

HP Insight Rapid Deployment software (RDP) User guide

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1 Overview

HP Rapid Deployment software (RDP) is a server deployment solution that provides:

- Automated server hardware configuration and operating system deployment.
- Consistent Windows, VMware, and Linux deployment on the latest HP servers.
- Scalable deployment of ProLiant Blade Servers.

This document describes the content provided with RDP and outlines how to get started.



NOTE: This document does not cover how to use the Altiris Deployment Server. You can find Altiris Deployment Server help in the Deployment Console help menu.

You can find additional help in the RDP Knowledge Base at <http://www.hp.com/go/rdp/kb>. It contains:

- Release notes (which contain known issues, supported hardware and operating systems, and so on)
- Troubleshooting information
- How-to procedures
- Frequently asked questions

The following are some key articles in the RDP knowledge base.

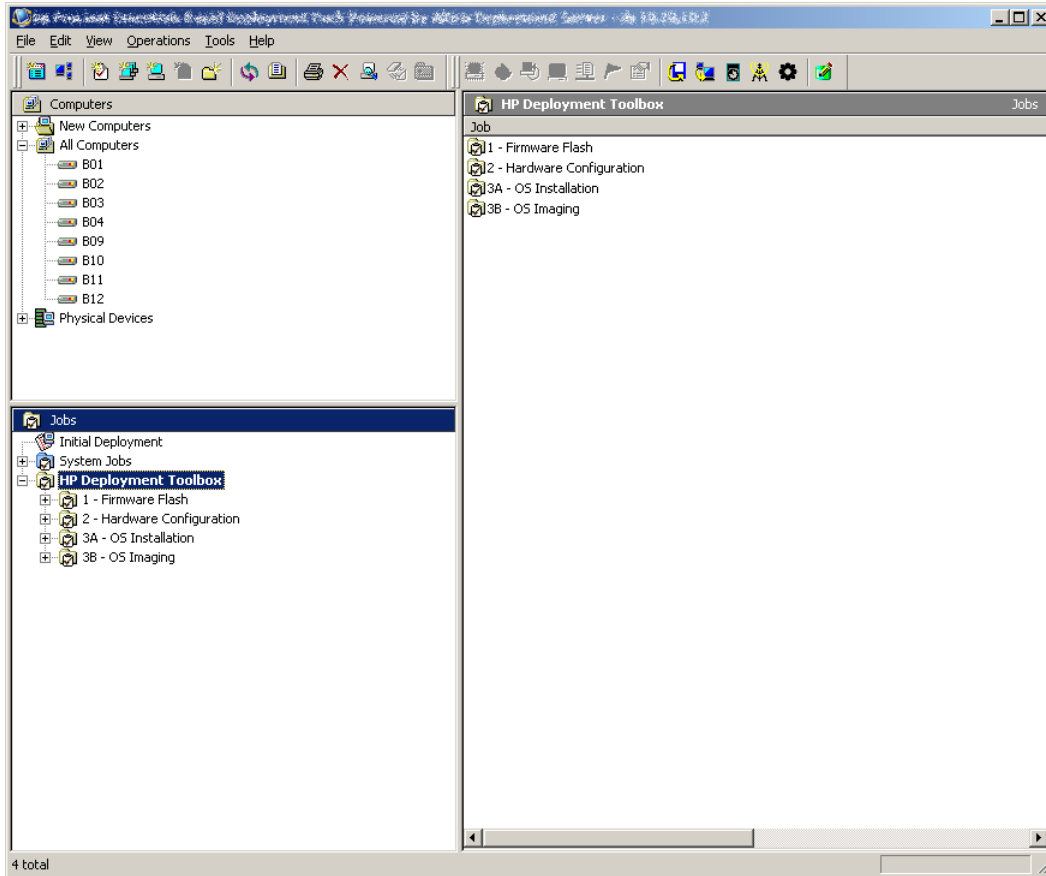
Table 1-1 RDP Knowledge Base articles

Article number	Title
20000001	<i>RDP License Files And Licenses</i>
20000023	<i>Primary Lookup Key And Virtual Connect</i>
20000037	<i>Troubleshooting Windows 2008 Sysprep Image Installs</i>
20000038	<i>Servers With Multiple Disks Deployment Support</i>
20000039	<i>How To Perform a Boot From SAN Installation</i>
20000042	<i>How To Install Software Packages And Support Packs</i>
20000043	<i>How To Add A Windows Localized Distribution Or Edition</i>

2 Getting started

To get started with RDP, double-click the **Deployment Console** icon on the desktop. The Deployment Console, from which you can manage computers and execute jobs, appears.

Deployment Console basics



- **Computers pane** This pane shows managed computers. The New Computers group shows computers that have connected to the Deployment Server for the first time. Click **View**→**Show Physical Devices** to show the Physical Devices group.
- **Jobs pane** This pane shows the provided jobs.
- **Details pane** The right-hand side of the console displays information about the selected computer or job. For each computer, basic properties and job history appear. For each job, tasks and computer history appear. The **Job Schedule Information** dialog box displays the status of each task in the schedule. To view this dialog box, double-click an item in the job history or computer history. The **Schedule Status Detail** dialog box displays return codes and status messages. To view this dialog box, click **Status Details**.

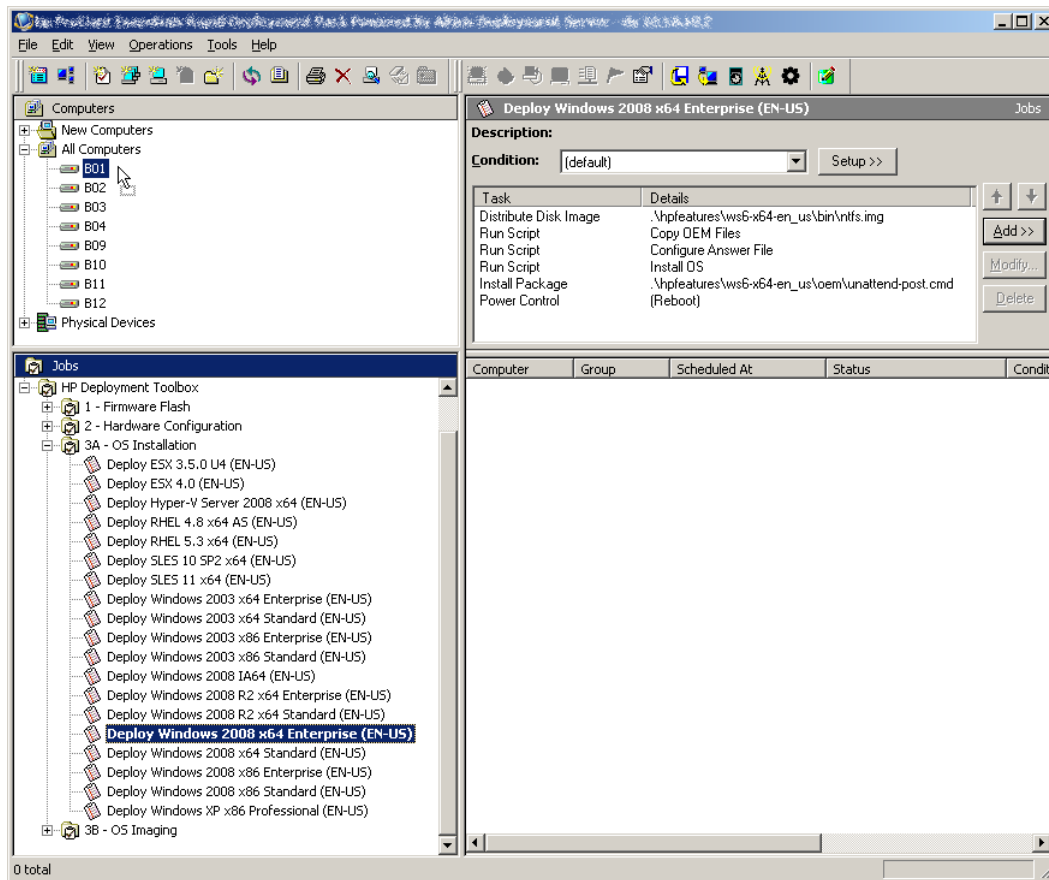
To execute a job, drag and drop one or more computers onto a job, or vice-versa.

Connecting server blades

1. Connect the enclosure to the network that contains your Deployment Server, and power up the enclosure.
2. Change the default rack and enclosure names.
3. Insert the server blades into the enclosure and wait for the blades to power up.
4. From the **Computer** pane, right-click on a server blade and select **Power Control**→**iLO – Interface**. The iLO homepage appears.

Deploying the first server blade

1. In the **Jobs** pane, select a Windows scripted install job. Drag the job to the server blade in the **Computers** pane.



2. Select **Run this job immediately**, and then click **OK**.
3. To view the progress of the job, double-click the computer in the job's computer history.

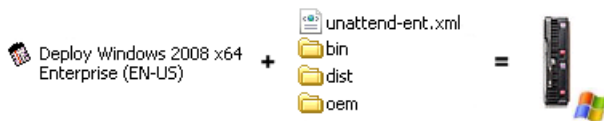
Reconfiguring the server blade

By default the Windows scripted install job configures the computer name as the console display name and configures the network as DHCP.

If you need to reconfigure the server:

1. In the **Computers** pane, right-click the blade and click **Configure**.
2. Click **Microsoft Networking**, and then enter a new computer name and a new workgroup or domain name.
3. Click **TCP/IP**, and then enter the appropriate IP information.
4. Click **OK**.
5. Select **Run this job immediately**, and then click **OK**.
6. If the Windows scripted install job is still running when the warning message appears, click **OK**.

3 Reference



Design

HP-provided content is delivered as "features". A feature is a self-contained set of files and jobs. Each feature is independent, and resides in its own folder with key files located in the root folder and other supporting files located in various subfolders.

Because the features are independent, their jobs are also independent. That means there are no monolithic jobs that configure the system, configure the smart array, install an operating system and install a support pack. Jobs are solely in a toolbox scheme. Servers auto-configure themselves, so default hardware configuration jobs are not necessary. If needed, hardware configuration jobs will have to be scheduled before operating system jobs. There are a few exceptions to this scheme, such as jobs that deploy a virtualization host include a system configuration task to enable the processor virtualization extensions.

Operating system feature naming consists of four elements — *os+version*, *architecture*, *edition*, and *language/locale* — that appear in some combination between the feature's folder name and the answer file names. There are a few exceptions to this scheme, such as operating systems that do not include the concept of editions. Operating system features map one-to-one with their media. For example, for Windows Server 2008 Enterprise (X64) English, the folder name is `ws6-x64-en_us` and the unattend answer files are `unattend-ent.xml` and `unattend-std.xml`. There is one media consisting of multiple editions.

The provided jobs and files are sufficient for generic operating system deployment. For more complex deployments, you can use the provided jobs and files as templates. When this is the case, HP strongly recommends that you follow a copy, rename, and modify process — copy the job or file, rename it so that the name conveys the new behavior, and make the necessary modifications. This process provides a clean separation between the customized jobs and the provided jobs and enables the provided jobs to act as working baselines.



NOTE: When editing ESX or Linux files on the Deployment Server, use a text editor that saves the file in Linux compatible format.



NOTE: When editing Windows 2008 answer files, use the Windows System Image Manager utility included in the Windows Automated Installation Kit (AIK).

Firmware and hardware features

These features enable you to flash the firmware, read/write system configuration, read/write smart array configuration, and read/write fiber channel host bus adapter configuration.

- Jobs denoted with `server-specific` use an input or output filename based on the computer ID of the target server instead of a static filename. To determine the computer ID, in the Deployment Console, right-click on the computer and select **Properties**.
- To determine the filename of the input or output file, look for the `inputfilename` or `outputfilename` variable in the relevant Run Script task.
- When executing a read job, the output file will be overwritten.
- All input and output files are stored in the root of the feature.
- The `bin` subfolder contains various scripts and utilities.
- For firmware, the `components` subfolder contains the contents of the `\compaq\swpackages` directory from the Firmware CD.

- For firmware, overwriting the `components` subfolder with a newer version of the Firmware CD is not supported.
- For firmware, the `logs` subfolder contains output logs from the flashing utility. The log filenames are based upon the computer ID of the target server. Every time the job is executed against a server, that log file gets appended to.
- ProLiant jobs use the LinuxPE automation environment. Integrity jobs use the WinPE automation environment.

Windows features

These features enable you to deploy Windows either via a scripted install or Sysprep imaging.

- Scripted install product keys are stored in the express database, `user_tokens` table.
- Sysprep product keys can be accessed and modified in the Deployment Server Console Options dialog.
- You can accomplish most customizations by either editing the answer file or adding a step to the `*-post.cmd` script.
- You can change the default Altiris Deployment Agent settings by editing the `aclient.inp` file.

Table 3-1 Typical Windows scripted install job layout

Task	Description
Distribute Disk Image	Partitions and formats the target hard drive.
Run Script – Copy OEM Files	Copies drivers to the target hard drive.
Run Script – Configure Answer File	Generates the unattend answer file for this target.
Run Script – Install OS	Starts the Windows scripted install.
Install Package	Performs any additional configuration and installs additional software. NOTE: This task will not execute until: <ul style="list-style-type: none"> • The operating system has been installed. • The Altiris agent has been installed and connects to the Deployment Server.
Power Control	Reboots the target for all changes to take effect.

Table 3-2 Typical Windows file layout









File/Subfolder	Description
 unattend files	
 sysprep files	
 bin\	Various support utilities
 dist\	Distribution files
 images\	Captured Sysprep images
 oem\	Post-deployment scripts for configuration and software installation
 drivers\	Drivers required for deployment
 components\	A small set of smart components required to make the target manageable

Table 3-3 Windows scripted install default settings

Component	Default setting
Administrator password	The administrator password is <code>password</code> . For Windows 2003, this password is stored as clear text in the unattend answer file. HP recommends changing the default administrator password.

Component	Default setting
Drive configuration	A single partition is created automatically that expands to the full drive size.
Computer name	The computer name uses the 15 right-most characters of the console display name.
Firewall	Firewall settings are disabled.
Networking	Added to workgroup "WORKGROUP". SNMP and WMI are enabled. The default value of the SNMP community is <code>public</code> .

Linux features

These features enable you to deploy Red Hat Enterprise Linux (RHEL) or SUSE Linux Enterprise Server (SLES) via a scripted install.

- You can accomplish most customizations by either editing the answer file or adding a step to the `*-post.sh` script.
- You can change the default Altiris Deployment Agent settings by editing the `adlagent.conf` file.

Table 3-4 Typical RHEL and SLES scripted install job layout

Task	Description
Distribute Disk Image	Partitions and formats the target hard drive.
Run Script – Configure Boot Environment	Copies the distribution's <code>initrd</code> , <code>kernel</code> , and <code>grub</code> configuration to the hard drive.
Run Script – Configure Answer File	Generates the <code>kickstart</code> or <code>control</code> answer file for this target.
Install Package	Performs any additional configuration and installs additional software. NOTE: This task will not execute until: <ul style="list-style-type: none"> The operating system has been installed. The Altiris agent has been installed and connects to the Deployment Server.
Power Control	Reboots the target for all changes to take effect.

Table 3-5 Typical RHEL and SLES file layout







File/Subfolder	Description
 <code>answer files</code>	
 <code>bin\</code>	Various support utilities
 <code>dist\</code>	Distribution files
 <code>oem\</code>	Post-deployment scripts for configuration and software installation; as needed, boot files for deployment
 <code>drivers\</code>	As needed, drivers required for deployment
 <code>components\</code>	A small set of smart components required to make the target manageable

Table 3-6 RHEL and SLES scripted install default settings

Component	Default setting
Root password	The root password is <code>password</code> . This password is stored as clear text in the <code>kickstart/control</code> file. HP recommends changing the default root password.
Drive configuration	The disk space is portioned according to RHEL or SLES default specifications. RHEL installs Logical Volume Manager (LVM) by default.
Host name	The Linux host name uses the console display name.
Packages	Basic Linux server packages are installed.
Firewall	Firewall settings are disabled.

Component	Default setting
Networking	All NICs are enabled. SNMP is enabled. The default value of the SNMP community is public.

Virtualization Host features

These features enable you to deploy Hyper-V or ESX via a scripted install.

- The design of the Hyper-V features is very similar to Windows.
- The design of the ESX features is very similar to Linux.
- Imaging of virtualization hosts is not supported.
- The scripted install jobs include a system configuration task to enable processor virtualization extensions.

Table 3-7 Hyper-V scripted install default settings

Component	Default setting
Administrator password	The administrator password is <code>password</code> .
Drive configuration	A single partition is created automatically that expands to the full drive size.
Computer name	The computer name uses the 15 right-most characters of the console display name.
Firewall	Firewall settings are disabled.
Networking	Added to workgroup "WORKGROUP". SNMP and WMI are enabled.

Table 3-8 ESX scripted install default setting

Component	Default setting
Root password	The root password is <code>password</code> . This password is stored in encrypted form in the kickstart file. HP recommends changing the default root password.
Drive configuration	When configuring the disk partition for a scripted operating system installation, various VMware ESX Server specific partitions are created. These settings are default. Do not change them.
Host name	The host name uses the console display name.
Packages	VMware ESX Server specific packages are installed. Do not change this setting.
Firewall	Firewall settings are disabled. SSH configuration modified to allow root login.

4 HP support and contact information

Online resources

- For more information about RDP and to obtain the latest updates, see the RDP website at <http://www.hp.com/go/rdp>.
- For more information about specific how-to procedures, troubleshooting information, and frequently asked questions, see the RDP Knowledge Base at <http://www.hp.com/go/rdp/kb>.
- For more information about problem-solving ideas from other IT professionals, see the IT Resource Center (ITRC) User Forum at <http://forums.itrc.hp.com/>. Select **Management Software and System Tools**→**ProLiant Deployment & Provisioning**.
- For more information and resources about the Altiris Deployment Solution, see the Symantec website at <http://www.altiris.com/>.

HP contact information

For the name of the nearest HP authorized reseller:

- In the United States, see the HP U.S. service locator webpage at http://www.hp.com/service_locator.
- In other locations, see the Contact HP worldwide webpage at <http://welcome.hp.com/country/us/en/wwcontact.html>.

For HP technical support:

- In the United States, for contact options see the Contact HP United States webpage at http://welcome.hp.com/country/us/en/contact_us.html. To contact HP by phone: Call 1-800-HP-INVENT (1-800-474-6836). This service is available 24 hours a day, 7 days a week. For continuous quality improvement, calls may be recorded or monitored. For U.S. customers, say "Insight Manager" when prompted for the product name.
- In other locations, see the Contact HP worldwide webpage at <http://welcome.hp.com/country/us/en/wwcontact.html>.

HP Software Technical Support and Update Service

HP offers a number of software support services, many of which are provided to our customers at no additional charge.

- **Software Technical Support and Update Service** Insight Control suites and select Insight software products include one year of 24 x 7 HP Software Technical Support and Update Service. This service provides access to HP technical resources for assistance in resolving software implementation or operations problems. The service also provides access to software updates and reference manuals either in electronic form or on physical media as they are made available from HP. (Customers who purchase an electronic license to use are eligible for electronic updates only.) With this service, Insight Control and Insight software customers will benefit from expedited problem resolution as well as proactive notification and delivery of software updates. For more information about this service, see <http://www.hp.com/services/insight>.

Registration for Software Technical Support and Update Service:

There are two methods for registering:

- If you received a license entitlement certificate, automated registration for this service will take place upon online redemption of the license certificate/key.
- If the license information you received for your product instructs you to register for Software Technical Support and Update Service, follow the instructions so that you will be eligible for telephone support and product updates.

How to Use Your Software Technical Support and Update Service:

Once registered, you will receive a service contract in the mail containing the Customer Service phone number and your Service Agreement Identifier (SAID). You will need your SAID when calling for technical

support. Using your SAID, you can also go to the Software Update Manager (SUM) web page to view your contract online and elect electronic delivery for product updates.

- **Warranty** HP will replace defective delivery media for a period of 90 days from the **date of purchase**. This warranty applies to all HP Insight Control Environment, HP Systems Insight Manager, and HP Insight software products.
- **Join the discussion** The HP Support Forum is a community-based, user-supported tool for HP customers to participate in discussions amongst the customer community about HP products. For discussions related to Insight Control and Insight software, see the "Management Software and System Tools" area.
- **Software and Drivers download pages** Provides latest software and drivers for your ProLiant products.
- **Obtain the latest SmartStart Release (<http://www.hp.com/servers/smartstart>)** The SmartStart, Management, and Firmware CDs are now freely available for download following a simple registration from the SmartStart web site. If you wish to receive physical kits with each release, you can order single release kits from the SmartStart web site. To receive proactive notification when SmartStart releases are available, subscribe to Subscriber's Choice at <http://www.hp.com/go/subscriberschoice>.

HP Worldwide Customer Service contact numbers are available at <http://www.hp.com/country/us/en/wwwcontact.html>. For U.S. customers, say "Insight Manager" when prompted for the product name.

EULA and HP security policy

The following information pertains to HP's security policy and non-HP owned software.

Security bulletin and alert policy for non-HP owned software components

Open source software (such as OpenSSL) or third-party software (such as Java) are sometimes included in HP products. HP discloses that the non-HP owned software components listed in the HP Rapid Deployment software end user license agreement (EULA) are included with RDP.

To view the EULA, use a text editor to open the file, and search for open source software or third-party software.

HP addresses security bulletins for the software components listed in the EULA with the same level of support afforded HP products. HP is committed to reducing security defects and helping you mitigate the risks associated with security defects when they do occur.

HP has a well defined process when a security defect is found that culminates with the publication of a security bulletin. The security bulletin provides you with a high level description of the problem and explains how to mitigate the security defect.

Subscribing to HP security bulletins

1. Open a browser to the HP home page: <http://www.hp.com>.
2. Click the **Support & Drivers** tab.
3. Under **Additional Resources** in the right navigation pane, click **Sign up: driver, support, & security alerts**.
4. Click **Business & IT Professionals** to open the Subscriber's Choice web page.
5. Do one of the following:
 - Sign in if you are a registered customer.
 - Enter your email address to sign up now. Then, select the box next to **Driver and Support alerts**, and click **Continue**.