Using VMware Horizon Application Manager to Manage Deployment and Entitlement of ThinApp Packages

An Introduction to VMware Horizon Application Manager and Explanation About Integrating Horizon with Your ThinApp Application

ThinApp 4.7

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About Using VMware® Horizon Application Manager to Manager Deployment and Entitlement of ThinApp Packages

The Using VMware Horizon Application Manager to Manager Deployment and Entitlement of ThinApp Packages guide provides an overview of the Horizon application, and information about how it can be used with ThinApp.

Intended Audience

This information is intended for VMware ThinApp users who are contemplating the integration of VMware Horizon Application Manager in their ThinApp application.
VMware Horizon Application Manager™ is a hosted service that enables organizations to centrally manage the provisioning, access and usage of cloud, software-as-a-service (SaaS) and ThinApp-virtualized Windows applications.

This solution enables IT departments to extend on-premises Active Directory identities to the public cloud, simplifying the security of application access. Unlike other federation solutions, Horizon Application Manager does not require an enterprise or public organization to make additional capital investments in complex and expensive hardware.

At its core, Horizon Application Manager includes an identity-as-a-service hub that securely extends a user’s existing identity in systems such as Microsoft Active Directory into the cloud. This process simplifies the management of identities across multiple application types that are found in a typical enterprise. This simplification benefits both IT and users by collapsing separate identity silos into a single enterprise identity that can secure user access across private and public cloud resources.

In addition, managers have control over user access policies and are able to track user activity, via usage reports. Following installation, administrative tasks, such as user entitlement, matching Active Directory groups with applications, and so on, can be accessed through a Web portal.

End users open a single sign-on portal from which they have self-service access to the organization’s application catalog. Users can only open the applications to which they are entitled. They can easily move from application to application without having to reenter their login credentials. Applications can be accessed across a broad range of devices.
How VMware Horizon Application Manager Works

There are four key processes for installing and configuring Horizon Application Manager.
These processes are described in detail in the Horizon Application Manager documentation.
1. Prepare Active Directory to communicate with Horizon Connector
2. Create a Windows Application Share as a repository for ThinApp virtualized application packages
3. Install and configure Horizon Connector
4. Install Horizon Agent

This chapter includes the following topics:
- “Horizon Application Manager Components,” on page 9
- “Horizon Application Manager from the Administrator Perspective,” on page 10
- “Horizon Application Manager from the End-User Perspective,” on page 11

Horizon Application Manager Components

Here are the key components of Horizon Application Manager.

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizon Service</td>
<td>The service is comprised of the administration portal and the user portal. From the administration portal, you manage users, groups, and applications. From the user portal, users can access applications that are available in their Application Catalog. ThinApp packages are among the types of applications that you can make available to users.</td>
</tr>
<tr>
<td>Horizon Connector</td>
<td>The connector synchronizes user and group information from Active Directory to the Horizon service. The connector also synchronizes metadata about the available ThinApp packages from the network file share that stores the ThinApp packages to the Horizon service. You install the connector on site.</td>
</tr>
</tbody>
</table>
### Table 2-1. Key Components of Horizon Application Manager (Continued)

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows Application Share</td>
<td>Windows applications that have been converted to ThinApp packages are stored in a Windows Application share (also called a network file share). This file share is the ThinApp package repository.</td>
</tr>
<tr>
<td>Horizon Agent</td>
<td>The agent is a required component that allows Horizon-managed ThinApp packages to run, and tracks entitlement and usage information. You or users install and configure the Horizon agent on a user device. The agent creates a Horizon folder on the desktop from which users can open applications, in addition to being able to open them from the User Portal.</td>
</tr>
</tbody>
</table>

The following graphic illustrates how the various external components of Horizon Application Manager are serviced from the Horizon Service in the cloud.

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**Horizon Application Manager from the Administrator Perspective**

The Administrator enables user access to the Cloud service from the internal Active Directory and downstream to SaaS applications such as Google Apps.

This allows same-day user provisioning to the service, where application entitlements can be set up for the users. The administrator logs into the Horizon Application Manager service to create Horizon groups to manage application entitlement through the administration portal.

In the administration portal, Administrators add new application links to the organization’s application catalog. They can also match the applications to specific Active Directory groups. Administrators can leverage Active Directory groups or create separate Horizon Groups to define who is entitled to a specific application.

Administrators also manage tracking and reporting of user and admin activities, including failed authentications, application entitlements, and launching applications.
Horizon Application Manager from the End-User Perspective

The end user logs in to the Horizon Application Manager User Portal using their desktop login or Active Directory credentials. The login request is sent, via Horizon Connector to the Active Directory for authentication.

Following authentication, the user accesses the Application Catalog from the User Portal.

The user selects the required application. The Horizon Agent verifies the user’s entitlement then retrieves the application from the network file share and streams or downloads it to the user machine. ThinApp packages are downloaded to the end-user machine. Until such time as the application is completely downloaded, it is streamed to the user. ThinApp packages can be used offline.

The first time a user accesses an application, it is "activated". The application icon appears on the main page of the User Portal to simplify subsequent access.

When a ThinApp package is updated, it is transparently downloaded to the user’s machine the next time they access they are logged in to the User Portal. Once again, the application is streamed from the file share until it is fully downloaded to the end user machine. If the user is using the application at the time of the update, they continue to use that version without interruption, and the new version is simultaneously transparently downloaded. The new version appears the next time the user opens the application, without any end-user interaction being required.

If a user attempts to open an application to which they no longer entitled, a message appears explaining the situation and prompting them to contact the administrator.
In the ThinApp context, Horizon Application Manager provides a centralized administrative view that enables IT personnel to deploy, entitle and manage ThinApp application packages.

Implementation of Horizon Application Manager is uncomplicated, and the only changes required in ThinApp is the selection of a check box in the Setup Capture Wizard. Horizon Application Manager checks the Active Directory for ThinApp packages. Currently, only EXE files from ThinApp packages can be managed through Horizon Application Manager.

ThinApp Packages are not stored in Horizon Application Manager, they remain on the network share and are downloaded to the entitled user’s machine using BITS technology. Each time that a user attempts to run a ThinApp virtual application, the Horizon agent verifies that there is an entitlement for the ThinApp package. If the user is entitled to use the application, the package launches. As long as the user remains entitled to use the application, the application is accessible. If an Administrator removes the entitlement, the Horizon Agent receives that change in entitlement and does not authorize subsequent launches. In addition, the Horizon Agent removes the package from the User Portal and the Horizon folder.

Assuming that a user is connected to the internet, their entitlement is verified every time that they open a virtual application. Because there are situations in which a user might not have internet access while using the application, a user’s entitlement to use an application must be authenticated at least every thirty days. If authentication is not completed within this timeframe, the entitlement is withdrawn and the application cannot run. The Horizon Agent must be running on an end user’s machine for a virtualized application to run.
Configuring ThinApp to Work With Horizon Application Manager

You enable ThinApp to work with Horizon Application Manager by following the configuration instructions described in the Horizon Application Manager documentation, and by using the following process when creating ThinApp application packages.

ThinApp packages that are managed by Horizon Application Manager can only be launched on end-user machines on which the Horizon agent is installed.

Prerequisites
You must have installed and configured Horizon Application Manager. See Horizon Application Manager documentation.

Procedure
1. Create a new package, or repackage an existing one using ThinApp 4.7.
   a. (Optional) Capture an application installer using the ThinApp 4.7 Setup Capture Wizard. During the capture process, make sure that you select the Manage with VMware Horizon Application Manager check box.

   ![ThinApp Setup Capture Wizard](image)

   After you have selected this check box, you can specify a URL from which your users can download the Horizon agent, should it not already be installed on their machine.

   b. (Optional) Recapture and rebuild an existing package using the ThinApp 4.7 runtime.

2. Populate the network file share that is linked to Horizon Connector by copying the contents of the bin directory to the file share.

   Make sure that you include all the contents of the bin directory, including the DAT and EXE files. For example, if the application is called ABCEditor, and the executable is named Editor.exe, the executable file is available on the shared folder at \Server\AppShare\ABCeditor\Editor.exe.
Frequently Asked Questions

The answers to these questions provide a high-level overview to some of the most common queries about the Horizon Application Manager process, as it relates to ThinApp packages.

Can I use existing ThinApp Packages?
All ThinApp projects must be recaptured and rebuilt with the ThinApp 4.7 runtime to include the functions required for Horizon management. The capture process in ThinApp 4.7 includes some Horizon enablement that would be missed if you omitted recapture. For more information refer the following KB articles:

- Creating a ThinApp Package from scratch and Horizon-Enabling it
- Enabling VMware ThinApp virtual applications for Horizon Application Manager with the relink command
- Enabling for Horizon a previously packaged VMware ThinApp virtual application

How does Horizon Application Manager deploy the ThinApp package to an end-user machine?
The process has two phases, entitlement and deployment. When the Horizon administrator creates an entitlement to the ThinApp package for a user/group, the new entitlement is created.

By default, the Horizon agent polls the Horizon service for new entitlements once every sixty minutes. When the Horizon agent receives the new entitlement, it initiates a BITS transfer from the network share, directly to the endpoint. Once the transfer is complete, the ThinApp is registered and made available to the end user.

If the Horizon administrator entitles the application as user-activated, the application appears in the user's application catalog, but the deployment does not begin until the user activates the application from their application catalog.

Does Horizon Application Manager support ThinApp streaming?
Since the release of Horizon 1.5, Horizon Application Manager agents support both locally deployed and streamed execution of ThinApp packages to the endpoint.

How does Horizon Application Manager work with PermittedGroups settings in ThinApp?
To use PermittedGroups, the parameter must be manually added in the Package.ini file.
You should choose to either use Horizon Application Manager or to use the PermittedGroups parameter.
PermittedGroups should not be used when using Horizon to provision or deprovision ThinApp packaged applications, as Horizon is the controlling factor in this case and any additional security controls may potentially interfere. Horizon may utilize the same Active Directory security groups already in place for ThinApp package controls if desired.
More Information about Horizon Application Manager

You can obtain more information about Horizon Application Manager from the VMware Website and by accessing the Horizon Application Manager documentation set.

- Horizon Application Manager documentation
- Installing and Configuring Horizon Connector
- Horizon Administration Help
- Horizon User Help
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