent installation directory (`C:\Program Files (x86)\VMware\VMware DaaS Agent\service`).
- 10 Run the `Keytool.exe` file with the bootstrap file as an argument:

```
Keytool -f <absolute path to the bootstrap file>
```

11 When prompted, enter the encryption password you set in step 3 above.

Keytool performs the bootstrap and moves the certificate to the cert folder.

What to do next

Copy the desktop template to the file share. See [Copy Desktop Template to the File Share](#).

Copy Desktop Template to the File Share

After you install and configure the agents, export the desktop template and copy it into the file share.

Procedure

- 1 Locate the desktop template .ova file that VMware provides.
- 2 Copy the .ova file to the root directory of the file share. .

You cannot create subfolders.

The template powers on after import. This process takes a few minutes.

Desktop Assignment

Use the Desktop Assignment section to create a desktop image and set up desktop assignments.

The Desktop Assignment section of the Getting Started page provides starting points for these actions.

Action	Description
Create Image	At least one image is required for desktop assignment. An image is used as the OS on your virtual desktop(s). Click Go to access the Images page where you can create and edit images as well as perform other actions. You can also access this page from Inventory > Images . See Create an Image in the Administration Console for details.
Create New Desktop Assignment	Create a set of virtual desktops and assign them to users. Click Go to access the Assignments page where you can create and edit assignments as well as perform other actions. You can also access this page from the Assign icon. See Create a Dedicated or Floating Desktop Assignment for details.

This section includes the following topics:

- [Create an Image in the Administration Console](#)
- [Types of Desktop Assignments](#)
- [Create a Dedicated or Floating Desktop Assignment](#)
- [Create a Session Desktop Assignment](#)
- [Working with Nested Organizational Units](#)

Create an Image in the Administration Console

Create a new desktop image from the Images page.

After your desktop VM is transferred to the compute resource by VMware, you can create a desktop image.

Procedure

- 1 From the Getting Started page, select **Desktop Assignment > Create Image**.
- 2 Click **New**.

3 Enter the required information.

Option	Description
Desktop	Start typing the first few letters of the template name. All desktops that can be converted to an image will display. Note that it takes approximately five minutes after the template import for the inventory to display. Select the name when it appears. Make sure that the desktop is powered on prior to conversion.
Username	Admin user for required desktop domain
Password/Verify password	Password for the Admin user
Company Name	Your company name
TimeZone	Ignore this setting

4 Click **Publish**.

The publishing process takes several minutes to complete. If successful, the Image task shows as Complete.

Note: Do not restore a VM to a snapshot taken prior to the bootstrapping process. If the agent has been already boot-strapped, this will prevent the agent from communicating as it should.

5 If the publish operation fails:

- a Select **Monitor > Activity** and locate the failed job.
- b Correct the problem that caused the failure.
- c Select **Inventory > Images** and select the check box next to the image.
- d Click ... and select **Convert to Desktop**.
- e Follow steps [Step 2](#) to [Step 4](#) to publish the image.

Actions That You Can Perform on Images

You can perform several actions on an image.

Procedure

- 1 Select **Inventory > Images**.
- 2 Select the check box next to the image.
- 3 Do one of the following:

Click one of the available buttons.

Button	Description
Publish	Publishes the image.
Take Offline	Takes the image offline. The image cannot be used to make new assignments or to provision new desktops or servers for existing assignments. If you take an image offline, you must republish it to make it available for assignments. Taking an image offline is the same as reserving a desktop image.

- Or -

Click ...and select an action from the drop-down menu.

Option	Description
Backup Now	Creates a backup of the image.
Rename	Renames the image.
Delete	Permanently deletes the selected image.
Convert to Desktop	Converts the selected image to a desktop.
Push Updates	Pushes updates to floating desktop, session desktop, and remote applications assignments using the selected image. Select the assignment(s) from the list and click OK to push the updates.
Download Bootstrap	Downloads an encrypted bootstrap file for you to deploy to your image(s). You will be prompted to enter a password of 8-20 ASCII characters containing at least one each of the following: lowercase letter, uppercase letter, number, and symbol (!@#\$%^&*). Do not use non-ASCII characters in the password.
Refresh Password	Creates a new default password to be used for bootstrapping images. If you do this after having downloaded a bootstrap file but before applying the bootstrap file using keytool, then the resultant agents will not be able to pair. Therefore, it is recommended that you download the bootstrap file again after refreshing the password.

Types of Desktop Assignments

You can create different types of desktop assignments to fit your end-user environment needs.

You can create dedicated, floating, and session desktop assignments in Horizon Air.

Note A desktop can have multiple users assigned to it, but it can be used by only one user at a time.

- In a dedicated desktop assignment, each user is assigned a specific remote desktop and returns to the same desktop at each login. Dedicated assignments require a one-to-one desktop-to-user relationship and should be sized based on the total user population. For example, you need an assignment of one hundred desktops for a group of one hundred users. The primary use for dedicated desktop assignments is to ensure that the hostname of the desktop VM that each user remains the same between sessions. Certain software packages might require this use for licensing.
- In a floating desktop assignment, a user might receive a different VM with a different machine name with each login. With floating desktop assignments, you can create desktops that shifts of users can use and that should be sized based on the maximum number of concurrent users. For example, three hundred users can use an assignment of one hundred desktops if they work in shifts of one hundred users at a time. With floating desktop assignments, the user might see different hostnames for each desktop session.

- In a session desktop assignment, an RDSH-published desktop experience is shared across multiple users, that is, terminal services.

Note Desktops in floating desktop assignments do not provide persistence. Configure persistence as part of an application assignment. See [Create an Applications Assignment](#).

Where possible, use floating desktop assignments because they cost less than dedicated desktop assignments and do not dedicate VM resources for each user.

Create a Dedicated or Floating Desktop Assignment

You can create desktop assignments using the Assign icon or from the Getting Started page.

Note To create a session desktop assignment see [Create a Session Desktop Assignment](#). For information about types of desktop assignments see [Types of Desktop Assignments](#).

Procedure

- 1 On the Getting Started page, select **Desktop Assignment > Create New Desktop Assignment**.
- 2 Click **New**.
- 3 Select the type of assignment to create and provide the required information to configure the desktop assignment.

Option	Description
Desktop Model	Select model from the drop-down list.
Domain	Select domain from the drop-down list.
Join Domain	Leave default setting (Yes).
Assignment Name	A unique name for the new assignment.
Capacity	Number of desktops required in the assignment.

- 4 Configure the advanced properties.

Option	Description
VM Names	Name for all virtual machine names, or guest desktops in this assignment, which will have a number appended to it, for example, win7-1, win7-2, win7-Floating. The name must start with a letter and can contain only letters, dashes, and numbers. This value is prefilled based on the assignment name.
Computer OU	Active Directory (AD) Organizational Unit where VMs are located. For example, OU=NestedOrgName,OU=RootOrgName,DC=DomainComponent,DC=eng, and so on. The entries must be comma-separated with no spaces in between. For more information about Active Directory, see Working with Nested Organizational Units .

Option	Description
Run Once Script	(Optional) Location of scripts that should run after system preparation completes.
Session Timeout Interval	<p>The timeout value for floating and static desktop session pools. The default is seven days (10,080 minutes). The maximum value is 99,999 minutes, approximately 69 days.</p> <p>Note If no user activity occurs before the timeout interval is reached, a message indicates that the user will be logged off if they do not click OK in the next 30 seconds. If the logoff occurs, any unsaved documents are lost.</p> <p>If you are assigning a timeout value for dedicated desktops, you can specify the maximum value. If you have a large timeout interval set for floating desktops, the desktops do not reset as quickly if they are not in use. This configuration might result in the pool of available desktops running out, and users seeing failure messages.</p>

- 5 Click **Next**, select your image, and click **Next**.
- 6 (Optional) On the Active Directory Search page, start typing the name of a user or group from your Active Directory.
- 7 Select a group from the list.
- 8 (Optional) Search for and select additional users or groups, and click **Next**.

If you assign a dedicated desktop to more than one user, a warning message appears to verify if this is the intended configuration. The configuration is supported, but the users would share the desktop and only one can use it at any one time.

- 9 On the Summary page, confirm that the displayed information is correct and click **Submit**.
- 10 Click **Assign** to see your new assignment.

Create a Session Desktop Assignment

You can create a session desktop assignment from the Getting Started page.

For information about types of desktop assignment, see [Types of Desktop Assignments](#).

Procedure

- 1 On the Getting Started page, select **Desktop Assignment > Create New Desktop Assignment**.
- 2 Click **New**.
- 3 In the Assign Desktops dialog box, select **Session**, then provide the required information.

Option	Description
Domain	Select the domain from the drop-down list.
Join Domain	Leave the default setting (Yes)
Assignment Name	Unique name for the new assignment.
Servers	Enter the number of servers.
Users per Server	Enter the number of users per server.

Option	Description
VM Names	Name for all virtual machine names or guest desktops in this assignment, which will have a number appended to it, for example, win7-1, win7-2, win7-Floating. The name must start with a letter and can contain only letters, dashes, and numbers. This option is prefilled based on the assignment name.
Computer OU	Active Directory (AD) Organizational Unit where VMs are located. For example, OU=NestedOrgName, OU=RootOrgName, DC=DomainComponent, DC=eng, and so forth. The entries must be comma-separated with no spaces in between. For more information about Active Directory, see Working with Nested Organizational Units .
Run Once Script	(Optional) Location of scripts that should run after system preparation completes.
Session Timeout Interval	<p>Timeout value for floating and static desktop session pools. The default is seven days, 10,080 minutes. The maximum value is 99,999 minutes, approximately 69 days.</p> <p>Note If no user activity occurs before the timeout interval is reached, a dialog box appears indicating that the user will be logged off if the OK button is not clicked in the next 30 seconds. If the logoff occurs, any unsaved documents are lost.</p> <p>If you are assigning a timeout value for dedicated desktops, you can specify the maximum value. If you have a large timeout interval set for floating desktops, the desktops will not reset as quickly if they are not in use. This setting might result in the pool of available desktops running out, and users seeing failure messages.</p>

- 4 Click **Next**.
- 5 Select your image and click **Next**.
- 6 (Optional) In the **Active Directory Search** text box, start typing the name of a user or group from your Active Directory.
- 7 Select a group from the list.
- 8 Search for and select additional users or groups, if necessary, and click **Next**.
A warning message appears if you attempt to assign a dedicated desktop to more than one user.
- 9 Confirm that the displayed information is correct and click **Submit**.
- 10 Select **Assign** to see your new assignment.

Working with Nested Organizational Units

Add desktops to a nested Organization Unit (OU).

When you create a desktop assignment, you can specify a domain OU in the Computer OU field. You cannot specify a nested OU. You must locate the nested OU information, then manually enter it in the Computer OU field.

Procedure

- 1 Open **Active Directory Users and Computers**.
- 2 Select **View > Advanced features (Enabled Advanced features)**.

- 3 Navigate to the Organizational Unit where the desktops will be placed.
- 4 Right-click and select **Properties**.
- 5 Click the **Attribute editor** and select distinguishedName.
- 6 Click **View**.
- 7 Enter the distinguished name information in the Computer OU field on the Desktops Assignment page.
Only the OU= part of the string is required. The DC= part is optional.

App Assignment

Use the App Assignment section of the Getting Started wizard to create an application assignment.

This section includes the following topics:

- [Create an Applications Assignment](#)
- [Custom Applications](#)

Create an Applications Assignment

After you create a desktop assignment, you can create an applications assignment.

Procedure

- 1 On the Getting Started page, select **App Assignment > Create New App Assignment**.
- 2 Click **New**.

The New Application dialog displays.

- 3 On the Definition tab, enter the following information.

Fixed Attributes (cannot be changed after assignment is created)

Option	Description
Domain	Select domain from the drop-down list.
Join Domain	Leave default setting (Yes).

Flexible Attributes (can be changed any time)

Option	Description
Assignment Name	Unique name for the new assignment.
Default Protocol	Select a default protocol from the drop-down menu.
Servers	Enter the number of servers.
Users per Server	Enter the number of users per server.

- 4 Click **Advanced Properties**.

Advanced properties fields display.

5 Enter information as described below.

Option	Description
VM Names	Name for all virtual machine names, or guest desktops in this assignment, which will have a number appended to it, for example, win7-1, win7-2, win7-Floating. The name must start with a letter and can contain only letters, dashes, and numbers. This value is prefilled based on the assignment name.
Computer OU	Active Directory (AD) Organizational Unit where VMs are located. For example, OU=NestedOrgName,OU=RootOrgName,DC=DomainComponent,DC=eng, and so on. The entries must be comma-separated with no spaces in between. For more information about Active Directory, see Working with Nested Organizational Units .
Run Once Script	(Optional) Location of scripts that should run after system preparation completes.
Session Timeout Interval	<p>The timeout value for floating and static desktop session pools. The default is seven days (10,080 minutes). The maximum value is 99,999 minutes, approximately 69 days.</p> <p>Note If no user activity occurs before the timeout interval is reached, a message indicates that the user will be logged off if they do not click OK in the next 30 seconds. If the logoff occurs, any unsaved documents are lost.</p> <p>If you are assigning a timeout value for dedicated desktops, you can specify the maximum value. If you have a large timeout interval set for floating desktops, the desktops do not reset as quickly if they are not in use. This configuration might result in the pool of available desktops running out, and users seeing failure messages.</p>

6 Click **Next**.

7 In New Applications dialog, select the applications to include in the assignment, and click **Next**.

If you select an application that is part of an application group, all of the applications in the group are selected and are included in the assignment.

8 In the **Active Directory Search** text box, start typing the name of a user or group from your Active Directory.

9 (Optional) Search for and select additional users or groups, and click **Next**.

10 Select a user or group from the list.

11 On the Summary page, confirm that the information is correct, and click **Submit**.

12 Select **Assign** to see your new assignment.

13 On the Assignments page, click the new assignment to view details.

Custom Applications

Customers who wish to use remote applications invoked via an executable path on an RDSH Server VM can define and associate these remote application settings with an RDSH image in the Application catalog.

This Custom Application definition can be used for invoking centrally managed virtualized applications such as Thinapps, as well as registering remote applications that have been installed on RDSH VMs after pool provisioning. There are two application types:

- Remote applications are those imported from an RDSH image that you published after adding applications to the image.
- Custom applications are added by specifying their names and paths on the image, using functionality on the Applications page. This is not recommended, but can be used in some situations such as Thin App launches.

Add a Custom Application

You can use the following procedure to add a custom application

Procedure

- 1 Click the **New** button at the top of the Applications page.
- 2 Click **Custom**.

The other option is click **Image** to open the Images page, where you can install applications on an existing RDSH image and then publish it.

The second New Application dialog appears

- 3 Enter information as described below.

Field	Description
Name	Unique name for the new application
Application Path	Location of the application executable on the VM (for example, Z:\Customapps\app.exe) or UNC-specified path (for example, \\fileservers.accounting.com\vol1\software\app.exe)
RDSH Images to use with	Image(s) with which you want to use the application. Click in box and select from drop-down list. The list includes Windows Server 2008/2012 gold patterns, which are used for applications assignments.
Icon File	.png file (32 x 32 pixels) to use as application's icon. [optional] Click Choose File to browse for file.
Version	Version number of application [optional]
Publisher	Publisher of application [optional]

- 4 Click **Save**.

Edit a Custom Application

You can use the following procedure to edit a custom application.

Procedure

- 1 Select an application on the Applications page and click the **Edit** button at the top of the page.
The Edit Application dialog appears.
- 2 Edit information as described below.

Field	Description
Name	Unique name for the new application
Application Path	Location of the application executable on the VM (for example, Z:\Customapps\app.exe) or UNC-specified path (for example, \\fileserver.accounting.com\vol1\software\app.exe)
RDSH Images to use with	Image(s) with which you want to use the application. Click in box and select from drop-down list. The list includes Windows Server 2008/2012 gold patterns, which are used for applications assignments.
Icon File	.png file (32 x 32 pixels) to use as application's icon. [optional] Click Choose File to browse for file.
Version	Version number of application [optional]
Publisher	Publisher of application [optional]

- 3 Click **Save**.

Delete a Custom Application

You can use the following procedure to delete a custom application

Procedure

- 1 Select an application on the Applications page and click the Delete button at the top of the page.
The confirmation dialog appears.
- 2 Click **OK** to confirm delete.

About Menu Selections

The menu icons provide a quick way to monitor activity and perform a variety of functions.

The icons are located to the left of the Administration Console.

Table 7-1. Administrator Functions

Selection	Description
Monitor	Displays dashboards for monitoring desktop information, administrator and user activity, and user and desktop mapping.
Assign	Create, edit, delete, or view a desktop or application assignment.
Inventory	View and edit imported applications and desktop images.
Settings	View and edit General Settings, Active Directory, Roles & Permissions, Locations, Utility VMs, and 2 Factor Authentication, and access the Getting Started page.

This section includes the following topics:

- [The Monitor Icon](#)
- [Assign Icon](#)
- [Inventory Icon](#)
- [The Settings Icon](#)

The Monitor Icon

Access Desktop information, Administrator and User Activity, and view Reports detailing User and Desktop mapping.

There are three selections available from the Monitor icon.

Option	Description
Dashboard	Displays details on desktop connections, connection states, and capacity allocation.
Activity	Displays activity details for Administrators and Users.
Reports	Provides mapping details for Users and Desktops

Dashboard Page

The Dashboard shows statistical information about connections and desktop capacity allocation.

The Dashboard page is available from the Monitor icon. You can see statistical information for these categories.

Category	Description
Connections	Number of connected sessions, by assignment type.
Connection States	Number of connected sessions, by status: Active, Idle, Disconnected.
Desktop Capacity Allocation	Desktop capacity in use, and total allocated desktops by type.

The Dashboard refreshes every five minutes with a message indicating the amount of time remaining until the next refresh. You can also refresh the page manually.

Activity Page

The Activity page shows data regarding current and past events in the system.

The Activity page is available from the Monitor icon. You can perform these tasks.

- Use the Show filter to display events for only a certain period of time.
- View the total number of events.
- Use the Filter box to filter events.
- Refresh the list.
- Download information in the list in .xlsx format with the Export feature.

The Activity page contains tabs for administrator and user events.

Administrator Events

The Administrator tab displays administrator events with information for each action. Expand an event to view details and subtasks for that event.

Column	Description
Description	Details regarding the event.
Percentage Completion	Current percentage of event completed.
Status	Successful indicates an event was performed in its entirety. Failed indicates an event was either partially performed or not performed at all.
Time	Time that the event was logged.

User Events

The User tab displays user events with information for each event.

Column	Description
Description	Details regarding the event.
Time	Time that the event was logged.

The Reports Page

Use the Reports page to view mapping data for users and desktops in the system.

In **Monitor > Reports**, you can view details for these User Mapping and Desktop Mapping categories.

Mapping Type	Details
User Mapping	View details and sort by User name, Domain, Desktop Name, Desktop Model, and Mapping Type (User or Group).
Desktop Mapping	View details and sort by Desktop Name, Model, Assignment Name, Type, Active User, Mapped Users, and Mapped User Groups.

You can also manually refresh this page, filter your search, and export data to a Microsoft Excel worksheet.

Assign Icon

You can create, edit, and delete assignments.

Click the **Assign** icon to access the Assignments page, where you can take these actions.

Action	Description
New	Create a new Applications or Desktops assignment.
Edit	Select an assignment to make changes, or drill down to view summary and sessions information.
Delete	Delete an assignment.

Create an Assignment

You can create applications or desktops assignments.

Procedure

- 1 Click **Assign**.
- 2 On the Assignments page, click **New**.
- 3 Click **Get Started** for the type of assignment to create.

Edit an Assignment

You can change assignment settings such as capacity and assigned users.

Procedure

- 1 On the Assignments page, select the assignment to edit and click **Edit**.
- 2 Make your changes and click **Submit**.

If you edit the capacity of a desktops assignment, it takes a few minutes for the system to reflect the change.

Delete an Assignment

You can delete assignments if they are no longer needed.

An assignment can be deleted only if it contains no virtual machines.

Procedure

- 1 Select the assignment to delete and click **Delete**.

Option	Action
Dedicated assignments	Delete the virtual machines from the Assignment page.
Floating assignments	Set the assignment size to zero.

- 2 Click **Delete** in the confirmation dialog box to permanently delete the assignment.

Inventory Icon

View inventory details for applications and desktop images.

Use the Inventory icon to perform these actions.

Option	Description
Applications	View all of the applications that are imported. Sort by Status, Application, OS, Publisher, Image, Assignments, and Type.
Images	View all of the desktop images that are imported. From here you can create a new image, or select an existing image and rename, delete, take offline or duplicate it. You can also convert the image to the desktop and push updates, and rollback or delete backups. See Actions That You Can Perform on Images .
Desktop Model	View the list of available desktop models.

The Settings Icon

Edit general settings, upload certificates and more.

Select the Settings icon to access these options.

Option	Description
General Settings	Displays settings for networks, domain, etc. You can edit settings from this page, and upload certificates. See Edit General Settings for details.
Active Directory	View and edit Active Directory details. See Register Active Directory for details.
Roles & Permissions	Edit Roles and Permissions. See Add or Change Roles and Permissions for Horizon Air .
2 Factor Auth	Configure 2 Factor authentication for end users. See 2 Factor Authentication .
Utility VMs	View a list of utility VMs in your environment and take action on them (for example, shutdown or reboot). See Utility VMs for details.
Getting Started	Opens the Getting Started page. See Chapter 2 Getting Started Page for details.

Edit General Settings

You can edit general settings and upload certificates from the General Settings page.

Procedure

- 1 Select **Settings > General Settings**.
- 2 Click **Edit**.
- 3 Make changes for these settings.

Option	Description
Networks	A list of your network(s) that are currently being used. Contact your service provider to edit or add new Network(s).
Default Domain	Default domain that you are editing.
Session Timeout	See Session Timeout Settings for details.
User Portal Configuration	Enter the helpdesk email address, the trouble ticket system URL, and the external style sheet URL to allow for end-user portal configuration.

Option	Description
Agent Pairing	<p>Sets a policy on the tenant which determines the access of legacy (pre-16.6.0) and 16.6.0 agents. Options are as follows:</p> <ul style="list-style-type: none"> ■ 15.3 Compatibility Mode - Allows legacy and 16.6.0 agents to be paired with Desktop Manager. This is the default setting for upgraded setups. ■ 16.6 Upgrade Mode - Restricts legacy agents, but allows un-bootstrapped 16.6.0 agents on persistent desktops and bootstrapped 16.6.0 agents. This mode does not restrict desktops that are already paired using 15.3.x agents unless the desktop or agent service is restarted. ■ 16.6 Mode - Allows only bootstrapped 16.6.0 agents to be paired. This mode does not restrict desktops that are already paired using 15.3.x agents or un-bootstrapped 16.6.0 agents unless the desktop or DaaS agent service is restarted. This is the default setting for fresh installs. <p>When to change this setting:</p> <ul style="list-style-type: none"> ■ Change from 15.3 Compatibility Mode to 16.6 Upgrade Mode only when there are no longer any pre-16.6 agents in the system BUT there are some dedicated desktops from before the upgrade with their agents upgraded to 16.6. ■ Change from 15.3 Compatibility Mode to 16.6 Mode when there are no longer any pre-16.6 agents or 16.6 agents that are paired with legacy credentials. Once the 16.6 mode is enabled, only VMs creating using bootstrapped images will work.
Contact Info	Administrator contact information

4 Click **Save**.

Session Timeout Settings

Adjust the session timeout settings in Horizon Air to allocate enough time to avoid data loss.

Timeout	Description
Client Heartbeat Interval	Controls the interval between Horizon Client heartbeats and connected state. These heartbeats report to the broker the amount of idle time that has passed. Idle time occurs when no interaction occurs with the end point device, as opposed to idle time in the desktop session. In large desktop deployments, setting the activity heartbeats at longer intervals might reduce network traffic and increase performance.
Client Idle User	Maximum time that a user can be idle while connected to the tenant. When this maximum is reached, the user is disconnected from all active Horizon Client Desktop sessions. The user must reauthenticate to reaccess the Horizon Client. <p>Note Set the Client Idle User timeout to be at least double the Client Heartbeat Interval to avoid unexpected disconnects from desktops.</p>

Timeout	Description
Client Broker Session	<p>Maximum time that a Horizon Client instance can be connected to the tenant before its authentication expires. The timeout count starts each time you authenticate. When this timeout occurs, you can continue to work. If you perform an action that causes communication to the broker, such as changing settings, the system requires you to reauthenticate and log back in to the desktop.</p> <p>Note The Client Broker Session timeout must be at least equal to the sum of the Client Heartbeat Interval and the Client Idle User timeout.</p>
User Portal Timeout	How long you can be on the User Portal when you try to broker a connection before you need to log in again.

2 Factor Authentication

Horizon Air supports RSA SecurID and Radius authentication for internal users.

To enable 2 Factor Authentication for users on your internal network, see [2 Factor Authentication with RADIUS](#) and [2 Factor Authentication with RSA SecurID](#).

2 Factor Authentication with RADIUS

You can use RADIUS to enable 2 Factor Authentication for end users.

Note Make sure that primary and secondary tenant appliance IP addresses are registered as clients in the RADIUS server. Obtain the tenant appliance IP addresses from your VMware representative.

Procedure

- 1 Select **Settings > 2Factor Auth**.
- 2 Configure the authentication.

Option	Description
2nd factor Auth Method	Select Radius .
Maintain Username	Select Yes to maintain the username during authentication. The user who is attempting to authenticate must have the same username credentials for RSA and Domain Challenge. If you select No , the username field is not locked and the user can enter a different name.
External Connections Only	Select NO to configure 2 Factor Authentication for internal users from within Horizon Air. Use Access Point to configure external users.
Provider Name	(Required) Name that distinguishes the type of RADIUS authentication being used.
Host Name / IP Address	(Required) DNS name or IP address of the authentication server.
Shared Secret	(Required) Secret for communicating with the server. The value must be identical to the server configured value.
Authentication Port	UDP port configured to send or receive authentication traffic. Default is 1812.

Option	Description
Accounting Port	UDP port configured to send or receive accounting traffic. Default is 1813.
Mechanism	Select the RADIUS authentication protocol: PAP, CHAP, MS-CHAPv1, or MS-CHAPv2.
Server Timeout	Number of seconds to wait for a response from the RADIUS server. Default is five seconds.
Max number of retries	Maximum number of times to retry failed requests. Default is three tries.
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.
Auxiliary Server	Default is NO . If set to YES , specify a secondary RADIUS server to be used when the primary server is not responding.

- 3 Click **Save**
- 4 Enter your username and passcode in the Test Authentication dialog box, then click **Test**.
If authentication is successful, users attempting to authenticate with the tenant portals will see a dialog box asking them to log in with their RADIUS credentials, followed by their domain credentials.
- 5 If the Test Authentication credentials fail, the settings are not saved. Correct the username or passcode and try again.

2 Factor Authentication with RSA SecurID

You can use RSA SecurID to enable 2 Factor Authentication for end users.

Procedure

- 1 Select **Settings > 2Factor Auth**.
- 2 Configure the authentication.

Option	Description
2nd factor Auth Method	Select RSA SecurID
Maintain Username	Select Yes to maintain the Username during authentication. The user attempting to authenticate must have the same username credentials for RSA and Domain Challenge. If you select No , the username is not locked and the user can enter a different name.
External Connections Only	If YES, users inside the network do not need to enter RSA credentials. The distinction between internal and external is configured by the service provider. If NO, all users, both inside and outside of the network, must enter RSA credentials.
Upload Configuration File	Click Select and navigate to the file named <code>sdconf.rec</code> . Click Open .

- 3 Click **Save**.

Utility VMs

The Utility VMs page lists all of the master VMs in your environment.

This page provides details about all of the master virtual machines, including status, operating system, and IP address.

Action	Description
Rename	Select a VM and click Rename . Enter a new name in the field and click Save.
Shutdown	If status is green, select one or more VMs and click Shutdown . You can only shut down VMs that do not have active user sessions.
Reboot	If status is green, select one or more VMs and click Reboot .
...	Provides a list of actions that you can take on one or more VMs. These actions are: Suspend , Resume , Power On , Power Off , Reset , Log Off , Disconnect , and Convert to Image .

Run Applications on Desktops

After you deploy desktops, you can use Horizon Client to start running applications.

Procedure

- 1 Download and install the Horizon Client. See *Using VMware Horizon Client for Windows* at <http://www.vmware.com/pdf/horizon-view/horizon-client-windows-document.pdf>
- 2 Start the client, select a desktop, and start running applications. See [Log Into the Desktop](#).

Log Into the Desktop

When you log in and launch a desktop, users can start running their applications and performing tasks such as accessing USB and other devices connected to their local computers, sending documents to any printer that their local computers can detect, and using multiple display monitors.

Procedure

- 1 Start the VMware Horizon Client. See *Using Horizon Client for Windows*.
- 2 If you did not configure a certificate for your environment, accept the untrusted connection.
- 3 Select the new server.
- 4 Enter the name that was added to the DNS for the environment, for example, desktops.mycorp.com.
- 5 If 2 Factor Authentication is configured, enter RSA or RADIUS credentials.
- 6 Enter the credentials for your Active Directory user in the authentication dialog box.
- 7 Select the desktop to launch from the list that displays.
- 8 (Optional) For advanced configuration, right-click the desktop and make your selection.