

Installation, Configuration and Trouble Shooting

TechGuide

**Wyse Streaming Manager
Technical FAQ**

September 2007



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■ Summary

The following Q&A will assist you in installing, maintaining and troubleshooting Wyse Streaming Manager by covering these topics:

- General Questions
- Installation
- Administration / Maintenance
- OS Image / WSM Client
- Application Streaming

Audience

- System Engineers
- Administrators
- Help Desk Personnel

Affected Products

- Wyse Streaming Manager 1.2
- Wyse Streaming Manager 1.2.2
- Wyse Streaming Manager 1.2.3
- Wyse Streaming Manager 1.2.4

■ General Questions

Question:

I have a customer who purchased Wyse Streaming Manager. What will they receive? How are WSM licenses fulfilled? Is there an email that goes to the customer with license number and download instructions?

Answer:

The process is as follows:

- Partner orders WSM license at the Distributor
- The order is sent to Wyse Order Management
- Then the order is booked
- Customer will get 2 emails
 - a. One email will be for registration of the license which will include the license file for the appropriate licenses that have been bought by the customer and a link where the WSM Software and Documentation can be downloaded
 - b. The second email is about maintenance information

Question:

If I buy a 50 Seat license for WSM, is this a concurrent User Session License or a per Device License? Is the number of User accounts I am able to import from Active Directory affected by the number of Licenses I have installed in WSM?

Answer:

Licensing is done per device that is present in the WSM system. If you have 50 devices added to the WSM system then the 51st device will not be streamed to. This is not on a per user basis. There can be 100 or even more users in the system but they can only access the devices that are being streamed to.

Question:

A Customer has already bought a 50 Seat license for WSM. Now he is buying additional 50 Seats. How is the customer getting a new license file?

Answer:

Once the Order has submitted by the Wyse order administrator, the backend system is cumulatively adding them to the current registration and sends the customer automatically a notification email with a new license file attached. The new license file is now valid for 100 Seats and overwrites the license that is present in the system. There is only one license present in the WSM system at any time.

NFR and evaluation keys do not get cumulatively added together, so new keys with the total seat count should be requested.

Question:

Can we promote or sell Application Streaming without the OS Streaming portion?

Answer:

No. Wyse Technology has taken a strict stance that the product comes as a bundle and cannot be used for Application Streaming only.

Question:

What Client Hardware is currently supported by WSM?

Answer:

Wyse officially supports streaming to the

- Wyse V90
- Wyse V00
- Wyse 941G
- PCs, other hardware platforms and virtual machines that satisfy the minimum requirements for a WSM client

Note that there needs certification to be done on the PCs and other non Wyse hardware platforms. In general, the partner is expected to provide the certification for the customer on every hardware platform that the customer wishes to deploy WSM on. The process of certification includes capture of the OS image to the server and then streaming it down to the client device. The certification also includes making sure that all the peripherals works in the streamed environment. Once this certification is done then the customer can deploy it to PCs, Laptops and other devices.

Question:

What Operating Systems are currently supported by WSM?

Answer:

For the Server Components:

- Windows 2000 Server Family
- Windows Server 2003 Family (includes SP1, SP2 and R2)

For Client Devices:

- Windows 2000 Professional
- Windows XP Professional
- Windows XP embedded (Note: XPe must be prepped before creating the OS Image)
- Support for Microsoft Vista will be available in near future

Question:

Does Microsoft support streaming of Operating System and Applications?

Answer:

Yes. Microsoft fully supports what they call as the “Remote boot” technology – which is streaming.

Question:

Do I need to modify my Applications if I want to stream them?

Answer:

No. From the application view the installation is the same as on a local Disk. The only difference is that the installation target directory is located on Drive O: to separate the streamed application data from the OS Image. The process of creating and Application Set is similar creating SMS or Netinstall Packages.

Question:

What do I need to consider in regards to client OS licensing?

Answer:

For XP and Windows 2000, a valid License must exist for each device that gets an OS Image streamed. This can be either a full retail License or one from an Enterprise Contract like Microsoft Open or Select.

For XP embedded, the Wyse licensing for XPe allows customers to use our XPe based embedded systems with remote boot technology. Wyse streaming manager is an implementation of the remote boot technology. If the customer buys V90's and then deploys and OS Image using WSM then the customer is legally licensed to use that.

■ Installation and Upgrade

Question:

Do I need Active Directory to use WSM?

Answer:

No. WSM can also be used in “standalone Mode” where Users and Groups are created and maintained on the Core Server. Those Accounts are only used for Application Streaming Subscription and do not affect the OS Streaming at all, as this is based on devices.

However, Active Directory Integration is a very flexible and convenient way to centrally manage a larger number of Users and Groups and streamlines the Application Subscription for the individual user by using path through authentication mechanism.

Question:

Do we need to modify the Active Directory Schema for WSM?

Answer:

WSM is communicating directly with Active Directory and the Schema and/or Objects are not modified during the installation.

Question:

Is it possible to use another Directory Service like Open LDAP or Unix LDAP?

Answer:

Currently only Microsoft Active Directory is supported.

Question:

What databases are supported by WSM?

Answer:

- SQL Server 2000
- SQL Server 2005
- SQL Server Express 2005 (only single Server installations, no Edge Servers)

Question:

There is a new SQL Server 2005 JDBC Driver available from Microsoft. Shall we use this one when installing WSM on SQL Server 2005?

Answer:

The new 2005 JDBC driver is part of the 1.2.x installer and therefore you should not have to download and install it separately.

Question:

After Installing WSM 1.2.x on SQL Server 2005 Express Edition the Database Connection Wizard cannot connect to the WSM Database. What is wrong?

Answer:

TCP/IP and named pipes MUST be enabled in the SQL Servers Network Configuration using the SQL Server Configuration Manager. This prerequisite is regardless of the next steps.

Change the startup type of the SQL Server Browser service from “disabled” to “automatically” and start it.

Use “<Server-IP>\SQLEXPRESS” instead of “(local)\SQLEXPRESS” during the WSM Installation and on the Database Connection Wizard page. Use the “Browse” button to locate the SQL Server and do not enter the Server name manually. If you do not see the Server in the list, one of the above steps has not been taken.

If this does not work, reinstall the SQL Server and make the following settings during the SQL Server 2005 Express Edition Setup:

- Uncheck “Hide advanced configuration options” on the Registration Information screen
- Select “Default instance” on the Instance Name screen
- Select “Mixed Mode” on the Authentication screen

Question:

I am installing WSM and when I open the page to the admin console I get the error below. The web site is up and running but it can't find the page.

```
HTTP ERROR: 404
/admin/login.html Not Found
RequestURI=/admin/login.html
Powered by Jetty://
```

Answer:

Please refer to the Troubleshooting Section in the WSM Installation Guide.

Question:

Is it possible to use a different Web Port than 8080 for the WSM Administrator Console?

Answer:

If you need to change the default WSM Website from http://<IP-Adress>:8080/admin on the WSM Core Server, open C:\Program Files\Wyse\WSM\admin\Jetty\admin.xml and change the port 8080 in the <Set name="port">8080</Set> Section.

Note: The WSM Administration Web Service must be restarted afterwards.

Question:

How do I create a TFTP-Bootfloppy for a Server which is in a different IP-Subnet than the Core Server?

Answer:

When running “WSMServerConfig.exe” on the Core Server, the IP-Gateway Address is hard coded in the TFTP Bootfloppy (VLDRMI13.BIN). As the Server on the remote Subnet has a different Gateway, the Boot floppy will have wrong Information if copy the file from the core server to the remote TFTP Server without modifications.

There are two ways to work around this:

- Install an Edge Server in the remote subnet to create the TFTP boot floppy
- Change the IP-Address configuration of the Core Server, run “WSMServerConfig.exe” and change it back afterwards

Question:

There is already another PXE-Server installed on my Network. How can I make both Solution work at the same time?

Answer:

If for example, if Altiris or ZEN is already on the customer’s network an exclusion List can be created on those Servers to not answer to PXE-Requests from clients who have a MAC-Address starting with “00-80-64” which is used by all Wyse Thin Clients.

With WSM 1.2 a new, built in *DCHP-Proxy Service* prevents unknown devices to be streamed to unless their MAC has been included in the WSM Database due creating a new Network device. After this, the device will get the TFTP Boot floppy and with that the ability to load the assigned OS Image. The optional *Device Discovery* feature allows to automatically adding new devices to the system based on subnets and device templates, which hands some settings down to every client.

Question:

Are there any best practices on the WSM Server Services as far as optimization?

Answer:

The max throughput should be set for File sharing not Network Applications

Provider order:

- Microsoft Windows Network
- Microsoft Terminal Server
- Web Client Network

Question:

After upgrading to WSM 1.2.3 or 1.2.4 the clients do not get the TFTP Boot floppy anymore. What can I do?

Answer:

This is a known Issue on WSM Servers which have also DHCP Server Services running at the same time. To not interfere with the DHCP Server, the WSM DHCP Proxy Service must be set to run at port 4011 instead of 67. After the Upgrade this setting is lost even when it seems to be set correct in the WSM UI.

To re-apply those settings follow these steps:

1. Set the DHCP Proxy Service to Port 67. Click "Save"
2. Set the DHCP Proxy Service back to Port 4011. Click "Save"
3. restart the DHCP Proxy Service
4. restart the DHCP Server Service

Question:

I want to completely remove WSM and re-install it. Is there a correct procedure in doing this?

Answer:

Follow the steps below:

- Un-install WSM from the Add/Remove Programs utility
- Delete the entire Wyse folder under C:\Program Files
- Open SQL Enterprise Manager and delete the StreamingDB Database

Re-Install

■ Server Administration and Maintenance

Question:

If I want to add a new license file to an existing WSM installation, do I need to stop all WSM services on the Core and all Edge Servers simultaneously?

Answer:

In WSM 1.x there was no other way than stopping all WSM Services on all WSM Servers simultaneously before you could import the new license file.

In WSM 1.2.2 and higher this has been fixed and is not longer needed. You can import new license files while all Servers are up and running.

Question:

Adding a new license results in “invalid server license file”. My old license file has expired. How do I get around this issue?

Answer:

- Stop all of the services from the UI
- Add the license as usual from the UI under System Settings / Server License
- Start the services from the UI

Question:

What is the correct procedure for changing the IP Address of the WSM Core Server?

Answer:

- Change the IP address on the server in the windows network connection settings.
- Change the IP address in the admin UI from the server details page.
- Run the server Configuration Wizard on the core server. This will update the boot floppy with the new IP address. If you have remote TFTP Servers, you have to modify those as well.
- Restart all the services on the core server.
- Boot the image(s) in private mode and run the “WSMClientPostConfig.exe” on the WSM client and enter the new core server IP address. Shut down and switch the image back to shared mode.
- Restart the services on the Edge Servers.
- Distribute the updated OS Images to the Edge Servers.

Question:

What is the correct procedure for changing the Name of the Core Server?

Answer:

Change the name of the server within Windows. The only other place to change the name is on the WSM server details page.

Question:

What is the correct procedure for changing the WSM Database password after an installation?

Answer:

- Change the Passwords of the WSMDB account in Active Directory
- Change the WSMDB account in SQL to reflect the new password.
- On the Core Server, open command prompt and go to the <Install folder>\app. The default is C:\Program Files\Wyse\WSM\app.

Then use this command: `admin_utils.exe -change_db_pass` and follow the instructions.

Note: You will have to make this change in all the servers (if you have edge servers).

- On the Core Server, edit to the `db.properties` file located in `C:\Program Files\Wyse\WSM\admin\Jetty\webapps\admin\WEB-INF\classes` and comment (add '#' sign before) the lines starting with `username` and `password` (the third and the fourth lines in the file).
- Restart all WSM services.

Question:

How do I clean up the WSM Database without reinstalling WSM?

Answer:

- Go to Start -> Administrative Tools -> Services and stop all WSM services.
- Restart the SQL server by double clicking the SQL server tray icon (Click stop and start). This is to drop any connections to the database.
- Start the SQL Enterprise manager
- Go to Tools -> Query analyzer
- Go to File -> Open -> "<WSM InstallDirectory>/admin/common/db/WSMDBCcreate.sql"
- Execute this file by clicking on the green arrow
- Go to -> Administrative Tools -> Services and start the WSM Web Administration service and then all other WSM Services

Question:

If I add or remove a user to a group in AD that is imported into WSM will this automatically be updated?

Answer:

Yes. WSM syncs with your Active Directory automatically (default is 600 seconds). You can modify the polling frequency in under System Settings -> Active Directory Configuration

Question:

Do we have a way to see who is currently logged on to WSM and who is accessing which apps?

Answer:

We don't currently track who's actually logged in to the system. There is a report today that does provide the current users who are using the apps in real time. Look at the license usage report. That report gives the list of users and the applications that they are currently using. Once you close the application i.e. stop using the application then the user will not show on the report. That report was designed with that specific requirement in mind.

What we do not have today is if the user is logged into WSM eg. OS streaming only and do not actively use any apps, then there is no report today that will give this data. We will work on providing that in the future releases.

Question:

Do we have a way to notify users to log off or shut all clients down so that we can put the server on maintenance?

Answer:

You can remotely shutdown all clients by scheduling device commands.

If you only want to modify an OS Image you could also use the „Patch OS Image” process to do OS Image maintenance while all the devices are up and running. Refer to the WSM Admin Guide on how to do this.

Question:

WSM automatically creates Active Directory computer accounts by default in the “Computers” Container. Can we move the computers to another OU where I have Policies enabled?

Answer:

Of course you can do this. However, with WSM 1.2 and higher you can also use so called “Device OUs” to specify where new client computer accounts should be created. Using this method, you do not need to move the computer accounts manually.

Question:

By default, the number of devices that can be added by a remote user is around 10 and you might see the 11th one facing a problem when it comes up. The error you will see is when you try to log in, and it says that either your domain controller is down or not found or your computer account not found in active directory. Why is that?

Answer:

The Active Directory error 8557 occurs when the number of computer accounts exceeds the default limit for a system. This default limit might vary from system to system however the typical value is 10.

By running the OS Authentication Service with the credentials of an AD Account Operator we do not fall under that restriction and are able to create as much computer objects as needed.

Question:

Some of the WSM Services do not start reliable after a reboot of the Server. What can I do?

Answer:

The reason seems to be related to a slow start up of the SQL Service and has only been seen on Computers and virtual machines with slow disk performance.

With WSM 1.2.4, the start of the WSM Services has been made more reliable and you should not see those kinds of errors anymore. Another way is to set all WSM Services to recover after 1 Minute in case of a start up failure.

■ Edge Servers

Question:

What is the boot process for a client that gets its OS Image from an Edge Server?

Answer:

When a client device boots up, it sends out a DHCP/PXE broadcast request on the local subnet. What it's looking for is a Network Boot Program (NBP). In the case of WSM, the NBP is named "vldrmi13.bin". It must be placed on a TFTP server and the address of that TFTP server is made available to the client by the DHCP Server (or a Proxy DHCP Server).

When the client device receives a DHCP response (indicating the address of the TFTP server), the client then downloads the NBP from the TFTP server and executes the NBP. It then contacts the WSM Core Server, to get the address of the Edge Server and the name of the OS Image that the device is configured to boot from.

Sometimes, it's convenient for the customer to place the TFTP service on the same machine where WSM Services are running (either a Core Server or an Edge Server). However, this is not a requirement.

The location of the TFTP server is entirely independent of the WSM servers (whether Core or Edge). The DHCP/PXE request from the client device does **not** have to be forwarded to **any** WSM Service. That request must be served by a DHCP Server (or Proxy DHCP Server). (WSM Services do not know anything about DHCP/PXE requests).

Question:

If the Devices boots from an Edge Server, where does the Application Image for the User come from?

Answer:

The Application is always streamed from the same server the OS Image has started from. This is because the write filter file for the device is always sitting on the same server the device has booted from, and the application may write personal settings in this write filter file too.

Thus, we suggest deploying all Application Sets on all Edge Servers too, so the a user has always access to his applications.

Question:

I want to deploy a large OS Image on my Edge Server(s). Is there a way to avoid the initial copy process over the network?

Answer:

You can foist the image to the Edge Server by following these steps:

1. Store a copy of the actual Image from the Core Server on an external Hard disk, a USB-Stick, DVD etc.
2. Copy the image to edge server(s repository directory (wyse\wsm\streamingdir\.....))
3. From the Core server UI, Go to Operating Systems-> Change Server Assignment – Add the Streaming (Edge) server
4. It shows "Copy to be Scheduled"
5. Run the Schedule
6. It will show Status ready in the UI immediately

■ OS Image and WSM Client

Question:

When I try to install the WSM Client on an XP workstation, I get an error “Missing otinst.dll”.

Answer:

This is only happening on a XP Client with no Service packs installed. You can copy c:\windows\system32\winhttp.dll from a PC with SP2 to the same location on the Hard Disk from where you are pulling an image. Another way around this is to install the latest Service Pack (SP2) on the XP Client.

Question:

After installing the WSM Client on a PC Windows stops with a BSOD the next time the Computer starts.

Answer:

This Issue was only seen on PCs with fire wire connectors and the BSOD is caused by nic1394.sys, which is the driver for the 1394 LAN connection. By disabling all other network adapters except the active LAN Card from Windows Control Panel -> Network Connections for the time of the WSM installation this issue could be worked around.

With WSM 1.2.3 and higher this has been fixed.

Question:

I remember there’s a limit for “C:” in regards to the OS Image thru WSM right?

Answer:

With older Versions of WSM there has been a limit of 8GB when creating an OS image. With WSM 1.2.2 it is now possible to create OS Images with a Size of 32GB

Question:

I am receiving an error: “The dependency service or group failed to start” when trying to add the Reference Device to the domain.

Answer:

This seems like a procedural issue. When creating an OS Image, make sure that you add the client to the Domain BEFORE you install the WSM client. If you un-install the client and then add the client to the Domain and re-install the client you should have no issues.

Question:

Assuming we’ve put in multiple client OS Images in WSM. Is there a way for the user to select them? I vaguely remember there’s a screen for the user to choose which image. Is this only limited to the first connection?

Answer:

This is not limited to the first connection. The feature you are referring to is set on a per device basis and can be achieved by choosing “user select” from the Network Devices details page. The user will now be asked to choose the OS image every time the device is booted.

Question:

What is the best procedure for adding a new image to a production WSM Server?

Answer:

Steps to follow:

- Add the new image to WSM Server and set it to private mode.
- Assign the OS Image to your reference device in private, boot it and run “clientpostconfig.exe” to adjust the IP Configuration
- Set the image to shared mode
- On the “network devices” menu, select all the devices you want to boot from the new image
- Click on the “Configure Network Devices” button. This takes you to a new page.
- Select the first OS image in the list (assuming that’s what you are replacing) and click on “Update OS Image”.
- Next, click on “Add OS Image” and select the new image
- At this stage, you’re done. Clients will boot from the new image the next time they reboot

Note: It’s okay for clients to be up and running while doing these steps. They will not be affected in their work.

Question:

How do I back out of a partial/failed installation of the client? The client will not let me remove it or re-install it from Control Panel -> Add or Remove Software.

Answer:

This process should be used ONLY if the WSM Client software was partially installed, and the system is in a state where the software cannot be uninstalled (or reinstalled) using Control Panel.

The process involves changes to the system registry, and should be performed only by trained and experienced personnel. It is strongly recommended that a full system backup is performed first. Please exit all other applications prior to using this process.

- Under Control Panel / Services, check for a service named “WSM Client”. If it exists and is running, stop the service.
- Run “regedit”
 - Delete the following key (WSM) if it exists: HKLM\Software\Wyse\WSM
 - Starting at the top level (“My Computer”), search for the key “7E3F2645347615A45” and delete all instances of it. Search for just the key, not values or data that may contain this string. Note that there will be multiple instances of this key
 - Starting at the top level (“My Computer”), search for the key „5462F3E7” and delete all instances of it. Search for just the key, not values or data that may contain this string. Note that there will be multiple instances of this key.
- Close “regedit”
- Restart the computer and re-install the WSM Client software

Question:

During the OS Image Creation the Process ends with an Error “couldn't map VDISK”. How can I proceed without starting the process again?

Answer:

This mostly happens when either the Network connection to the WSM-Server or its Disk-Subsystem is too slow. If the virtual disk has been created successfully on the Server, follow these steps to finish the OS Image creation process manually:

- Run “C:\Program Files\Wyse\Wsm\os\VDiskImageMap.exe” and enter the name of the Virtual Disk that has just been created
- Quick format the new, removable Disk using Windows Explorer
- Run “C:\Program Files\Wyse\Wsm\os\OSMImage.exe” and use same Drive Letter as Target used in the Step above

Question:

I am having problems getting the audio to work on a Streamed OS. Is there a fix for this?

Answer:

Create the two registry values described below or import the regfile available from Wyse Tech Support. This will allow playing audio by relaxing the write-access control we impose on the virtual file system and directories by non-privileged users.

Order of Steps:

- Shut down any client devices booted from this OS image.
- Change the OS image to private mode, via the Admin UI
- Boot up one client, in private mode
- Login to the client device with an account that has “local administrator” privileges.
- Run regedit and create a DWORD named “SType” with a value of 19601 (decimal) in both of the following keys:
 - HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\Efsd\
 - HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\OTFileSpoofer\
- Shutdown the client device
- Change the OS Image back into shared mode.
- Login as a non-privileged user, and verify that audio is working



Efsd_OTFileSpoofer.reg

Question:

What is actually being stored in the write-cache files?

Answer:

The information stored in the write-cache is any change in the base OS image from an OS page file perspective. This is an example not the exact details, but should give you an idea. Consider a case where you create a new document in word. When you open word, say some temp files are created, the perflib.log is updated, Event monitor makes some updates to the event log etc.

All these changes, which ideally would be stored to the hard disk, will now be stored in the write-cache. The way the system works is when the OS requests data from the operating system, in our case it will first look at the write cache. If the file/data is found, then it will retrieve it from there. If the file is not found then it will go to the base OS image and get the file/data from that place. In a sense what the OS sees is a merged copy of the changes in the write-cache and the base OS image. This happens per device.

The paging file is also saved in the write cache as again these would be changes in the hard disk and any changes are stored in the write-cache.

Question:

Will personal settings and applications follow the user if he/she moves from one Thin Client to the next?

Answer:

Remember that personal settings are stored in the write-cache (along with other information). The write-cache is based on each device, so the personal settings will not follow.

If roaming profiles are setup on the network then this would work fine with our solution. This works just like profiles in a PC environment, where a new profile would be created if you log into a separate machine unless roaming profiles are setup.

Applications on the other hand, are distributed based on user credentials. That is, they will follow the user no matter what Thin Client they login to.

Question:

Currently all the write caches are writing in a "<OSImageName>_<MACID>" format. We have made modifications to the OS Image and uploaded it with another name, is there a way we can port the old write cache files to be used with the new OS Image like grafting the old write cache into a new device or new OS?

Answer:

No, the old write cache cannot be ported or grafted on to the new OS image. However, in future versions, we plan to support the ability to "save" or retain certain directories/folders (such as "Documents and Settings") across patches or changes to the OS image.

Question:

Is it possible to use the write cache with another Machine? For example when a Unit has an irreparably Hardware Failure and I don't want to loose my personal settings?

Answer:

Yes, if the replacement Unit is using the same OS Image you only need to rename the existing write cache file so the MAC-Address portion reflects the MAC of the new Unit. If you then power in the Unit for the first time you will be asked for a new Hostname, Description and the OS Image you want to use. Specify the OS Image you have used with your old Image and continue. At the next boot the new Unit will automatically use the write cache file of the old machine,

Question:

What steps are required to stream XPe?

Answer:

There is an archive called *xpe_prep_4_stream.zip* available which contains all the necessary files and scripts required to prep an XPe Image.

Note: The data on the IDE flash is compressed, but it is not after the content has been copied to the OS Image! For example, when creating a 512MB OS Image for a V90 (512MB flash, Build 465) there will be approx. only 50MB of free space inside the OS Image. Therefore, the target size of the OS Image should be larger than then the flash size and you may also consider enabling a paging file once you are in private mode. By Microsoft restrictions, the OS Image cannot be made larger than 1GB or you will not be able to logon to the domain anymore.

Question:

How do I keep my XPe Images up to date in regards to security updates etc.?

Answer:

Even when XPe is streamed, it is still XPe and you cannot use WSUS etc. to maintain its Windows Security Updates etc. When prepping an XPe image the HAgent is not removed and you can still use Wyse Device Manager to deploy patches to the clients. Remember that doing this while the OS Image is in share mode with persistent cache, the files and updates are only stored in each devices write cache file. Due to this fact it is recommended to deploy the patches while the OS Image is in private mode, so all XPe units are getting the latest Image the next time they restart.

■ Application Streaming

Question:

Is it possible to disable the Application Streaming partition of the WSM Client? My customer wants to use OS Streaming only.

Answer:

You cannot disable the Application Streaming portion. However, there is a workaround that silences the WSM Client but leaves you the flexibility to use Application Streaming whenever the Customer decides to do so.

- In a non AD Environment:
 1. Create a dummy group and -account on the WSM Server
 2. Do not assign any Appset to this group
 3. While in private mode, use the dummy account to authenticate to WSM
 4. Back in persistent cache mode, the WSM Client will use the stored credentials and silently authenticate you to WSM

- When AD integration is enabled:
 1. Create a dummy group in AD and put all the relevant Users in this Group
 2. Do not assign any Appset to this group

Question:

Is it possible to automatically assign applications to user groups rather than having each user subscribed individually?

Answer:

Yes, with WSM 1.2 and above you can mark the application image as “Auto Subscribe” or “Mandatory”. These two options will auto subscribe the application once the user logs in and the WSM Client starts; Mandatory prevents the user from unsubscribing.

Question:

How do I prevent Users from deleting/modifying files from the O:\ Drive?

Answer:

- Change the Access Token for the affected Files in your Build or
- Hide the O:\ Drive from the Windows Explorer by either modifying the local registry in the OS Image or
- Use an ADM-File to do this via Active Directory Group Policies. You can use the freeware “Hidecalc” to create the ADM-File

Question:

Is it possible to use a different drive letter than O:\ for the Application Sets?

Answer:

Yes, but Wyse suggests sticking with the default O:\ Drive. However, if this is not possible because a network share is already occupying this Drive letter, you could setup your building machine with a different drive letter used as target for your <installdir>.

Question:

When packaging Citrix I noticed that the Icon that appears on the desktop (when streamed) does not work. Why is that?

Answer:

The icons are associated with an .exe file which are found in the C:\Windows\Installer\<GUID> directory. (NOTE: each application has a specific unique GUID)

There are two ways to overcome this Issue:

- Modify the build file to change the disposition on the Icon files from spoofed to copied. The procedure can be found in the WSM Publisher Documentation.
- Delete and manually create those kind of problematic shortcuts manually before taking the second snapshot.

Question:

Can we publish applications that have services (by service I'm referring to those located in the System Services control panel) associated which a registered app?

Answer:

Yes, it is possible to publish Appsets that contain Windows Services, though you may need to delay the start of the service until the App client starts, and then use an AppEvent to start the service.

Question:

I packaged Office and it keeps asking me to register even though I registered before I completed the package. Why is it asking me to register every time I run the apps?

Answer:

Most likely, you have used an MSDN copy of MSOffice. Try using s Volume License copy and see if the issue persists. Also package the Application while logged in as local Administrator.

Question:

How do we handle Anti Virus implementations within WSM and across the different modes that we offer?

Answer:

- Pre-requisites: The Anti Virus Agent will have to be installed as part of the OS Image.
- Modes of Operation:
 - A. Volatile Mode: In this mode all updates to the virus definition files (.dat) will be lost when the device reboots. However, most of the AV solutions have a checking mechanism by which the AV agent checks with a local AV server for any updates that are needed for the .dat files and will make the updates automatically. All updates to the AV Agent itself i.e. revision of the agent (new version) will have to be managed as a normal update to the OS image. So the normal mode of operation will be:
 1. Device Starts up
 2. AV Agent Starts
 3. AV Agent checks with the Local AV Server/AV Vendor site (if managed services provided by the AV vendor)
 4. AV Agent updates the .dat files within memory
 5. Any updates to the AV agent itself also will also be performed in this mode, but it is recommended to have the AV updates done on the OS image if possible.
 - B. Persistent Mode: In this mode all updates to the virus definition files (.dat) will be persistent across reboots. So in this case any updates made to the dat file/AV Agent itself will be preserved across reboots.
 - C. Private Mode: This mode should be used to install the AV Agent and the .dat files in the first place. Before the OS image is turned on for the other users. If Private mode is used for normal operation then all changes will be permanent.

Note: It is best practice to manually scan the OS Image while in private mode and disable the regular scan of the C: drive while in any of the shared modes. Reason for that is that otherwise all client devices will scan the OS Image as scheduled from the AV Solution and this will impact the disk performance of the WSM Server a lot.

Question:

When a user is part of multiple Active Directory groups and those groups have individual application licenses for the same application assigned, the application will be available for subscription multiple times with no chance to distinguish why the user is getting it. Furthermore, when the Application is set to auto subscribe the system will try to subscribe the application multiple times will result in an error. Is there a way to fix this?

Answer:

In WSM 1.2.4 the WSM User Interface got an additional column that shows the users group membership, and this will help the user to identify the correct application license.

In addition it is not longer possible to subscribe or auto subscribe to the same application multiple times.

■ Additional Information

More information about Wyse Streaming Manager can be found at <http://www.wyse.com/products/software/Streamingmanager/>

Service and support information is available at <http://www.wyse.com/serviceandsupport/>

If you have a technical enquiry please use the online knowledge portal at <http://www.wyse.com/serviceandsupport/support/askwyse.asp> or contact any of the numbers below.

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