

# **ESX 3 Patch Management & ESX Host upgrade automation**

**With**



**VMTSPatchManager the  
"Windows Update" for ESX 3.x**

## **Installation & User Documentation Guide**

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You can find the most up-to-date technical documentation on our Web site at:

<http://www.vmts.net/>

## Introduction to VMTS ESX Patch Manager

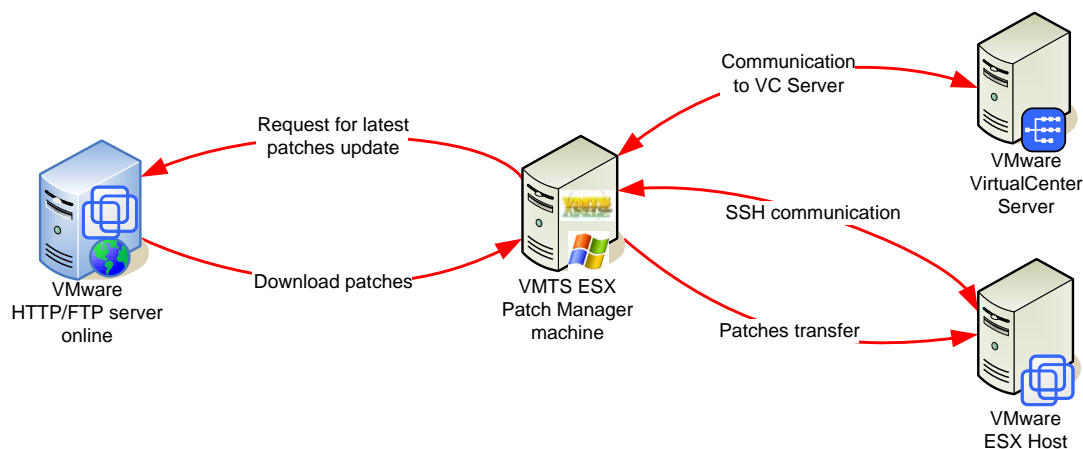
As we all know patch management for ESX 3 in its current state is not the fastest or easiest but really a manual slow process where you have to go to each and every host or at best carry out via an ILO connection or equivalent with a basic script. This is not such a problem for smaller infrastructures with 10 hosts or less but when medium to large ESX farms are implemented it can become a nightmare trying to keep your hosts up-to-date. The VMTS-ESX Patch Manager application was made to really help speed this process up using a nice to use windows GUI based front-end complete with a small in-built web server to upload the patches to the hosts that you can install practically on any MS Windows system and works very well in practice!

### Features:

- Automatic latest patch retrieval from VMware Web site
- Virtual Center or standalone Host Integration
- Automated ESX Host upgrading
- Support for Background Intelligent Transfer Service (Microsoft BITS)
- Passwords saved securely inside the Microsoft Protected Storage space
- Standard SSH Connection technology (with root or other users)
- Use's a tiny in-built Web server to deliver the patch's
- Multi Thread patching/updating implementation
- Ease of use Configuration Wizard's.

### Patch management overview

The VMTS ESX Patch management system in its basic form consists of 4 servers which communicate to move the patch from the patches download site on the VMware downloads site all the way through to successfully installing them on your chosen ESX Hosts.



If you are connecting directly to the ESX host and not via the VirtualCenter Server for single ESX Host patching then the VirtualCenter Server is not included in this process flow.

### **System requirements:**

- Windows 2003 sp1 sp2 ,Windows XP sp1 sp2 ,  
Windows Vista, or Windows 2008 aka Longhorn
- 256MB RAM for the application
- Disk 2GB free space for the patches storage folder
- MS .NET 2.0 Framework
- Internet Access (proxies are supported)

### **Windows Service's required:**

These services are required to be installed and enabled for VMTS Patch Manager to use:

- (BITS)Background Intelligent Transfer Service V2 (V3 suggested)
- Microsoft Protected Storage Service (to securely store passwords)

### **Non-support:**

- Currently proxy authentication does not work on XP 64bit, Vista 64bit and Windows 2003 64bit possibly on Itanium also.

There are some issues on 64bit OS's at the moment we suggest that you generally do not use 64bit OS's to run VMTS Patch Manager.

- On Windows XP sp2 you can find these problems with patch ESX-8852210:

*Error Occurred : System.Net.Sockets.SocketException: An operation on a socket could not be performed because the system lacked sufficient buffer space or because a queue was full*

*at System.Net.Sockets.Socket.Send(Byte[] buffer, Int32 offset, Int32 size, SocketFlags socketFlags)*

*at System.Net.Sockets.Socket.Send(Byte[] buffer, Int32 size, SocketFlags socketFlags)*

*at vmts.patchmanager.MyWebServer.SendToBrowser(Byte[] bSendData, Socket& mySocket)*

This is a Windows XP SP2 bug, please refer to this article for support:

<http://support.microsoft.com/kb/905628/en-us>

## Installing VMTS ESX Patch Manager

### *Installation of the program*

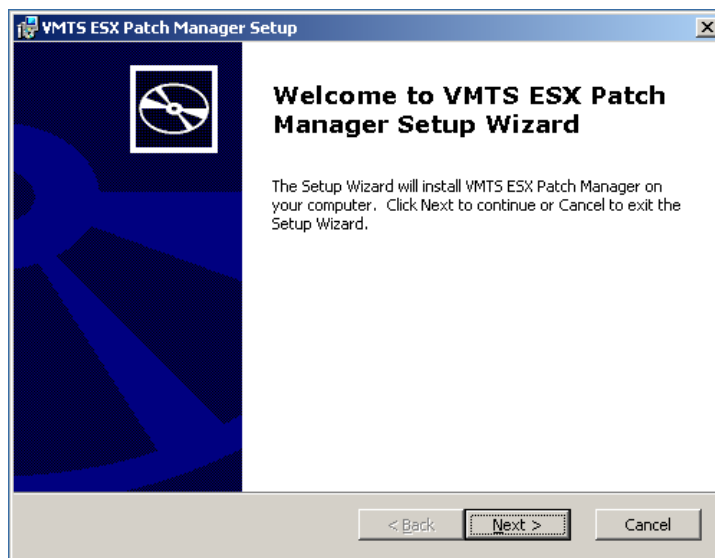
Download the latest available version of the program 'VMTS-ESX Patch Manager' from [www.vmts.net](http://www.vmts.net)

Run the setup program and accept any Windows security warnings as prompted.

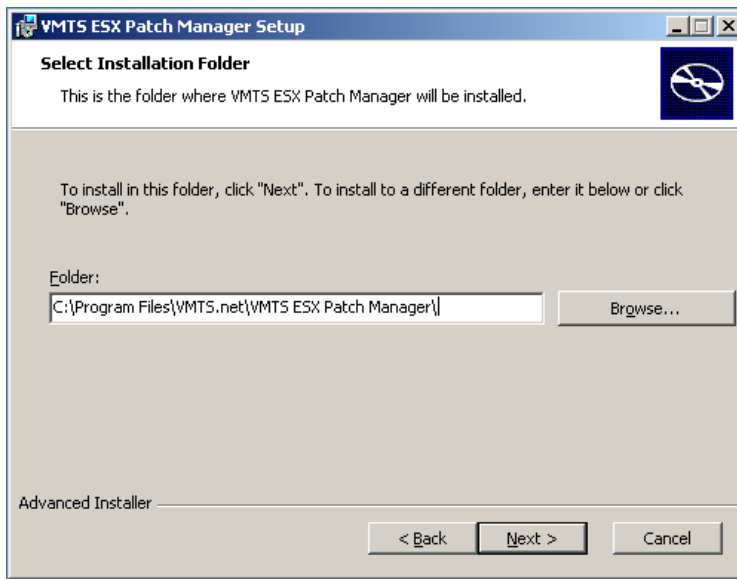
**Note:** the following screenshot is from Windows 2003, prompts may differ depending on OS type.



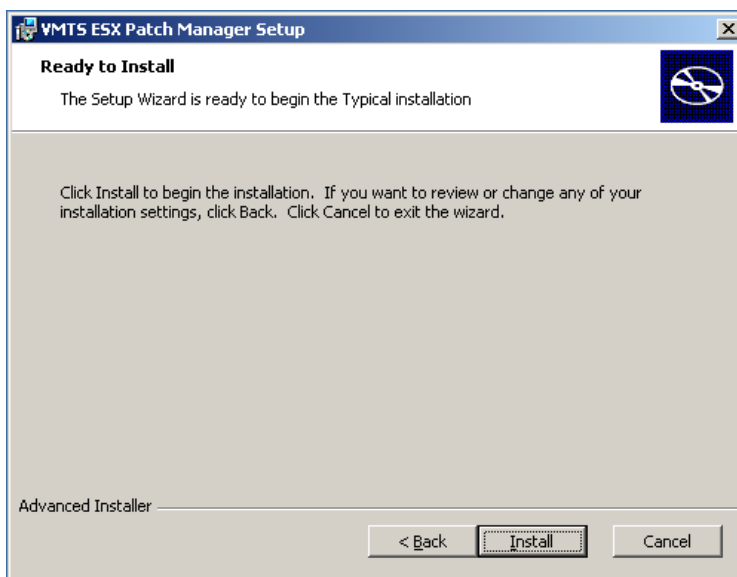
Accept 'Next' on the VMTS ESX Patch Manager setup welcome screen



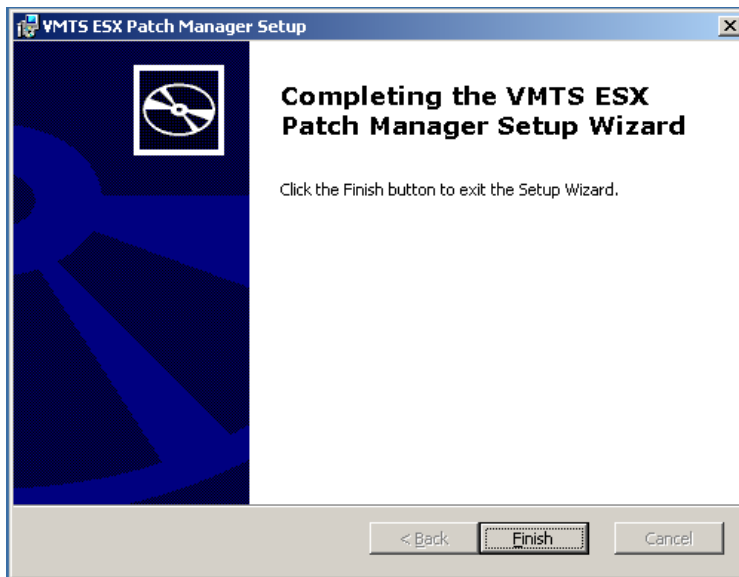
Specify the folder you want VMTS ESX Patch Manager installed to, the default location is recommended



Click Install to start the installation Process



Once the installation is complete, click Finish to close the setup wizard



## Setup Wizard

You will find the VMTS ESX Patch manager Shortcut in your Start menu or alternately on your desktop, ready to open.



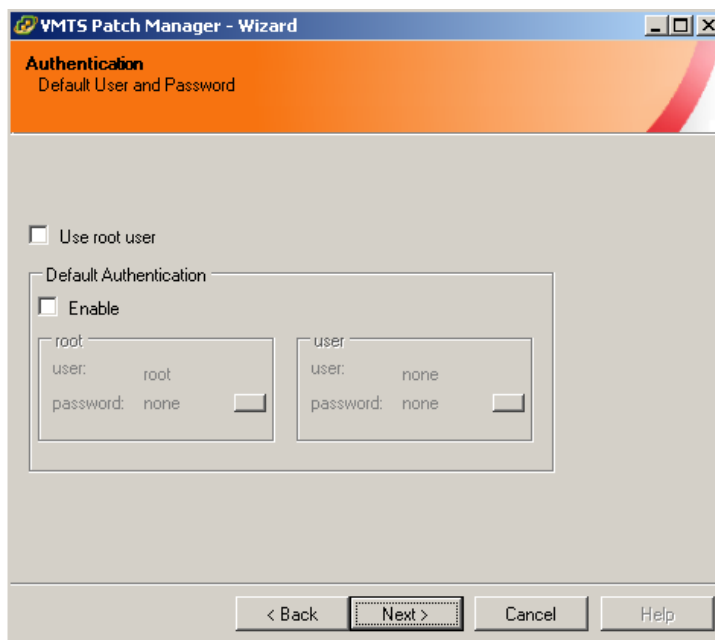
When you start the program for the first time the setup wizard will start to run you through entering details for your particular virtual Infrastructure.



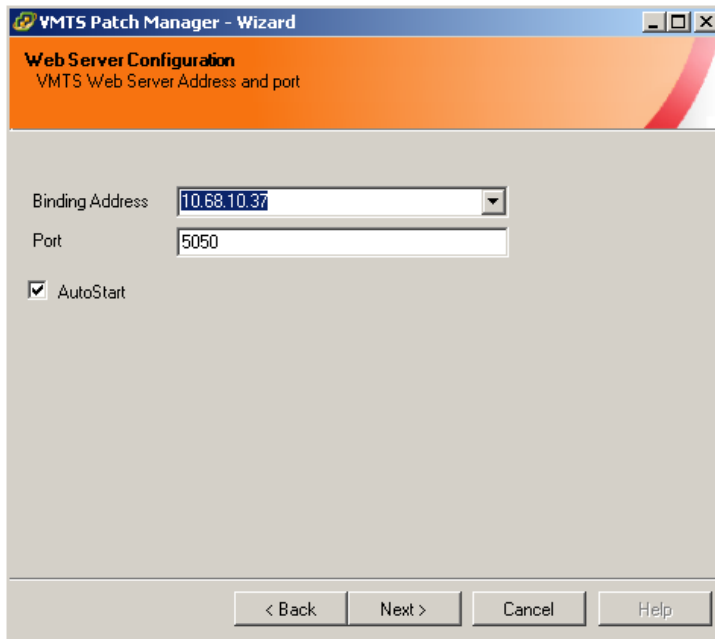
On the Authentication screen if you have followed the default ESX 3 installation and so Root logins via SSH are disabled, then do not tick the 'Use root user' box. If you use the same passwords for your 'Root' account and your 'main ESX admin' account across all your Hosts then you can Enable Default Authentication and click the small buttons to enter in your 'Root' and 'main ESX admin' account's details so they are stored.

If you have enabled the allowing of login of the Root account via SSH, which is not advised by VMware best practice! You can tick the 'Use root user' box and use this authentication method and all authentication with the ESX Host's will be via the 'Root' account..

If you do not enter any details on this screen you will be prompted every time for passwords when moving between hosts or carrying out any actions within the program.



On the Web Server configuration screen the IP address of the server/workstation you have installed the VMTS ESX Patch Manger program will already be completed for you, it is recommend that you do not change this. The port defaults to port 5050 which unless required you should leave to default also. The default ticked 'Autostart' box allows the program to auto start and stop the internal web server part of the program for when patches are uploaded to the Hosts during normal patching and should be left ticked.

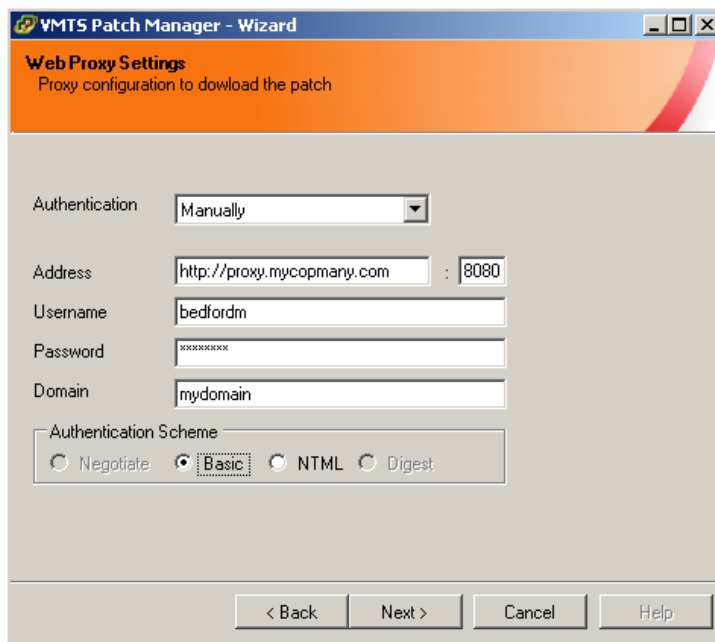


On the Web Proxy Settings screen choose between these Authentication options:

- **Autodetect**: use the **wpad** DNS record
- **Manually**: you set the proxy address
- **No Proxy**: direct connection
- **Use IE configuration**: use the default IE configuration

Note: Using **IE Configuration** and **Autodetect** doesn't keep user and password settings, you can use it only if your proxy support NTML settings or your proxy doesn't require authentication

The Web Proxy Settings are used by VMTS ESX Patch Manager to connect to the Internet to retrieve the latest patches list for ESX 3 from VMware and to download the patches you request. If you are having problems connecting then use the '**Manually**' option and enter in your proxy's, hostname or address, it's port, an account that has privileges to connect to the Internet via the proxy and its authentication type, Basic or NTML.

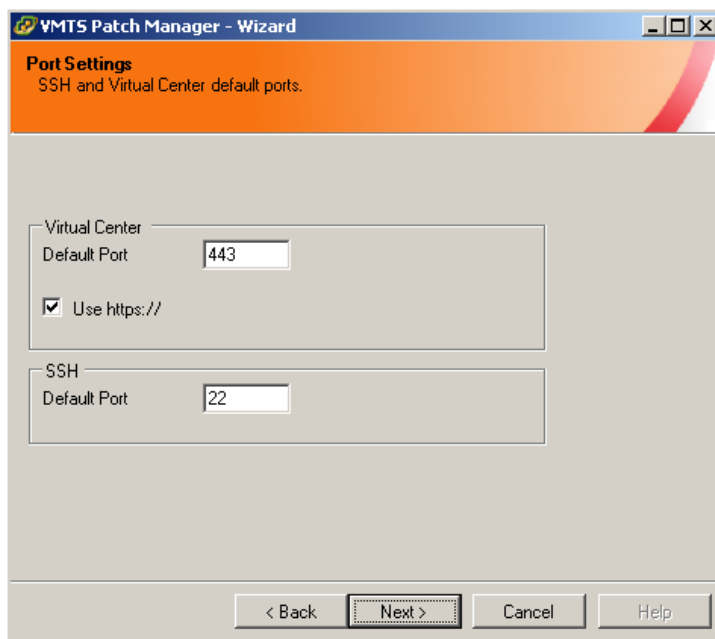


The screenshot shows the 'Web Proxy Settings' window in the VMTS Patch Manager Wizard. The window title is 'VMTS Patch Manager - Wizard'. The subtitle is 'Web Proxy Settings' with the description 'Proxy configuration to download the patch'. The settings are as follows:

- Authentication: Manually (dropdown menu)
- Address: http://proxy.mycopmany.com : 8080
- Username: bedfordm
- Password: [masked with asterisks]
- Domain: mydomain
- Authentication Scheme: Basic (selected radio button), Negotiate, NTML, Digest

At the bottom, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'.

On the Port settings screen, you are presented the option of changing the Virtual Center default port and SSH default port numbers. You should accept the defaults unless you have specifically altered these in your virtual Infrastructure configuration.

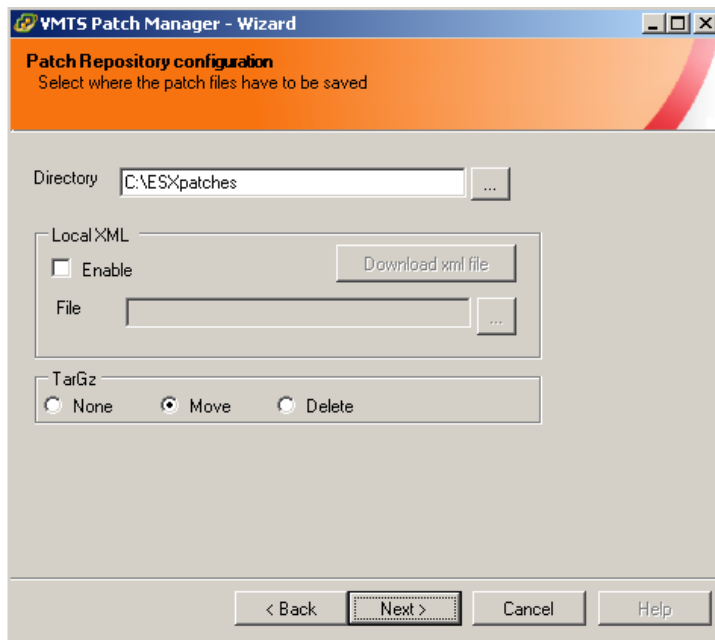


The screenshot shows the 'Port Settings' window in the VMTS Patch Manager Wizard. The window title is 'VMTS Patch Manager - Wizard'. The subtitle is 'Port Settings' with the description 'SSH and Virtual Center default ports.' The settings are as follows:

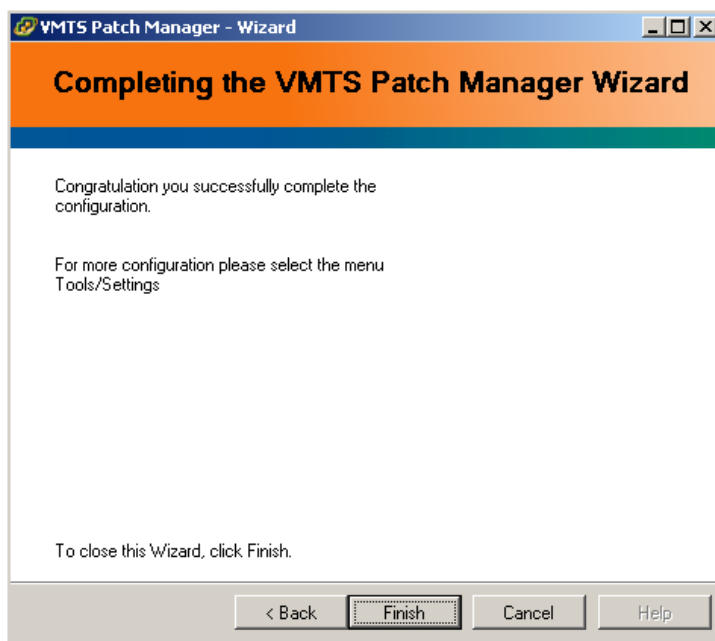
- Virtual Center Default Port: 443
- Use https://:
- SSH Default Port: 22

At the bottom, there are four buttons: '< Back', 'Next >', 'Cancel', and 'Help'.

On the Patch Repository screen, enter an empty directory to store all the downloaded and extracted ESX Patches in. Currently there are nearly 1.5 GB of ESX patches for ESX 3.0.1 so a drive with 2Gb of space or more is recommended.



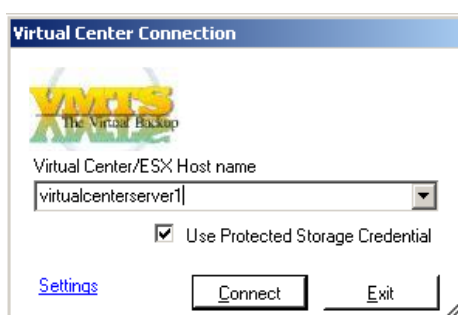
On the last screen click 'Finish' to complete the setup wizard and start using the program to patch.



## VMTS ESX Patch Manager Program usage

A VMware virtual Infrastructure can be divided into many Virtual Center run separate infrastructures each with its own Virtual Center server administering it. When starting VMTS ESX Patch Manager, enter the hostname or IP address of the VirtualCenter you wish to connect to that the ESX Hosts you wish to patch are administered by and click 'Connect'.

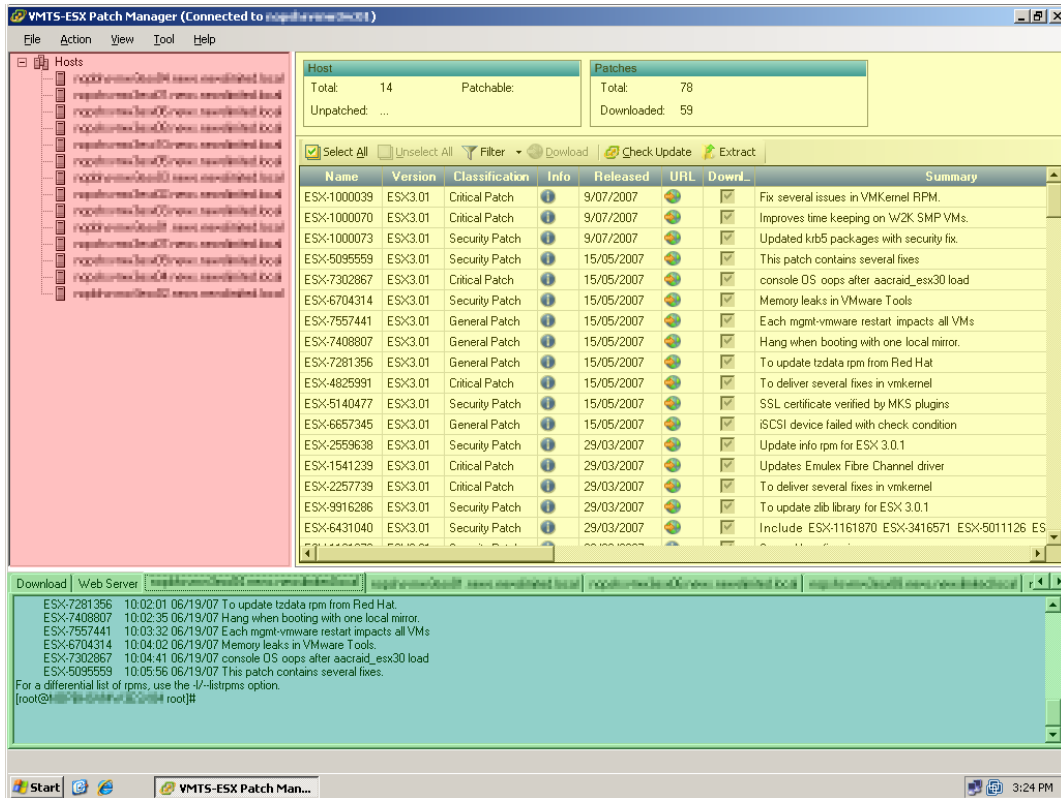
Alternately the program allows you to connect to an individual host to patch, by entering the IP or hostname of the ESX Host you want to patch and click 'Connect'.



### *Interface overview*

The main program screen is divided into 3 sections, these are:

- Host/Infrastructure view (**Red**)
- Patched downloaded/install view (**Yellow**)
- Status tabs area (**Blue**)



**Host/Infrastructure (shown in Red):** In this view VMTS ESX Patch Manager reads your inventory from VirtualCenter and displays all of the ESX Hosts connected to that current VirtualCenter. Selecting an ESX Host here allows you to see what patches are installed in the Patched downloaded/install window.

**Patched downloaded/install (shown in Yellow):** In this view is shown a summary of the ESX Hosts connected, the ESX Patches downloaded/installed and is the main window that allows you to install ESX patches on your chosen host.

**Status tabs area (shown in Blue):** The status area displays 3 groups of live status screens:

The **‘download tab’** displays the status of any patches currently being downloaded to your patch repository folder from the VMware downloads site.

The **‘Web Server tab’** displays the status of the small in-built web server built into VMTS ESX Patch Manager and shows which patches are currently being uploaded to ESX Host’s during the patching process.

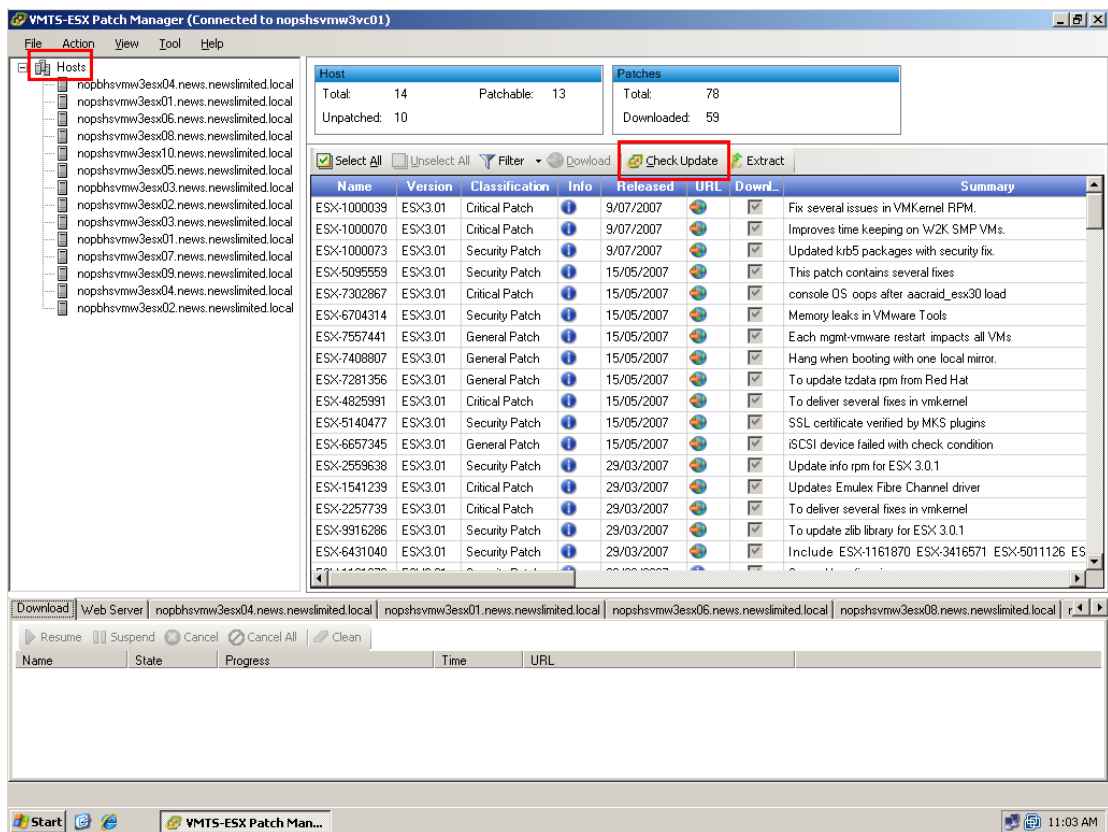
The **‘ESX Hosts status tabs’** are named as each ESX Host name and each displays the live status of the SSH commands as being issued to the Hosts. Here you can see the actual patching taking place and so can be used as a type of live Log of the patching process.

## Downloading ESX patches


Before you can install the ESX patches on the Hosts they have to be downloaded to your patch repository folder on a local or network drive and extracted from the tar files. This can be done automatically by VMTS ESX Patch Manager or manually should the program not be able to gain access to the Internet itself.

## Automatically Downloading ESX Patches

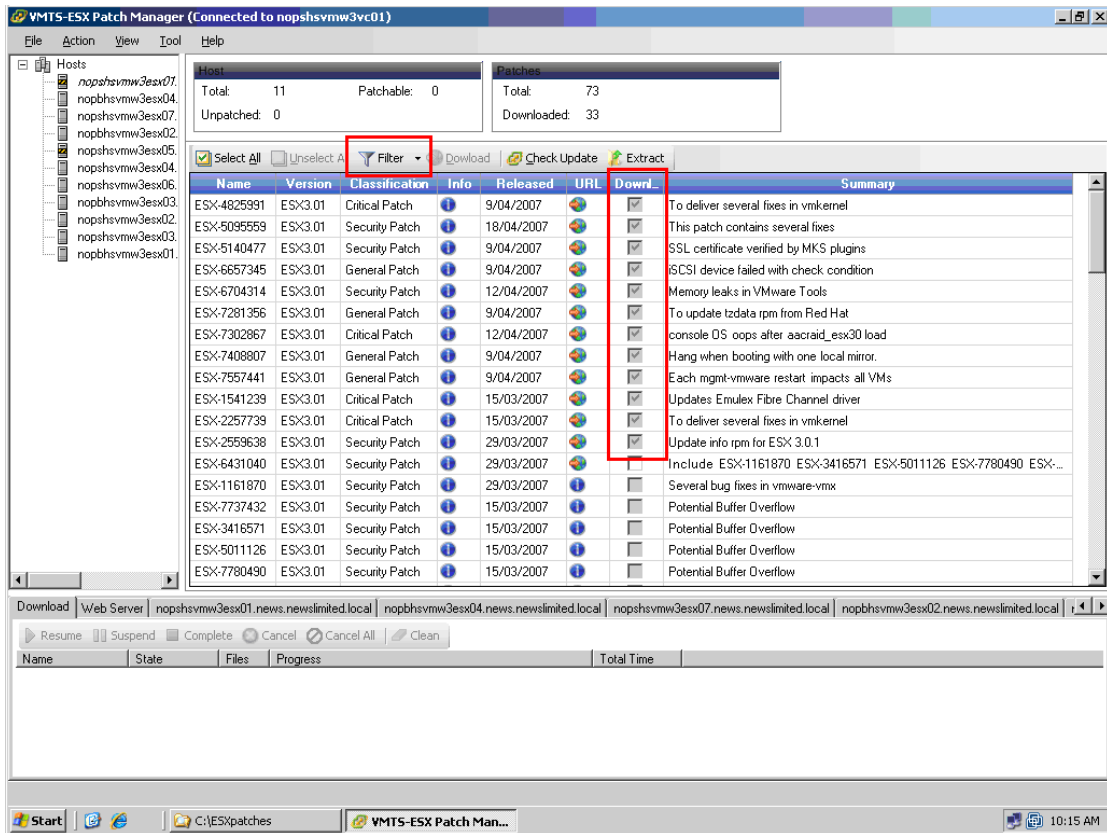
Click the 'Hosts' Cluster icon in the Host/Infrastructure view to bring up the list of current ESX patches. Click the 'Check Update' button and the program will connect to the VMware downloads site to check the latest released patches for ESX 3. A few seconds after clicking on the 'Check Update' button, the list should be updated with any new patches that may of become available since you last checked.



Use the 'Filter' dropdown button to filter to just the version of ESX you are running. For example if you were only running ESX 3.0.1 Hosts in your VMware infrastructure then select 'Filter' then 'ESX 3.0.1' to just display patches for this version, ignoring patches for previous releases of ESX server.

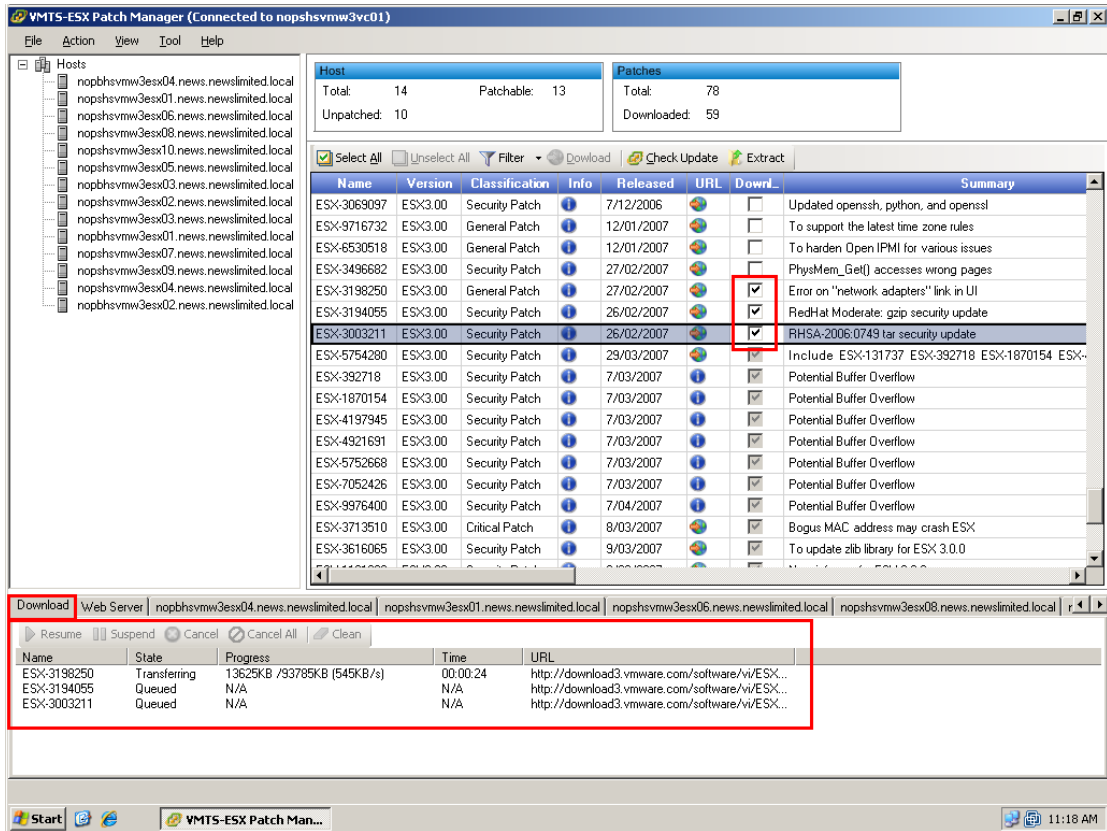
Next select the patches you wish to download by placing ticks in the download column boxes. You can sort the patches by release date, by patch name e.t.c by clicking on the relevant column header. Hovering your mouse over the  icon

displays a tooltip for a few seconds giving an explanation of what that patch fixes/add's/improves.

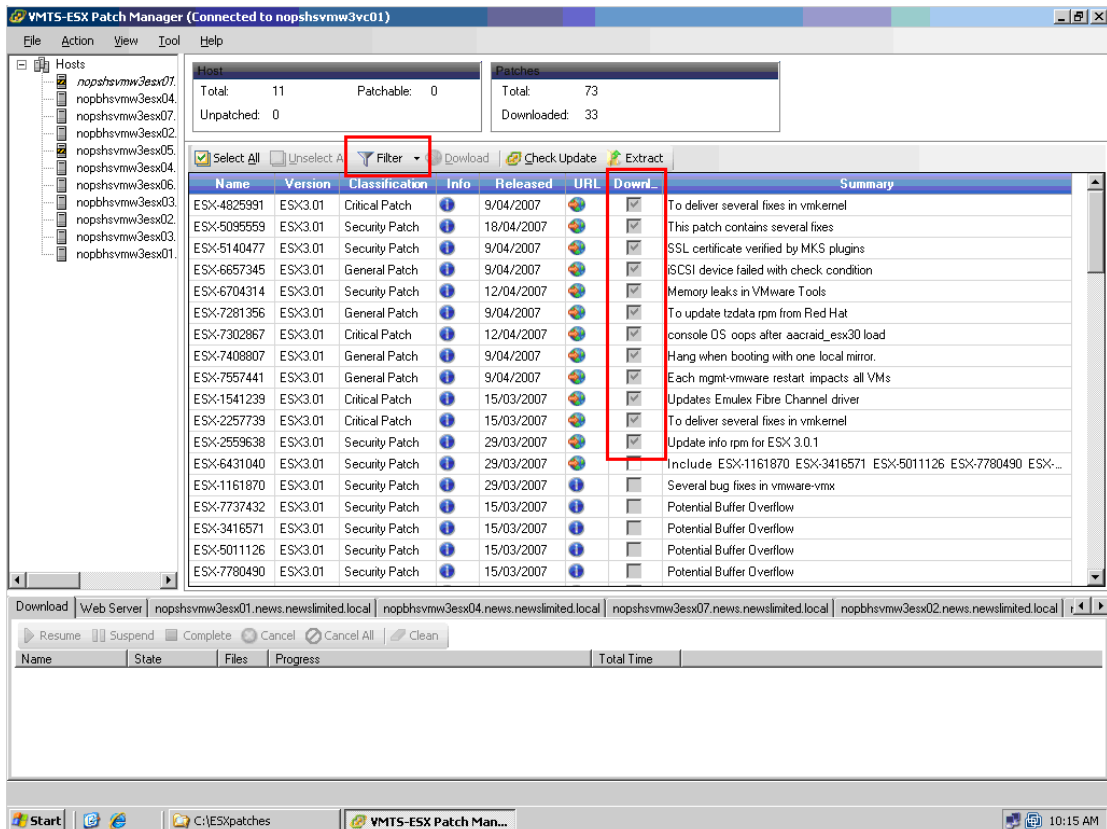


Click the ‘download’ button and the patches will start to download, the status of the downloading can be seen in the ‘Download tab’ in the lower status area. Patches can be Paused, Cancelled and Resumed using the relevant buttons in the Download tab.

If the downloading fails, check your web proxy authentication settings in the Tools > Settings menu, if these are set to be correct, you may have to use the manually downloading patches procedure.




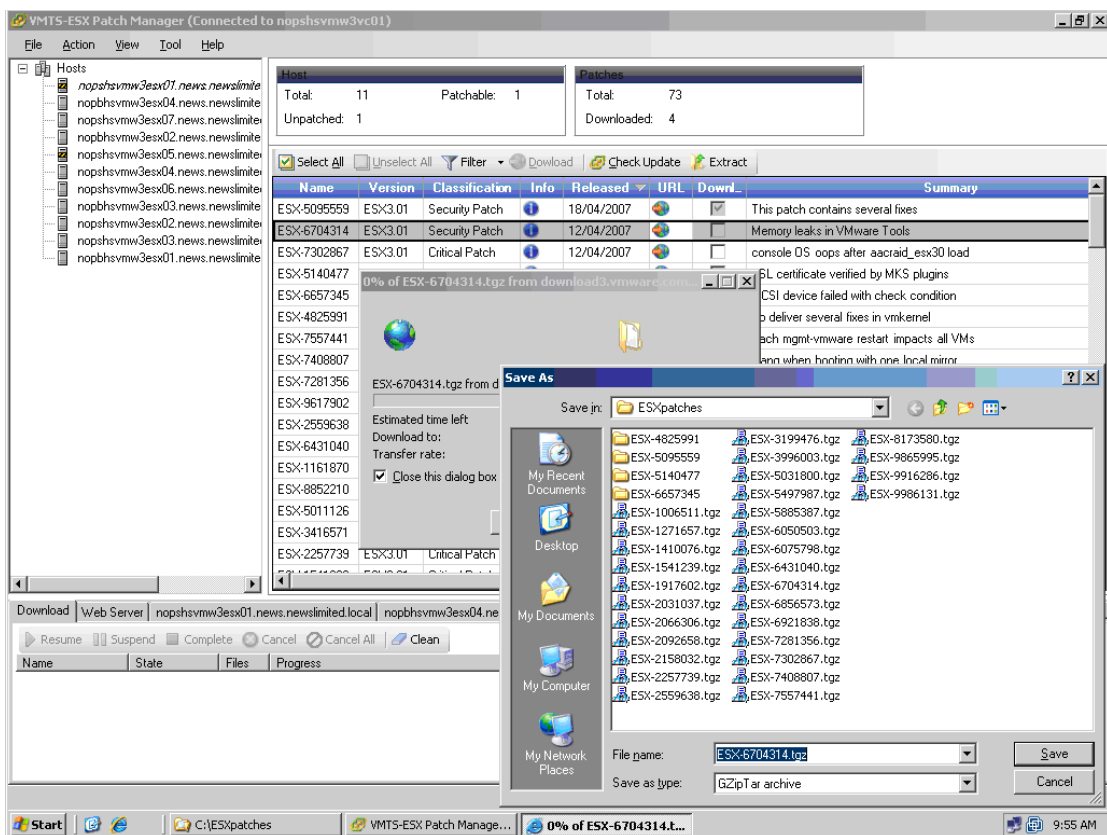
Lastly you should see all the ticks in the download column which shows the program can see the downloaded and extracted patches in the folder ready to use.



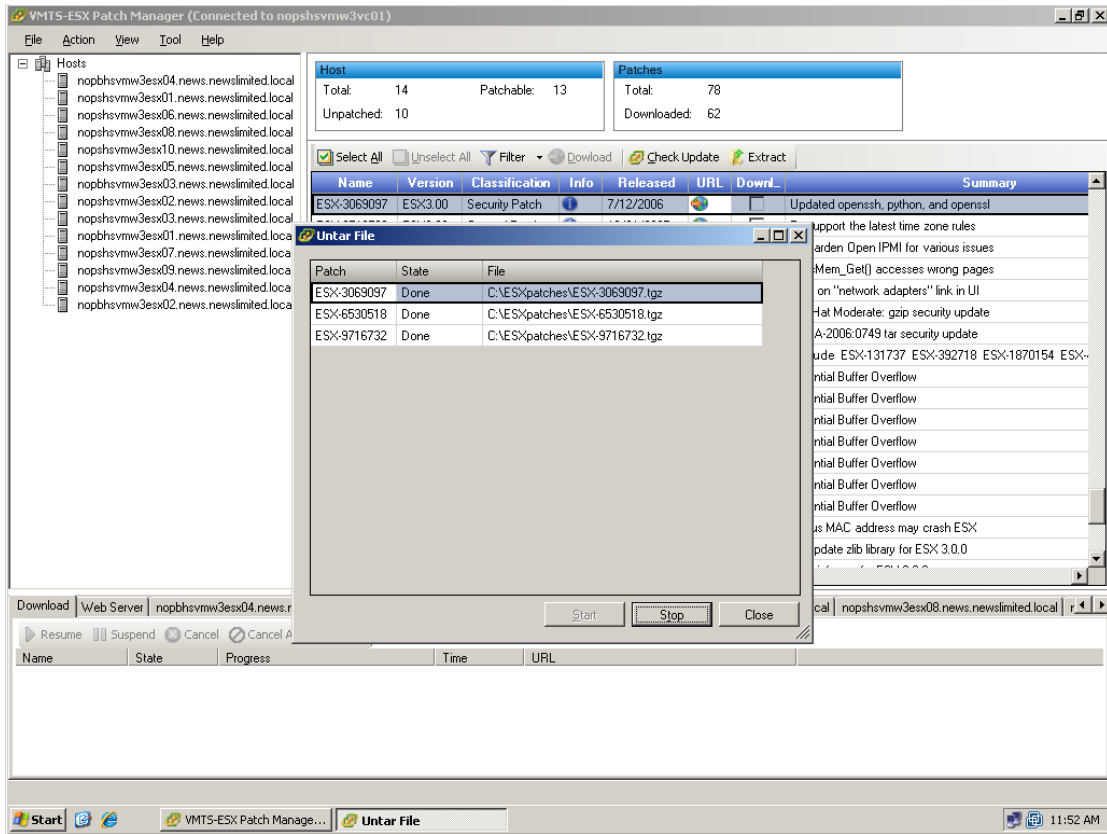
## Manually Downloading ESX Patches

If the auto patching and extracting feature is not working as possibly due to proxy authentication issues you can manually carry out this procedure.

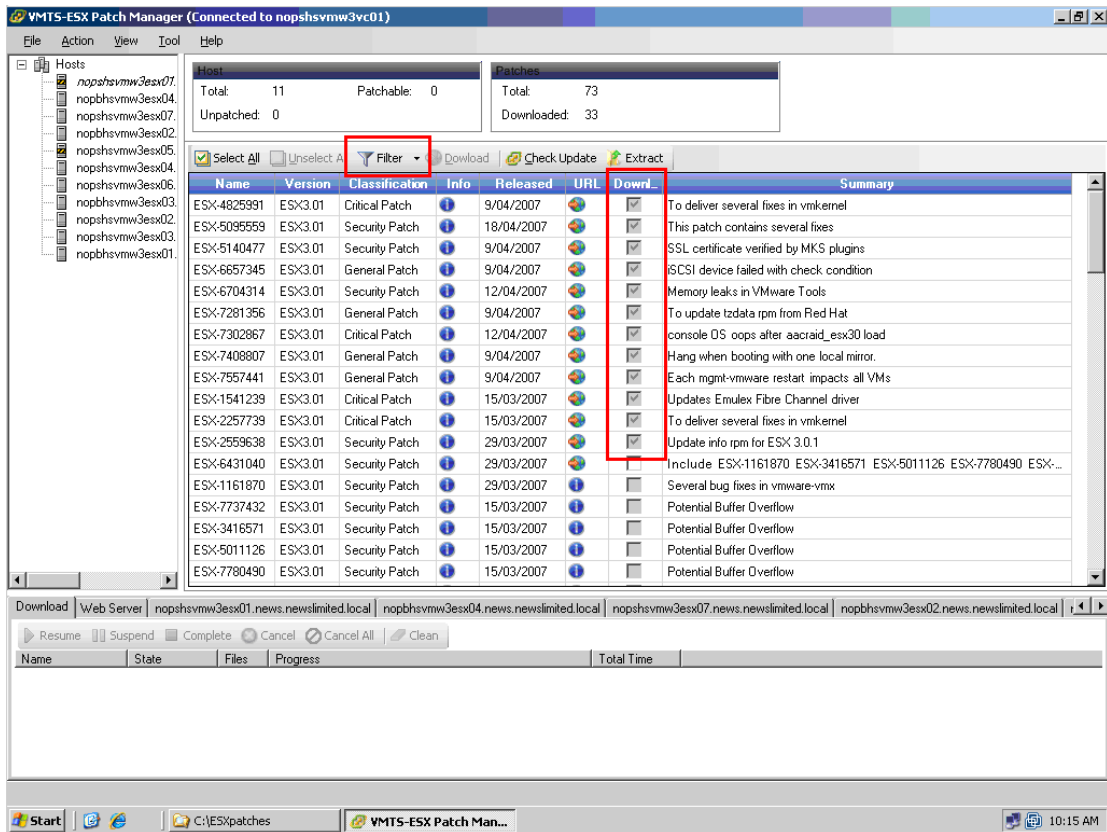
Firstly find the patches you wish to download, using the 'Filter' button to filter the patches shown if you wish. Click the  icon on each row of the ESX patch you wish to download. This will send your default web browser straight to the tar file on the VMware downloads site and you will be prompted to save the patch. This should be saved to your chosen patch repository folder. Repeat this one by one for all the ESX patches you wish to download.



Next you will un-tar the downloaded patches by using the un-tar feature built-in VMTS Patch Manager. Do this by clicking on the 'Action' menu then 'Extract Patch' and then select the directory used as your patch repository. Now the 'Untar File' window is displayed, click the 'Start' button and the patches are un-tared, once all patches are un-tared, you can close this window.



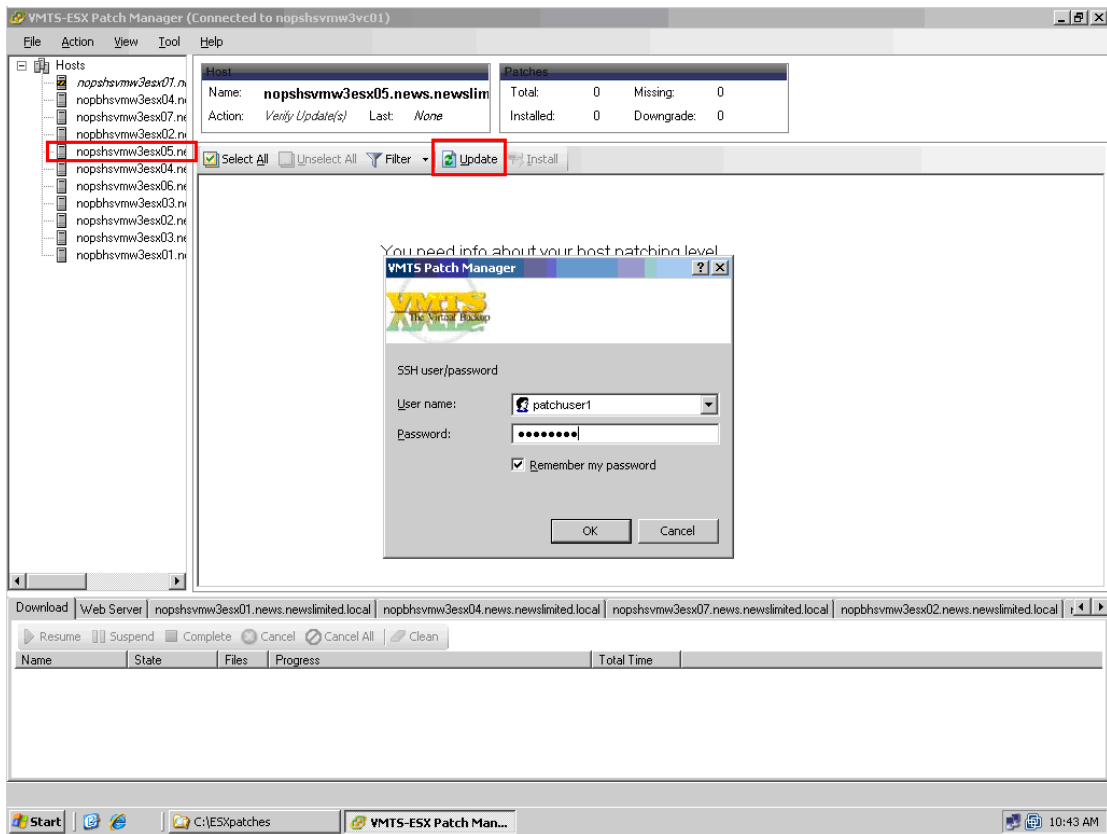
Lastly you should see all the ticks in the download column which shows the program can see the downloaded and extracted patches in the folder ready to use.



## Patching ESX Hosts

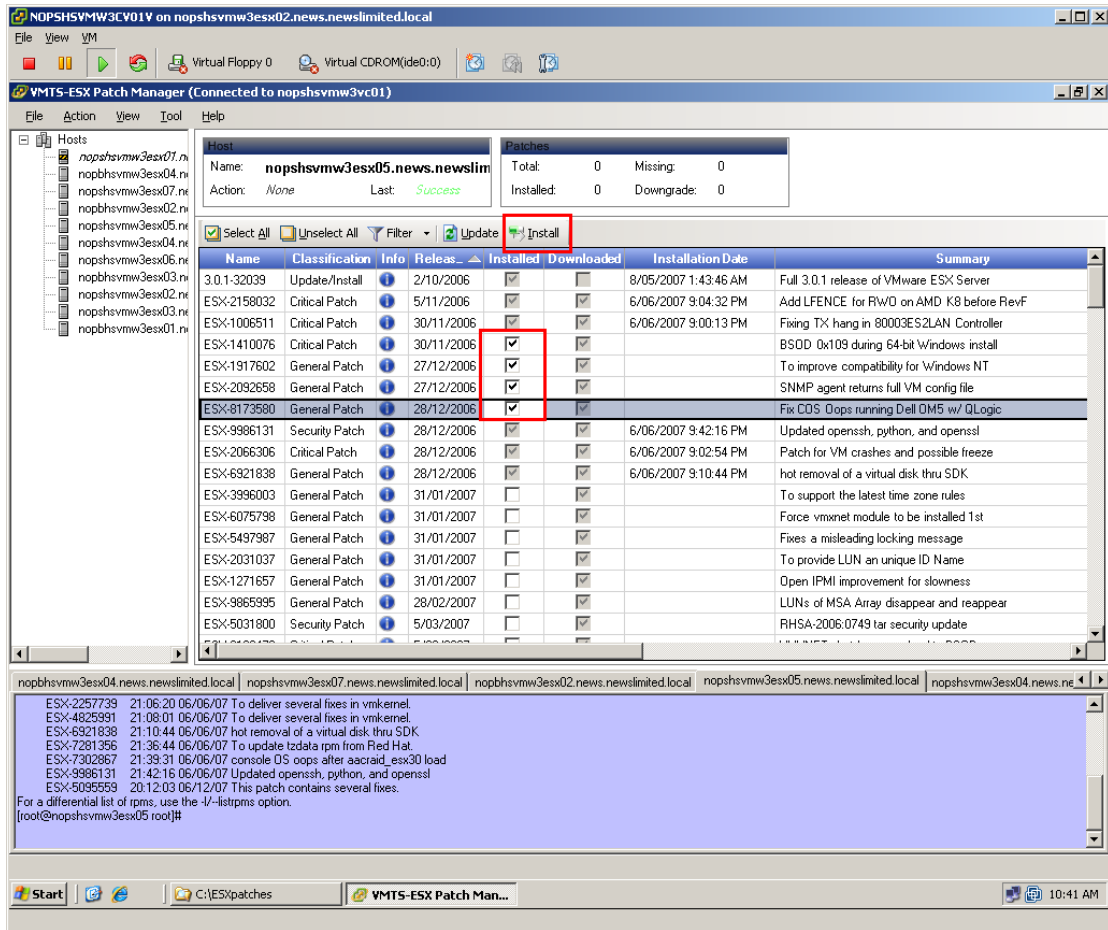
Select the ESX host you want to patch in the left Host/Infrastructure view and click ‘Update’ to scan the host for which patches are currently installed and to check which are currently missing.

If this is the first time you have connected to this ESX Host and you have not enabled the default authentication option, you will be prompted to enter the Root username/password followed by the ‘main ESX admin’ account’s details. From this point onwards they are stored securely inside the Microsoft Protected storage area and so you will not be prompted again for these credentials. You can also use the right mouse button on the host name and select ‘Login Settings’ to change the stored credentials at a later date.



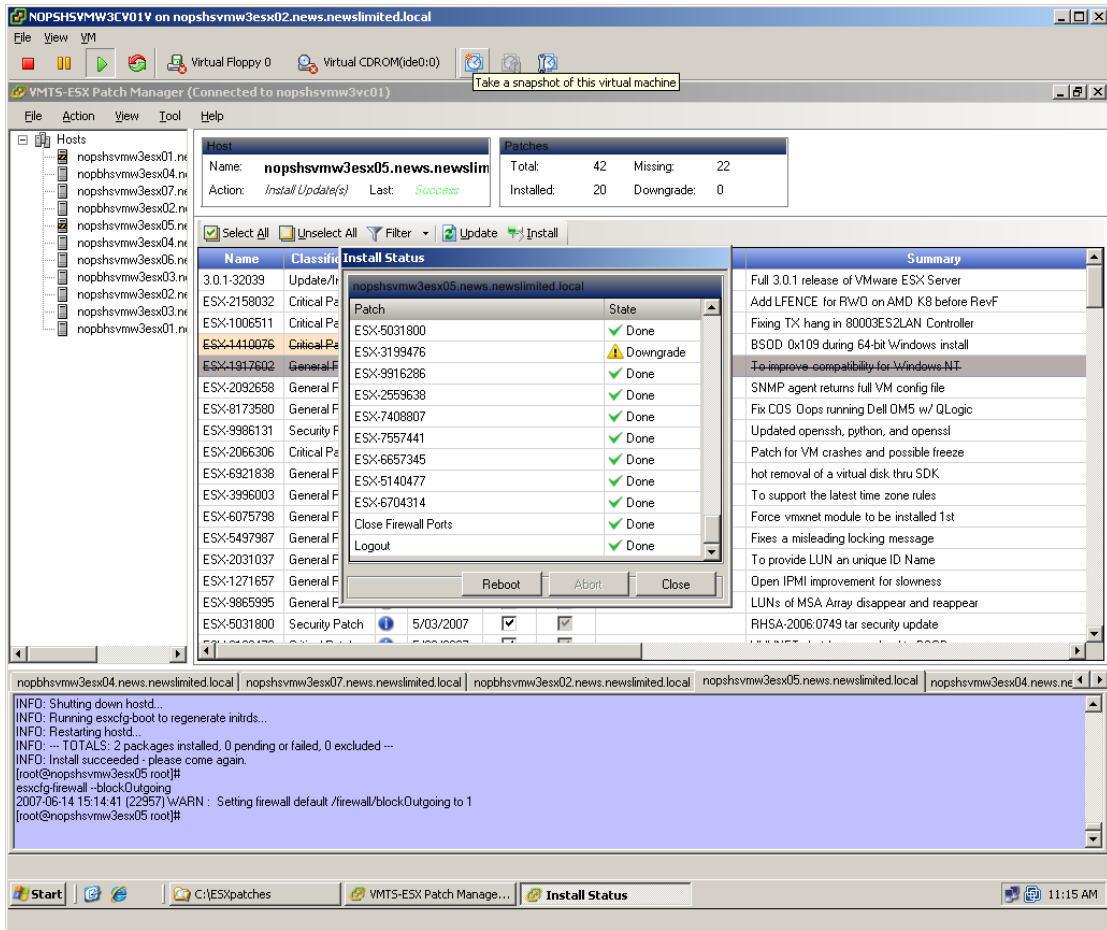
The ‘Installed’ and ‘Installation Date’ columns will show which patches are already installed and when they were installed. If you click on the relevant tab for the ESX Host you are looking at in the lower ‘Status area’ you can see the SSH returned results for the patches query to the server you chose.

To install a patch, tick its box in the ‘Installed’ column, to install ALL available patches in chronological order, select all the patches by clicking the ‘Select All’ button. Lastly click the ‘Install’ button to start the actual ESX Patch install procedure.



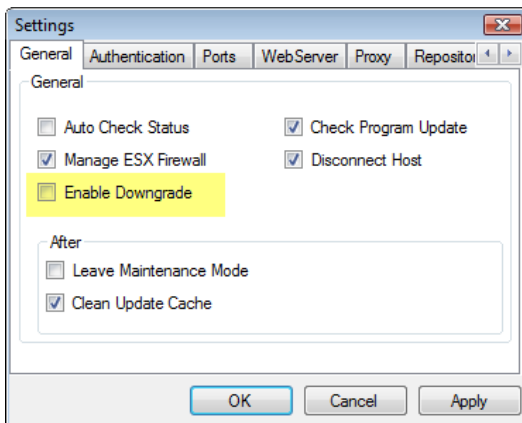
The 'Install Status' window will now be displayed showing you a status of tasks. Firstly the ESX Host will enter 'Maintenance mode' and so if you are using the Enterprise version of ESX 3 all the active Virtual Machines on that host will vacate the ESX Host to other ESX Hosts in the farm. If you are not using the Enterprise version of ESX 3 or you have a single host then before trying to enter 'Maintenance mode', use the Virtual Infrastructure client to manually move the Virtual Machines off the ESX Host or power them off.

Now the patching procedure has started, the patches will get uploaded to the ESX host via a small FTP server built into the program and then it will call the 'ESXUpdate' command to install the patches in correct chronological date order. If a patch is not needed to be installed as it as been superseded, a 'Downgrade' warning will show during the install and will be skipped, this is normal to stop downgrading of packages on the server by superseded ESX patches.



If any errors are reported in the ‘Install Status’ screen, consult the relevant ‘Status tab’ of the ESX Host you are patching in the bottom window to look for possible errors to help troubleshoot.

**Tip:** You can enable the downgrading of packages installation by ticking the ‘Enable Downgrade’ check box on the Settings screen but this is not recommend under normal patching operation.



Once the patching is complete you can reboot the ESX Host by clicking the ‘Reboot’ button. You can click ‘Close’ and you will see the ESX Host come back

up in your Virtual Infrastructure Client in 5-15 minutes time depending on the time your ESX Host takes to bootup.

As a purely **optional** step, after the successful patching and reboot of the ESX Host, running the 'esxupdate query' command on the host proves all the patches have been installed successfully.

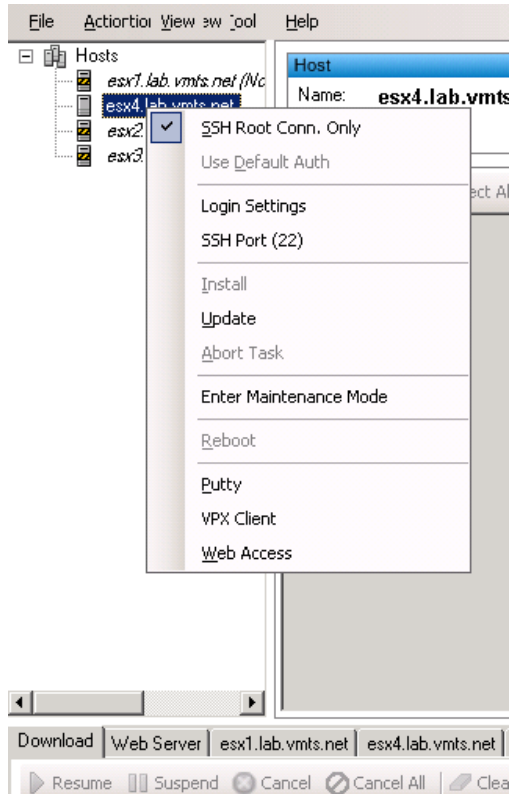
```

root@nopshsvmw3esx05:~
[root@nopshsvmw3esx05 root]# esxupdate query
Installed software bundles:
----- Name ----- --- Install Date --- --- Summary ---
3.0.1-32039      01:43:46 05/08/07 Full 3.0.1 release of VMware ESX Server
ESX-1006511     21:00:13 06/06/07 Fixing TX hang in 80003ES2LAN Controller
ESX-1541239     21:01:46 06/06/07 Updates Emulex Fibre Channel driver.
ESX-2066306     21:02:54 06/06/07 Patch for VM crashes and possible freeze
ESX-2158032     21:04:32 06/06/07 Add LFENCE for RWO on AMD K8 before RevF
ESX-2257739     21:06:20 06/06/07 To deliver several fixes in vmkernel.
ESX-4825991     21:08:01 06/06/07 To deliver several fixes in vmkernel.
ESX-6921838     21:10:44 06/06/07 hot removal of a virtual disk thru SDK
ESX-7281356     21:36:44 06/06/07 To update tzdata rpm from Red Hat.
ESX-7302867     21:39:31 06/06/07 console OS oops after aacraid_esx30 load
ESX-9986131     21:42:16 06/06/07 Updated openssh, python, and openssl
ESX-5095559     20:12:03 06/12/07 This patch contains several fixes.
ESX-2092658     15:05:07 06/14/07 SNMP agent returns full VM config file.
ESX-2031037     15:05:41 06/14/07 To provide LUN an unique ID Name
ESX-6050503     15:07:47 06/14/07 Error on "network adapters" tab in VC UI
ESX-5885387     15:08:22 06/14/07 RedHat Moderate: gzip security update
ESX-5031800     15:08:57 06/14/07 RHSA-2006:0749 tar security update
ESX-9916286     15:09:41 06/14/07 To update zlib library for ESX 3.0.1
ESX-2559638     15:10:13 06/14/07 Update info rpm for ESX 3.0.1.
ESX-7408807     15:10:53 06/14/07 Hang when booting with one local mirror.
ESX-7557441     15:11:51 06/14/07 Each mgmt-vmware restart impacts all VMs
ESX-6657345     15:12:32 06/14/07 iSCSI device failed with check condition
ESX-5140477     15:14:04 06/14/07 SSL certificate verified by MKS plugins.
ESX-6704314     15:14:41 06/14/07 Memory leaks in VMware Tools.
For a differential list of rpms, use the -l/--listrpms option.

```

## Host Menu

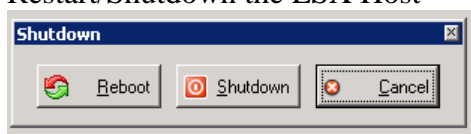
The 'Host menu' is accessible by clicking any ESX Host in the Host/Infrastructure view with the right mouse button.



Here you can find the same commands present on the buttons bar plus some additional commands:

- **SSH Root Conn. Only**  
If enabled each SSH connection will be carried out as Root, otherwise it will use a not Root account
- **Use Default Auth**  
Use the credential's set on the Setting Configuration Form
- **Login Settings**  
Set the credential's used to connect by SSH to the host
- **SSH Port**  
Set the SSH TCP port, default is TCP port 22
- **Install**  
start the patching installation process
- **Update**  
Check what ESX patches are installed on the Host
- **Abort Task**  
Abort the current task
- **Enter/Leave Maintenance Mode**  
Enter or leave the ESX maintenance mode

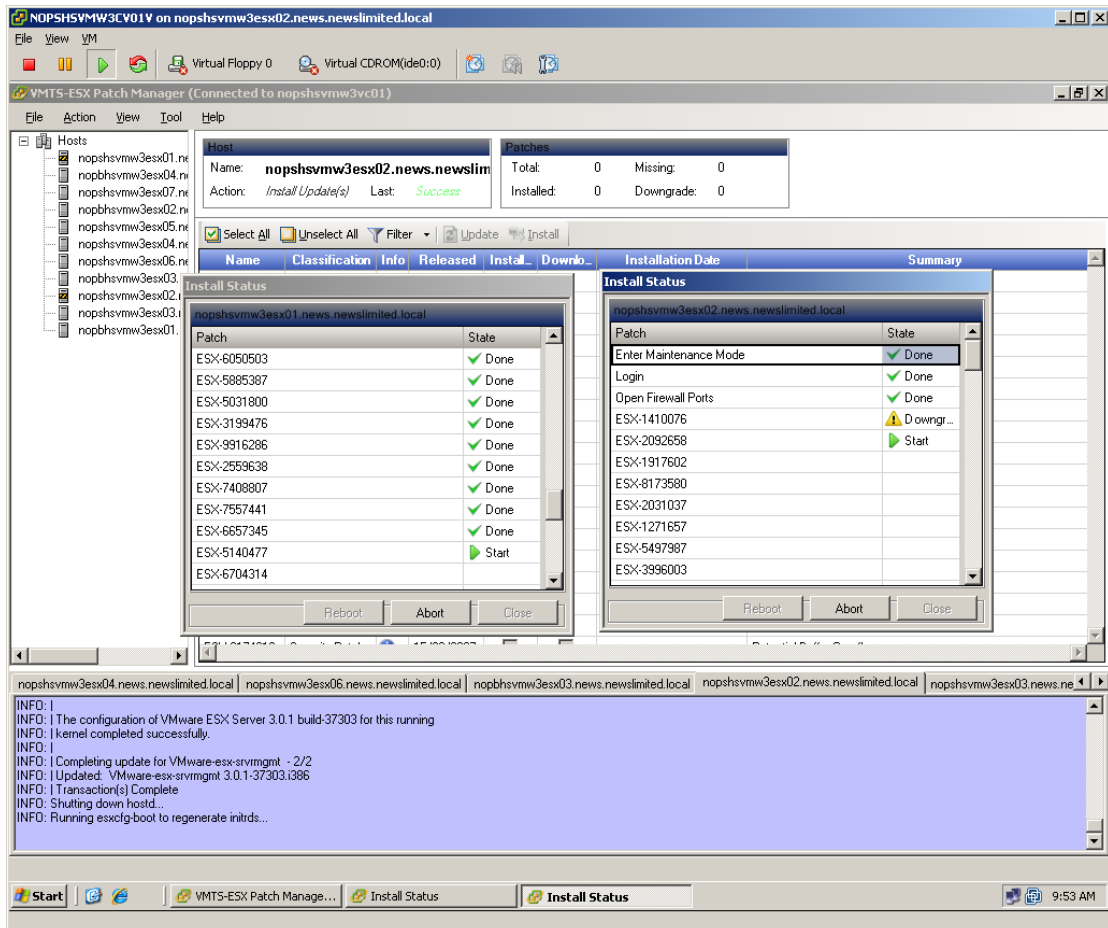
- **Reboot**  
Restart/Shutdown the ESX Host



- **Putty**  
Run the Putty tty client
- **VPX Client**  
Start the Virtual Infrastructure Client
- **WEB Access**  
Open a web browser to the ESX Host web access page

## Multiple Hosts patching

Due to the Multi threaded design of the program, multiple ESX Hosts at the same time can be handled and patched as long as you enter the correct Root and other accounts credentials for each host. In the following example you can see we are patching 2 ESX Hosts Sydney 01 & Sydney 02 at the same time, a separate 'Install Status' window is opened for each ESX Host being patched.



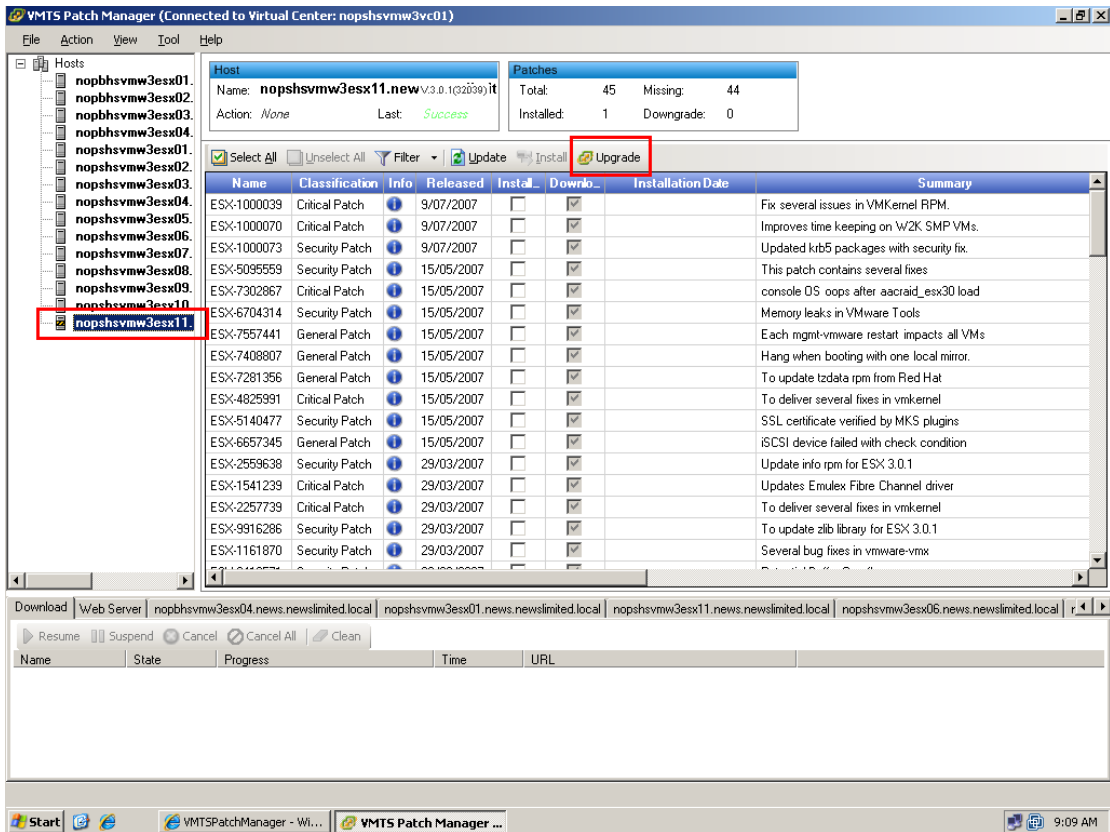
## ESX Host upgrade

VMTS ESX Patch manager can also upgrade complete ESX hosts which is accomplished in a similar way to patching by first downloading the ESX upgrade package from the VMware site and then automating the install process through the program with a few clicks. As a note, before upgrading any Hosts in your VMware Infrastructure please remember to upgrade your VirtualCenter Server to a compatible version before upgrading the Hosts connected to it.

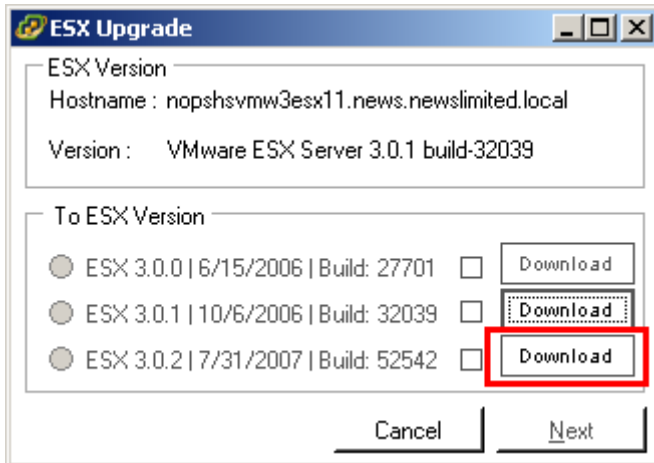
## Downloading the ESX Host upgrade package

To start, select the ESX Host you wish to upgrade in the left Host/Infrastructure view. You can check the current version of the Host you have selected by either hovering the mouse of the Hosts name for a couple of seconds and a tool tip will appear or by looking in the name box where the ESX version and build number is displayed.

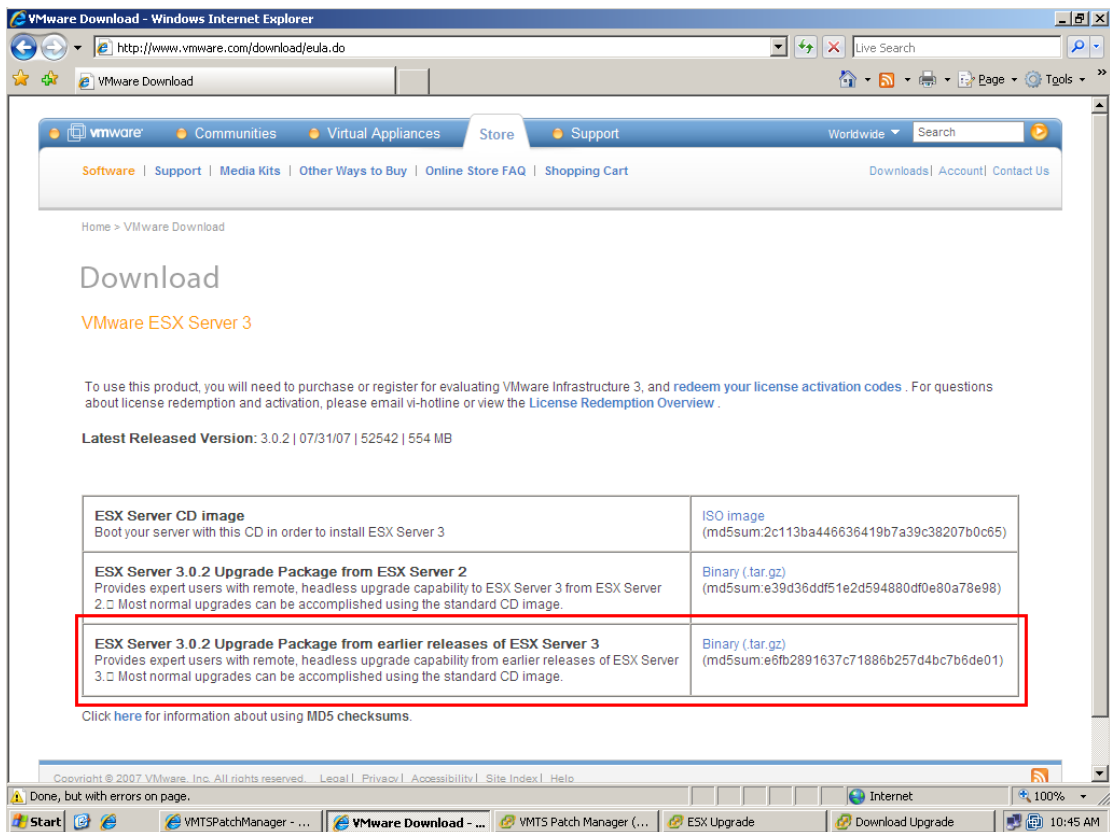
Click the ‘Upgrade’ button to bring up the ESX Upgrade options.



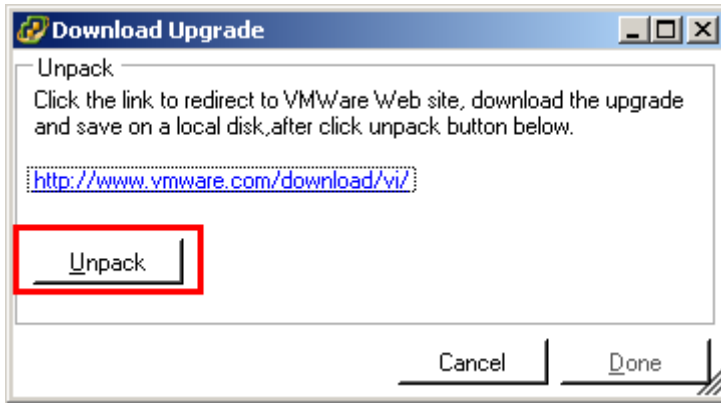
On the ESX Upgrade window you can download the relevant version of ESX you wish to upgrade your hosts to. Click the ‘Download’ button for the version you need



Follow the link to the download patch and enter your VMware customer portal login details and proceed to the download page. Make sure you select the download from an earlier release of ESX Server 3 not the upgrade from ESX version 2.



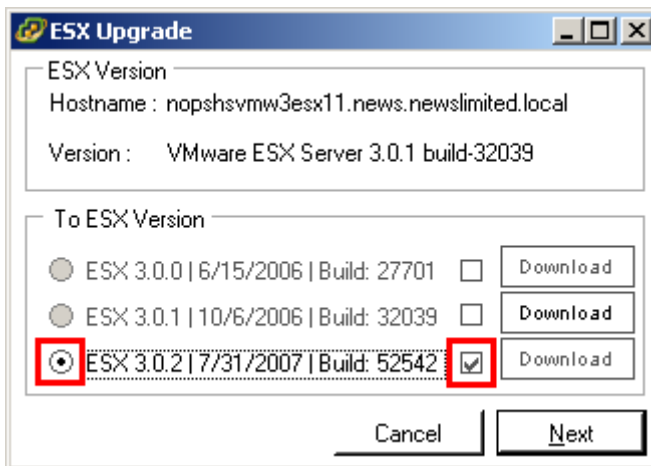
Download the .tar.gz upgrade package to your ESX patches repository and then click the 'Unpack' button and point it to the downloaded file. This will extract the downloaded .tar.gz upgrade package for you ready for ESX Patch manager to use, once done click the 'Done' button.



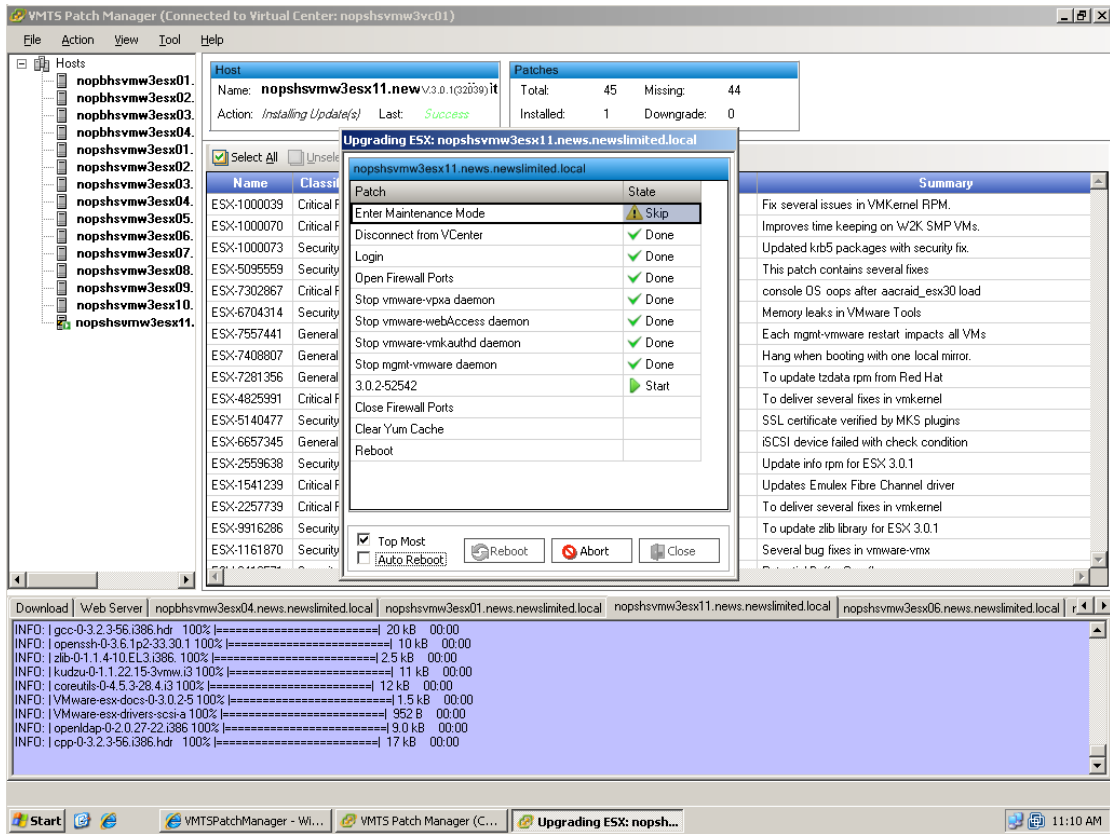
This download and extract process only needs to be done once, from now on you can just upgrade the ESX Hosts.

### Upgrading the ESX Host

Now the ESX Host upgrade package is downloaded and extracted you will see when clicking on the 'Upgrade' button that the box is ticked to show the upgrade is downloaded ready to deploy. Click the radio button to the left of the version you wish to upgrade to and click 'Next'



On the following Upgrading window you can choose to make the Host 'Auto reboot' after the upgrade or not via the tick box and then click the 'Start' button to start the host upgrade process. Don't forget you can click the Host you have chosen to upgrade in the Status tab area in the bottom section to view the upgrade process in real-time.



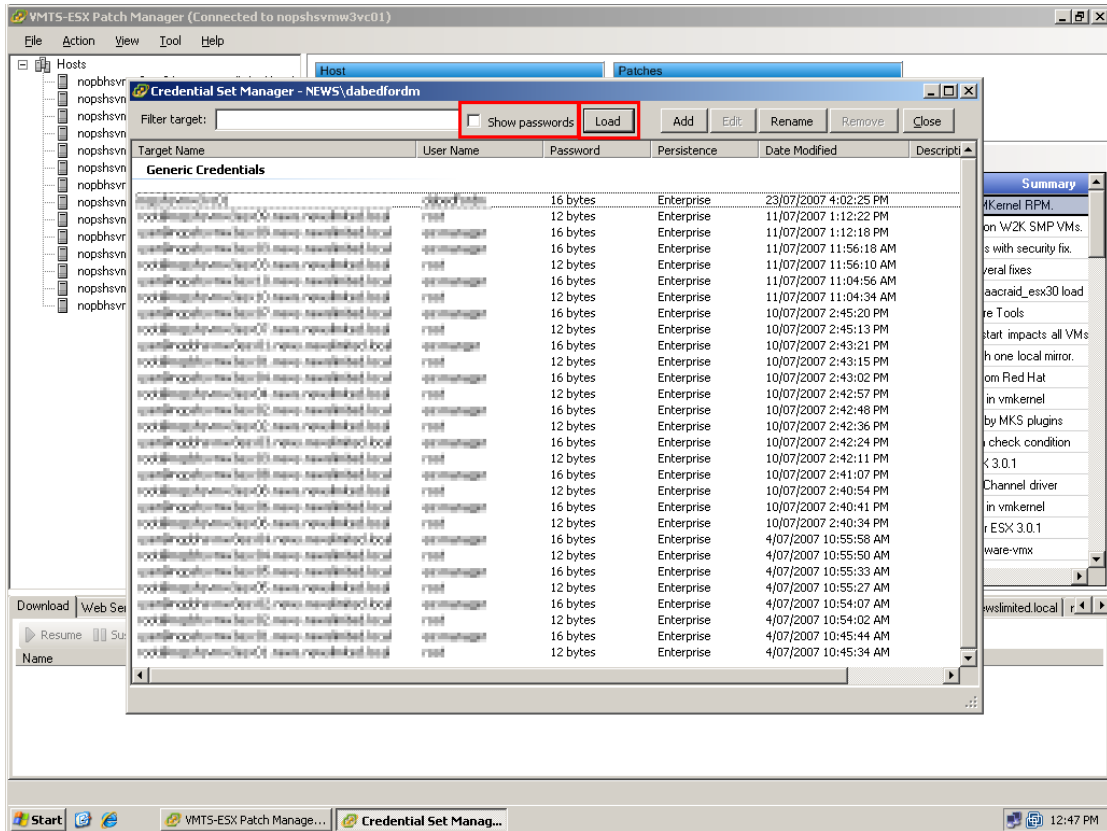
Once the upgrade is complete, if you did not tick the 'Auto Reboot' box, make sure you manually reboot the ESX host.

### Credential manager

The credential manager is accessible by clicking the 'Tool' menu then the 'Manage Credential' option. This window allows you to view all of the passwords stored for your VirtualCenter connections and your ESX host connections stored in the secure Microsoft Protected Storage space.

In a common VMware VI3 infrastructure, a VirtualCenter server would have one credential stored against it and each ESX Host would have 2 credentials stored against it. One for the Root account and one for the main ESX admin account that you the administrator would have created during the installing of your ESX Hosts.

Once on this screen you can view the stored passwords with the stored usernames to check they have been entered correctly. To do this tick the 'Show passwords' box and click 'Load', the passwords will be displayed. This is especially useful if you have been experiencing authentication errors when using the program and you wish to double check what passwords have been entered.



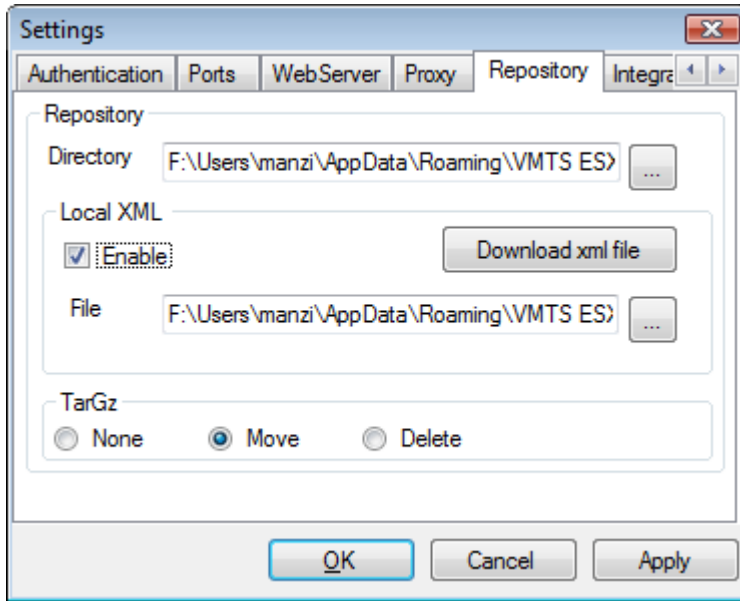
## How to patch an isolated ESX host

If you have an isolated ESX host or if you want create a portable ESX Patcher, you have to copy all contents of the following folder:

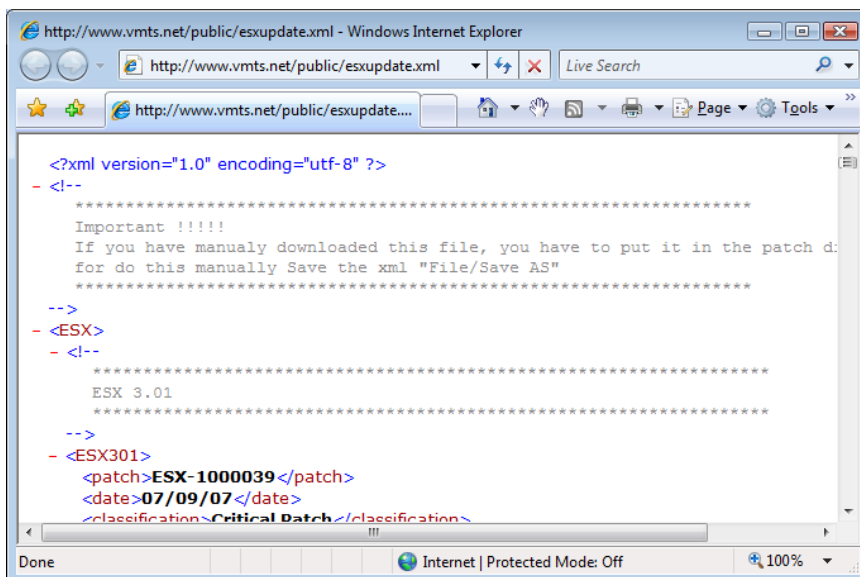
**<drive>:\documents and settings\<<username>\application data\VMTS ESX Patch Manager**

This is found on your ESX Patching machine, inside this directory you find all the configuration, plus all of the downloaded ESX patches if you have not changed the patch repository folder. If you have downloaded the patches to a different folder be sure to copy this folder too.

Next you have to manually download the ESX patches files list by opening Settings and going to the Repository tab



Tick the Local XML ‘Enable’ box and click the ‘Download xml file’ button

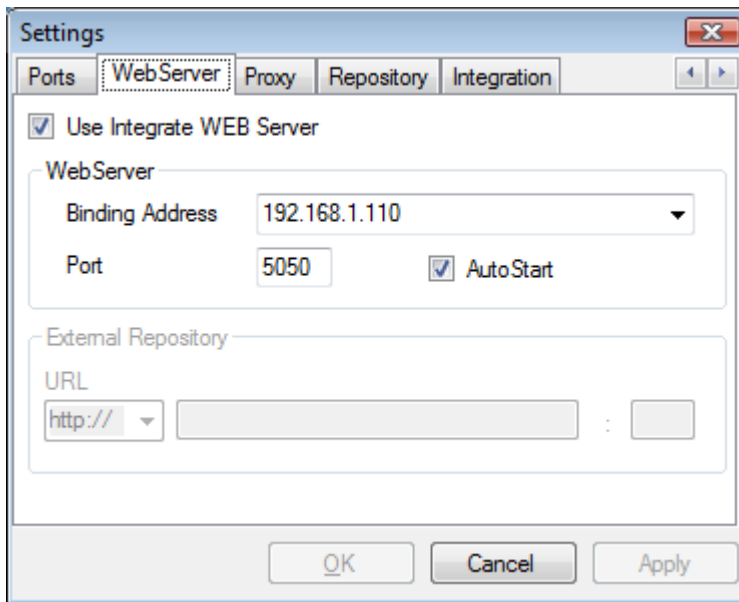


Your web browser will open the ‘esxupdate.xml’ file, save this the same directory you used before:

**<drive>:\documents and settings\<username>\application data\VMTS ESX Patch Manager**

The default filename is ‘esxupdate.xml’ but you can change it as you can change the directory by changing ‘File’ field.

If you do not need a portable ESX patcher or if you don’t want to copy the patches file but you have an isolated ESX host and you have an internal web server or an internal FTP server accessible from your ESX host, you could change the Web Server configuration.

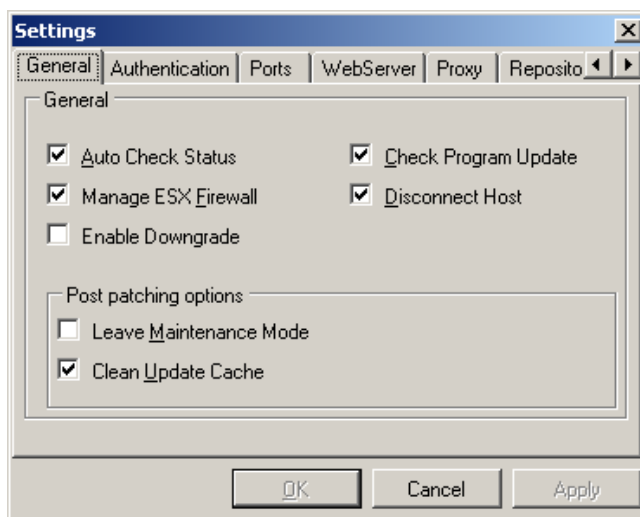


Un-Tick the ‘Use Integrated WEB Server’ box and enter the external repository address, you can choose between FTP and HTTP (not HTTPS). Now every time a patch is needed it’s taken from this web/ftp site as needed.

## ESX Patch Manager Settings

The Settings window can be reached by going to the ‘Tool’ menu then selecting the ‘Settings’ option, here we can configure all of VMTS ESX Patch manager’s settings in one place.

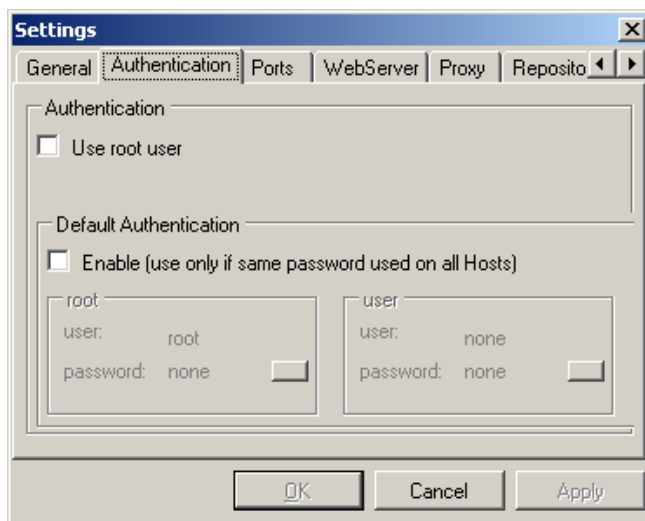
### General



<p><b>Auto Check Status –</b></p>	<p>When the program starts it will query all known hosts attached to the VirtualCenter automatically for version levels and their patches installed.</p>
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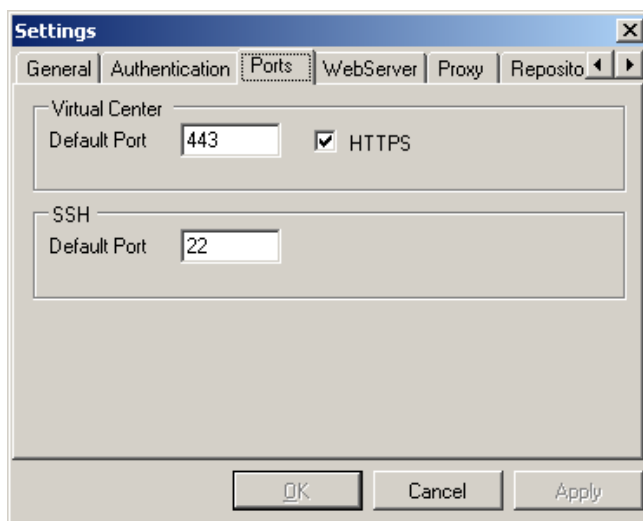
<b>Manage ESX Firewall –</b>	The relevant ports will be opened on the ESX 3 Hosts built in firewall prior to patching and then they will be closed off again after patching is complete.
<b>Enable Downgrade -</b>	Enables the option to force downgrading of patches, installing older patches over new ones which under normal circumstances is not advisable.
<b>Check Program Update -</b>	When the program starts it will check the internet to see if a new version of VMTS ESX Patch Manager has been released and will give you the option to update.
<b>Disconnect Host -</b>	Will disconnect the ESX Host being upgraded from VirtualCenter as a first step, this is a precautionary event to stop any VirtualCenter users trying to interact with the Host during patching.
<b>Leave Maintenance Mode -</b>	When ticked, the Host will exit Maintenance Mode once all patching is complete and the Host has rebooted.
<b>Clean Update Cache -</b>	When ticked the YUM cache on the ESX Host is cleaned once patching is complete, this tidies and cleans up the ESX Hosts local disk.

## Authentication



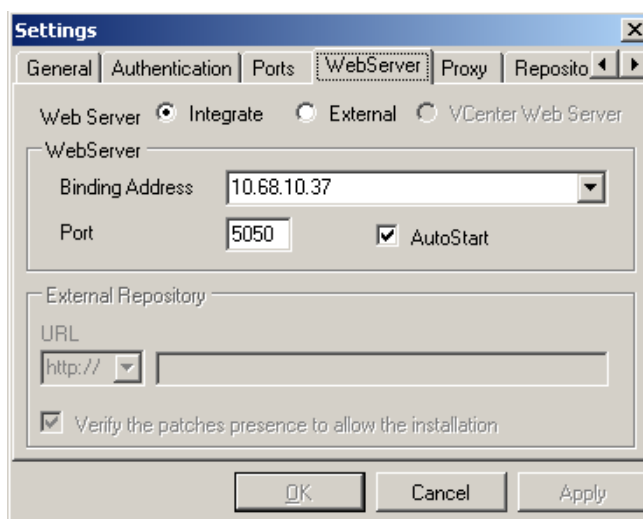
<b>Use root user -</b>	Use the Root user account to login to your ESX Hosts. This is only possible if you have changed the default to Allow Root user logins via SSH.
<b>Default Authentication - Enable</b>	If the same passwords are sued for your ‘Root’ account and your ‘main ESX admin’ account across all your Hosts then you can Enable Default Authentication and click the small buttons to enter in your ‘Root’ and ‘main ESX admin’ account’s details so they are stored.

## Ports



<b>VirtualCenter – Default Port</b>	The default TCP port used to communicate to the VirtualCenter Server.
<b>SSH – Default Port</b>	The default TCP port used to communicate to SSH running on the ESX Host.

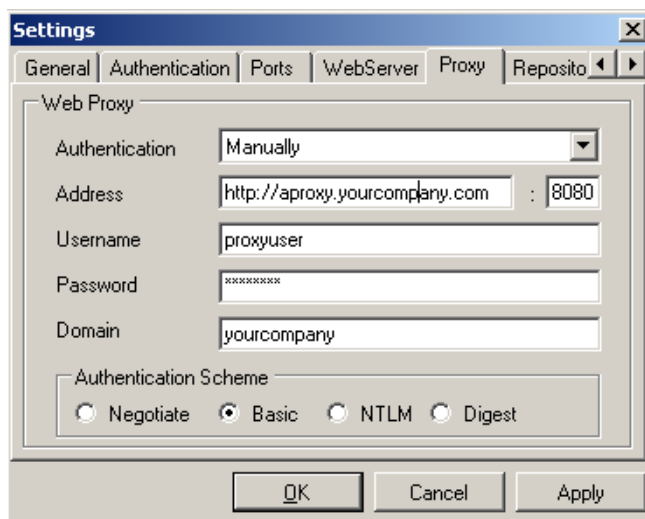
## WebServer



<b>Web Server – Integrate</b>	Use the integrated small footprint web server to upload patches to the ESX Hosts. Specify the IP address of the machine that has VMTS ESX Patch manager installed and another port from the default of port 5050 if already used. The ‘AutoStart’ tick box makes the integrated web server start when the program starts
<b>Web Server - External</b>	Use another web server to store the ESX patches. This server can be a HTTP or FTP server.

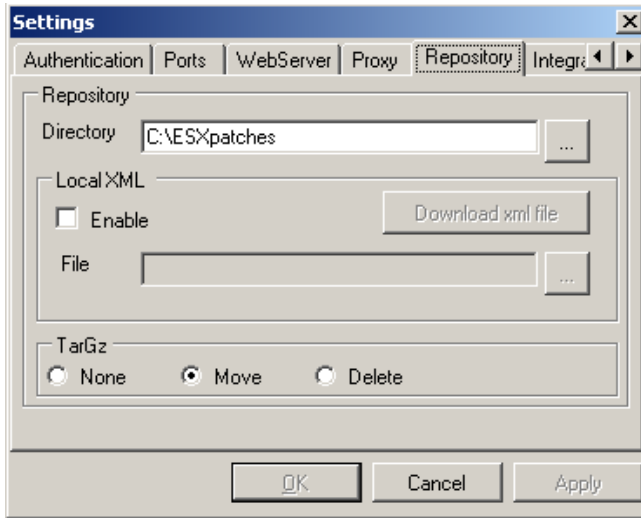
	Note: HTTPS or SFTP is not supported.
<b>Web Server – Vcenter Web Server</b>	Uses VirtualCenter’s built in Tomcat webserver to Host the ESX patches repository. This option is only available if VMTS ESX patch manager is installed on the VirtualCenter server.

## Proxy



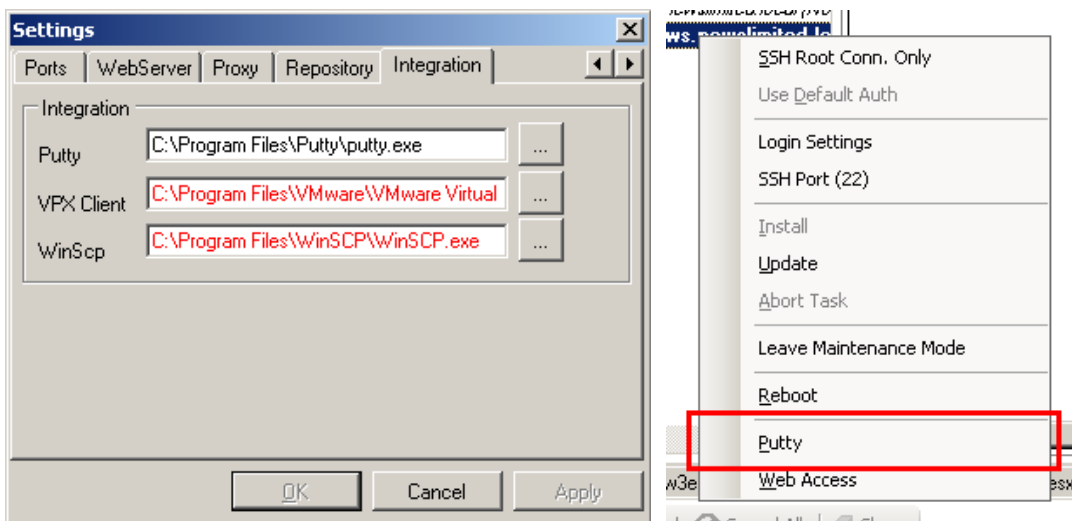
<b>Authentication -</b>	Autodetect – Try to autodetect your proxy settings Manually – enter all the proxy details manually No proxy – use if direct connection to the internet, no proxys used Use IE configuration – Use Internet Explorers proxy settings
<b>Address -</b>	When manually, enter the address or IP of your proxy server including its port.
<b>Username -</b>	Enter a username that has permission to use the proxy to gain access to the Internet
<b>Password -</b>	Enter your above usernames password
<b>Domain -</b>	Enter the domain your user account sites in (sometimes not relevant)
<b>Authentication Scheme -</b>	Choose the correct authentication method for your proxy, Negotite, Basic, NTLM (a Microsoft authentication protocol) or Digest.

## Repository



<b>Directory -</b>	The local folder where the ESX patches are stored if using the integrated Web Server option on the 'WebServer' tab. This can be any local folder you like that has enough space. Warning the ESX patches repository can get very large 2+ Gb
<b>Local XML -</b>	Enables you to download the XML file from the VMTS.net site to a local folder, you would only want to do this if patching offline from the Internet.
<b>TarGz -</b>	Selects whether the downloaded TarGx ESX patches should be Moved or Deleted after they have been extracted in the patches repository.

## Integration



<b>Putty -</b>	If Putty is installed on your machine select its location here. This enables integration into the right click option of any ESX Host in the Host/Infrastructure view to open a console session.
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	<p>When Putty is installed and detected the path to the program changes from Red to Black.</p> <p>Putty can be downloaded from:  <a href="http://www.chiark.greenend.org.uk/~sgtatham/putty/">http://www.chiark.greenend.org.uk/~sgtatham/putty/</a></p>
<b>VPX Client -</b>	<p>If the VMware Virtual Infrastructure Client is installed on your machine select its location here. This enables integration into the right click option of any ESX Host in the Host/Infrastructure view to connect to the Host via the VMware Virtual Infrastructure Client. When the VMware Virtual Infrastructure Client is installed and detected the path to the program changes from Red to Black.</p> <p>The VMware Virtual Infrastructure Client can be most easily downloaded from opening a Web Browser to any of your ESX Hosts and clicking 'Download the VMware Infrastructure Client'</p>
<b>WinScp -</b>	<p>If WinScp is installed on your machine select its location here. This enables integration into the right click option of any ESX Host in the Host/Infrastructure view to open WinScp file transfer session. When the WinScp is installed and detected the path to the program changes from Red to Black.</p> <p>WinScp can be downloaded from:  <a href="http://winscp.net/eng/index.php">http://winscp.net/eng/index.php</a></p>

## Credits

### **Original concept and Programming - *Massimiliano Daneri***

This application and included code was developed in C# .NET 2.0 and VI SDK 2.0 This software is currently provided with no support or liability by the author as Freeware and by Massimiliano Daneri ([m.daneri@vmts.net](mailto:m.daneri@vmts.net))

### **Documentation and GUI fix/language recommendations – *Mark Bedford***

Documentation is updated on a per version or per major feature addition basis as needed. English language/grammar GUI and GUI fix changes suggested and fixed as per needed. ([mark.bedford@iinet.net.au](mailto:mark.bedford@iinet.net.au))

**End of Documentation.**