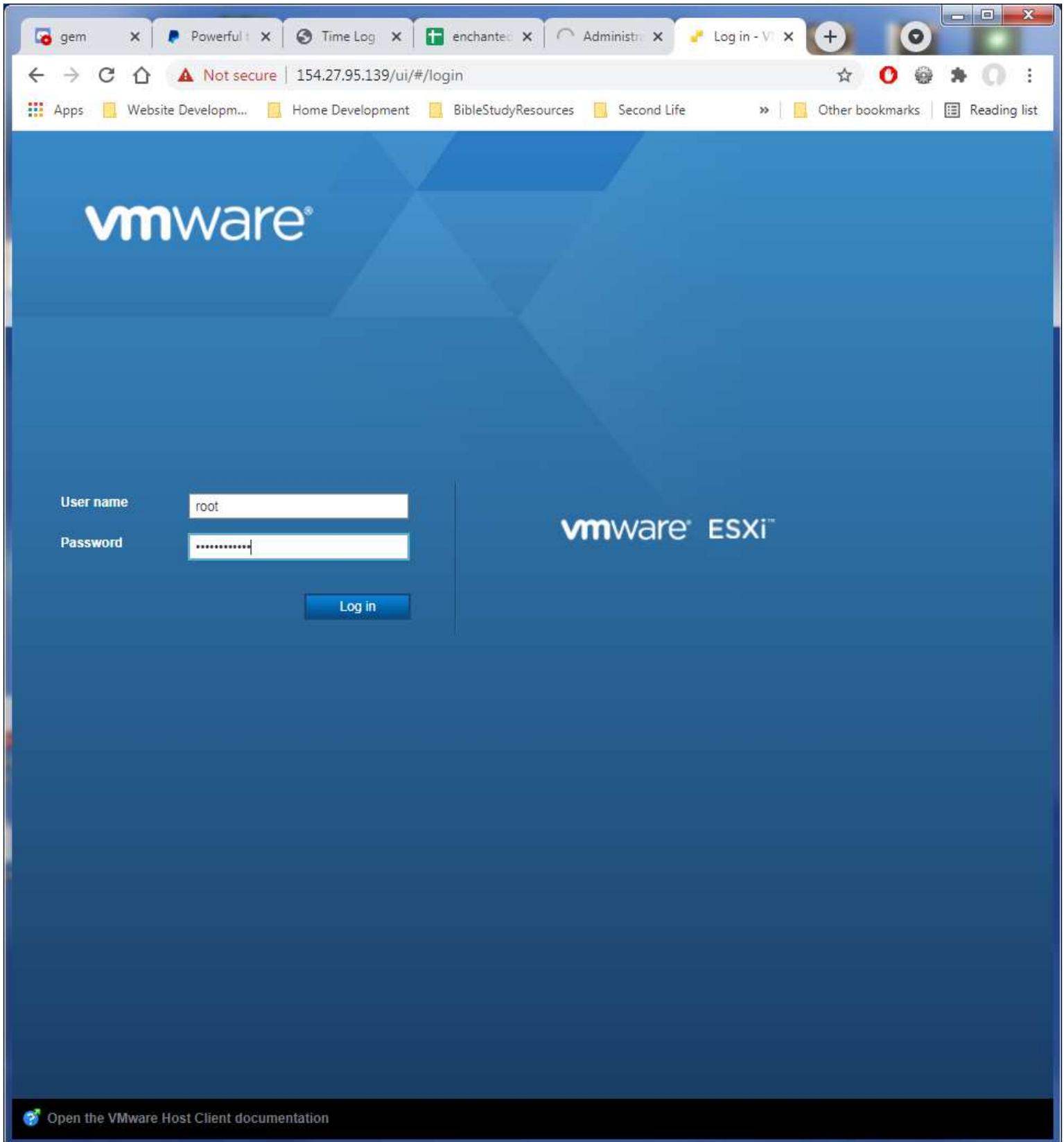


VMWare Initial Setup for New Hardware Server

Based on Cloud South E Server hardware with 16 CPU, 128GB memory, 500GB SSD, 1TB HD, 1TB HD

Logon to new server using its VMWare IP based URL.



First task is to change the VMWare User Session timeout. Click on the Navigator entry in the top of the left column to widen it. Click on Manage under the Host entry. Click on the tab for System. Wait for the list to load and display. You can click and drag the lower right corner of that display window and drag it down to the lower right of its container window to show as much as it will allow. Look for this entry: click on it to highlight it, then click Edit Option.

The screenshot shows the VMware ESXi Advanced Settings page. The 'System' tab is selected, and the 'Advanced settings' section is expanded. The 'UserVars.HostClientSessionTimeout' entry is highlighted in blue. Below the settings table, the 'Recent tasks' section shows two successful 'Update Options' tasks.

Key	Name	Value	Def...	Ove...
User.PTEDisableNX	Disables the use of NX bit in ...	0	0	False
User.ReaddirRetries	Maximum number of retries ...	10	10	False
UserVars.ActiveDirectoryPreferred...	Preferred Domain Controllers...			False
UserVars.ActiveDirectoryVerifyCA...	Enable or disable verification ...	1	1	False
UserVars.DcuiTimeOut	An idle time in seconds befor...	600	600	False
UserVars.EsximageNetRateLimit	Set the maximum rate, in byt...	0	0	False
UserVars.EsximageNetRetries	Set the number of times to re...	10	10	False
UserVars.EsximageNetTimeout	Set the timeout in seconds fo...	60	60	False
UserVars.ESXiShellInteractiveTime...	Idle time before an interactiv...	0	0	False
UserVars.ESXiShellTimeOut	Time before automatically dis...	0	0	False
UserVars.ESXIVPsAllowedCiphers	ESXi VPs allowed ciphers. Li...	!aNULL:kE...	!aNU...	False
UserVars.ESXIVPsDisabledProtocols	ESXi VPs disabled protocols....	sslsv3,tlsv1,tl...	sslsv3,...	False
UserVars.HardwareHealthSyncTime	Interval in minutes for periodi...	360	360	False
UserVars.HostClientCEIPOptIn	Whether or not to opt-in for th...	1	0	True
UserVars.HostClientDefaultConsole	The default console to use w...	webmks	webmks	False
UserVars.HostClientEnableMOTD...	Whether or not to enable MO...	1	1	False
UserVars.HostClientEnableVisualEf...	Whether or not to enable visu...	1	1	False
UserVars.HostClientSessionTimeout	Default timeout for Host Clie...	7200	900	True
UserVars.HostClientShowOnlyDes...	Whether or not to show only...	1	1	False

Task	Target	Initiator	Queued	Started	Result	Completed
Update Options	localhost.localdomain	nrcurtice	05/03/2021 15:48:...	05/03/2021 15:48:...	Completed successfully	05/03/2021 15:48:...
Update Options	localhost.localdomain	nrcurtice	05/03/2021 15:41:...	05/03/2021 15:41:...	Completed successfully	05/03/2021 15:41:...

WinReg-flat.vmdk
35.3/60.0 GB, 7 mins left

Next is to add the Administrator account to VMWare to replace the root logon. Root is the default account for all Linux based systems, because of that any root account that is active is the target for hacker attacks. Click on the Security & Users tab. Click on the Add User option.

The screenshot shows the VMware ESXi web interface. The browser address bar displays `154.27.95.139/ui/#/host/manage/security/users`. The interface is titled "localhost.localdomain - Manage" and has tabs for System, Hardware, Licensing, Packages, Services, and Security & users. The "Security & users" tab is active, showing a sidebar with options: Acceptance level, Authentication, Certificates, **Users**, Roles, and Lockdown mode. The "Users" section contains an "Add user" button, "Edit user", "Remove user", and "Refresh" options. Below these is a search bar and a table with the following data:

User Name	Description
root	Administrator

The table indicates "1 items". At the bottom, the "Recent tasks" section shows a task "Update Options" completed successfully on 05/03/2021.

<https://154.27.95.139/ui/>

Enter the information as shown here, the password is the one in the spreadsheet for all VMWare Administrator accounts.

The screenshot displays the VMware ESXi web interface. The browser address bar shows the URL `154.27.95.139/ui/#/host/manage/security/users`. The interface is titled "localhost.localdomain - Manage" and is currently in the "Security & users" section. A dialog box titled "Add a user" is open in the foreground, containing the following fields:

- User name (required): Administrator
- Description: SysAdmin
- Password (required): [masked with dots]
- Confirm password (required): [masked with dots]

Buttons for "Add" and "Cancel" are located at the bottom of the dialog box. In the background, the "Users" section of the interface is visible, showing a table with one user:

User Name	Description
root	Administrator

The "Recent tasks" section at the bottom of the interface shows a task that completed successfully:

Task	Target	Initiator	Queued	Started	Result	Comple...
Update Options	localhost.localdo...	root	05/03/2021 ...	05/03/2021 ...	Completed successf...	05/03/2021 ...

Now to activate the new Administrator account. Click on the Host entry in the left side panel to open its display. Click on the Actions option, then the Permissions entry.

The screenshot shows the VMware ESXi vCenter interface. The left sidebar (Navigator) has 'Host' selected. The main panel displays the configuration for 'localhost.localdomain'. The 'Actions' menu is open, showing options like 'Create/Register VM', 'Shut down', 'Reboot', 'Services', 'Enter maintenance mode', 'Lockdown mode', 'Permissions', 'Generate support bundle', and 'SSH Console'. The 'Permissions' option is highlighted. Below the main panel, there is a 'Hardware' section with a table of system details and a 'Recent tasks' table.

Manufacturer	Dell Inc.
Model	PowerEdge C6220
CPU	16 CPUs x Intel(R) Xeon(R) CPU E5-2670 0 @ 2.60GHz
Memory	95.92 GB
Persistent Memory	0 B
Virtual flash	0 B used, 0 B capacity
Networking	
Hostname	localhost.localdomain
IP addresses	1. vmk0: 154.27.95.139

Task	Target	Initiator	Queued	Started	Result	Comple...
Create User	root	root	05/03/2021 ...	05/03/2021 ...	Completed successf...	05/03/2021 ...
Create User	root	root	05/03/2021 ...	05/03/2021 ...	Completed successf...	05/03/2021 ...
Update Options	localhost.localdo...	root	05/03/2021 ...	05/03/2021 ...	Completed successf...	05/03/2021 ...

Very well hidden option! I had to research how to assign access to accounts to find this.

Click on the Add user option.

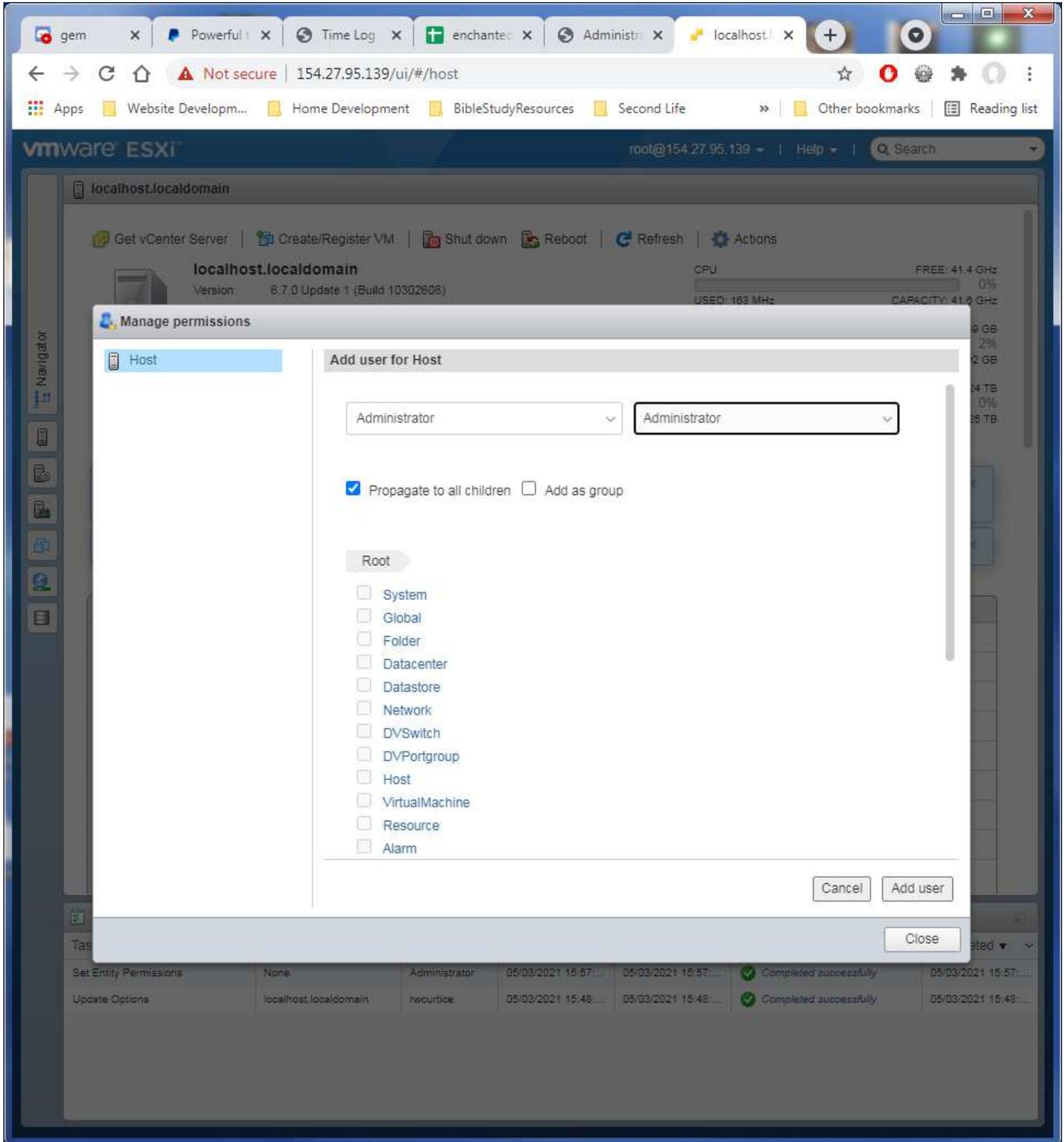
The screenshot shows the VMware ESXi vCenter console interface. A 'Manage permissions' dialog box is open, displaying the 'Assign users and roles for Host' configuration. The dialog box includes a table with the following data:

User	Role
dcul	Administrator
root	Administrator
ypxuser	Administrator

The 'Add user' button is highlighted in blue. Below the table, it indicates '3 items'. The background shows the vCenter console for the host 'localhost.localdomain', with various system metrics and a task log at the bottom.

https://154.27.95.139/ui/

In the first box, click its down arrow to find the Administrator user entry to select it. Then in the right drop box select the Administrator role as shown.



No other options need to be changed. Click on the Add User button to save the entry.

Now the Administrator is listed in the users and roles display.

The screenshot shows the VMware ESXi web interface. A 'Manage permissions' dialog box is open, displaying the 'Assign users and roles for Host' section. The dialog includes a table with the following data:

User	Role
Administrator	Administrator
dcul	Administrator
root	Administrator
vpxuser	Administrator

Below the table, it indicates '4 items'. The background interface shows the host 'localhost.localdomain' with various system metrics and a task log at the bottom.

Logout of the root account.

The screenshot shows the VMware ESXi web interface in a browser window. The browser's address bar displays the URL `154.27.95.139/ui/#/host`. The interface title is **vmware ESXi**. The user is logged in as `root@154.27.95.139`. A dropdown menu is open over the user name, showing options: **Auto-refresh**, **Change password**, **Settings**, and **Log out**. The **Log out** option is highlighted. The main content area shows the host details for `localhost.localdomain`, including version (6.7.0 Update 1), state (Normal), and uptime (5.07 days). Performance metrics for CPU, MEMORY, and STORAGE are displayed with progress bars. Two informational messages are shown: one about CVE-2018-3646 and another about the evaluation mode license expiration in 55 days. The **Hardware** section lists system details like Manufacturer (Dell Inc.), Model (PowerEdge C6220), CPU (16 CPUs x Intel(R) Xeon(R) CPU E5-2670 0 @ 2.60GHz), Memory (95.92 GB), and Networking (Hostname: localhost.localdomain, IP addresses: 1. vmk0: 154.27.95.139). The **Recent tasks** table at the bottom shows a list of completed tasks.

Task	Target	Initiator	Queued	Started	Result	Comple...
Set Entity Permissions	None	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Set Entity Permissions	None	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Create User	root	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Create User	root	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Update Options	localhost.localdo...	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...

Logon to the server again this time using the new Administrator account.

The screenshot shows a web browser window with the following details:

- Browser Tabs:** gem, Powerful tools, Time Log - Pro, enchanted grid, Log in - VMwa
- Address Bar:** Not secure | 154.27.95.139/ui/#/login
- Bookmarks:** Apps, Website Developm..., Home Development, BibleStudyResources, Second Life, Other bookmarks, Reading list
- Page Content:**
 - vmware logo at the top left.
 - vmware ESXi logo on the right side.
 - Form fields:
 - User name: Administrator
 - Password: masked with dots
 - Log in button
- Footer:** Open the VMware Host Client documentation

Again open the Navigator to click in the Host entry. Then on Actions to select Permissions.

The screenshot shows the VMware ESXi web interface. The browser address bar displays `154.27.95.139/ui/#/host`. The interface title is **vmware ESXi** with the user `Administrator@154.27.95.139`. The left sidebar (Navigator) shows the **Host** selected under the **localhost.localdomain** view.

The main content area displays the host configuration for **localhost.localdomain**. The host version is `6.7.0 Update 1 (Build 10302608)`, state is `Normal (not connected to any vCent...`, and uptime is `5.07 days`. Resource usage is shown as: CPU USED: 33%, MEMORY USED: 2.21%, STORAGE USED: 4.25%.

Two informational messages are present:

- This host is potentially vulnerable to issues described in CVE-2018-3646, please see <https://kb.vmware.com/s/article/55636> for details and VMware recommendations.
- You are currently using ESXi in evaluation mode. This license will expire in 5 days.

The **Hardware** section contains the following details:

Component	Value
Manufacturer	Dell Inc.
Model	PowerEdge C6220
CPU	16 CPUs x Intel(R) Xeon(R) CPU E5-2670 0 @ 2.60GHz
Memory	95.92 GB
Persistent Memory	0 B
Virtual flash	0 B used, 0 B capacity
Networking	
Hostname	localhost.localdomain
IP addresses	1. vmk0: 154.27.95.139

The **Recent tasks** table shows the following entries:

Task	Target	Initiator	Queued	Started	Result	Completion
Set Entity Permissions	None	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Set Entity Permissions	None	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Create User	root	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Create User	root	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Update Options	localhost.localdo...	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...

Click on the root entry to select it, then on the +Assign option.

The screenshot shows the VMware ESXi vCenter interface. A 'Manage permissions' dialog box is open, showing the 'Host' entity selected. The 'Assign users and roles for Host' section is active, displaying a table with users and roles. The 'root' user is selected, and the '+ Assign role' button is highlighted.

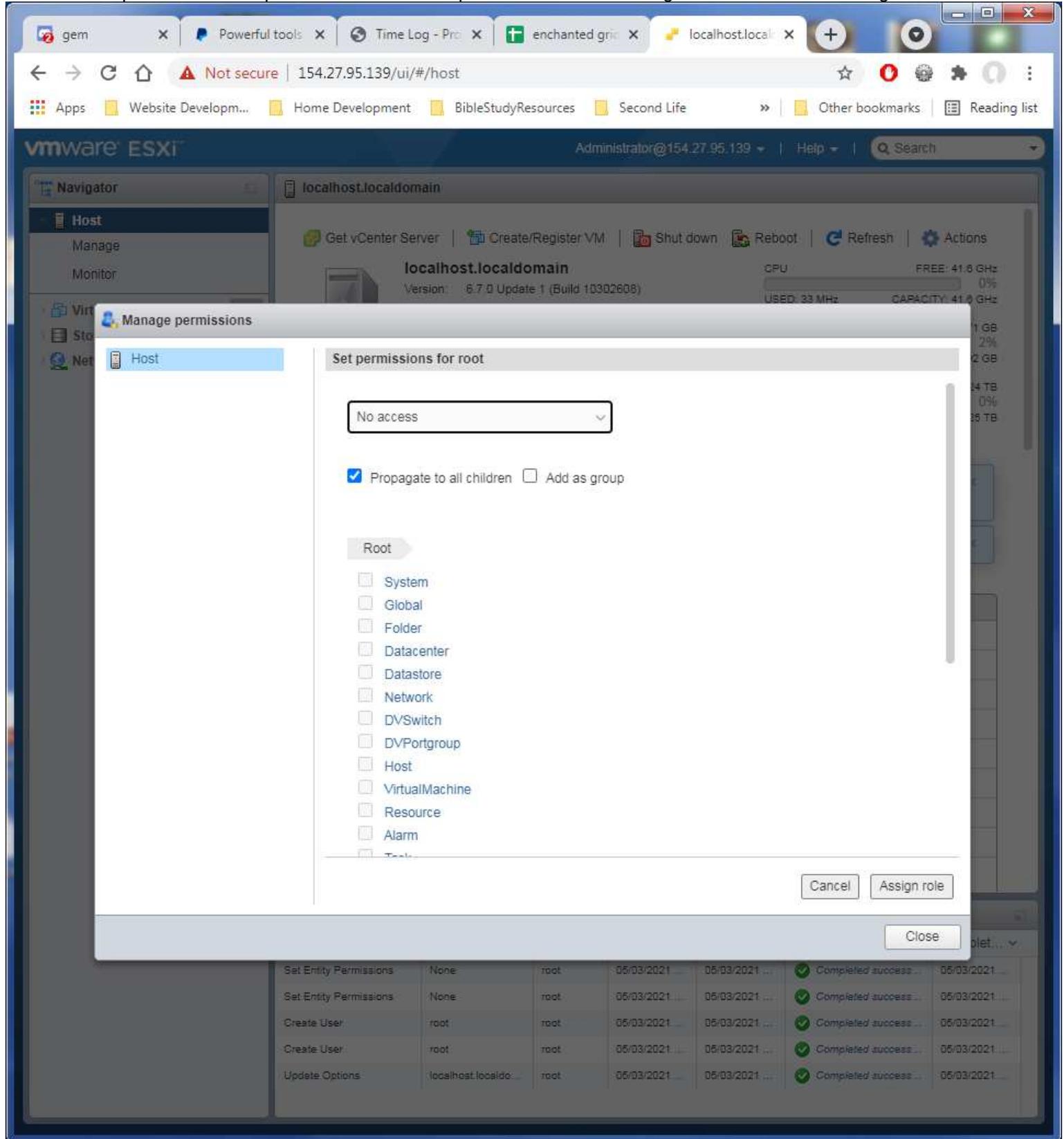
User	Role
Administrator	Administrator
dcui	Administrator
root	Administrator
rwcrtice	Administrator

5 items

Close

https://154.27.95.139/ui/

Select in the permissions drop list the No Access option. Click on the Assign role to save the change.



Now the root account is disabled from logon. This will have to be redone should Cloud South ever has to do any access to the server. They reset the options to only root access and any other users are excluded.

The screenshot displays the VMware ESXi management interface. A 'Manage permissions' dialog box is open, showing the configuration for the 'Host' entity. The dialog includes a table titled 'Assign users and roles for Host' with the following data:

User	Role
Administrator	Administrator
dcul	Administrator
root	No access
rwcurtice	Administrator

The background interface shows the host 'localhost.localdomain' with CPU usage metrics (FREE: 41.6 GHz, USED: 33 MHz, CAPACITY: 41.6 GHz) and a task log at the bottom. The task log contains the following entries:

Task Name	Entity	User	Start Time	End Time	Status	Message
Set Entity Permissions	None	Administr...	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Set Entity Permissions	None	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Set Entity Permissions	None	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Create User	root	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Create User	root	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Update Options	localhost.localdo...	root	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...

Now to set the license for VMWare. Again, Click on the Host in the Navigator and its Manage entry. Then click on the Licensing tab.

The screenshot shows the VMware ESXi web interface. The browser address bar displays `154.27.95.139/ui/#/host/manage/licensing`. The interface is titled "localhost.localdomain - Manage" and has tabs for System, Hardware, Licensing (selected), Packages, Services, and Security & users. In the Licensing tab, there are buttons for "Assign license", "Remove license", "Refresh", and "Actions". The main content area shows "Evaluation Mode" with a key icon. The license details are as follows:

- Key: 00000-00000-00000-00000-00000
- Expiration date: Sunday, June 27, 2021, 16:06:08 -0700
- Features: Unlimited virtual SMP, H.264 for Remote Console Connections, vCenter agent for VMware host, vSphere API, Content Library, Storage APIs, vSphere vMotion, X-Switch vMotion, vSphere HA, vSphere Data Protection, vShield Endpoint, vSphere Replication, vShield Zones, Hot-Pluggable virtual HW, vSphere Storage vMotion, Shared Smart Card Reader, vSphere FT (up to 8 virtual CPUs), Virtual Volumes, APIs for Storage Awareness, Storage-Policy Based Management, vSphere Storage APIs for Array Integration, vSphere DRS, Remote virtual Serial Port Concentrator, MPIO / Third-Party Multi-Pathing, Big Data Extensions, Reliable Memory, vSphere Distributed Switch, vSphere Host Profiles, vSphere Auto Deploy, SR-IOV, vSphere Storage I/O Control.

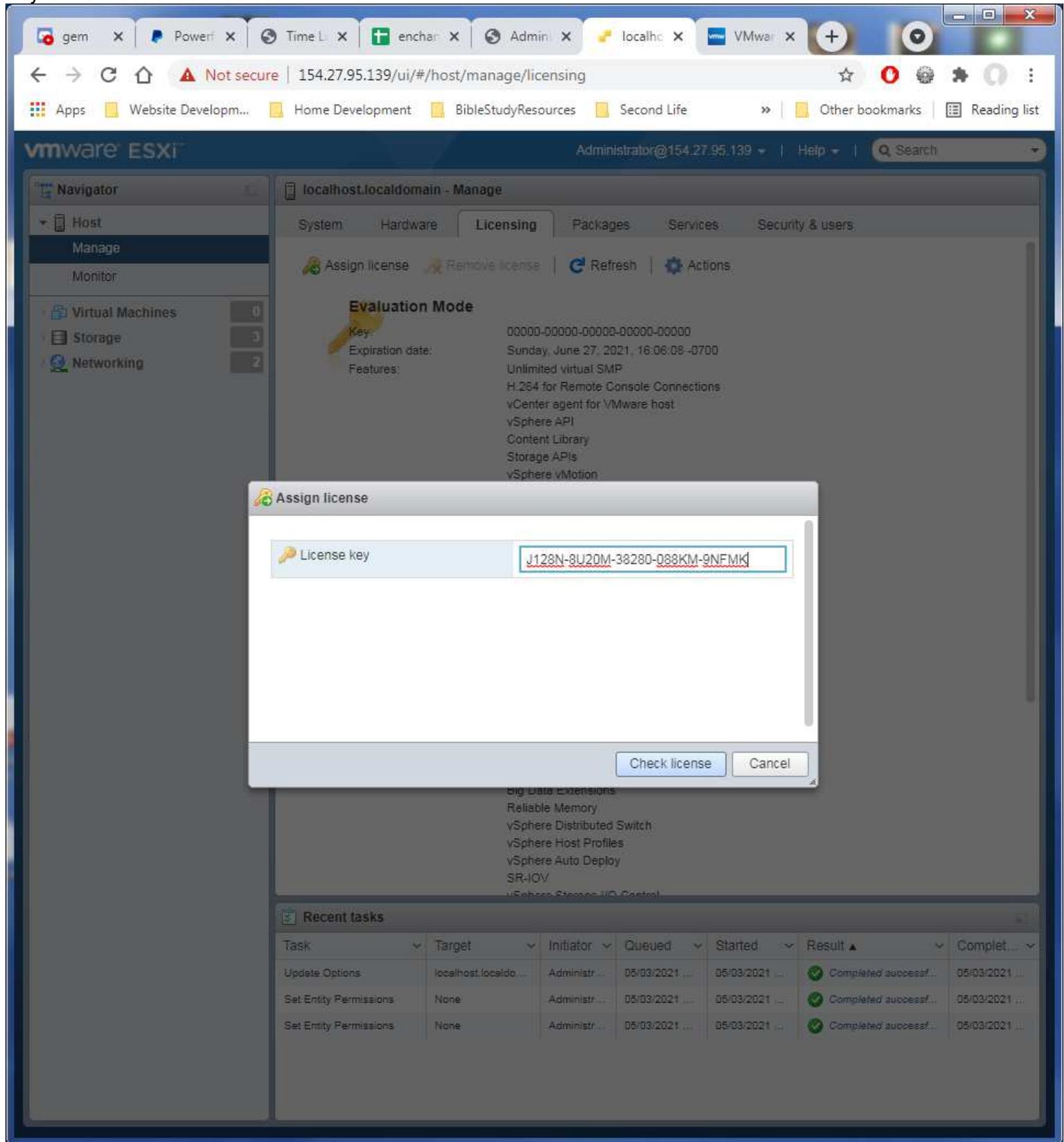
At the bottom, the "Recent tasks" table is visible:

Task	Target	Initiator	Queued	Started	Result	Comple...
Update Options	localhost.localdo...	Administr...	05/03/2021 ...	05/03/2021 ...	Completed successf...	05/03/2021 ...
Set Entity Permissions	None	Administr...	05/03/2021 ...	05/03/2021 ...	Completed successf...	05/03/2021 ...
Set Entity Permissions	None	Administr...	05/03/2021 ...	05/03/2021 ...	Completed successf...	05/03/2021 ...

The URL `https://154.27.95.139/ui/` is visible in the bottom left corner.

This license key is the free community license provided for this use.

Key: J128N-8U20M-38280-088KM-9NFMK



Paste in the key and click the Check License button.

VMWare will validate the key and you click the Assign License button.

The screenshot shows the VMware ESXi web interface. The browser address bar displays `154.27.95.139/ui/#/host/manage/licensing`. The main content area is titled "localhost.localdomain - Manage" and has tabs for System, Hardware, Licensing, Packages, Services, and Security & users. The "Licensing" tab is active, showing "Evaluation Mode" with a key icon. The key details are: Key: 00000-00000-00000-00000-00000, Expiration date: Sunday, June 27, 2021, 16:06:08 -0700, and Features: Unlimited virtual SMP, H.264 for Remote Console Connections, vCenter agent for VMware host, vSphere API, Content Library, Storage APIs, and vSphere vMotion. A dialog box titled "Assign license" is overlaid on the screen. It contains a "License key" field with the value "J128N-8U20M-38280-088KM-9NFMK". Below the field is a green checkmark icon and the text "License key is valid for VMware vSphere 6 Hypervisor". At the bottom of the dialog are "Assign license" and "Cancel" buttons. At the bottom of the main interface, there is a "Recent tasks" table.

Task	Target	Initiator	Queued	Started	Result	Comple...
Decode License	None	Administr...	05/03/2021 ...	05/03/2021 ...	✓ Completed successf...	05/03/2021 ...
Update Options	localhost.localdo...	Administr...	05/03/2021 ...	05/03/2021 ...	✓ Completed successf...	05/03/2021 ...
Set Entity Permissions	None	Administr...	05/03/2021 ...	05/03/2021 ...	✓ Completed successf...	05/03/2021 ...
Set Entity Permissions	None	Administr...	05/03/2021 ...	05/03/2021 ...	✓ Completed successf...	05/03/2021 ...

VMWare License is applied. Ready to continue with Networking setup.

The screenshot shows the VMware ESXi web interface in a browser window. The address bar shows the URL `154.27.95.139/ui/#/host/manage/licensing`. A notification at the top states "License VMware vSphere 6 Hypervisor successfully assigned". The interface is divided into a left-hand navigation pane and a main content area. The navigation pane shows "Host" selected, with sub-items "Manage" and "Monitor". Under "Manage", there are counts for "Virtual Machines" (0), "Storage" (3), and "Networking" (2). The main content area has tabs for "System", "Hardware", "Licensing", "Packages", "Services", and "Security & users". The "Licensing" tab is active, displaying a key icon and the text "VMware vSphere 6 Hypervisor". Below this, the license details are shown: "Key: J128N-8U20M-38280-088KM-9NFMK", "Expiration date: Never", and "Features: Up to 8-way virtual SMP". At the bottom of the interface, there is a "Recent tasks" table.

Task	Target	Initiator	Queued	Started	Result	Comple...
Update License	None	Administr...	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Decode License	None	Administr...	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Update Options	localhost.localdo...	Administr...	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Set Entity Permissions	None	Administr...	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...
Set Entity Permissions	None	Administr...	05/03/2021 ...	05/03/2021 ...	Completed success...	05/03/2021 ...