

Getting Started Guide

Wyse WSM Appliance™ Release 2.3

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Getting Started with Wyse WSM™

Introduction

Wyse WSM™ delivers software on demand to zero clients (zero clients are thin clients without an embedded operating system or local storage). Able to deliver full, rich operating systems (like Windows XP Professional) and applications, it delivers the power and flexibility of a PC to the user, while giving IT the manageability they want from a thin-computing infrastructure. By provisioning the entire operating system and applications, WSM makes it possible for zero clients to operate like a PC, but without requiring local storage. Providing the operating system and applications independent of each other makes it easier for IT to backup, update, manage, maintain, and support multitudes of desktops with minimal staff.

WSM main features include:

- Patented streaming operating system and application technology.
- Anti-piracy protection of operating system and application code.
- Usage metrics collection.
- Licensing policies to enforce all operating system and application usage.
- Scalability and built-in fail-over support.

WSM key components include:

- Windows server-based services that independently stream the operating system and applications.
- An easy-to-use image-creation tool to create and deploy operating system images.
- An application packager to create and deploy application images.

WSM services and applications are briefly introduced in the Installation Guide, and the usage of WSM is detailed in the WSM Administrators Guide.

Wyse recommends that you start evaluating WSM in a separated test environment. After you become familiar with setting up and configuring WSM and learn how streaming works, you will be ready to use WSM in your production network.



Note

If only one computer is available for testing, virtualization software such as VMware Workstation or Virtual Server can be used to create and host the virtual machines for the streaming server, the application packager, and a streamed workstation session.

About this Guide

This guide is intended for administrators of the Wyse WSM system. It provides a setup and configuration overview of the entire WSM system to help you get your Wyse WSM environment up and running quickly and easily.

Wyse Technical Support

To access Wyse technical resources, visit <http://www.wyse.com/support>. If you still have questions, you can submit your questions to the [Wyse Self-Service Center](#) or call Customer Support at 1-800-800-WYSE (toll free in U.S. and Canada). Hours of operation are from 6:00 A.M. to 5:00 P.M. Pacific Time, Monday through Friday.

To access international support, visit <http://www.wyse.com/global>.

Links to Related Documentation and Services

Installation Guide: Wyse WSM™ is intended for administrators of the Wyse WSM system. It describes the Wyse WSM installation process for Windows servers and clients. This guide provides the step-by-step instructions you need to install and configure a Wyse WSM environment. It also includes the requirements you must address before you begin the installation procedures.

Publisher Guide: Wyse WSM™ is intended for administrators of the Wyse WSM system. It describes how to use Wyse WSM Publisher to publish applications and to make them available for distribution.

Administrators Guide: Wyse WSM™ is intended for administrators of the Wyse WSM system. It provides information, and detailed system command and parameter configurations, to help administrators design and manage a Wyse WSM environment. It also explains how to use Wyse WSM, manage the availability of software applications for distribution to subscribers, manage application subscription licenses, install and configure published applications, provide subscriber profile and billing information for efficient application usage tracking, and control subscriber access to the Wyse WSM system.

Users Guide: Wyse WSM™ is intended for users of the Wyse WSM Client system. It provides detailed instructions on using the Wyse WSM Client to manage the applications available to users from a network server.

Wyse Thin Computing Software is available on the Wyse Web site at: <http://www.wyse.com/products/software>.

Overview - Start Here

This guide provides you with an easy-to-follow workflow to get your WSM environment up and running quickly and easily.

Simply complete the steps in each phase and you will:

- Get your appliance and core services up and running (Phase 1)
- Install and capture a Windows OS Image for streaming (Phase 2)
- Register the Windows OS Image and stream to zero clients (Phase 3)
- Add user groups and users to your WSM system (Phase 4)
- Install the Applications Publisher and package applications (Phase 5)
- Register an Application Image and stream to zero clients (Phase 6)



Note

WSM can stream operating systems and applications to physical devices such as zero clients or PCs, as well as virtual machines. Any step in the following procedures that can be performed with a zero client can also be performed with a virtual machine.

Phase 1 - Getting Out of the Box

Complete the following to get your appliance and core services up and running.

Step 1 - Powering Up and Logging In

Take your WSM appliance out of the box and power it up. This is similar to powering up a standard Microsoft Windows XP Embedded thin-client. Several auto-launch windows appear during the initial power-up, and then the appliance will reboot to the desktop. After reboot, press **CTRL+ALT+DEL** to open the login dialog box, and then log in using the default username (*Administrator*) and default password (*Administrator*).

Step 2 - Launching the WSM Administrators Console and Logging In

On the desktop, double-click the **WSM Console** icon to launch the console and open the login dialog box, and then log in using the default username (*admin*) and default password (*admin*).

Step 3 - Importing Your Server License

On your initial login the *Import Server License* page appears. Click **Browse** to find and select the `license.txt` file that was provided to you by Wyse, and then click **Import Server License** to import the license and view the licence details. Click **Next** to open the *Configure Active Directory* page. Depending on whether or not you want to enable Active Directory integration with WSM, select or clear the **Enable Active Directory** check box.



Note

For information to help you decide whether or not you want to integrate Active Directory with your Wyse WSM system, refer to the *Administrators Guide: Wyse WSM™*. If you need to configure or re-configure the Active Directory in the future, refer to the *Administrators Guide: Wyse WSM™*.

If you do not the Enable Active Directory check box, click **Finish** to view the *System Overview Congratulations* page. After completing the Configuration Wizard, you can view the *Core Server Details* page to see that the Core Server Services are successfully running by clicking the **Servers** link in the *Category* list on the *System Overview* page, and then clicking the Name link of the Core Server.



Note

Now that the Core Server services are running, you can configure the rest of the Wyse WSM system according to your environment needs at a later time by following the appropriate procedures in the *Administrators Guide: Wyse WSM™*.

Phase 2 - Capturing a Windows OS Image for Streaming

In this phase, you must capture a supported Windows OS Image (Windows XP or later) for streaming. You can either capture a Windows OS Image from a PC (where the operating system has already been installed) or install and capture a Windows OS Image using a device with the required local storage. You will then use the PC or the device as the “reference device” in subsequent steps.

The Client software adds the required drivers and functions for base OS streaming to the Client Operating System. It also enables application streaming and subscriptions for individual zero client users. An easy-to-use operating system image creation tool is included in the Client software, which is used to create a base OS Image that can be provisioned to zero client devices.

Complete the following to install and capture a Windows OS Image for streaming.

Step 1 - Installing a Windows OS Image on a Reference Device

You can skip this step if you are going to capture a Windows OS Image from a PC, where the operating system has already been installed.

If you are not capturing a Windows OS Image from a PC, then you must complete this step and install a supported Windows OS Image on a reference device that has local storage. For example, if you have purchased the WSM Pilot in a Box bundle from Wyse, you can use the R00L Zero Client with 2 GB of internal Flash Memory to install Windows XP Professional SP3 (requiring less than 1.5 GB of memory) from a Microsoft Installation CD.



Note

If you are not capturing a Windows OS Image from a PC and you do not have a reference device with internal storage, please contact your Wyse sales representative to learn about options to purchase additional internal memory devices (Flash or IDE disk) or the WSM Pilot in a Box bundle.

Use the following guidelines:

- Obtain an external USB CD-ROM player that can be connected to the reference device.
- Insert the Microsoft Windows Installation CD into an external USB CD-ROM player and then connect it to the reference device.
- Make sure to boot the reference device from the CD-ROM.
- Follow the on-screen instructions to install the Windows operating system.
- Once the operating system is successfully installed, reboot the device.
- You can ensure that the OS installation was successful by booting the device from the internal storage.

Step 2 - Installing the Client Software on the Reference Device

After you complete all pre-installation requirements for the installation environment you want (refer to the *Installation Guide: Wyse WSM™* for details), you can download the Client software and begin installation. To install the software on the reference device, double-click the **WSMClient.exe** file and follow the wizard using the default and recommended configurations.



Note

During installation, Windows logo testing messages may appear in front of or behind the wizard windows. If these messages appear, click **Continue Anyway** to continue the installation.

Use the following guidelines to complete the *WSM Client Config Wizard* when it appears:

- Enter the Authentication Server Info IP address to be used by the WSM OS Authentication Service (this address is the same as the Core Server). The default Port information is automatically entered.
- Enter the Imaging Server Info IP address to be used by the WSM OS Streaming Service (this address is the same as the Authentication Server Info IP Address). The default Port information is automatically entered.
- Enter the Web Server Info Port address, if necessary. This is the port on which the Web server runs. The default is entered automatically.
- Enter the IOS Streaming Max Packet Size. This is the maximum data size of OS streaming packets sent from the server to the client; the default value is 1420. If your network, to meet encryption or other types of requirements, requires a custom MTU (Maximum Transmission Unit) for IP packets, you can adjust this number to restrict the size of the packets. Set the value to 1370 to yield an MTU of 1398 (the maximum OS streaming data size [1370], plus the UDP header size [8], plus the IP header size [20]). Matching this value to the OS Streaming Max Packet Size setting on WSM servers is recommended.

After completing the installation, restart the system (escape out of the network boot by pressing **ESC**).

Step 3 - Capturing the Windows OS Image from the Reference Device

After installing the Client software, you now have the Windows OS Image that you want to use on the reference device.



Note

Be sure you comply with all Microsoft operating system licensing requirements before capturing and streaming your Windows OS.

You must now capture the OS Image to the WSM Core Server so that later it can be added to the WSM system and streamed to the zero clients in your environment.



Note

Be sure you have all peripherals you want to use (for example, keyboard, mouse, printers and so on) connected *before* you begin capturing the OS Image to the Core Server.

To capture the OS Image to the Core Server, locate the `OSMVDiskImage.exe` file (the default location is `C:\Program Files\Wyse\WSM\os`), double-click the **OSMVDiskImage.exe** to open the WSM VDisk Image Creation Utility window and use the following guidelines:

- Enter the Virtual disk size in MB (if you are running in shared mode, the maximum virtual disk size is 32 GB).
- Enter a Disk name.
- (Optional) Enter a Description for the disk.
- Depending on whether or not you want to integrate WSM with Active Directory, select or clear the **Enable Active Directory Integration** check box.
- Click **OK** to build the virtual disk.

Phase 3 - Registering the Windows OS Image and Streaming to Zero Clients

After capturing the OS image to the WSM Core Server, it must be “registered” or added to the WSM system using the WSM Administrator Console and then assigned to WSM Servers and devices.

Complete the following to register an OS Image and stream to zero clients.

Step 1 - Adding an OS Image

Complete the following:

1. On the desktop, double-click the **WSM Console** icon to launch the console and open the login dialog box, and then log in to the Administrator Console using the default username (*admin*) and default password (*admin*).
2. Click the **Operating Systems** link to open the *Operating Systems* page.
3. Click the **Add OS Image** link to open the *Add OS Image* page, and then use the following guidelines:
 - Enter the Name of the OS Image for client support (use only letters, numbers, dashes, spaces, the @ character, and periods).
 - Select the File Name of the OS Image you want to add (if no file exists for you to select, you must capture an OS Image and place the file into the OS Images folder located where you installed the WSM Core Server as described in the *Installation Guide: Wyse WSM™* - for example, `D:\wyse\streamingdir\osimages`).
 - (Optional) Enter a Description.
 - Enter the Version.
 - Select the OS Class.
 - Select the Device Class.
 - Select the **No Cache (Private Mode)** option.
 - Click **Next** to open the *Assign to a Server* page.

Step 2 - Assigning an OS Image to a Server Group

In the *All Server Groups* list, select the server group to which you want to add the image:

- **Default server group** - Select **Default**, click **Add**, and click **Next** to open the *Assign to a Server* window (see "Step 3 - Assigning an OS Image to a Server (Default Server Group Only)").
- **User-created server group** - Select the name of the server group (or groups), click **Add**, click **Next** to open the *Assign to a Server* window, and then click **Finish**.

Step 3 - Assigning an OS Image to a Server (Default Server Group Only)

In the *Servers of Default Group* list, select the servers that will be assigned the OS Image, click **Add**, and then click **Finish**. The OS Image is added to the list of available OS Images on the *Operating Systems* page and can now be streamed to zero clients.

Phase 4 - Adding User Groups and Users to Your WSM System

Before streaming applications, you must add a User Group to your WSM system. Once a User Group is added, you can then add members (Users) who can subscribe, activate, and run the applications for that User Group.

The *Administrators Guide: Wyse WSM™* provides details on how to add User Groups and Users to the WSM system. It shows you how to:

- Add user groups with or without Active Directory.
- Assign application licenses.
- Assign users to user groups with or without Active Directory.

Phase 5 - Installing the Applications Publisher and Packaging Applications

To provision an application independently from the OS Image, it first must be installed on a platform that is dedicated to publishing and has the WSM Publisher application installed. The WSM Publisher determines how the client application works in the Windows environment and packages the required components and configuration information into a compressed, encrypted "application set" that can be used by zero client users.



Note

Be sure you comply with all vendor application licensing requirements before packaging and streaming your applications.

The WSM Publisher can be installed on a separate machine that has the same operating system and service pack level installed as the OS Image.

The *Publisher Guide: Wyse WSM™* provides details on how to install the WSM Publisher and make applications available for streaming. It shows you how to:

1. Prepare the building machine.
2. Create an installation folder.
3. Create a pre-installation snapshot.
4. Install the application.
5. Create a post-installation snapshot.

6. Create the build file.
7. Clean up and modify the build file.
8. Generate the application set.
9. Copy the appset to the core server.

Phase 6 - Registering an Application Image and Streaming to Zero Clients

After packaging an application set, it must be “registered” or added to Core Server of the WSM system using the WSM Administrator Console and then published to zero client user groups. After a zero client user “subscribes” to an application, the application becomes available to the user through streaming from the WSM servers.



Note

Before a user can use an application, they must subscribe to it (“install” it). To subscribe to an application, login to the WSM Client Applications Console on a zero client, select the application you want on the **Unsubscribed Applications** tab of the console, and then click **Subscribe**. After subscribing to an application you can open the application for use by clicking **Start | Programs** and then selecting the application from the menu.

Complete the following to register an Application Image and stream to zero clients.

Step 1 - Adding an Application Image

Complete the following:

1. On the desktop, double-click the **WSM Console** icon to launch the console and open the login dialog box, and then log in to the Administrator Console using the default username (*admin*) and default password (*admin*).
2. Click the **Applications** link to open the *Applications* page.
3. Click the **Add Application Image** link to open the *Add Application Image* page, and then use the following guidelines:
 - Select the File Name of the Application Image you want to add (if no file exists for you to select, you must copy an Application Image and place the file into the Application Images folder located where you installed the WSM Core Server; for example, D:\wyse\streamingdir\appimages).
 - Enter the Name of the Application Image for client support (use only letters, numbers, dashes, spaces, the @ character, and periods).
 - (Optional) Enter a Description.
 - Enter the Version.
 - Depending on whether or not you want to automatically subscribe this Application Image (*with user unsubscribe flexibility*) to an end user when the user first logs into the WSM Client, select or clear the **Auto Subscribe Application** check box (note that after the user has been subscribed to the application during the first login, the user has the option of unsubscribing from this application at any time thereafter).
 - Depending on whether or not you want to automatically subscribe this Application Image (*without user unsubscribe flexibility*) to an end user when the user first logs into the WSM Client, select or clear the **Mandatory Application** check box (note that after the user has been subscribed to the application during the first login, the

user will not have the option of unsubscribing from this application; if the user tries to unsubscribe, a message appears saying that the application is mandatory and cannot be unsubscribed).

- Click **Next** to open the *Assign to a Server* page.

Step 2 - Assigning an Application Image to a Server Group

In the *All Server Groups* list, select the server group to which you want to add the image:

- **Default server group** - Select **Default**, click **Add**, and click **Next** to open the *Assign to a Server* window (see "Step 3 - Assigning an Application Image to a Server (Default Server Group Only)").
- **User-created server group** - Select the name of the server group (or groups), click **Add**, click **Next** to open the *Assign to a Server* window, and then click **Finish**.

Step 3 - Assigning an Application Image to a Server (Default Server Group Only)

In the *Servers of Default Group* list, select the servers that will be assigned the Application Image, click **Add**, and then click **Finish**. The Application Image is added to the list of available Application Images on the *Applications* page and can now be streamed to zero clients. After an Application Image is ready to be streamed, it is available to be used by an Application License and assigned to a User Group.

Step 4 - Adding an Application License

On the *Applications* page, click the **Add an Application License** link to open the **Add Application License** page, and then use the following guidelines:

- Enter the Name of the Application License you want to add (use only letters, numbers, dashes, spaces, the @ character, and periods).
- Click the **Select an Application Image** link, and on the *Select an Application Image* page, select the Application Image you want to assign to the application in the list; then click **Done** to return to the **Add Application License** page.
- Select a **Sessions per User** option (either a custom amount or **Unlimited**). If you select a custom amount, enter the number of **Sessions**. Be aware that once an Application License is in use, *Sessions per User* cannot be edited.
- Select a **Duration** option (either a custom amount or **Unlimited**). If you select a custom amount, enter the number of **Days**.
- Select a **Maximum Concurrent Sessions** option (either a custom amount or **Unlimited**). If you select a custom amount, enter the number of **Sessions**.
- Click **Next** to open the *Assign to a Group* page.

Step 5 - Assigning an Application License to a Group

In the *All Groups* list, select the User Group you want to assign to the Application License, click **Add** to move the group to the *Assigned Groups* list (you can use **Add** and **Remove** to move as many groups as you want to, and from, the *Assigned Groups* list) and then click **Finish**. The Application License is added to the list of available Application Licenses on the *Applications* page. After an Application License is added, it is available to be used by an Application Image and assigned to a user group.

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