

Provisioning Agent Software

This section describes Agent provisioning, which is the task of installing the K1000 Agent software onto the machines that you want to manage using the K1000 Management Appliance.

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About the K1000 Agent software

The Dell KACE K1000 System Management Appliance manages client machines using K1000 Agent software. This Agent software enables the appliance to collect inventory information, install and remove software, apply patches, and run scripts on managed machines. For information about data collection, see [Viewing information collected by the Agent](#) on page 375.

You can install the Agent software on a single machine or on multiple machines simultaneously, provided that they meet the requirements in [System requirements for version 5.4 Agent software installation](#) on page 84.

Tracking changes to Agent settings

If change management is enabled, you can view information about the changes made to your settings. This information includes the date the change was made and the user who made the change, which can be useful during troubleshooting.

For more information, see [About the history of changes](#) on page 305.

System requirements for version 5.4 Agent software installation

Before you install the version 5.4 Agent software on a client machine for the first time, the client machine must meet these requirements:

- The machines or computers you want to manage must meet the operating system requirements shown in [Operating system requirements for managed machines](#) on page 84.
- File sharing must be enabled, as described in [Enabling file sharing at the System level](#) on page 85.

Table 4-1: Operating system requirements for managed machines

Operating System	Supported Versions
Windows	Windows 7 – Professional Edition, Enterprise Edition, Ultimate Edition (x86 and x64 architectures)
	Windows Vista – Business Edition, Enterprise Edition, Ultimate Edition (x86 and x64 architectures)
	Windows XP – Professional (32-bit and 64-bit)
	Windows 2000 – Professional Edition, Server Edition, Advanced Server Edition: SP4 with Update Rollup 1
	Windows Server 2008 R2 – Standard Edition, Enterprise Edition, Web Edition (64-bit)
	Windows Server 2008 – Standard Edition, Enterprise Edition, Web Edition (32-bit and 64-bit)
	Windows Server 2003 – Web Edition, Standard Edition, Enterprise Edition (32-bit and 64-bit)
Mac	Mac OS X 10.7 (x86 architecture)
	Mac OS X 10.6 (x86 architecture)
	Mac OS X 10.5 (PowerPC and x86 architectures)
	Mac OS X 10.4 (PowerPC and x86 architectures)
Linux	Red Hat Linux AS and ES, version 6 (32-bit and 64-bit architectures)
	Red Hat Linux AS and ES, version 5 (32-bit and 64-bit architectures)

Operating System	Supported Versions
	Red Hat Linux AS and ES, version 4 (32-bit and 64-bit architectures)
	SUSE 11
	Ubuntu 10 LTS and 12 LTS



You can also install K1000 Agent software manually on Windows, Mac OS X, and Linux machines. See [Manually Deploying K1000 Agent Software](#) on page 367.

Preparing to install K1000 Agent software

Before you install K1000 Agent software on the machines you want to manage, you must enable file sharing and prepare systems as described in this section.

Enabling file sharing at the System level

For appliances with the Organization component enabled, file sharing needs to be enabled as described in this section.



If the Organization component is enabled on your appliance, you must enable file sharing at the System level, then set the file sharing properties for each organization separately as described in the following section.

If the Organization component is *not* enabled on your appliance, follow the instructions in [Preparing Windows machines](#) on page 87.

To enable file sharing at the System level

1. On an appliance with the Organization component enabled, select **System** in the drop-down list in the top-right corner of the page.
2. Click **K1000 Settings > Security Settings**.
The *K1000 Settings: Security* page appears.
3. Click **Edit Mode**.
4. In the *Samba Share Settings* section, select **Enable Organization File Shares**.
5. Click **Set Security Options**.
6. If prompted, restart the appliance.

Enabling organization-level file sharing with the Organization component enabled

To enable file sharing at the organization level with the Organization component enabled

1. Verify that organization file shares are enabled. For instructions, see [Enabling file sharing at the System level](#) on page 85.
2. Select an organization in the drop-down list in the top-right corner of the page.
3. Click **Settings > General Settings**.
The *K1000 Settings: General* page appears.
4. Click **Edit Mode** in the *Samba Share Settings* section.
5. Select **Enable File Sharing**.
6. (Optional) Enter a password for the File Share User.
7. Click **Save Samba Settings**.
8. If prompted, restart the appliance.
9. If you have multiple organizations, repeat the preceding steps for each organization.

Enabling organization-level file sharing without the Organization component enabled

To enable file sharing at the organization level without the Organization component enabled

1. Click **Settings > Security Settings**.
The *K1000 Settings: Security* page appears.
2. Click **Edit Mode** at the top of the page.
3. In the *Samba Share Settings* section, select **Enable File Sharing**.
4. (Optional) Select authentication options:

Option	Description
Require NTLMv2 on K1000 File Shares	Enable NTLMv2 authentication for the K1000 files shares. When this is enabled, clients connecting to the K1000 File Shares require support for NTLMv2 and authenticate to the K1000 using NTLMv2. Even though NTLMv2 is more secure than NTLM and LANMAN, non-NTLMv2 configurations are more common and this option is usually turned off. Enabling this option disables lanman auth and ntlm auth on the Samba server.

Option	Description
Require NTLMv2 on K1000 Samba Client Usage	Force certain K1000 functions that are supported through the Samba client, such as Agent Provisioning, to authenticate to offboard network file shares using NTLMv2. Even though NTLMv2 is more secure than NTLM and LANMAN, non-NTLMv2 configurations are more common and this option is usually disabled. Enabling this option enables the client ntlmv2 auth option for Samba client functions.

5. Click **Set Security Options**.
6. If prompted, restart the appliance.

Preparing Windows machines

Before you install Agent software on machines with Windows operating systems, the machines must be configured as described in this section.

Windows XP

Turn off **Simple File Sharing**. For instructions, see the Microsoft Support website.



If Simple File Sharing is enabled, a logon failure occurs because Simple File Sharing does not support administrative file shares and the associated access security required for provisioning.

Windows Vista and Windows 7

- Provide Administrator credentials for each machine. To install Agent software on multiple machines, the Administrator credentials must be the same for all machines.
- To configure User Account Control (UAC), do one of the following:
 - Disable UAC. On Windows Vista, go to **Control Panel > User Accounts > User Accounts > Turn User Account Control on or off**. On Windows 7, go to **Control Panel > System and Security > Action Center > Change User Account Control Settings**.
 - Set **User Account Control: Run all administrators in Admin Approval Mode** to **Disabled**. To find this setting, open the **Group Policy** (type secpol.msc into the *Search programs and files* field under the *Start* menu), then go to **Local Policies > Security Options**. Restart the machine after applying the settings.
- On the *Advanced Sharing Settings* page, enable network discovery and file and printer sharing.

Windows Firewall

If Windows Firewall is enabled, you must enable **File and Print Sharing** in the *Exceptions* list of the Firewall Configuration. For instructions, see the Microsoft Support website.

Port availability

Verify the availability of ports 139 and 445. The appliance verifies the availability of ports 139 and 445 on each target machine before attempting to run any remote installation procedures.



On Windows clients, ports 139 and 445, File and Print Sharing, and Administrator credentials are required only during Agent installation. You can disable access to these ports and services after installation if necessary; the Agent uses port 52230 for ongoing communications.

After installation, the Agent runs within the context of the Local System Account, which is a built-in account used by Windows operating systems.

Installing Agent software on a single machine

Single machine provisioning is an easy way to install K1000 Agent software on a client machine for the first time. Single machine provisioning assumes some default values for settings such as TCP ports, timeouts, the appliance server name, and so on.

To install Agent software on a single machine

1. If applicable, select an organization in the drop-down list in the top-right corner of the page.
2. Click **Settings > K1000 Agent**.
The *Agent Provisioning* page appears.
3. Click **Single Machine Provisioning**.
The *Single Machine Provisioning* page appears. The Agent version appears on the page.
4. In the *Target IP* field, enter the IP address of the machine on which you are installing the Agent.
5. In the *Action* section, select the **Install Agent** check box.
6. In the *Platform* section, select the operating system of the machine on which you are installing the Agent.
7. Provide the information required for the selected operating system:

Option	Description
Active Directory Domain (or Workgroup)	(Windows only) The domain name or workgroup of the account specified in the username and password fields.
User Name (admin level)	The username of an account that has the necessary privileges to install the Agent on the target machines. For Windows, this must be an admin-level account.
Password	The password of the account that has the necessary privileges to install the Agent on the target machines.

8. Click Run Now.

The *Provisioned Configurations* page appears and the new configuration is displayed.

The appliance saves the configuration with the name *Simple Provisioning - IP Address*, then runs the configuration against the targeted IP address. To change the name of the configuration, edit the configuration as described in [Editing provisioned configurations](#) on page 95.



The **Advanced Setup** button at the bottom of the *Single Machine Provisioning* page opens the *Advanced Provisioning* page. For more information about advanced provisioning settings, see [Installing Agent software on multiple machines](#) on page 89.

Installing Agent software on multiple machines

You can install K1000 Agent software on multiple managed machines by specifying a range of IP addresses as targets for installation. If machines are within the IP address range, they are tested for the existence of K1000 Agent software. If K1000 Agent software is not detected, it is installed remotely from the K1000 appliance.

To install Agent software on multiple machines

1. If applicable, select an organization in the drop-down list in the top-right corner of the page.
2. Click **Settings > K1000 Agent**.
The *Agent Provisioning* page appears.
3. Click **Advanced Provisioning**.
The *Advanced Provisioning* page appears.
4. In the *General Settings* section, select a provisioning type:

Option	Description
Auto Provisioning	Install Agent software on machines in an IP address range. This is useful when you want to automatically install the Agent on all machines in an IP address range.
Manual Provisioning by IP	Install Agent software on machines with the specified IP addresses. This is useful when you want to install Agent software on specific machines identified by IP address.
Manual Provisioning by Hostname	Install Agent software on machines with the specified hostnames. This is useful when want to install Agent software on specific machines identified by hostname.

5. Provide the following information:

Option	Description
Config Friendly Name	A unique name that identifies this configuration. The name appears on the <i>Provisioned Configurations</i> page.
Auto Provisioning	
Provisioning IP Range	The IP address or IP address range to provision to. Use hyphens to specify individual IP address class ranges. For example: 192 168 2-5 1-200 .
Manual Provisioning by IP	
Target IPs	<p>A comma-separated list of the IP addresses of the target computers.</p> <p>The Help me pick machines link enables you to add machines to the <i>Target IP address</i> list:</p> <ul style="list-style-type: none"> • Provisioning IP Range: Use hyphens to specify individual IP address class ranges. For example: 192 168 2-5 1-200. After specifying a range, click Add All. • IP Scan Computers: This drop-down list is populated from the Network Scan Results. • Inventory Computers: All the inventoried computers.
	<p>The following functions are also available:</p> <ul style="list-style-type: none"> • Click a computer in the list to add it to the <i>Target IP</i> field. • Filter: Search for computers that match the text you type in the <i>Filter</i> field. For example, type <code>lib</code> to display matching computer names such as <code>Library-1</code>, <code>Library-2</code>, and so on. (n) indicates the number of computers selected by the filter. • Limit List to 20 Computers. Show up to 20 computers; clear the check box to show all matching computers • Add All: Add all machines displayed in the list according to the filter and selection criteria. If you choose this option, the appliance attempts to provision to all computers that meet the criteria, including computers that are not responding, until a timeout period elapses. This might increase the amount of time required for provisioning.
Manual Provisioning by Host Name	
Target Hostnames	A comma-separated list of the target computers' hostnames.
Additional General Settings	
Configuration Enabled	Enable provisioned configurations. Scheduled configurations run only if this check box is selected.

Option	Description
K1000 Server Name or IP Address	The valid hostname or IP address (IPv4) of the appliance that you want to use to install the Agent software. By default, this is the information that was used to configure the appliance. For more information about configuring the appliance, see Setting up the K1000 Management Appliance server on page 15.
K1000 Client Share Name	The share folder name on the appliance where the Agent software is located. The name of the appliance to which you are logged in appears by default.
DNS Lookup Enabled	Enable the appliance to check live addresses against the DNS server to see whether they have an associated host name. This can help you identify known nodes on your network.
Name Server for Lookup	The host name or IP address of the name server. The primary DNS Server defined in Network Settings appears by default.
Lookup Time Out	The time, in seconds, after which a DNS lookup expires. If an address is not found during this time, the process “times out.”

6. Set up provisioning for Windows and UNIX platforms as described in:
 - [Selecting provisioning settings for Windows platforms](#) on page 91.
 - [Selecting provisioning settings for UNIX \(Linux or Mac OS X\) platforms](#) on page 92.
7. Schedule the provisioning. See [Managing provisioned configurations](#) on page 94.

Selecting provisioning settings for Windows platforms

To select provisioning settings for Windows platforms

1. Select general provisioning settings as described in [Installing Agent software on multiple machines](#) on page 89.
2. In the *Windows Platform Provisioning Settings* section, provide the following information:

Option	Description
Provision this platform	Enables provisioning on Windows machines.
K1000 Agent Version	(Read-only) The Agent software version number.
Agent Identification Port	The port Agents use for ongoing communications with the K1000. For Windows, the default port is 52230.

Option	Description
Required open TCP Ports	The ports that the appliance uses to access the target machine for the Agent install. Use a comma to separate each port. By default, these ports are 139 and 445 for Windows platforms.
Port Scan Time Out	The time period (in seconds) during which the appliance scans the port for response. If there is no response, the Agent is not provisioned on the machine.
Bypass Port checks	Prevent the system from performing port checks while the appliance installs the Agent.
Enable Debug Info	Display debugging information in the machine's provisioning results. This has the same effect as enabling debugging manually as described in Enabling debugging on Windows systems on page 376.
Remove K1000 Agent	<i>Remove</i> the Agent software from machines. This overrides any current provisioning activity.

3. In the *Windows Network Administrative Credentials* section, provide the following information:

Option	Description
Active Directory Domain (or Workgroup)	The domain name or workgroup of the account specified in the username and password fields.
User Name (admin level)	The username of an account that has the necessary privileges to install the Agent on the target machines.
Password	The password of the account that has the necessary privileges to install the Agent on the target machines.

4. Schedule Agent provisioning. For more information, see [Scheduling Agent provisioning](#) on page 97.

Selecting provisioning settings for UNIX (Linux or Mac OS X) platforms

This section describes provisioning settings for UNIX (Linux or Mac OS X) platforms.

To select provisioning settings for UNIX (Linux or Mac OS X) platforms

1. Select general provisioning settings as described in [Installing Agent software on multiple machines](#) on page 89.

2. In the *Unix (Linux or Mac OSX) Platform Provisioning Settings* section, provide the following information:

Option	Description
Provision this platform	Enables provisioning on Linux or Mac OS X machines.
Required open TCP Ports	The ports that the appliance uses to access the target machine for the Agent install. Use a comma to separate each port. By default, this is port 22 for UNIX platforms.
Port Scan Time Out	The time period (in seconds) during which the appliance scans the port for response. If there is no response, the Agent is not provisioned on the machine.
Bypass Port Checks	Prevent the system from performing port checks while the appliance installs the Agent.
Remove K1000 Agent	Remove the Agent software from machines. This overrides any current provisioning activity.
Remove agent data directory	Remove any remaining data folders or files after the uninstallation is complete.

3. In the *Network Root Credentials* section, view or specify the following settings:

Option	Description
User Name (Linux)	The username of an account that has the necessary privileges to install the Agent on the target machines. In general, Linux systems use “root” as the administrative user name. Note: On Ubuntu systems, the root account is typically disabled by default. To install Agent software on Ubuntu systems, you must enable the root account by assigning a password to it.
Password	The password of the account that has the necessary privileges to install the Agent on the target machines.
K1000 Agent Version	(Read-only) The Agent software version number.
User Name (MacOS)	The username of an account that has the necessary privileges to install the Agent on the target machines.
Password	The password of the account that has the necessary privileges to install the Agent on the target machines.
K1000 Agent Version	(Read-only) The Agent software version number.

4. Schedule Agent provisioning. For more information, see [Scheduling Agent provisioning](#) on page 97.



For information on enabling debugging on Linux and Mac operating systems, see [Enabling debugging on Linux systems](#) on page 376 and [Enabling debugging on Mac systems](#) on page 377.

Managing provisioned configurations

To streamline the Agent installation process, you can create provisioned configurations that specify how and when to install Agent software on client machines. You create, view, edit, run, duplicate, and delete provisioned configurations as described in this section.

Creating provisioned configurations

To create provisioned configurations

1. If applicable, select an organization in the drop-down list in the top-right corner of the page.
2. Click **Settings > K1000 Agent**.
The *Agent Provisioning* page appears.
3. Click **Provisioned Configurations**.
The *Provisioned Configurations* page appears
4. In the *Choose Action* menu, select **Create New Configuration**.
The *Single Machine Provisioning* page appears, where you can create a provisioned configuration. For more information, see [Installing Agent software on a single machine](#) on page 88.
5. To install Agent software on multiple machines, click **Advanced Setup**. For more information, see [Installing Agent software on multiple machines](#) on page 89.

Viewing provisioned configurations

To view provisioned configurations

1. If applicable, select an organization in the drop-down list in the top-right corner of the page.
2. Click **Settings > K1000 Agent**.
The *Agent Provisioning* page appears.
3. Click **Provisioned Configurations**.

The *Provisioned Configurations* page appears:

Option	Description
Config Name	The name of the provisioned configuration (links to the <i>Advanced Provisioning</i> page).
Total Target	The total number of target machines in the configuration (links to the <i>Provisioning Results</i> page).
Running	The total number of target machines on which provisioning is currently running (links to the <i>Provisioning Results</i> page).
Not Started	The total number of target machines on which provisioning has not yet started (links to the <i>Provisioning Results</i> page).
Succeeded	The total number of target machines on which provisioning has succeeded (links to the <i>Provisioning Results</i> page).
Failed	The total number of target machines on which provisioning has failed (links to the <i>Provisioning Results</i> page).
% Succeeded	The total number of target machines on which provisioning has succeeded as a percentage.
IP Range	The IP address range of the target machine (links to the <i>Provisioning Results</i> page).
Schedule	The specified provisioning schedule. For example: Every <i>n</i> minutes, Every <i>n</i> hours, or Never.
Enabled	Whether the configuration is enabled or disabled. A green check mark indicates that the provisioned configuration is enabled.

Editing provisioned configurations

To edit provisioned configurations

1. If applicable, select an organization in the drop-down list in the top-right corner of the page.
2. Click **Settings > K1000 Agent**.
The *Agent Provisioning* page appears.
3. Click **Provisioned Configurations**.
The *Provisioned Configurations* page appears.
4. Click the name of a provisioned configuration.
The *Advanced Provisioning* page appears.
5. Edit the provisioned configuration. For more information, see [Installing Agent software on multiple machines](#) on page 89.

Running provisioned configurations

To run provisioned configurations

1. If applicable, select an organization in the drop-down list in the top-right corner of the page.
2. Click **Settings > K1000 Agent**.
The *Agent Provisioning* page appears.
3. Click **Provisioned Configurations**.
The *Provisioned Configurations* page appears.
4. Select the check boxes for the configurations that you want to run.
5. In the *Choose Action* menu, select **Run Selected Configuration(s) Now**.

Duplicating provisioned configurations

To duplicate provisioned configurations

1. If applicable, select an organization in the drop-down list in the top-right corner of the page.
2. Click **Settings > K1000 Agent**.
The *Agent Provisioning* page appears.
3. Click **Provisioned Configurations**.
The *Provisioned Configurations* page appears.
4. Click the name of the configuration that you want to duplicate.
The *Advanced Provisioning* page appears.
5. In the *Scheduling* section, click **Duplicate**.
The *Provisioned Configuration* page appears with the new configuration listed.

Deleting provisioned configurations

To delete provisioned configurations

1. If applicable, select an organization in the drop-down list in the top-right corner of the page.
2. Click **Settings > K1000 Agent**.
The *Agent Provisioning* page appears.
3. Click **Provisioned Configurations**.
The *Provisioned Configurations* page appears.
4. Select the check boxes for the configurations that you want to delete.

- In the *Choose Action* menu, select **Delete Selected Item(s)**, then click **OK**.



Deleting a configuration deletes all associated target machines in inventory. Altering or updating a configuration resets the data in the associated target machines list to the default settings until the subsequent provisioning run.

Scheduling Agent provisioning

Scheduling Agent provisioning configures the K1000 appliance to periodically check computers in a specified IP address range and install, reinstall, or uninstall Agent software as needed.

To schedule Agent provisioning

- Select advanced provisioning settings as described in [Installing Agent software on multiple machines](#) on page 89.
- On the *Advanced Provisioning* page, select an option under **Scheduling**:

Option	Description
Don't Run on a Schedule	Run in combination with an event rather than on a specific date or at a specific time.
Run Every n minutes/ hours	Run at a specified interval.
Run Every day/specific day at HH:MM AM/PM	Run daily at a specified time, or run on a designated day of the week at a specified time.
Run on the nth of every month/specific month at HH:MM AM/PM	Run on the same day every month, or a specific month, at the specified time.

- Click **Save**.

The provisioned configuration runs according to the specified schedule.

Viewing provisioning results

This section explains how to view the results of provisioning actions performed by provisioned configurations.

To view provisioning results

- If applicable, select an organization in the drop-down list in the top-right corner of the page.
- Click **Settings > K1000 Agent**.



The *Agent Provisioning* page appears.

3. Click **Provisioned Configurations**.

The *Provisioned Configurations* page appears.

4. Click a link in the *IP Range* column.

The *Provisioning Results* page appears with the following information for each computer in the configuration:

Item	Description
IP Address	The IP address of the target computer.
DNS	The host name of the target computer. Click  to open a Remote Desktop Connection to the target computer (Internet Explorer only).
Action	I indicates a successful installation. U indicates a successful uninstallation.
Result	Whether the most recent provisioning succeeded or failed.
Error	The failure error, such as TCP ports not accessible.
	Whether the AMP connection to the server is active.
Configuration	The name of the configuration.
Last Run	The last time the configuration ran.

5. To view additional information about a target computer, click its **IP Address**.

The *K1000 Agent Provisioning* page appears.

This page displays the results of the most recent provisioning run and includes information such as the IP address, port configuration, and the logs of each provisioning step.

6. To view inventory information, click the [**computer inventory**] link next to the **MAC address**.



The [**computer inventory**] link appears only if the provisioning process can match the MAC address of the target machine with the current inventory data. For more information, see [Managing MIA \(out-of-reach computer\) inventory](#) on page 135.

Configuring Agent communication and log settings

Agents installed on managed machines periodically check in to the K1000 to report inventory, update scripts, and perform other tasks. You can configure the Agent settings, including the interval at which the Agents check in, messages displayed to users, and log retention time, as described in this section. If you have multiple organizations, you can configure Agent settings for each organization separately.

To configure Agent communication and log settings

1. Do one of the following:
 - If the Organization component is enabled on your appliance, select **System** in the *Organization* drop-down list in the top-right corner of the page, then click **Organizations**. To display the organization's information, click the organization's name. The *K1000 Organization: Edit Detail* page appears.
 - If the Organization component is not enabled on your appliance, click **Settings > K1000 Agent > K1000 Agent Settings**. The *K1000 Settings: Agent* page appears.
2. Click **Edit Mode**.
3. In the *Agent Settings* section, specify the following settings:

Option	Suggested Setting	Notes
Communications Window	00:00 to 00:00 (+1 day)	The interval during which the Agent is allowed to communicate with the appliance to provide inventory information. For example, to allow the Agent to connect between 1 AM and 6 AM only, select 1:00 am from the first drop-down list, and 6:00 am from the second drop-down list. You can set the communications window to avoid times when your computers are busiest.

Option	Suggested Setting	Notes
Agent “Run Interval”	<p>To reduce the load on the K1000 server, it is best to limit the number of Agents that check in to 500 per hour.</p> <p>For example:</p> <ul style="list-style-type: none"> • If you have 500 machines with Agents installed, you could set the Agent Run Interval to 1 hour. • If you have 1,000 machines, however, set the run interval to 2 hours. <p>Note: If you have multiple organizations, you can set the Agent Run Interval to be different for each organization. However, the total number of Agents that check in should not exceed 500 per hour.</p>	<p>The frequency with which the K1000 Agent checks in to the appliance. Each time an Agent connects, it resets its connect interval based on this setting. The default setting is once every hour.</p>
Agent “Inventory Interval”	0 hours	<p>The interval (in hours) during which the appliance collects inventory from the computers on your network. If set to zero, the appliance collects inventory from computers at every Run Interval. If you set this interval to 4 hours when the <i>Agent “Run Interval”</i> is 2 hours, the inventory information is requested every other time.</p>
Agent “Splash Page Text”	<p>Default text:</p> <p>Dell KACE Systems Management Appliance is verifying your PC Configuration and managing software updates. Please Wait...</p>	<p>The message that appears to users when the Agent is communicating with the appliance.</p>

Option	Suggested Setting	Notes
Scripting Update Interval	8 hours	The frequency with which Agents look for the latest scripts. If necessary, the updated scripts are then downloaded. This does not affect how often a script runs.
Agent Log Retention	Save All Agent Logs	This option prevents the server from storing the scripting result information that comes up from the agents. The default is to store all the results, which can impact performance. Turning this off provides less information about each node but enables faster Agent check-ins. If disk space is not an issue, select Save All Agent Logs . To save disk space, select Turn off Agent Logs . Agent logs can consume as much as 1 GB of disk space in the database. For more information, see Accessing appliance server logs on page 248.

4. If the Organization component is not enabled on your appliance, choose the *Agent-Server Task Settings*.



If the Organization component is installed on your appliance, the *Agent-Server Task Settings* are located on the *K1000 Settings: General* page. For more information, see [Configuring general settings with the Organization component enabled](#) on page 35.

Option	Description
Current K1000 Load Average	The value in this field depicts the load on an appliance server at any given point of time. For the server to run normally, the value in this field must be between 0.0 and 10.0.
Last Task Throughput Update	This value indicates the date and time when the appliance task throughput was last updated.

Option	Description
K1000 Task Throughput	The value that controls how scheduled tasks, such as inventory collection, scripting, and patching updates, are balanced by the appliance. Note: This value can be increased only if the value in the <i>Current K1000 Load Average</i> is not more than 10.0 and the <i>Last Throughput Update</i> time is more than 15 minutes.

5. Click **Save**.
The *K1000 Agent Settings* page appears in read-only mode. The changes take effect when Agents check in to the appliance.
6. If you have multiple organizations, repeat the preceding steps for each organization.

Forcing Agents to check in outside normal schedules

Agents normally check in using the *Run Interval* schedule specified in *K1000 Agent Settings* page ([Configuring Agent communication and log settings](#) on page 98). However, you can force them to check-in outside the normal schedule using the command line. For information about forcing inventory updates through the Administrator Interface, see [Forcing inventory updates](#) on page 131.

Viewing Agent task status

Agent tasks include all the tasks that are currently running or are scheduled to run on machines connected to the appliance. You can view the status of Agent tasks as described in this section.

To view Agent task status

1. If the Organization component is enabled on the appliance, select **System** in the drop-down list in the top-right corner of the page, then click **K1000 Settings**. Otherwise, click **Settings**.
The K1000 Settings: Control Panel page appears.
2. Click the **Support** tab.
The K1000 Dell KACE Support page appears.
3. Click **Troubleshooting Tools**.
The K1000 Troubleshooting Tools page appears.
4. In the *K1000 Agent Messaging* section, click the **tasks** link next to *See status of K1000 Agent tasks*.

The *K1000 Agent Tasks* page appears. By default, *In Progress* tasks are listed. If no tasks are listed, select a different filter in the *View by* drop-down list:

Column	Description
Machine Name	The name of the computer that is the target of the task.
Task Type	The type of Agent task. Depending on appliance configuration, task types might include alerts, inventory, kbot, krash upload, and scripting update.
Started	The start time of the task.
Completed	The completion time of the task.
Next Run	The next scheduled run time for the task.
Running Time	How long it took to run the task.
Timeout In	The time limit for completing the task.
Priority	The importance or rank of the task type.

The options displayed depend on type of tasks available on your appliance. Typical options include:

- **Ready to Run (connected):** Tasks that are AMP-connected and about to run.
 - **Ready to Run:** Tasks that are queued to run when an AMP connection is established.
 - **Longer than 10 minutes:** Tasks that have been waiting longer than 10 minutes for an AMP connection.
5. To view details about a computer, click its name in the *Machine Name* column.
The *Computers: Detail Item* page appears.

Viewing pending Agent communications

Communications between the appliance and the Agents installed on client machines include alerts, patches, scripts, and crash reports. You can view communications that are queued, or pending, as described in this section.

Viewing the AMP Message Queue

To view the AMP Message Queue

1. If the Organization component is enabled on the appliance, select **System** in the drop-down list in the top-right corner of the page, then click **K1000 Settings**. Otherwise, click **Settings**.
The K1000 Settings: Control Panel page appears.
2. Click the **Support** tab.
The K1000 Dell KACE Support page appears.

3. Click Troubleshooting Tools.

The *K1000 Troubleshooting Tools* page appears.

4. In the *K1000 Agent Messaging* section, click the **message queue link.**

The *AMP Message Queue* page appears.

Pending communications appear in this queue *only* during continuous connection between the Agent and the appliance.



Pending alerts appear on the *AMP Message Queue* page even if there is no connection between the Agent and the K1000. For more information, see [Creating broadcast alerts](#) on page 279.

The *AMP Message Queue* page contains the following fields:

Option	Description
Machine Name	The machine name that contains the computer inventory information. Click a name to view the <i>Computer Inventory</i> page.
Message Type [ID, Src ID]	The type of message, such as <i>Run Process</i> .
Message Payload	The content and information contained in the message.
Expires	The date and time when the message expires, also called <i>Keep Alive</i> time. Messages are deleted from the queue automatically when they expire.
Status	The status of the AMP message, such as <i>Completed</i> or <i>Received</i> .

Deleting AMP messages from the queue

To delete AMP messages from the queue

1. If the Organization component is enabled on the appliance, select **System** in the drop-down list in the top-right corner of the page, then click **K1000 Settings**. Otherwise, click **Settings**.

The *K1000 Settings: Control Panel* page appears.

2. Click the **Support** tab.

The *K1000 Dell KACE Support* page appears.

3. Click **Troubleshooting Tools**.

The *K1000 Troubleshooting Tools* page appears.

4. In the *K1000 Agent Messaging* section, click the **message queue** link.

The *AMP Message Queue* page appears.

5. Click the check box for the message you want to delete.

6. In the *Choose Action* menu, select **Delete Selected Item(s)**, then click **OK**.

The message is removed from the queue.

Updating Agent software on managed machines

The K1000 appliance automatically checks with Dell KACE for Agent software updates at about 3:40 AM every day. In addition, the appliance checks Dell KACE for Agent updates whenever it is rebooted.

When Agent updates are available, they are **automatically downloaded** to the K1000 appliance, provided that the appliance is connected to the Internet at that time. You load Agent updates, which makes them available for installation, and you configure the settings required to update managed machines, as described in this section.

If you have multiple organizations, you load Agent updates and configure update settings for each organization separately.

Viewing Agent software updates

When an Agent update is available, an alert appears on the *Home* page of the Administrator Interface. To view more information about the update, click the link in the Alert, or follow the instructions in this section.

To view Agent software updates

1. If the Organization component is enabled on the appliance, select **System** in the drop-down list in the top-right corner of the page, then click **K1000 Settings**. Otherwise, click **Settings**.

The K1000 Settings: Control Panel page appears.

2. Click the **Server Maintenance** tab.

The current Agent software bundle appears in the *Automatic K1000 Agent Bundle Updates* section.

3. (Optional) To check for updates:

- a. Click **Edit Mode**.

- b. In the *Automatic K1000 Agent Bundle Updates* section, click **Check for New Agent Bundle**.

The appliance checks for updates, and the results appear on the *K1000 Server Logs* page.

Loading Agent updates and configuring update settings

You load Agent software updates, which makes them available for installation, and you configure the settings required to update managed machines, as described in this section.



Managed machines must be at Agent version 5.1 or 5.3 before they can be updated to Agent version 5.4. You cannot update managed machines from other versions directly to version 5.4.

To update to version 5.3 from an earlier version, see [Updating Agent software manually](#) on page 107.

To load Agent updates and configure update settings

1. If applicable, select an organization in the drop-down list in the top-right corner of the page.
2. Click **Settings > K1000 Agent**.
The *Agent Provisioning* page appears.
3. Click **Agent Updates from KACE**.
The *Agent Updates from KACE* page appears.
4. In the *Loaded K1000 Agent Updates* section, click **Install New Agent Bundle**.
The update is loaded and the new Agent software version number appears next to each operating system.
5. Click **Edit Mode** below the page title.
6. View or specify the following Agent software update settings:

Option	Description
Distribution Time Stamp	Verify the time the most recent Agent software bundle was downloaded. You cannot modify this field.
Enabled	Upgrade Agent software the next time machines check in to the appliance. Clear the option to prevent the update from being installed.
Update Broken Agents	Update machines that are running Agent software and connected to the appliance but that are not reporting inventory successfully. This option overrides the <i>Limit Updates to Labels</i> and <i>Limit Update to Listed Machines</i> settings; managed machines whose Agents are broken receive the update even if they are not included in the machine or label list.

Option	Description
Deploy to All Machines	<p>Deploy the update to all machines that have Agent software installed.</p> <p>Managed machines must be at Agent version 5.1 or 5.3 before they can be updated to Agent version 5.4. You cannot update managed machines from other versions directly to version 5.4.</p> <p>To obtain version 5.3, follow the instructions in Updating Agent software manually on page 107.</p>
Limit Update to Labels	<p>Update machines with the selected labels. This option is not available when you select <i>Deploy to All Machines</i>. For more information about labels, see Using Labels and Smart Labels on page 71.</p>
Limit Update to Listed Machines	<p>Update only specific machines. Select the machine names in the <i>Select machine to add</i> drop-down list. This option is not available when you select <i>Deploy to All Machines</i>.</p>
Filter	<p>Use this field to add machines to the <i>Limit Update to Listed Machines</i> field by using a character-based filter. For example, type <code>lib</code> to list matching computer names such as Library-1, Library-2, and so on. The (n) next to the <i>Filter</i> field indicates the number of computers selected by the filter. This option is not available when you select <i>Deploy to All Machines</i>.</p>
Notes	<p>(Optional) Any additional information you want to provide.</p>

7. Click **Save**.
8. If you have multiple organizations, repeat the preceding steps for each organization.

Updating Agent software manually

You can download and install Agent software manually as described in this section. This is useful if you need to upgrade from older versions of the Agent software, such as version 5.2 to version 5.3.

To download the software, you must obtain customer login credentials by contacting Dell KACE Technical Support at <http://www.kace.com/support/contact.php>.



Managed machines must be at Agent version 5.1 or 5.3 before they can be updated to Agent version 5.4. You cannot update managed machines from other versions directly to version 5.4.

To update Agent software manually

1. Using your customer login credentials, download and save the `k1000_patch_agents_xxx.kbin` file from the Dell KACE website:

<http://www.kace.com/support/customer/downloads.php>

2. Log in to the K1000 Administrator Interface.
3. If applicable, select an organization in the drop-down list in the top-right corner of the page.
4. Click **Settings > K1000 Agent**.
The *Agent Provisioning* page appears.



The Agent software bundle that you upload to the server from this page should be an official Agent software release received from Dell KACE directly.

5. Click **Agent Updates from KACE**.
The *Agent Updates from KACE* page appears.
6. In the *Upload K1000 Agent Update Files* section, click **Edit Mode**.
7. Click **Browse** or **Choose File** and locate the update file that you downloaded.
8. Click **Load Bundle File**.
The updated files appear in the *Loaded K1000 Agent Updates* section. The appliance installs the software update on managed machines according to the settings in the top section of this page. For information about these settings, see [Loading Agent updates and configuring update settings](#) on page 106.
9. If you have multiple organizations, repeat the preceding steps for each organization.