



How To Guide:

Activation for Virtual Edition of Q-Balancer

Download and Install Vmware Server

- ➔ Download ESXi 4.x installation image from vmware web (<http://www.vmware.com/>)
- ➔ Burn the image to a CD
- ➔ Prepare a powerful PC :
 - ➔ Minimum requirements of the PC :
 - ➔ 1.Core 2 dual CPU
 - ➔ 2.2G RAM

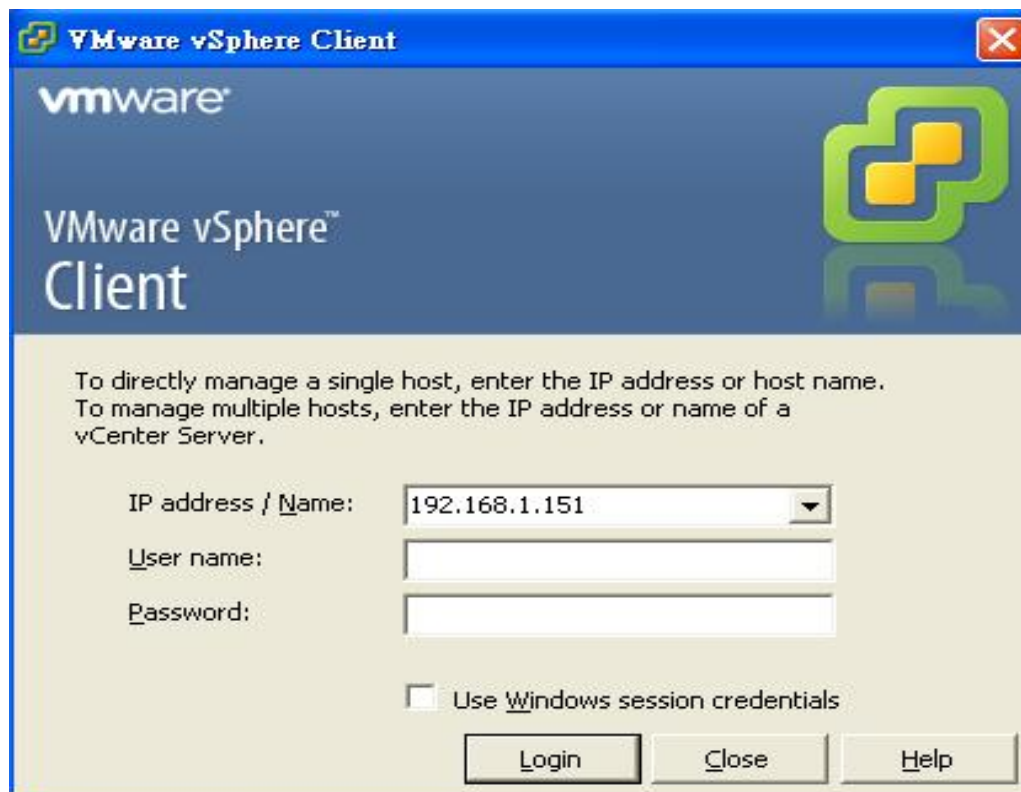
Vmware Client

- ➔ After the vmware server installation:
 - ➔ 1.Setup management IP
 - ➔ 2.Type http://management IP on your browser
-
- ➔ Download a vmware client from the vmware Server's web page.



Login the client

- ➔ The default login username is root, and you don't need to type the password.



192.168.1.151 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

- New
- Deploy OVF Template...
- Export
- Report
- Browse VA Marketplace...
- Print Maps
- Exit

Inventory Inventory

vmware.creek.com.tw VMware ESXi, 4.1.0, 348481

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

close tab X

What is a Host?

A host is a computer that uses virtualization software, such as ESX or ESXi, to run virtual machines. Hosts provide the CPU and memory resources that virtual machines use and give virtual machines access to storage and network connectivity.

You can add a virtual machine to a host by creating a new one or by deploying a virtual appliance.

The easiest way to add a virtual machine is to deploy a virtual appliance. A virtual appliance is a pre-built virtual machine with an operating system and software already installed. A new virtual machine will need an operating system installed on it, such as Windows or Linux.

Basic Tasks

- [Change the default password](#)
- [Deploy from VA Marketplace](#)
- [Create a new virtual machine](#)

Explore Further

- [Learn about vSphere](#)

Manage multiple hosts, eliminate downtime, load balance your datacenter with vMotion, and more

Recent Tasks
Name, Target or Status contains:
Clear
X

| Name | Target | Status | Details | Initiated by | Requested Start Ti... | Start Time | Completed Time |
|---------------------------|------------------|-----------|---------|--------------|-----------------------|----------------------|-----------------------|
| Remove entity | TC-3.0.0-2620... | Completed | | root | 2011/6/3 下午 03:40:... | 2011/6/3 下午 03:40:16 | 2011/6/3 下午 03:40:... |
| Power Off virtual mach... | TC-3.0.0-2620... | Completed | | root | 2011/6/3 下午 03:40:... | 2011/6/3 下午 03:40:07 | 2011/6/3 下午 03:40:... |
| Remove entity | QB_TC_3.0.0_... | Completed | | root | 2011/6/3 下午 03:40:... | 2011/6/3 下午 03:40:03 | 2011/6/3 下午 03:40:... |

Tasks
root

Select the image file (support http address)

Deploy OVF Template

Source
Select the source location.

Source
OVF Template Details
Name and Location
Disk Format
Ready to Complete

Deploy from a file or URL

D:\Q-Balancer\vmware project\OVA Image\150-5.0.0-0025.c

Enter a URL to download and install the OVF package from the Internet, or specify a location accessible from your computer, such as a local hard drive, a network share, or a CD/DVD drive.

Type a name for this QB

Deploy OVF Template

Name and Location
Specify a name and location for the deployed template

[Source](#)
[OVF Template Details](#)
Name and Location
Disk Format
Network Mapping
Ready to Complete

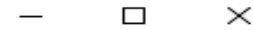
Name:

The name can contain up to 80 characters and it must be unique within the inventory folder.

Help < Back Next > Cancel

Thick provisioned format

Deploy OVF Template



Disk Format

In which format do you want to store the virtual disks?

[Source](#)
[OVF Template Details](#)
[Name and Location](#)

Disk Format

Network Mapping
Ready to Complete

Datstore:

Available space (GB):

- Thick Provision Lazy Zeroed
- Thick Provision Eager Zeroed
- Thin Provision


Help

< Back

Next >

Cancel

Network Mapping *(Can be configured later)*

 Deploy OVF Template



Network Mapping

What networks should the deployed template use?

[Source](#)

[OVF Template Details](#)

[Name and Location](#)

[Disk Format](#)

Network Mapping

Ready to Complete

Map the networks used in this OVF template to networks in your inventory

| Source Networks | Destination Networks |
|-----------------|----------------------|
| VM Network | VM Network |
| PPPoE | PPPoE |

Description:

The VM Network network

Help

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Next >

Cancel

Deployment Completed Successfully

localhost.localdomain VMware ESXi, 5.0.0, 2509828

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

close tab X

Deployment Completed Successfully

Deploying 150-5.0.0-0025

Completed Successfully

Close

192.168.1.190

150-5.0.0-0025

Fedora 8 x86_64_173

Windows_XP

Virtual Machines

Host

vSphere Client

connectivity.

You can add a virtual machine to a host by creating a new one or by deploying a virtual appliance.

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Basic Tasks

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Manage multiple hosts, eliminate downtime, load balance your datacenter with vMotion, and more
- [Evaluate vSphere](#)

Configure the network

192.168.1.151 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory Inventory

192.168.1.151

- Creek-3.0.0-1620_VM-0079
- MS_DOS

vmware.creek.com.tw VMware ESXi, 4.1.0, 348481

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

View: Virtual Switch

Networking Refresh Add Networking... Properties...

Virtual Switch: vSwitch0 Remove... Properties...

| Virtual Machine Port Group | Physical Adapters |
|----------------------------|-------------------|
| VM Network | vmnic0 100 Full |
| 2 virtual machine(s) | |
| Creek-3.0.0-1620_VM-0079 | |
| MS_DOS | |
| VMkernel Port | |
| Management Network | |
| vmk0 : 192.168.1.151 | |

Hardware

- Health Status
- Processors
- Memory
- Storage
- Networking
- Storage Adapters
- Network Adapters
- Advanced Settings
- Power Management

Software

- Licensed Features
- Time Configuration
- DNS and Routing
- Authentication Services
- Virtual Machine Startup/Shutdown
- Virtual Machine Swapfile Location
- Security Profile
- System Resource Allocation
- Advanced Settings

Add networking ...

vmware.creek.com.tw VMware ESXi, 4.1.0, 348481

Getting Started Summary Virtual Machines Resource Allocation Performance Configuration Local Users & Groups Events Permissions

Hardware

Health Status

View: Virtual Switch

Networking

Refresh Add Networking... Properties

Add Network Wizard

Connection Type

Networking hardware can be partitioned to accommodate each service that requires connectivity.

Connection Type

Network Access

Connection Settings

Summary

Connection Types

Virtual Machine

Add a labeled network to handle virtual machine network traffic.

VMkernel

The VMkernel TCP/IP stack handles traffic for the following ESXi services: VMware vMotion, iSCSI, NFS, and host management.

Create a virtual switch

Add Network Wizard

Virtual Machines - Network Access

Virtual machines reach networks through uplink adapters attached to virtual switches.

[Connection Type](#)
Network Access
Connection Settings
Summary

Select which virtual switch will handle the network traffic for this connection. You may also create a new virtual switch using the unclaimed network adapters listed below.

| <input checked="" type="radio"/> Create a virtual switch | | Speed | Networks |
|---|--------|----------|----------|
| <input checked="" type="checkbox"/> | vmnic1 | 100 Full | None |
| <input type="checkbox"/> | vmnic2 | Down | None |
| <input type="checkbox"/> | vmnic3 | Down | None |
| <input type="checkbox"/> | vmnic4 | Down | None |
| <input type="checkbox"/> | vmnic5 | Down | None |

| <input type="radio"/> Use vSwitch0 | | Speed | Networks |
|---|--------|----------|------------------------|
| <input type="checkbox"/> | vmnic0 | 100 Full | 192.168.0.1-192.168.0. |

Preview:

The diagram shows a 'Virtual Machine Port Group' labeled 'VM Network 2' connected to a 'Physical Adapters' box containing 'vmnic1'. A green line with arrows at both ends connects the port group to the vmnic1 adapter.

[Help](#) ≤ Back Next ≥ Cancel

Type a label

Add Network Wizard

Virtual Machines - Connection Settings

Use network labels to identify migration compatible connections common to two or more hosts.

[Connection Type](#)

[Network Access](#)

Connection Settings

Summary

Port Group Properties

Network Label:

VLAN ID (Optional):

Preview:



Help

≤ Back

Next ≥

Cancel

A new virtual switch

192.168.1.151 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory Inventory

192.168.1.151

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| MS_DOS | |

VMkernel Port

| | |
|----------------------|--|
| Management Network | |
| vmk0 : 192.168.1.151 | |

Virtual Switch: vSwitch1 Remove... Properties...

| Virtual Machine Port Group | Physical Adapters |
|----------------------------|-------------------|
| Wan Link | vmnic1 100 Full |

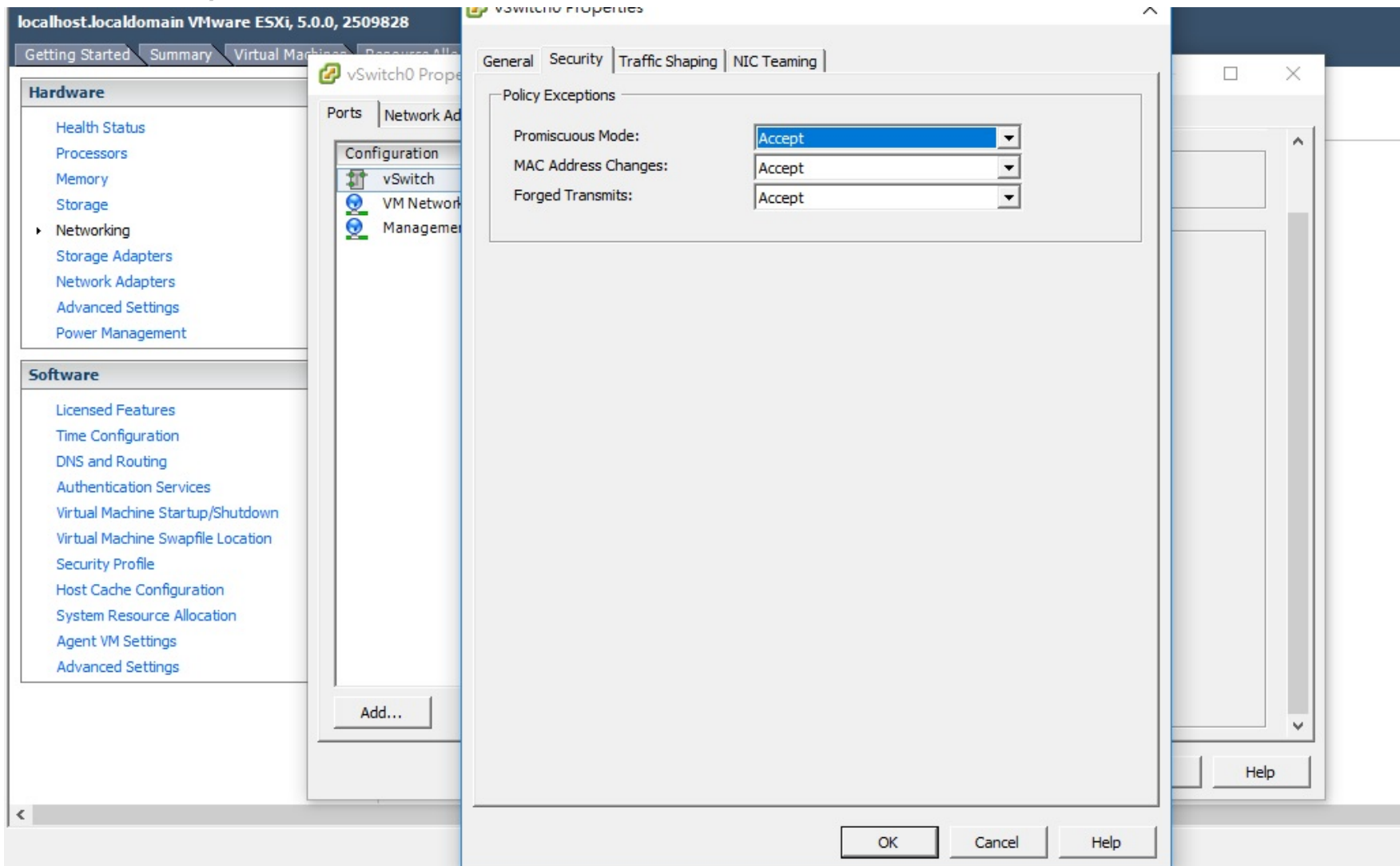
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- Security Profile
- System Resource Allocation
- Advanced Settings

Edit virtual switch(Need to accept Promiscuous Mode for QB V5.0)



Edit the image and apply virtual switch on nic

The screenshot shows the vSphere Client interface for a host with IP 192.168.1.151. The left sidebar displays a tree view with 'Creek-3.0.0-1620_VM-0079' selected. A context menu is open over this VM, listing options such as Power, Guest, Snapshot, Open Console, Edit Settings... (highlighted), Add Permission..., Report Performance..., Rename, Open in New Window..., Remove from Inventory, and Delete from Disk. The main pane shows the VM's configuration tabs: Hardware, Resource Allocation, Performance, Events, Console, and Permissions. The Hardware tab is active, displaying a diagram of the VM connected to a Host. Below the diagram, a 'Basic Tasks' section lists 'Power on the virtual machine' and 'Edit virtual machine settings'.

192.168.1.151 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory Inventory

192.168.1.151

Creek-3.0.0-1620_VM-0079

MS_DOS

Power

Guest

Snapshot

Open Console

Edit Settings...

Add Permission... Ctrl+P

Report Performance...

Rename

Open in New Window... Ctrl+Alt+N

Remove from Inventory

Delete from Disk

Resource Allocation Performance Events Console Permissions

close tab X

Virtual Machines

Host

vSphere Client

Basic Tasks

- ▶ Power on the virtual machine
- ▶ Edit virtual machine settings

Change the network label

Creek-3.0.0-1620_VM-0079 - Virtual Machine Properties

Hardware | Options | Resources | Virtual Machine Version: 7

Show All Devices Add... Remove

| Hardware | Summary |
|-------------------|--------------|
| Memory | 1024 MB |
| CPUs | 1 |
| Video card | Video card |
| VMCI device | Restricted |
| Hard disk 1 | Virtual Disk |
| Network adapter 1 | VM Network |
| Network adapter 2 | VM Network |
| Network adapter 3 | VM Network |
| Network adapter 4 | VM Network |
| Network adapter 5 | VM Network |
| Network adapter 6 | VM Network |

Device Status

Connected
 Connect at power on

Adapter Type

Current adapter: E1000

MAC Address

00:0c:29:d6:d7:97

Automatic Manual

Network Connection

Network label:

VM Network
VM Network
Wan Link

Help OK Cancel

Power on the virtual machine

192.168.1.151 - vSphere Client

File Edit View Inventory Administration Plug-ins Help

Home Inventory Inventory

192.168.1.151 Creek-3.0.0-1620_VM-0079

- Creek-3.0.0-1620_V
- MS_DOS

| | | |
|----------------------------------|-----------------|--------|
| Power | Power On | Ctrl+B |
| Guest | Power Off | Ctrl+E |
| Snapshot | Suspend | Ctrl+Z |
| Open Console | Reset | Ctrl+T |
| Edit Settings... | Shut Down Guest | Ctrl+D |
| Add Permission... Ctrl+P | Restart Guest | Ctrl+R |
| Report Performance... | | |
| Rename | | |
| Open in New Window... Ctrl+Alt+N | | |
| Remove from Inventory | | |
| Delete from Disk | | |

Virtual Machines

Host

vSphere Client

Basic Tasks

- ▶ Power on the virtual machine
- ▶ Edit virtual machine settings

Log in with Username/Password

(Version $\leq 4.0.0-0041$: admin/123 ;
 $\geq 4.0.0-0042$: admin/admin123;
v5.0.0:admin/qbsdwan11100111)



150-5.0.0-0025

Getting Started Summary Resource Allocation Performance Events Console Permissions

Q-Balancer U5.0

qb login: _

Type 『 W 』 to config a wan link.

Getting Started Summary Resource Allocation Performance Events Console Permissions

```
Welcome to the Q-Balancer Console
```

1. Rescue Mode
2. Config a Wan Link
3. Config Serial Number
4. Network Status
5. Network Tools
6. Kernel Outputs
7. Operations
8. Reboot System

```
Press ; to logout_
```

Add a wan link (The function only support to add a static wan link)

150-5.0.0-0025

Getting Started Summary Resource Allocation Performance Events Console Permissions

```
wan add eth0 ISP1 10.10.1.0/24 10.10.1.254 10.10.1.21_
```

```
Usage: add [Interface] [ISP Name] [Subnet] [Gateway] [SystemIP]
```

```
Example: add eth0 ISP1 10.10.1.0/24 10.10.1.254 10.10.1.1
```

Check the network and show the summary

150-5.0.0-0025

Getting Started Summary Resource Allocation Performance Events Console Permissions

```
Subnet      : 10.10.1.0/24
Gateway    : 10.10.1.254
System IP  : 10.10.1.21
```

```
Binding System IP...OK
```

```
Adding Routing Table...OK
```

```
ARPING to 10.10.1.254 from 10.10.1.21 via eth0
Unicast reply from 10.10.1.254 [0:0:0:89:45:9b] 1.762ms
Sent 1 probe(s) (1 broadcast(s))
Received 1 replies (0 request(s), 0 broadcast(s))
```

```
Altering ARP Table...OK
```

```
Adding Server Mapping rules...OK
```

```
Saving to config file...OK
```

```
Saving to boot config file...OK
```

```
Done...
~@vQ^A
```

```
Done. Press k to go back, j to go forward, any other key to go back to menu.
```

Enable virtual QB (Don't block outbound port 4200)

- ➔ 1.To get a license and a password from Creek
- ➔ 2.type "N" to enter 『 Config Serial Number 』
- 3.The Example typed the serial number and password : VM3620_01 passowrd
- ➔ 4.Reboot Virtual QB via VSphere (VMware) or QB's Console (ssh) after typing the serial number

```

Getting Started Summary Resource Allocation Performance Events Console Permissions
Serial Number [Password]:_

Usage: [Serial Number] [Password]
Example: CK_3120_01 9vSi7cNb

Summary Resource Allocation Performance Events Console Permissions
Send QB info to license server...
Send UMQB info to Creek Server successfully!!!

Enable UMQB ...
Generating licence key for licence server ...
Generating Keys for UMQB ...
Generating qb rsa for center management system!!!!
Generating public/private rsa key pair.
/root/.ssh/id_rsa already exists.
Overwrite (y/n)?
Generating templet config files...

Firmware Creek-3120_UM-4.0.0-LB-0040

Hardware Information:
CPU :
model name      : Pentium(R) Dual-Core CPU           E6600  @ 3.06GHz
cpu MHz         : 3066.513
cache size      : 2048 KB
=====
Memory:
MemTotal:       2075392 kB
~D[^G^F@c^ Z^F




Done. Press k to go back, j to go forward, any other key to go back to menu._

```


After login the GUI ...

1. The WAN link newly added is shown as follows:

WAN

| <input type="button" value="ADD"/> | <input type="button" value="DELETE"/> | | | | | | | | | |
|---|---|-------------------------------------|---|---------|---------|---------|--------------|--------------|------------|-------------|
| <input type="checkbox"/> | Edit | Enabled | Status | Type ↑↓ | Name ↑↓ | Port ↑↓ | Interface ↑↓ | Subnet ↑↓ | IP ↑↓ | Gateway ↑↓ |
| <input type="checkbox"/> |  | <input checked="" type="checkbox"/> |  | Static | ISP1 | Port 1 | eth0_2 | 10.10.1.0/24 | 10.10.1.21 | 10.10.1.254 |
|  | | | | | | | | | | |

2. Carry on configuring the appliance to meet the requirement.