

IBM Endpoint Manager  
Version 9.1

*Patch Management for VMware ESXi  
User's Guide*





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**Note**

Before using this information and the product it supports, read the information in "Notices" on page 21.

This edition applies to version 9, release 1, modification level 0 of IBM Endpoint Manager and to all subsequent releases and modifications until otherwise indicated in new editions.

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## Chapter 1. Overview

IBM Endpoint Manager Patch Management for VMware ESXi provides audit Fixlets for new patch bundle updates that VMware releases.

Patch Management for VMware ESXi provides a way to query the patch status of devices for VMware ESXi without installing an agent on the machine. It uses the management extender which communicates with the VMware API.

Patch management is available through the Patches for ESXi site.





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## Chapter 2. Site subscription

Sites are collections of Fixlet messages that are created internally by you, by IBM, or by vendors.

Subscribe to a site to access the Fixlet messages to patch systems in your deployment.

You can add a site subscription by acquiring a Masthead file from a vendor or from IBM or by using the Licensing Dashboard. For more information about subscribing to Fixlet sites, see the *IBM Endpoint Manager Installation Guide*.

For more information about sites, see the *IBM Endpoint Manager Console Operator's Guide*.



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## Chapter 3. Supported platforms

Endpoint Manager Patch Management for VMware ESXi supports VMware audit updates on different platforms.

The supported platforms are as follows:

- ESXi version 4.0
- ESXi version 4.1
- ESXi version 5.0
- ESXi version 5.1
- ESXi version 5.5



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## Chapter 4. System requirements

Ensure that you meet the necessary system requirements for the Endpoint Manager Patch Management for VMware ESXi.

The requirements are as follows:

- Tivoli Endpoint Manager version 8.2 or later must be used.
- You must subscribe to the Patches for ESXi site.
- The management extender must be installed on a system that runs Windows (Vista, Windows 7, Server 2008, and Server 2008 R2).
- The Endpoint Manager relay must be installed on the system with the management extender.



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## Chapter 5. Subscribing to Endpoint Manager sites

Together with the Patches for ESXi site, you can subscribe to the Virtual Endpoint Manager site.

The Virtual Endpoint Manager site has content for offline patching, which uses the same management extenders that Patches for ESXi uses. For more information, see the Virtual Endpoint Manager User's Guide.





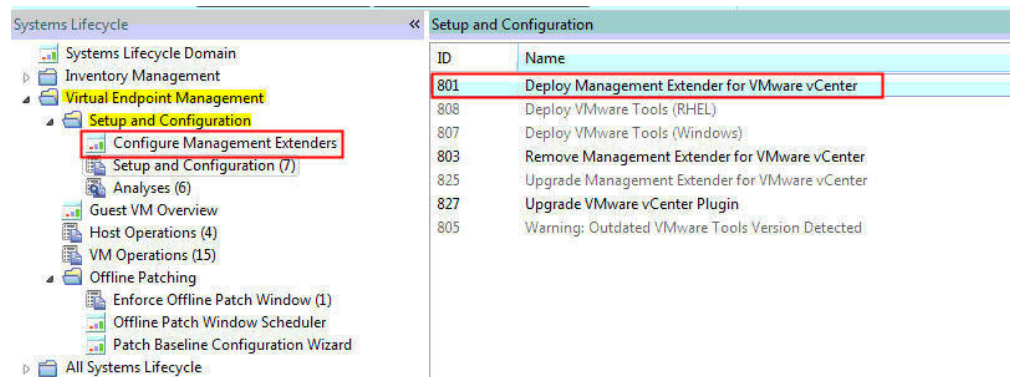
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## Chapter 6. Configuring the Management Extender

Before you can begin working with the different Virtualization features, you must configure a relay server or a root server to communicate with a specific VMware vCenter or ESX host.

Before you can configure the management extender, you must do the following steps:

1. Install the Tivoli Endpoint Manager relay (version 8.2 or later). For more information about relays, see the Console Operator's Guide from the IBM Endpoint Manager Information Center.
2. Deploy Fixlet 801: Deploy Management Extender for VMware vCenter from the Patches for ESXi site. This action appears as applicable when the TEM relay is installed.
3. Activate analysis 905: Management Extender Status.



**Note:** The management extender uses the following ports by default: 8080 and 8443.

### Using the Configure Management Extenders dashboard

To use the dashboard, navigate to **Patch Management Domain > OS Vendors > VMware ESXi > Virtual Endpoint Manager > Setup and Configuration > Configure Management Extenders**. The Configure Management Extenders dashboard lists all the endpoints where you ran the Deploy Management Extender for VMware vCenter task. Select the management extender that you want to configure. Click **Configure**.

The **Configure Extender** window opens. Fill in the values for the following items in the window:

- Refresh interval minutes  
Set how often the management extender gathers data. A larger refresh cycle is highly suggested. The larger the VMware deployment is, the longer it takes to gather data.
- Server name
- Admin User
- Password

**Configure Extender**

Specify the vCenter server name and credentials. If you wish to enter vCenter's web service URL instead, check the checkbox.

Refresh interval (minutes): 15

Enter vCenter's web service URL

Server name: 192.168.105.141

Admin User: Administrator

Password: \*\*\*\*\*

**Configure VMware vCenter Management Extender...** **Cancel**

**Note:** By default, the windows prompts for the server name only. If you choose to do that, the URL that connected is `https://(SERVER NAME)/sdk/webService`. When the URL is not correct, you can enter your own URL by selecting the **Enter vCenter's web service URL**.

The username and password are encrypted using the private key and public key. These keys are set during the deployment of the vCenter management extender. The public key is based on the computer name. The private key is generated during the deployment task. The username and password are then sent to the management extender, which uses the credentials to plug in to the VMware vCenter. The credentials are sent to the endpoint in an encrypted format.

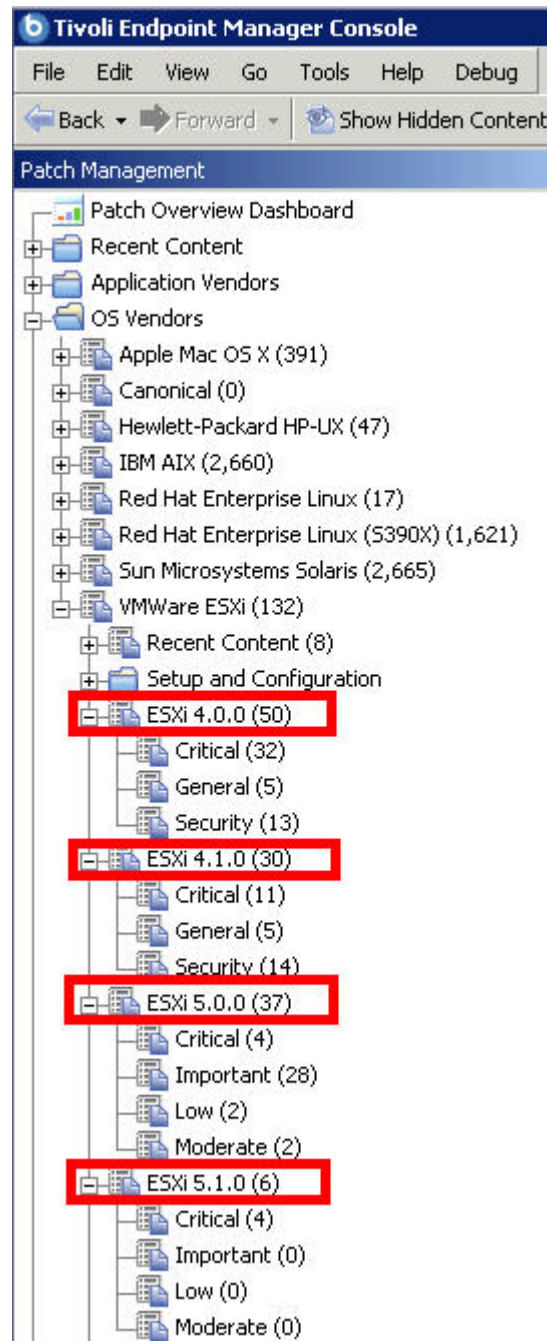
You can configure the management extender again without removing the deployment and configuring it twice

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## Chapter 7. Using Patch Management for VMware ESXi

You can view the audit Fixlets when you subscribe to the Patches for ESXi site.

Select the Patch Management domain and click **OS Vendors > VMware ESXi**.



From the navigation tree, you can view recent Fixlet content, configuration, and the ESXi patches according to their version. Select the appropriate ESXi version node. You can view the patches according to their severity: Critical, General, and Security. After you select an appropriate ESXi node, you can see audit Fixlets in the

Work Area. Deprecated patches can be found in the Superseded node in the navigation tree.

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## Appendix A. Support

For more information about this product, see the following resources:

- [http://pic.dhe.ibm.com/infocenter/tivihelp/v26r1/topic/com.ibm.tem.doc\\_9.1/welcome/welcome.html](http://pic.dhe.ibm.com/infocenter/tivihelp/v26r1/topic/com.ibm.tem.doc_9.1/welcome/welcome.html)
- IBM Endpoint Manager Support site
- IBM Endpoint Manager wiki
- Knowledge Base
- Forums and Communities



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## Appendix B. Frequently asked questions

The questions and answers found in this section are designed to help you better understand Patch Management for ESXi.

### **Why are some things not showing up on my console?**

Check to make sure that your management configure is configured properly and has the correct credentials to your vCenter machine. By default, the location of this file is at: C:\Program Files\BigFix Enterprise\Management Extender\Plugins\VMware ESXi 1\plugin\plugin-settings.ini. For 64-bit systems, it is found in C:\Program Files (x86)\BigFix Enterprise\Management Extender\Plugins\VMware ESXi 1\plugin\plugin-settings.ini).

### **I've set up an offline patch window but I'm seeing unusual behavior. What might be wrong?**

Check to see that a Endpoint Manager agent is installed on each of the machines targeted by the offline patch window. Check to see if you have multiple actions in the action history of the 'Enforce Offline Patch Window task' affecting the same endpoints.

### **What should I configure to have a running offline window?**

Check that you have the following items setup:

- The Endpoint Manager agent is installed on each of the machines targeted by the offline patch window.
- A patch window is set through the offline patch window dashboard.
- The Enforce Offline Patch window task is set as a policy action.

### **My virtual machines are no longer powering on during a patch window. What happened?**

Check to see if you are at the maximum number of concurrent running machines. That setting can be found by default in this directory: C:\Program Files\BigFix Enterprise\Management Extender\Plugins\VMware ESXi 1\Patch Windows\<(name of patch window)\(host - operations.txt). For 64-bit systems, it is found in C:\Program Files (x86)\BigFix Enterprise\Management Extender\Plugins\VMware ESXi 1\Patch Windows\<(name of patch window)\(host - operations.txt). The number inside represents the number of concurrently running virtual machines per host. If the number is at the limit that was initially set, consider setting a higher concurrent virtual machine number.

### **Can I have more than one offline window at a time targeted at the same endpoint?**

Yes, you can have more than one offline window at a time targeted at the same endpoint.

### **Does the offline patch window scheduler workflow work for more than just patch content?**

Yes, it does. You can run any Endpoint Manager action from any site via this offline workflow.

**Why can't I apply any ESXi patches?**

The Patches for ESXi content is audit only. In order to remediate ESXi issues, use the VMware Update Manager or download and apply patches manually from the VMware website.

**Why is it that I cannot install an agent on ESXi?**

This is a restriction that VMware introduced in their ESXi hypervisors.

**Can I install the management extender on a non windows machine?**

Currently, the proxy agent can only be installed on Windows-based machines.

**Can I run the Endpoint Manager for Mobile Management Extender alongside the vCenter Management Extender?**

Yes, you can run both management extenders.

**What is the difference between proxied machines and normal machines on the Endpoint Manager Console?**

Normal machines have a full Endpoint Manager agent installed on them, with the full standard set of inspectors and actions. Instead of a full Endpoint Manager agent, proxied machines use APIs to pull back information about devices and feed that information into the console as a computer report. Proxied machines have a more limited set of inspectors and actions.

**Will having proxied machines affect my machine count?**

Yes. Proxied machines will also count as normal machines on licensing. Talk with your sales representative to figure out how to adjust the license agreement to accommodate your virtual infrastructure.

**Why are some fields different between what a proxied VM reports and what the Endpoint Manager agent reports?**

The vCenter plug-in grabs data directly from the VMware APIs and then translates them into Endpoint Manager properties. However, because a lot of these fields are set by the user, sometimes they can mismatch what gets reported in the Endpoint Manager agent. For example, it is possible to set the Guest Operating System version to be something very different from what is actually installed on virtual machine.

**What kind of best practices or highly suggested settings do you have for this management extender?**

The device refresh interval should be at least 5 minutes. On a medium to large size deployment, this refresh interval time should be set to 15 minutes or beyond. The Enforce Management Extender policy action should be set to however long it takes to run a substantial amount of Endpoint Manager actions before it is forced to power down. The maximum time limit that can be set is an hour long.



**What kind of machine should the Management Extender be?**

For medium to larger size deployments, the main limiting factor is most likely going to be the CPU. As long as it is something running quad cores, the machine should be able to handle all of the management extender tasks.

**If I revert a snapshot, can I expect a different computer report on the console?**

No, it will be the same computer report on the Endpoint Manager console.



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