HP Client Automation ThinApp Updater

for the Windows operating system

Software Version: 7.80

Publishing and Updating VMware ThinApps

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Table 1   Document Changes

Chapter	Version	Changes
Chapter 1	7.8	Page 10, Added Terminology section. Added mode definitions and moved virtualized applications definition to this section.
Chapter 2	7.8	Full chapter, the ThinApps Updater now installs with Core and Satellite. Removed unnecessary installation steps. Renamed chapter from *Setting Up Clients* to Use the ThinApp Updater to Preparing VMware ThinApps for the ThinApp Updater.
Chapter 3	7.8	Pages 18, Package an Application Using the VMware Setup Capture Wizard describes deployment methods with or without Async enabled.
Chapter 3	7.8	Pages 19, Publish the Package to CSDB, describe publishing the package with or without Async enabled. Instruction is also provided for installations with user-

		created application domains.
Chapter 3	7.8	Page 21, added prerequisite note on deploying VMware Application Sync application prior to deploying any ThinApps.
Chapter 6	7.8	Page 31, Troubleshooting ThinApp Packaging and Publishing, Added Troubleshooting section that describes potential problems and their solutions.

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Contents

1 Introduction

This document describes how an administrator can use the HP Client Automation ThinApp Updater (ThinApp Updater) to automatically update VMware ThinApps published to the HP Client Automation Configuration Server Database (CSDB) and deployed to HPCA agents.

About this Guide

This user guide describes how

- you use the VMware ThinApp Setup Capture application to create packages that can be published to the CSDB

- the HPCA Administrator Publisher (Publisher) can identify ThinApps embedded within published `.msi` files

- you use the Publisher to tag `.msi` files to be updated by the VMware Application Sync technology.

- you create a Job in the HPCA Core server to perform automatic updates of Application Sync-enabled packages that have been deployed to HPCA agents.

Audience

HP Client Automation Core and Satellite administrators who want to manage automatic updates to VMware ThinApps that have been deployed to HPCA clients should use this guide for instructions on how to do so.

Chapters Summary

Related Documents

HPCA Administrator User Guide

*HPCA Application Manager and Application Self-service Manager
Installation and Configuration Guide*

HPCA Policy Installation and Configuration Guide

VMware ThinApp User's Guide

Terminology

The following terms are used to refer to service deployment methods.

Normal Mode

Supports deployment of ThinApp packages with AppSync disabled. The package is deployed by HPCA using a scheduled job.

Streamed Mode with Caching

Supports deployment of ThinApp packages with AppSync enabled. In this mode, the entire ThinApp package is delivered to the managed device. The AppSync utility checks for updates to any ThinApp application on the managed device, when the user accesses a ThinApp application or periodically using the VMware ThinApp sync scheduled job. If an update is found, the update package is delivered to the managed device. This method allows the user to access the application whether they are online or offline.

Streamed Mode No Caching

Supports asynchronous communication between the server and the managed device to provide access to the updated ThinApp application. This method is not currently supported by ThinApp Updater. With this mode, a ThinApp application is not available when the user is offline.

Virtualized Applications

A virtualized application is encapsulated into a package that contains all the files and settings it needs to execute. It is isolated from other applications and its host operating system and hardware. Therefore, when the virtualized application is installed, it does not make any changes to the host PC. In addition other applications on the same PC are completely unaware of it. This ensures host integrity, flexibility, portability, and makes deployment easier and faster.

Summary of Implementation Steps

To perform initial implementation and deployment

1 Package a ThinApp using VMware Setup Capture.

2 Publish the ThinApp to the HPCA CSDB.

3 Run `discover-thinapps.tcl` to process any `.msi`'s that have been published to the CSDB containing ThinApps.

4 Entitle user to the published ThinApp service.

5 Entitle the user machine to the ThinApp Updater (HPCA_THINAPP) service.

6   Deploy the original ThinApp and the ThinApp Updater (HPCA_THINAPP) service.

7   Create a job using the VMware ThinApp Sync job action template. This instructs the managed device to check with the Core/Satellite server to see if there are any updates to the ThinApp services it is entitled to.

To update a ThinApp application

1   Package ThinApp application using the VMware Setup Capture Wizard.

   — Be sure that the product name of the update package is identical to the currently deployed package.

   — Be sure to increment the MSIProductVersion in the package.ini file appropriately. (Packaging an Application with VMware Setup Capture, 18, step 4)

2   Publish the ThinApp package to the HPCA CSDB.

   — Republish using a new package and service name.

3   Run `discover-thinapps.tcl` to process any `.msi`'s that have been published to the CSDB containing ThinApps.

4   Create a Notify job using the VMware ThinApp Sync template to deploy the update immediately. Alternatively, create a DTM job using the VMware ThinApp Sync template to periodically deploy the updates. (Creating a Notify Job, 24)

2 Setting Up Clients to Use the ThinApp Updater

This chapter describes the required HPCA components and VMware applications required to use the ThinApps Updater and how to install the VMware components you need to schedule automatic updates to ThinApps services deployed to an HPCA environment. It includes the following sections:

- Requirements on page 14
- Installation on page 15

Requirements

This section briefly describes what components you will need in order to use the HP Client Automation ThinApp Updater. These are comprised of software that you need to license directly from VMware, and components of the HP Client Automation product suite.

HP Client Automation

- HPCA Core Server
  You need the HPCA Core server installed on a clean machine.

- HPCA Administrator
  You need the HPCA Administrator installed on the machine where you will be publishing applications.

VMware

You need to obtain and license VMware ThinApp software directly from VMware. Go to the VMware web site to get more information: *http://www.VMware.com/*. The ThinApp software contains two important components that you will use:

- Setup Capture Wizard
  allows you to package a VMware ThinApp application.

- Application Sync
  allows you to automatically deploy updates to ThinApp packages that have been properly tagged as being Application Sync-enabled. When an AppSync-enabled application starts, it queries a Web server to see if a newer version is available. If so, the differences are downloaded and used to create an updated version of the package. This application needs to be distributed to each client that will be managed by the ThinApp Updater service.

These two components will be discussed further later in this chapter.

Installation

The ThinApp Updater is installed with the HPCA Core server installation (Enterprise). The VMware Setup Capture Wizard and the VMware Application Sync components are not installed with the HPCA Core Server.

The VMware components, specifically the AppSync.exe executable, are required on the managed device. We recommend the administrator publish and entitle the VMware AppSync.exe component to the managed devices prior to publishing any ThinApp services. The figure below shows the VMware ThinApp application and the ThinApp Updater entitlement in the Policy Management Wizard.

	DCI ▲	Description	Domain
☑	SOFTWARE.ZSERVICE.7ZIP_STRM	7-Zip (VMware ThinApp)	Software
☐	SOFTWARE.ZSERVICE.CCM_PUBLISHE	HP Client Automation Administrator Publi	Software
☐	SOFTWARE.ZSERVICE.CCM_TPM_ENA	TPM Enablement	Software
☐	SOFTWARE.ZSERVICE.HPCA_PBR	HP Client Automation Personality Backup	Software
☑	SOFTWARE.ZSERVICE.HPCA_THINAPP	HP ThinApp Updater	Software
☐	SOFTWARE.ZSERVICE.HP_AGENT_TIM	HP Agent Timers	Software
☐	SOFTWARE.ZSERVICE.HP_DCS_SYNC_	HP DCS Sync Timer	Software
☐	SOFTWARE.ZSERVICE.HP_PROXY_SER	HP Proxy Server Preload Timer	Software

After installation the following features are shown in the Reporting Views: ThinApp Services, Managed ThinApp Services, and ThinApp Update Activity. The Reporting Views will be empty until ThinApps have been deployed (Reporting)

- ThinApp Services
- Managed ThinApp Services
- ThinApp Update Activity

3 Preparing VMware ThinApps for the ThinApp Updater

This chapter describes how to use the HP Client Automation ThinApp Updater to automatically update VMware ThinApps published to an HPCA environment. It refers you to the appropriate VMware documentation, identifies the VMware applications that you need to obtain and use, and explains the modifications you need to make to the VMware and HPCA processes that you will use.

This chapter includes the following sections:

- Packaging an Application with VMware Setup Capture on page 18.
- Publishing an Application to the HPCA Database on page 19
- Entitling Users to Services on page 21
- Deployment Sequence on page 21

Packaging an Application with VMware Setup Capture

This section describes using the VMware Setup Capture wizard to package applications for use in the HP Client Automation environment. To use this wizard, you need to acquire and license the VMware ThinApp technology from VMware. See *http://www.VMware.com/products/thinapp/* for the details.

The VMware Setup Capture wizard allows you to package an application. See the VMware ThinApp User's Manual at *http://www.VMware.com/support/pubs/thinapp_pubs.html* for details on how to use this wizard.

To package an application using the VMware Setup Capture wizard

2   Open the Setup Capture wizard and follow the instruction in the *VMware ThinApp User's Manual* in the section "Capture an Application with the Setup Capture Wizard." Briefly, this involves:

   a   Running a prescan of your machine.

   b   Minimizing the Setup Capture Wizard.

   c   Installing the application you want to package using its native installation method.

   d   Maximizing and continuing with the postscan of the Setup Capture wizard.

5   When you get to the **Select user-accessible entry points** screen, clear all check boxes in the list, except for the program executable file, which is usually the first item in the list.

   On this screen, note the inventory name. You will need this information when you publish this package to the HP Client Automation Configuration Server Database (CSDB).

6   When you get to the **Project location** screen, select the **Build MSI package** check box.

7   If this is the updated package, make sure that when you get to the **To configure advanced features** screen, you click **Browse Project,** to edit the MSIProductVersion in the package.ini file, as described in the *VMware ThinApp User's Manual* section on "Application Sync."

8   In the `package.ini` file, scroll to the `AppSync Parameters` section.

9   You can choose how the ThinApp updates will be delivered as long as your choices are consistent in the packaging and publishing steps. (Refer to Terminology for information on the two available Deployment Methods.)

Deployment Method	Action
Normal Mode	No action; leave AppSyncURL commented out
Streamed with Caching	Uncomment the first line (AppSyncUrl).

10 Uncomment the second line, and change the value of the `AppSyncUpdateFrequency=` to **365d**.

11 Finish building the package according to instruction in the *VWware ThinApp User's Manual*.

Publishing an Application to the HPCA Database

The HPCA Administrator Publisher (Publisher) recognizes the existence of a VMware ThinApp Isolated Application packaged inside an `.msi`. If detected, Advanced Publishing Mode is disabled and the associated service is marked as containing a VMware ThinApp. The administrator will be asked if he wants to enable auto-updates of the ThinApp by using VMware's Application Sync facility. If selected, this option is also indicated inside the associated service for future processing.

Now that you have a packaged application, use the HPCA Administrator Publisher (Publisher) to publish the application to the HP Client Automation Configuration Server Database (CSDB). Refer to the Publishing chapter of the *HP Client Automation Core and Satellite User Guides* for instructions on how to do this.

To publish the package to the CSDB

1   Open the Publisher and use the Windows Installer publishing option.

2   In the Select Windows Installer file to publish, navigate to the `InventoryName.msi` that you packaged in the Step 2 on page 18. This is located in `C:\Program Files\VMware\VWware`

ThinApp\Captures*inventory name*\bin, where *inventory name* is the Inventory name you entered in Step 2 on page 18.

As soon as you select the .msi file, the Publisher recognized that it contains an embedded ThinApp, and Basic is the only publishing mode available.

3   Click **Next**. A message box opens asking "Do you want to enable auto-update via AppSync for this application?"

4   Choose your response according the Deployment Method you want to use. (Refer to Terminology.)

Deployment Method	AppSync Enabled
Normal Mode	No
Streamed with Caching	Yes

5   The Edit window opens. Changes are usually not required on this screen. *Note: The Verify and Notify methods are intentionally blank.*

6   Continue with the remaining publishing steps as described in the *HPCA Administrator User Guide*.

> *Only domains that contain an Application (ZSERVICE) class which has a BASE INSTANCE APPTYPE attribute will be listed as possible domains. By default, the only domain that has a BASE INSTANCE APPTYPE attribute is the SOFTWARE domain. If you have used advanced features to create additional domains, they may require modification. (Custom domains created by copying the 7.8 SOFTWARE domain will have the BASE INSTANCE APPTYPE attribute.*

7   After publishing ThinApps, you should run discover-thinapps.tcl on the Core server.

   a   Open command prompt on the Core Server.

   b   Type CD install directory \Hewlett-Packard\HPCA\ThinApp

   c   Run nvdkit.exe discover-thinapps.tcl -? to get option details. Note: The -service option will allow you to keep from crawling the entire database when you know your services are in a limited domain.

   d   Run discover-thinapps.tcl with your selected options.

Entitling Users to Services

You need to use entitlement policy of HPCA to give users permissions to install the ThinApps you have published and to utilize the ThinApp Updater (HPCA_THINAPP) service to update those packages. Refer to the "Implementing Entitlement Policy" chapter of the *HP Client Automation Application Manager and Application Self-service Manager Installation and Configuration Guide* for details on how to do this.

Perhaps the most important feature of the ThinApp Updater service is that you do not need to entitle the users to the updated package when you publish it. If they are entitled to the original package, they will be automatically entitled to the updated package.

Make sure to perform the following two tasks.

1   Entitle the user to the ThinApp package you just published to the CSDB.

2   Entitle the user machines to the HPCA_THINAPP service.

Note: If you have not already done so, entitle users to the ThinApp Updater service. The figure below shows that the ThinApp Updater must have higher priority than ThinApps deployed at the same time. Otherwise, the ThinApp Updater will not be available to use.

Policy Type	Domain	Class	Instance	Description	Policy Configuration	Priority
Policy	Software	Service	HPCA_THINAPP	HP ThinApp Updater	Allow	High
Policy	Software	Service	7ZIP_STRM	7-Zip (VMware ThinApp)	Allow	Low

Deployment Sequence

You *must* deploy the VMware Application Sync application to each client that will be managed by the ThinApp Updater service *before* deploying a ThinApp to that client. Refer to the "Deploying Services" chapter of the *HP Client Automation Application Manager and Application Self-service Manager Installation and Configuration Guide* for complete instructions.

1. Deploy AppSync.exe to the managed device.

2. Deploy ThinApp Updater service to the managed device. Once you have deployed the service, you can begin deploying ThinApp application packages.

3. Deploy the original published ThinApp service to the managed device.

> The original ThinApp package for an application must be deployed to each managed device entitled to that application before update packages are deployed to the device. If the original ThinApp has not been deployed and the managed device entitled to it, the update package will not recognize the device as entitled to the update.

4 Using the HPCA Console to Manage ThinApps

This chapter describes how to use the HPCA Core and Satellite console and the ThinApp Updater to manage VMware ThinApps that have been packaged, published to the HPCA Configuration Server Database (CSDB), and deployed to clients.

This chapter discusses the following topics:

- Application Sync (AppSync.exe) on page 24
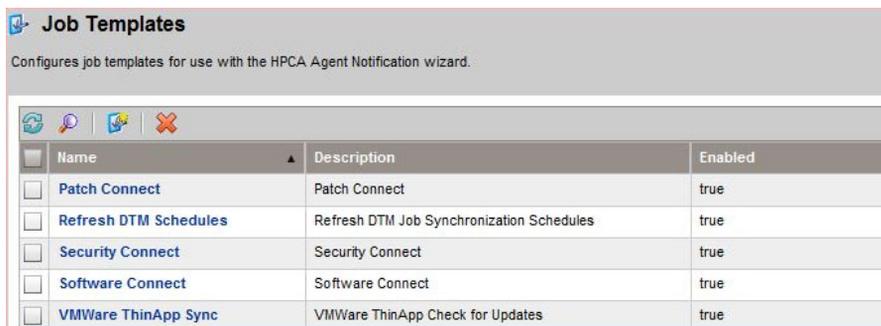- Creating a Notify Job on page 24

Application Sync

The Application Sync utility (AppSync.exe) is provided with the VMware ThinApp. It is used to automatically update deployed applications. The ThinApp Updater uses Application Sync to update packed applications that have been deployed to clients with updated versions of the same applications that have been packaged, published, and deployed to a predetermined URL.

Creating a Notify Job

You now need to create a Notify job that instructs the client to update the application. For complete instructions on how to do this, refer to the "Managing the Enterprise" chapter of the *HPCA Core and Satellite Enterprise Edition User Guide*.

To create a Notify job for VMware ThinApp Sync

1   In the HPCA Core and Satellite console, go to **Management** tab → **Devices**.

2   Follow the instructions in the *HPCA Core and Satellite Enterprise User Guide*, or the online help to create a new job. Select the VMware ThinApp Sync Job Template shown here:

3   The Job Template Wizard opens:

4 From the Job Type drop-down list, select **Notify**.

5 In the Name text box type any name of your choice, e.g., `Deploy ThinApp`.

6 From the Job Action Template drop-down list, select **VMware ThinApp Sync**.

7 In the Connection Parameters area, enter the machine ID and password for the Job User ID and Password, respectively.

8 Complete Steps 2 and 3 of the Job Creation Wizard.

5 Reporting

Use the Reporting tab of the HPCA Core console to view available Thin App Services, Managed ThinApp Services, and ThinApp Update Activity.
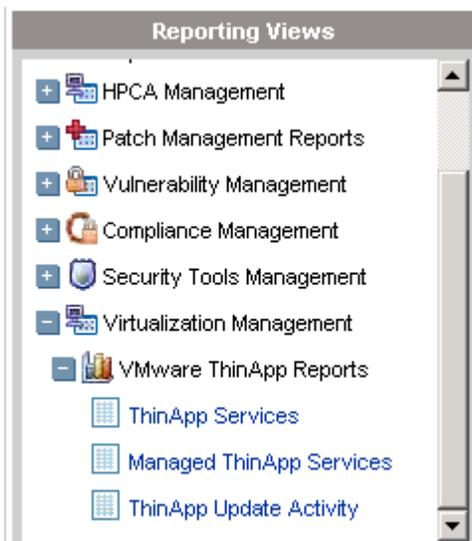
ThinApp Services

The ThinApp Services area lists all the VMware ThinApps that have been published to the HP Client Automation Configuration Server Database (CSDB). It also shows which services have been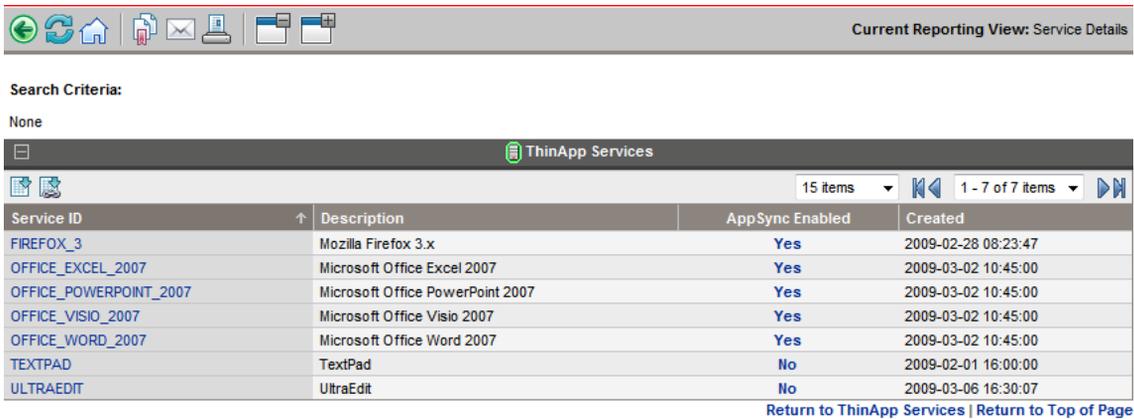 AppSync enabled. When these services are deployed to a client, they will be automatically updated according to the notify schedule.

Current Reporting View: Service Details
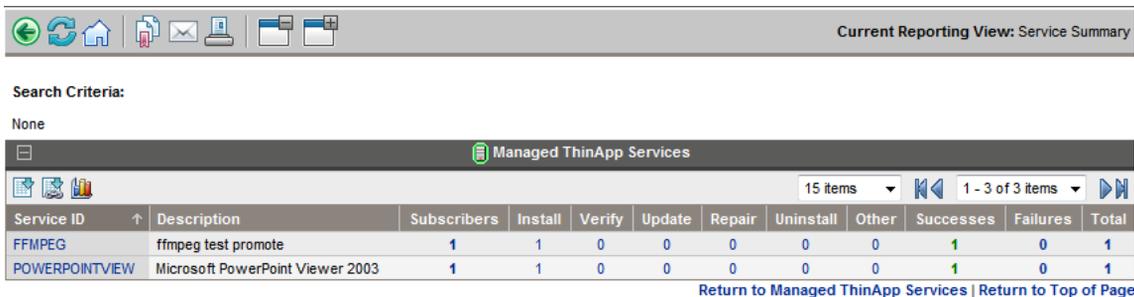
Search Criteria:

None

ThinApp Services

15 items | 1 - 7 of 7 items

Service ID ↑	Description	AppSync Enabled	Created
FIREFOX_3	Mozilla Firefox 3.x	Yes	2009-02-28 08:23:47
OFFICE_EXCEL_2007	Microsoft Office Excel 2007	Yes	2009-03-02 10:45:00
OFFICE_POWERPOINT_2007	Microsoft Office PowerPoint 2007	Yes	2009-03-02 10:45:00
OFFICE_VISIO_2007	Microsoft Office Visio 2007	Yes	2009-03-02 10:45:00
OFFICE_WORD_2007	Microsoft Office Word 2007	Yes	2009-03-02 10:45:00
TEXTPAD	TextPad	No	2009-02-01 16:00:00
ULTRAEDIT	UltraEdit	No	2009-03-06 16:30:07

Return to ThinApp Services | Return to Top of Page

Managed Thin Apps

The Managed ThinApp Services area lists all the VMware ThinApps that have been deployed to clients.

Current Reporting View: Service Summary

Search Criteria:

None

Managed ThinApp Services

15 items | 1 - 3 of 3 items

Service ID ↑	Description	Subscribers	Install	Verify	Update	Repair	Uninstall	Other	Successes	Failures	Total
FFMPEG	ffmpeg test promote	1	1	0	0	0	0	0	1	0	1
POWERPOINTVIEW	Microsoft PowerPoint Viewer 2003	1	1	0	0	0	0	0	1	0	1

Return to Managed ThinApp Services | Return to Top of Page

ThinApp Service Update Activity

The ThinApp Service Update Activity reports the ThinApps that have had updates applied by the ThinApp Updater service.

Search Criteria:

None

	ThinApp Service Update Activity		

Service ID ↑	Description	Last Verify Date	Action Taken
FFMPEG	ffmpeg test promote	2009-03-05 05:31:26	No changes required
POWERPOINTVIEW	Microsoft PowerPoint Viewer 2003	2009-03-05 05:31:26	File(s) updated

Return to ThinApp Service Update Activity | Return to Top of Page

15 items | 1 - 3 of 3 items

6 Troubleshooting ThinApp Packaging and Publishing

Most problems encountered with the ThinApp Updater are caused by inconsistencies between the package deployment mode and settings in the package.ini file.

Table 1   Deployment Issues

ThinApp Updates Deployment Method	AppSync Enabled (**Publishing an Application to the HPCA Database**, step 4)	Package.ini (**Packaging an Application with VMware Setup Capture**, step 7)
Normal Mode	No	AppSyncURL should be commented out
Streamed Mode with Caching	Yes	AppSyncURL should be uncommented
Streamed Mode no Caching	Not available	

Table 2   General Issues

Condition	Possible Cause	Recommended Action
The following message exists in the appsync.log on the agent: **Error: AppSync.exe not found at** `C:\PROG~1\ HEWLET~1\ HPCA\ Agent. Exiting…`	`AppSync.exe` does not exist on agent system. The ThinApp Updater script (`updatethinapp.tcl`) that executes on agent systems requires that the VMware AppSync executable (`AppSync.exe`) exists in the IDMSYS (Agent) directory on the agent	Because of licensing restrictions this executable is not included with the ThinApp Updater (HPCA_THINAPP) service. Users must get this from VMware as part of VMware ThinApp and distribute this to the agent systems using a method of their choice (subject to VMware licensing restrictions).

Condition	Possible Cause	Recommended Action
The expected ThinApp does not exist in `<InstallDir>\Media\ virtual\thinapp\<Product>` on the CORE server	The discover-`thinapps.tcl` was not executed after publishing a ThinApp MSI	After publishing VMware ThinApp MSI packages to the CSDB using the HPCA Administrative Publisher the user must run the `discover-thinapps.tcl` script in the `<InstallDir>\ ThinApp` directory. Executing the `discover-thinapps.tcl` script will extract the ThinApp MSI's from the CSDB, extract the ThinApp exectuable from the highest version of each Product and place the ThinApp executable in the `<InstallDir>\Media\virtual \thinapp\<Product>` directory.
After 'VMware ThinApp Sync' job completes succcessfully on an agent system, the ThinApp does not work.	Packaged ThinApp contains more than 1 file	Each ThinApp MSI must contain only 1 executable. This is a limitation in the current version of the AppSync utility.
The correct version of the ThinApp exists at `<InstallDir>\Media\ virtual \thinapp\ <Product>` on the CORE server but running a 'VMware ThinApp Sync' job does not update the ThinApp on the agent system. appsync.log on agent system states something similar to 'No updates available'	The ThinApp Deployment Method settings are not consistent.	If you uncomment `AppSyncURL` in `package.ini` when packaging the ThinApp, you must answer Yes to the "`Enable AppSync`?" prompt when publishing the ThinApp.
		If you leave the `AppSyncURL` commented out in `package.ini`, you must answer No to the the "`Enable AppSync`?" prompt when publishing the ThinApp.
The updated Thin App does not have the appropriate `Product Name`.	Packaged ThinApp does not have appropriate `Product Name`	In order for updated versions of a ThinApp service to supersede a previous version the Inventory Name in the `ThinApp Package.ini` file the name must be the same for each version of the application. This

Condition	Possible Cause	Recommended Action
		value is set during the VMware ThinApp Setup Capture by specifying the Inventory Name or explicitly modifying the `Package.ini`. Unless it is the same, the user continues to see the ol d version of the app. The new version is placed in the `media/virtual/thinapp/<product name>` directory, but the update utility will not look for it there because it is using the old name to check for updates.
Updated product shows previous version number.	Packaged ThinApp does not have appropriate `Product Version` **property**	In order for updated versions of a ThinApp to supersede a previous version the `MSIProductVersion` in the ThinApp `Package.ini` file must be increased for each new version of the ThinApp
ThinApp does not appear on agent.	Agent is not entitled to *base* version on the desired ThinApp service	The Agent device must be entitled to the *base* version of the desired ThinApp service and the service must be deployed to the agent system.
ThinApp Services are not discovered	Packaged ThinApp service (`ZSERVICE`) does not have `APPTYPE` attribute of `ThinAppStrm`.	The discover-thinapps.tcl script uses the `APPTYPE` attribute on the `ZSERVICE` instances to determine which `ZSERVICE`'s contain AppSync enabled ThinApps. This value is set by the HPCA Administrator Publisher. the user will not see any entries for the ThinApp Services in the reports, none of the AppSync enabled services will be extracted to the `media/virtual/thinapp/<product name>` directories,

Condition	Possible Cause	Recommended Action
		Streaming of ThinApp services will not work
ThinApp Services are not discovered	Custom domain with `ZSERVICE` does not have `APPTYPE` attribute	Software resides in a custom domain other than SOFTWARE domain that does not have the `APPTYPE` attribute.

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