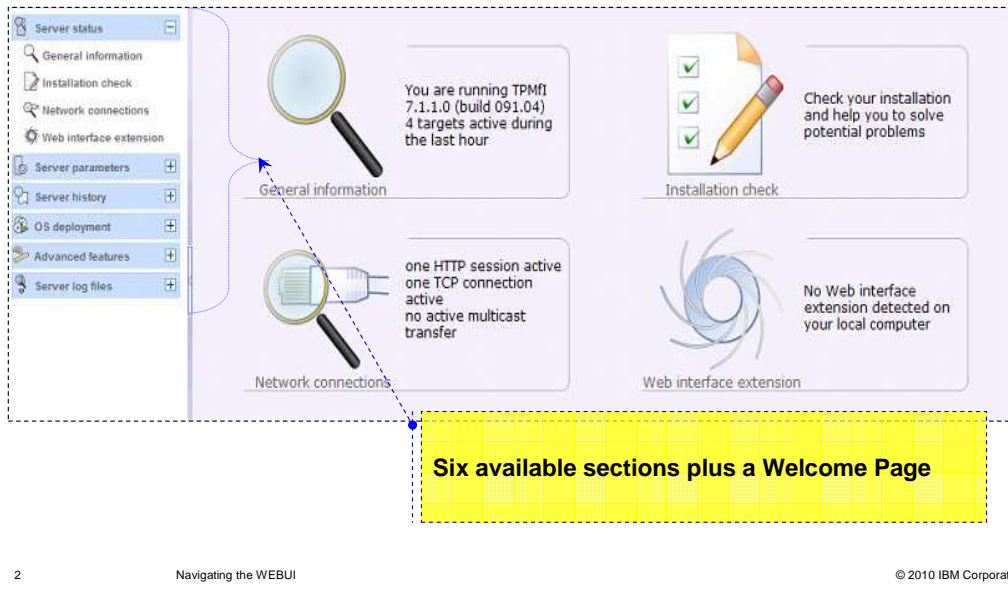IBM

Tivoli Provisioning Manager for OS Deployment 7.1.1

Navigating the WEBUI

Tivoli software

In this module, you will navigate the product WEBUI and see the sections and the options available inside each section. You will also learn about the main product functions that you can use through the WEBUI pages.

WEBUI sections

You are running TPMfI 7.1.1.0 (build 091.04) 4 targets active during the last hour

General information

Check your installation and help you to solve potential problems

Installation check

one HTTP session active
one TCP connection active
no active multicast transfer

Network connections

No Web interface extension detected on your local computer

Web interface extension

Six available sections plus a Welcome Page

Navigating the WEBUI

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The Web interface is divided into six sections: Server status; Server parameters; Server history; OS deployment; Advanced features; Server log files; plus a Welcome Page. You can access these components in two different ways: by clicking their respective icons in the main frame of the Web interface; by using the menu provided in the left frame of the Web interface.

navigate_web_ui.ppt

You can access the Welcome page by clicking the Tivoli® Provisioning Manager for OS Deployment server name at the top left side of the product WEBUI. The Welcome page has a summary of your server status and information about whether the requirements for operating system deployment are being met. More precisely, you can see reports about errors that have been encountered recently on the server and whether there is enough space for the server processing. You can also find out whether you created at least one Linux® unattended profile and one Linux clone profile.

Welcome page (2 of 2)

For Linux scripted installation:
✔ An original installation DVD.

For Linux clone installation:
● A reference machine from which to capture the image.

For Windows scripted installation:
● A windows machine with Web interface extension and WAIK installed
● An original installation DVD.
✔ A WinPE 2 engine for TPMfI ▸Make one now.
● A valid product key.

For Windows Clone installation:
● A windows machine with Web interface extension and WAIK installed
✔ A WinPE 2 engine for TPMfI ▸Make one now.
● A reference machine, prepared with SysPrep, from which to capture the image.
● A valid product key.

For Windows universal images, you might also need:
✔ Windows driver packages.

You can also update BIOS and configure RAID arrays, but to do this you must create Hardware Configurations. They require:

✖ For DELL hardware, the OpenManage Deployment Toolkit.
✖ For HP hardware, the SmartStart Scripting Toolkit.
✖ For IBM hardware, the ServerGuide Scripting Toolkit.

WinPE 2 engine Prerequisite for Windows deployments

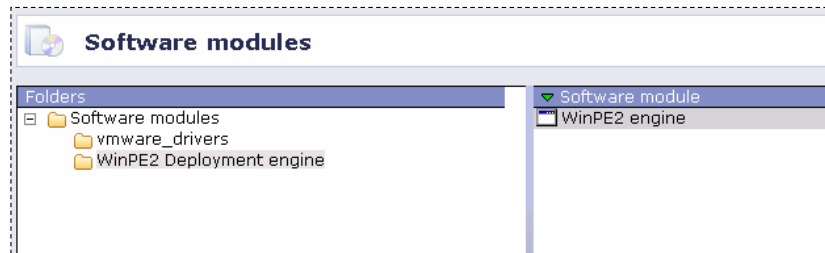Hardware environments created for the various Scripting Toolkit tools

On the Welcome page, you can find information about the machine where you are opening the product WEBUI. You can see if it is a Windows® machine with the Web Interface Extension running and WAIK 32-bit installed. This setup is required to create a WinPE2 software module to deploy unattended and clone Windows profiles. If the WinPE2 software module has not been created, you can click **Make one now** and follow the wizard. The WinPE software module is the standard product layer for the Windows deployments. You can also see if you created hardware environments and configurations for the various hardware vendors.

WinPE 2 engine

! All Windows deployments are based on WinPE

For Windows deployments, you must create a WinPE package

Software modules

Folders	Software module
⊟ 📁 Software modules	📄 WinPE2 engine
📁 vmware_drivers	
📁 WinPE2 Deployment engine	

5   Navigating the WEBUI   © 2010 IBM Corporation

As mentioned before, WinPE is the environment where the Windows deployment runs. You can create WinPE from the Welcome page. A software module entry is added to the Software modules WEBUI page after the creation process is finished.

Server status section

> ibm-dffe3198623 > Server status

Server status
General information
Installation check
Network connections
Web interface extension
Server parameters
Server history
OS deployment
Advanced features
Server log files

You are running TPMfI 7.1.1.0 (build 091.04) 4 targets active during the last hour

General information

one HTTP session active
one TCP connection active
no active multicast transfer

Network connections

Check your installation and help you to solve potential problems

- General system information
- Summary of errors that happened in the past 30 minutes
- Network connections information
- Web interface extension status on the machine where you are opening the browser

6   Navigating the WEBUI   © 2010 IBM Corporation

The Server status section is subdivided into four subsections: General information, Installation check, Network connections, and Web interface extension. General information contains general server information, such as the OS deployment server version, the number of active targets, and the last warning messages. Installation check provides a summary of all errors that have happened in the past 30 minutes. They are presented in distinct sections representing their associated log file. Network connections displays the active connections onto the OS deployment server. They are presented with three different links: *Unicast* connections, *Multicast* connections, and *HTTP* connections. The numbers Traffic IN and Traffic OUT are in kilobytes (total number of KB seen on this connection). Web interface extension displays the status of the Web interface extension on the computer that is running the browser. If you are opening the browser from a machine different from the Tivoli Provisioning Manager for OS Deployment where you have not installed the Web interface extension yet, you have a red status. You can download the Web Interface Extension installation package for the specific operation system type to install it.

Server parameters section

Tivoli. Provisioning Manager for Images

> ibm-dffe3198623 > Server parameters

Server status
Server parameters
  Server configuration
  HTTP console security
  Predefined channels
  Hardware handling
  Server replication
Server history
OS deployment
Advanced features
Server log files

OS deployment server running in debuglevel 3: Log significant information

Server configuration

You have one TCP tunnel defined and there is no defined authentication domain

Predefined channels

You have a single OS deployment server in the database, 1 active, and no replicated OS deployment server

Server replication

- Customize the server settings, such as the server debug level
- Set the access rights for the users accessing the WEBUI and define authentication domains
- Manage the server hierarchy in a multiserver environment (parent and child servers) and start the replication

7   Navigating the WEBUI   © 2010 IBM Corporation

The Server parameters section is for the OS configuration of the Provisioning server. The section is divided into five subsections. Server configuration provides read and write access to the main server OS configuration parameters. HTTP console security allows you to change the administrator name and password. You can also create security roles to secure access to the OS deployment server through the Web interface. Predefined channels is the location to define TCP tunnels and authentication domains. Hardware handling provides information about the known compatibility and incompatibility of hardware devices with Tivoli Provisioning Manager for OS Deployment. Server replication is the subsection where you can replicate parent and child servers.

Improving the deployment efficiency with network share

Tivoli. Provisioning Manager for OS Deployment

> 1951l3c4703 > OS Deployment > Deployment schemes

Deployment scheme and Configuration

Tivoli. Provisioning Manager for OS Deployment

> 1951l3c4703 > Server parameters > Configuration

Server status
Server parameters
Server history
OS Deployment
  Host Monitor
  Task templates
  Profiles
  Software packages
Server log files

Version: **1 (2007/10/24 15:11:27)**
Allow BOM editing: **When deployment is initiated locally**
Request user confirmation: **No**
Enforce model locking: **Softly (bypass allowed)**
When deployment is done: **Display a green banner**
Unbind configuration at the end: **No**
Disable user interaction during deployment: **Yes**
Deployment status report: **Store full log**
Save deployment log to:
Hardware inventory: **Disks, DMI, PCI**
Perform inventory: **On lock**

Network settings

Before start wait: **0 clients up to 20 seconds**
Deploy using unicast: **Yes**
Crypt network traffic: **No**
Download files with a network share when applicable: **Yes**
Use 'BIOS fall back MBR' to start PXE: **Yes**
Alternate image server:

Redeployment

Useful for Vista deployments that use large WIM files

➔ Share the folder containing the Tivoli Provisioning Manager for OS Deployment partition directory

Server status
Server parameters
  Configuration
  HTTP Console Security
  Predefined channels
  Hardware handling
  Servers replication
Server history
  Server statistics
  Deployment statistics
  Modification history
  Activities
OS Deployment
Server log files

Boot module

Disable the DHCP/BINL module **No**
Disable the DHCP proxy functionality **No**
Disable the multicast BINL functionality **No**
UDP port for TFTP requests **69**
Seconds to wait before starting a MTFTP stream **2**
IP address used by clients for MTFTP **232.1.0.1:8500**
UDP port for MTFTP requests **4015**
Seconds to wait before sending DHCP/BINL answers **0**
Max. number of requests per minute (load balancing) **0**
Max. TFTP Segment Size **512**
UDP port for DHCP/BINL requests **4011**
Multicast IP address used for BINL requests **232.2.0.1**
No-boot schedule **No defined schedule**

Network Boot module

Disable the NBP module **No**
UDP port for NBP requests **4012**

File access module

Base directory for server files **c:\TPMfOS Files**
Relative directory for the shared repository **shared**
First multicast IP address used for MCAST transfers **239.2.0.1:10000**
Number of multicast addresses to use for MCAST transfers **256**
Maximum number of MCast connections **8**

Note:
When using this configuration, the download is in unicast mode

On the OS Configuration page inside the Server parameters section, you can configure a shared directory to improve the image transfer efficiency during Microsoft® Vista/2008 deployments. Generally, a Windows Vista/2008 profile contains a WIM file greater in size than 1 GB and this file must be transferred from the server to the target system during the deployment. You can set the server shared repository folder containing the image files using the **Relative directory for the shared repository** field. Then, you can set the option **Download files with a network share when applicable** to **Yes** in the scheme that you will use for your deployment. The image transfer is always executed in unicast mode when using a network share configuration.

Server history section

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The Server history section helps you monitor the tasks of your OS deployment server. The section is divided into four subsections. Server statistics contains three pages that show graphically the load of the deployment server. Deployment statistics shows you, in tabular form, when deployments were performed. The time span might be the last 24 hours, the last month, or the last two years. You can select to view successful or failed deployments by OS configuration, by deployment scheme, by computer model, or by administrative group. Modification history keeps track of creations, deletions, and modifications. This tracking is used for OS configurations, system profiles, deployment schemes, and software modules. For every update, the page displays the date and time of the update, the author, the item description, and the version number. Tasks page includes the performed actions. Examples of tasks are deployment, creation of cloning profiles, and detection of the operating system that is currently on a target. You can also see a description, an execution and an expiration date, current state, and progress rate. To cancel a task, select **Cancel task** from the contextual menu when a target is selected. You can export the log files for a specific task. To do that, you expand the task by clicking plus sign (+) and right-clicking the target. Then, you select the option to export the debug data. It will export the logs (both the server and tasks logs) into a .cab file.

OS deployment section

Tivoli. Provisioning Manager for Images

> ibm-dffe3198623 > OS deployment

Server status
Server parameters
Server history
OS deployment
Target Monitor
Task templates
System profiles
Software modules
Advanced features
Server log files

Your OS deployment server has detected 2 IBM Tivoli Provisioning Manager for Images targets.

Target Monitor

Core section for the deployment features. From here, you can list the registered targets, create or customize the system profiles and the software modules, create or customize deployment schemes, and deploy target systems

You have not yet defined any system profiles.

System profiles

You have not yet created any software module.

Software modules

10   Navigating the WEBUI   © 2010 IBM Corporation

The OS deployment section provides access to the main functions of Tivoli Provisioning Manager for OS Deployment. You can manage targets and prepare and run deployments. The section is divided into four subsections: Target Monitor to manage the targets; Task template to manage screen layouts on the target and deployment schemes; System Profiles to manage the operating system profiles and OS configurations; Software modules to manage software to be deployed with an operating system. Because this is the core section in the product WEBUI, you will see the subsections in detail in the next slides.

OS deployment target monitor page

Tivoli. **Provisioning Manager for Images**

> 10.2.1.30 > OS deployment > Target Monitor

- Server status
- Server parameters
- Server history
- OS deployment
  - Target Monitor
  - Task templates
  - System profiles
  - Software modules
- Advanced features
- Server log files

Target Monitor

Folders	target / IP	Mac a...
targets	pc-5452000B0B77	54:52:00:0B:77
by Administrative gro	pc-545200709055	54:52:00:70:90:55
Default	10.2.1.10	00:50:56:49:20:E5 KDFHBHV
OS deployment se	Windows 2003 Srv	00:0C:29:59:1F:71 VMware-56 4:
by Custom Lists	10.2.1.129	00:0C:29:C8:6F:49 VMware-56 4:
by dynamic searches	10.2.1.137	00:11:25:EE:FD:F2 LMYD6KR
by Hypervisor	10.2.1.139	00:0C:29:9B:E3:39 VMware-56 4:
by Subnet	Vista_new_VM	00:0C:29:88:76:67 VMware-56 4:
	10.2.1.148	00:0C:29:01:CC:B7
	10.2.1.151	00:16:41:2C:21:A4 LMFFF8V
	10.2.1.202	54:52:00:2B:1D:0F

List the known systems with their deployment status and perform actions on those targets, for example, start a deployment

Machines are known to the system:
• after their first network boot
• if manually registered (MAC, serial, UUID, IP)

From the OS Deployment > Target Monitor panel, you can perform several operations regarding the target systems. You can import a list of targets or register targets individually, view the targets by subnet, or customize the target details. You can also start a deployment, restore a snapshot profile on a target system, or capture its hardware configuration, that is capture the RAID and fiber channel information.

Additional features wizard

Server status
Server parameters
Server history
OS deployment
- Target Monitor
- Task templates
- System profiles

Contextual actions
▸ **View target details**
▸ Deploy now
▸ Bind software
▸ Bind OS configuration
▸ Reset status

▸ Arrange columns
▸ Set refresh rate..

▸ Register new targets

▸ Delete
▸ Search

▸ Additional features

▸ Export targets to file
▸ Import targets

▸ Logout

[Register new targets]   [Export targ]

Target Monitor

Folders | ▽ target / IP | Mac addres
☐ 🗀 targets | pc-5452000E | 54:52:00:0B:0B
  ☐ 🗀 by Administrative gr | pc-5452007C | 54:52:00:70:90
    🗀 Default | 10.2.1.10 | 00:50:56:49:20
    🗀 OS deployment s | Windows 20 | 00:0C:29:59:1F
  🗀 by Custom Lists | 10.2.1.129 | 00:0C:29:C8:6F
  🗀 by dynamic searches
  ☐ 🗀 by
  ☐ 🗀 by

Additional features wizard

You have selected one target. Here is a list of
can perform on it.

○ Destroy hard disk contents
◉ Restore a profile
○ Capture hardware parameters

In the **Contextual actions** menu you can list all the operations that can be done on the known target systems. You can send a deployment and manage the software module and OS configuration bindings. You can use additional features, like format the target disk, restore a snaphost image profile, or start a hardware capture task.

By right-clicking a target system or using the Contextual actions menu, you can select the **Additional features** option. A wizard opens in which you can perform the following operations: format the target disk; restore a snapshot image profile (only for Windows systems); capture the hardware parameters (for the RAID and fiber channel configuration). Each menu option selection starts the related task on the specific target system.
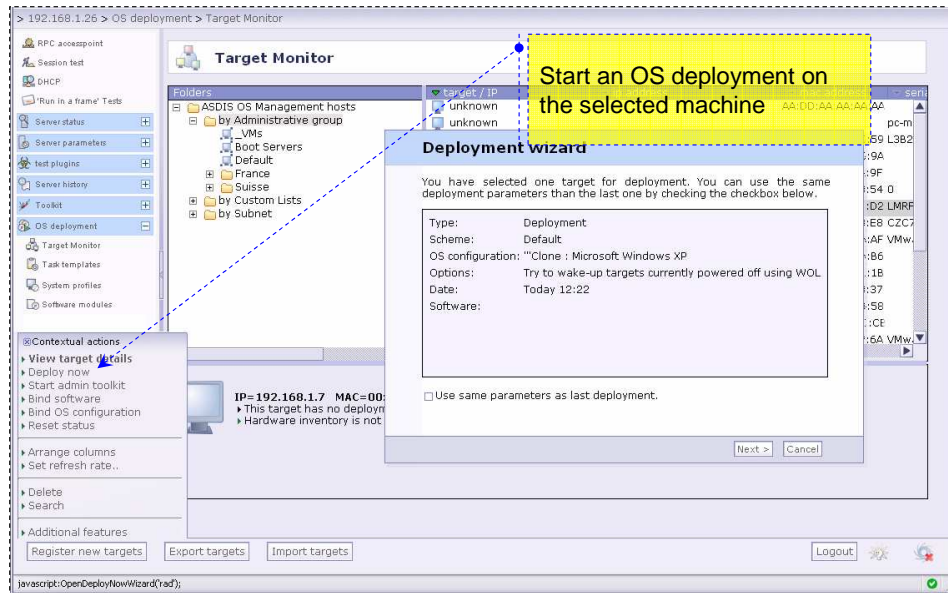
From the OS Deployment > Target Monitor page, you can start an operating system deployment on a target. To start the Deployment wizard, you select the machine and select the **Deploy now** option in the Contextual menu. Or, you right-click the target system.
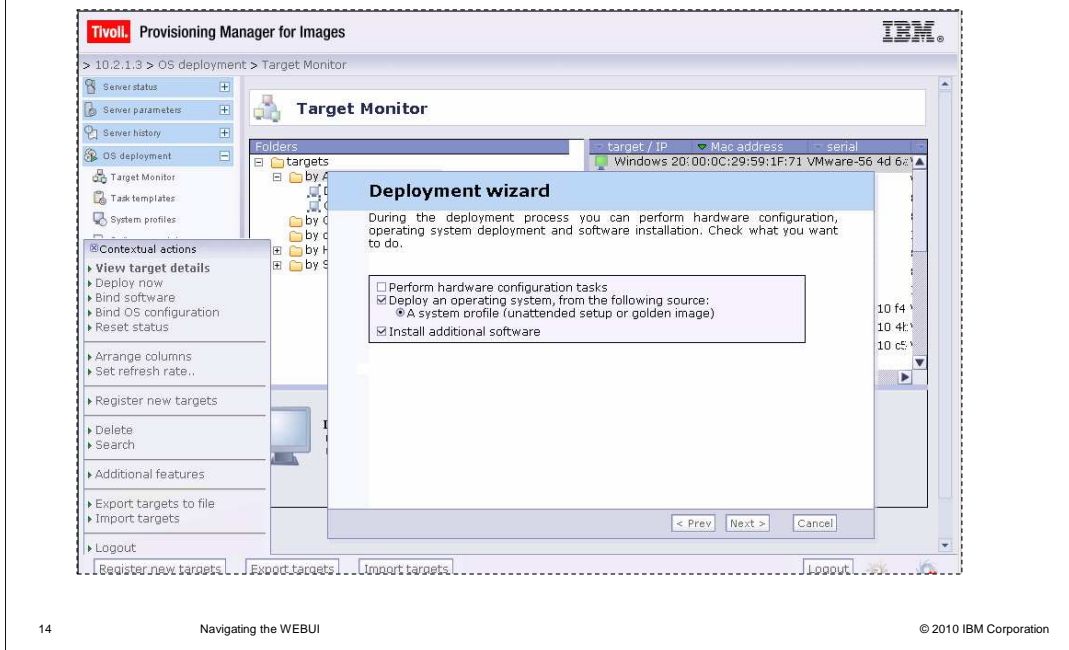
In the Deployment wizard, you can deploy system profiles and software modules. You can also start hardware configuration tasks as predeployment operations or stand-alone operations. You create both a hardware environment for the specific hardware vendor and a hardware configuration to perform a hardware configuration.

Task templates page

Tivoli. Provisioning Manager for Images

> tpmfosd > OS deployment > Task templates

Server status
Server parameters
Server history
Toolkit
OS deployment
Target Monitor
Task templates
System profiles
Software modules
Advanced features
Server log files

Task templates

Folders
Task Templates
Administrator Toolkit Layout
Deployment Schemes
Idle Layout
Menu Layout
OS Detection Layout
Profile Creation Layout
Profile Restoration Layout
State Capture Layout
State Restoration Layout

Template description
Default
redeployment   40

Deployment Schemes > Redeployment

Idle Layout: Handling on unknown targets

On the Task templates page, you can create and customize deployment schemes. These schemes specify the way your predefined OS configurations are installed onto targets. Redeployment schemes are for the redeployment features. You can set the layouts for the various operations on the targets and customize the **Idle State** within the Idle Layout for handling unknown targets.

System profiles page

On the System profiles page, you can start a system profile creation for the supported operating systems or customize an existing system profile you created. You can also export profiles into .rad files (.RAD Export button) or import .rad files previously exported (.RAD Import button).

Quick overview of creating a system profile

Profile Wizard

This wizard guides you through the process of creating a new system profile. A system profile contains the partition layout and files necessary for deployment.

A machine can be automatically installed either by running a full setup procedure, or by cloning a reference machine, by cloning an installation file such as a WIM image. Choose the type of system profile that you want to create:

- Unattended setup (scripted install)
- Cloning from a reference image file
- Cloning from a reference machine

Note: The Web interface extension must be installed and running on your local computer for you to create an image file clone.

Next > Cancel

An unattended system profile

1. Have DVD/CD with the product key
2. Install Web interface extension where your browser is running
3. Select the correct folder
   Information about the OS is displayed
4. Introduce all parameters related to this profile into the different panels in the Web console now or later

A cloning system profile from a reference image file (WIM clone image)

1. Have the files for Windows or Solaris
   Information about the OS is displayed
2. Introduce all the parameters related to this profile into the different panels in the Web console now or later

A cloning system profile from a reference machine

1. Have a computer properly installed (OS and applications)
2. For a Windows OS, you must sysprep the computer
3. Reboot the computer
   The computer must boot onto the Tivoli Provisioning Manager for OS Deployment server

This slide provides a quick overview of the options that are available in the Profile Wizard when you create a new system profile. You can create three system profile types: Unattended setup from a specific operating system image, such as a DVD/CD; Cloning from a reference image file, such as a WIM file or Solaris Flash Archive file; Cloning from a reference machine, such as an installed system (Windows or Linux on Intel®) that is previously prepared.

Editing the profile details

From the System profiles page, you can customize the profile and its OS configuration by right-clicking the specific system profile and editing the profile.

Example of changing the partition layout

Profile details

- Change disk and partition layout
- Modify device mapping
- Browse disk partitions

A system profile is a complete image of the operating system that must be installed to the target computer hard disk during a deployment. It mainly consists of a set of partition images.

Details

Disk image : wndwssrv01CCB7
Version : 1 (2009/08/04 12:56:38)
OS type : Windows 2008
Hw model : VMware ESX Guest
CMOS image :
Comment : Reference image without SysPrep

Conf   [Edit]

Profile name : Windows Server (R) 2008 Enterprise
OS code page :
System categ 0:
System categ 1:
System categ 2:
System categ 3:

Original partition layout

Here is the original partition as defined when your profile was created. You can edit it here if you want to change the layout for all configurations associated to this profile. Alternatively, you can customize the partition layout individually for each configuration.

Logical Disk 1 mapped on disk0.

NTFS
100%

▸ Modify partition layout
▸ Modify device mapping
▸ Browse image of primary partition 1 (approx. 6.24GB on disk, NTFS)
▸ Get more information on the OS in the image

▸ Add an additional disk

For example, in the Profile details, you can customize the partition layout (add new partitions, remove existing partitions, customize the partition), add new disks, and browse the image of the partitions.

Generating media

Deployment Media Wizard

This wizard will help you to create deployment media such as CD,DVD or USB key. Using such media, you can install machines without network connectivity. You can also create a network boot CD or USB key, making it possible to use Tivoli Provisioning Manager for Images without PXE or DHCP. CD/DVD can be protected with a time-limited activation code.

Please choose the kind of action do you want to perform.

- Create a deployment CD/DVD
- Create a deployment USB key
- Create a Network boot CD/DVD
- Create a Network boot USB key
- Generate a new activation code

CD/DVD deployment
USB deployment
Network boot CD/DVD
Network boot USB

On the System Profiles page, you can start the creation of a deployment media. You can select CD/DVD or USB key to install machines that are not connected to the network. Or, you can select network boot CD/DVD or USB key to emulate the PXE boot on target systems, for example, when the NIC on the target is not PXE-enabled.

OS deployment software modules page
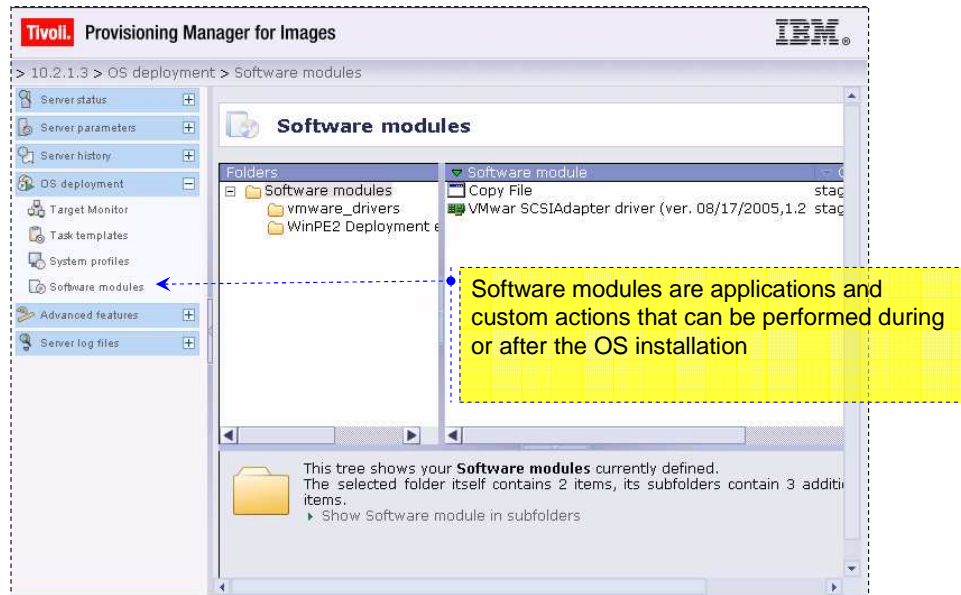
On the Software modules page, you can create and customize software modules to cover most of the software installation scenarios. These scenarios might include installation of Windows drivers, MSI applications, or custom actions for the various supported operating systems. You can customize the software modules to be installed during the operating system deployment or to be installed after the operating system has been installed and after additional reboots.

Advanced features section

Tivoli. Provisioning Manager for Images

> 10.2.1.3 > Advanced features > Hardware configurations

- Server status
- Server parameters
- Server history
- OS deployment
- Advanced features
  - Hardware configurations
- Server log files

Hardware configurations

Available hardware environments

Available hardware environments

Available hardware configurations

Folders
Hardware configurations

This tree shows the hardware configuration defined. These might be applied just before deploying operating system on targets allowing hardware configurations (such as BIOS settings, RAID configuration and so on...) to be

Hardware configurations are pre-OS installation tasks (BIOS update, RAID configuration)

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The Advanced features section includes the Hardware configuration page to create both hardware environments and hardware configurations.

Server log files section

The Server log files section helps in diagnosing problems and recording commands. Logs are color-coded. Blue indicates no warning or errors, yellow indicates warnings, red indicates errors. Logs are hierarchical. By clicking the expand sign, you can see more details. From the Server Log Files page, you can also clean the contents of the log files. You can either delete the content of individual server log files or perform a partial cleaning of all the server log files. You can also delete or perform a partial cleaning of all target log files. When you perform a partial cleaning of a log, you can keep the most recent content only.

Summary

In this module, you learned how to:

- Navigate the product WEBUI

- Understand the sections that are available in the WEBUI

- Understand the main operations that can be done in each section

Navigating the WEBUI

In this module, you learned how to: navigate the product WEBUI; understand the sections that are available in the WEBUI; understand the main operations that can be done in each section.

Feedback

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You can help improve the quality of IBM Education Assistant content to better meet your needs by providing feedback.

- Did you find this module useful?

- Did it help you solve a problem or answer a question?

- Do you have suggestions for improvements?

Click to send e-mail feedback:

mailto:iea@us.ibm.com?subject=Feedback_about_navigate_web_ui.ppt

This module is also available in PDF format at: ../navigate_web_ui.pdf

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