

VMware vSphere (ESXi) Hypervisor

Virtual Machine Install Guide

This document provides guidance on how to install and configure Wanos on production ESXi systems. Administrators are encouraged to read and to get familiarized with the product before deploying Wanos on production server(s). The install guide focuses on a default Bridge Deployment.

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Configure ESXi vSwitch

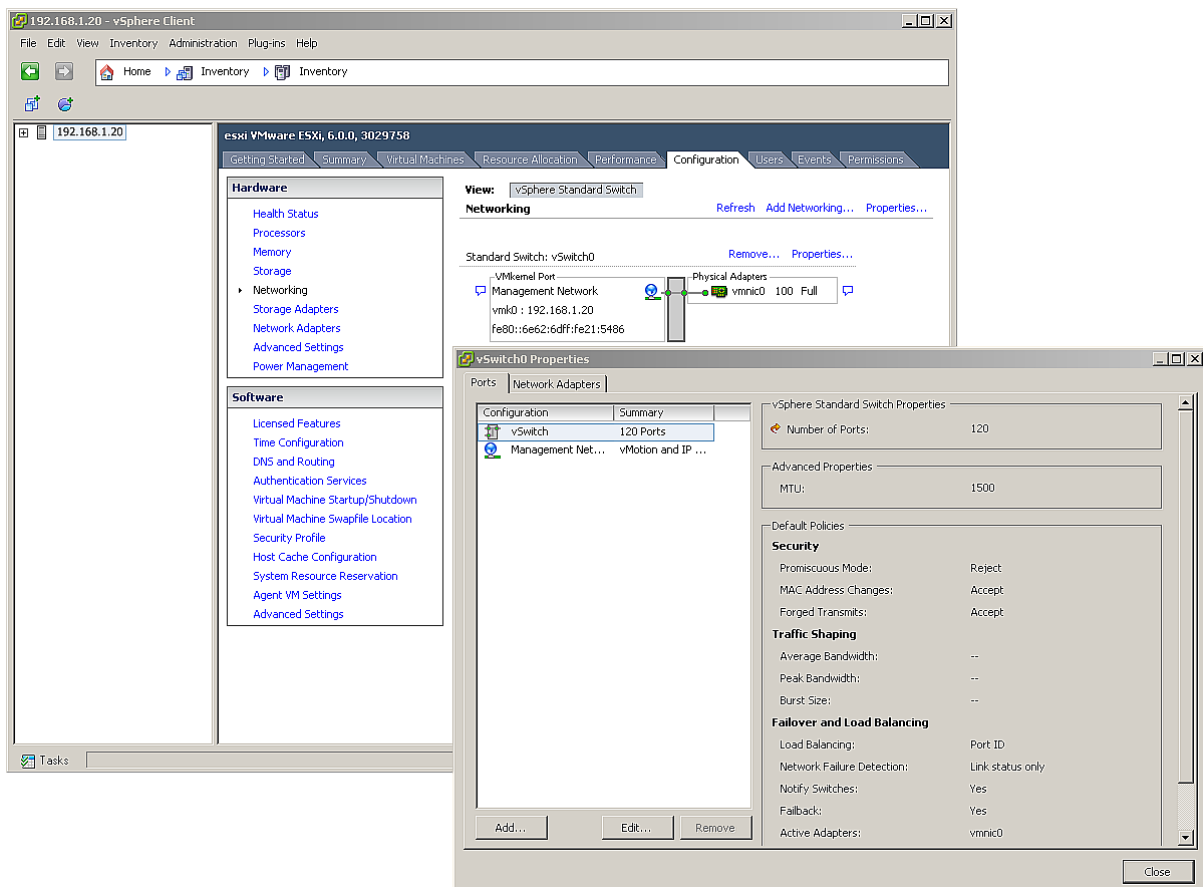
Consider planning the vSwitch configuration prior to the installation of Wanos. Create as many vSwitches and Port Groups as required. The setup is based on a Bridge deployment which is the default mode used by Wanos.

This guide will use two Port Groups:

WAN_Link (*Links to the WAN gateway*)

Server_LAN (*Connect to the virtual server network*).

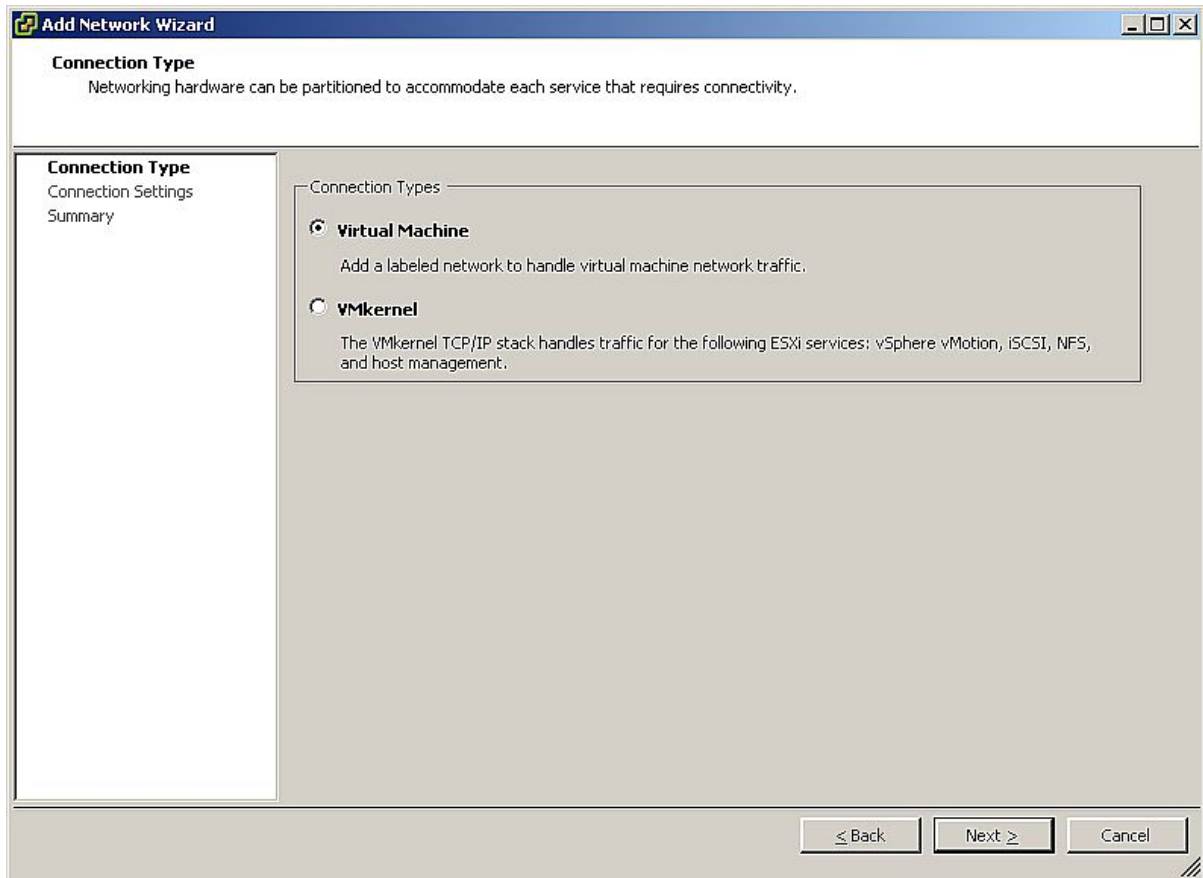
To get started, Log into the vSphere Client and connect to **Server > Configuration (tab) > Networking > Properties**.



This allows the administrator to add / edit / delete Port Groups.

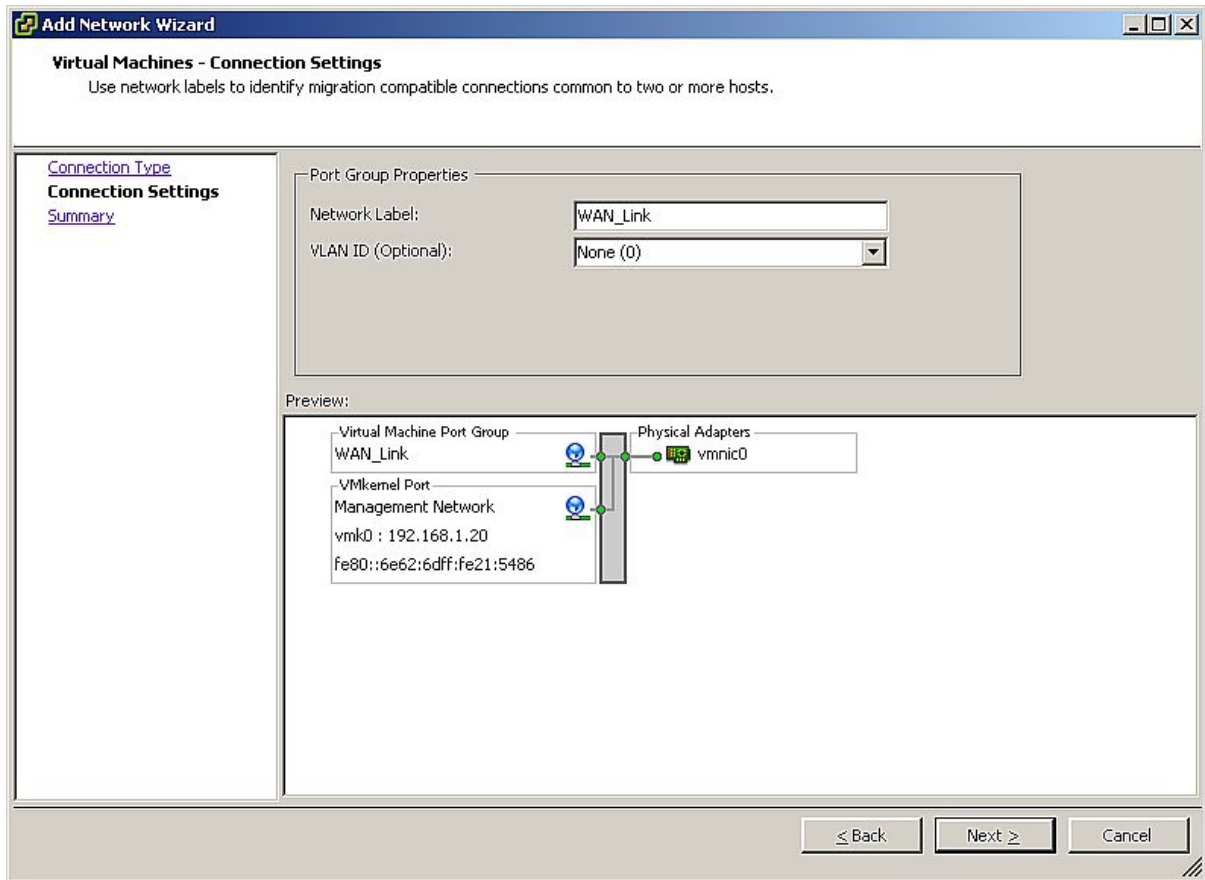
WAN_Link

From the vSwitch Properties window, click **Add**, select **Virtual Machine** and click **Next** to continue.



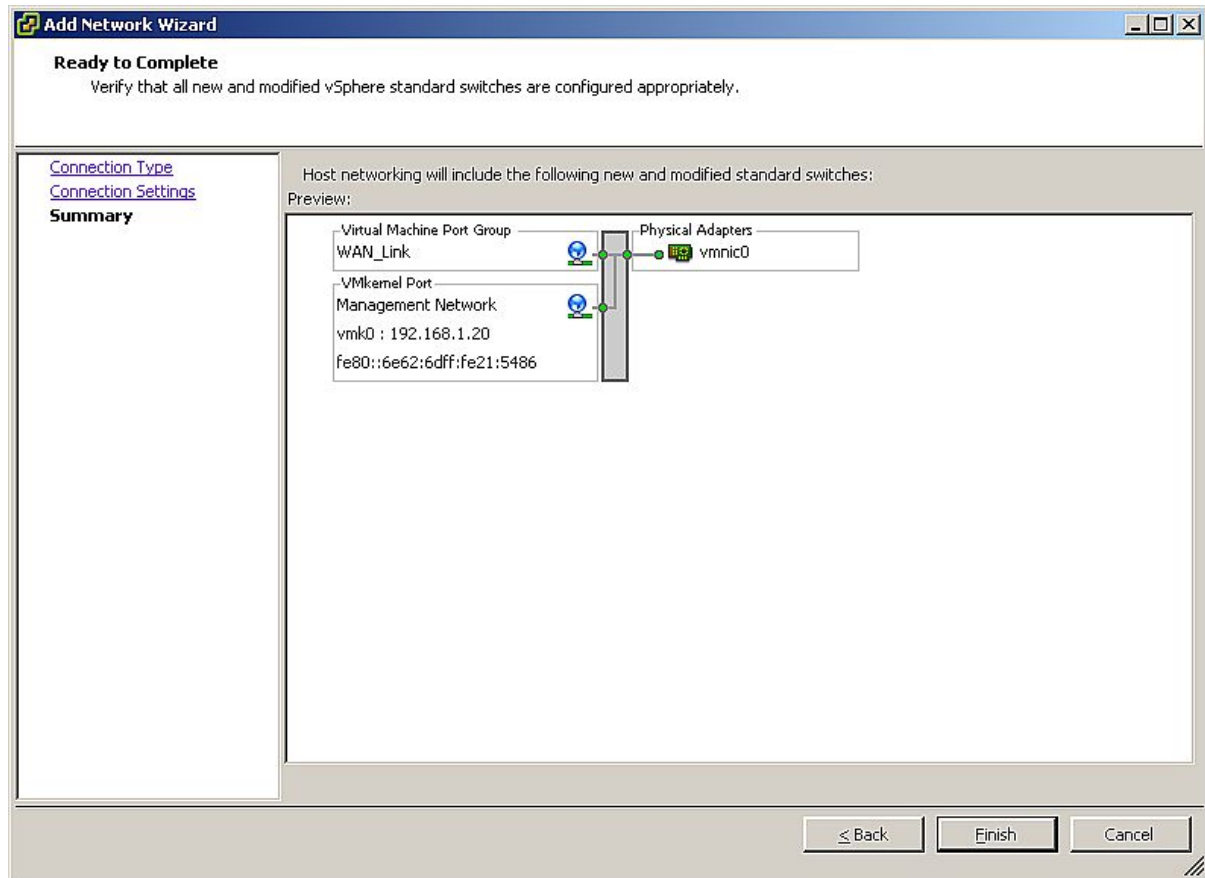
Virtual Machine adds a labeled network to handle virtual machine network traffic.

Set the **Network Label**, set the **VLAN ID** and click **Next** to continue.



A screenshot of Port Group Property window. VLAN ID was set to (0) in the screenshot. In this scenario the WAN Gateway Router is on the untagged network..

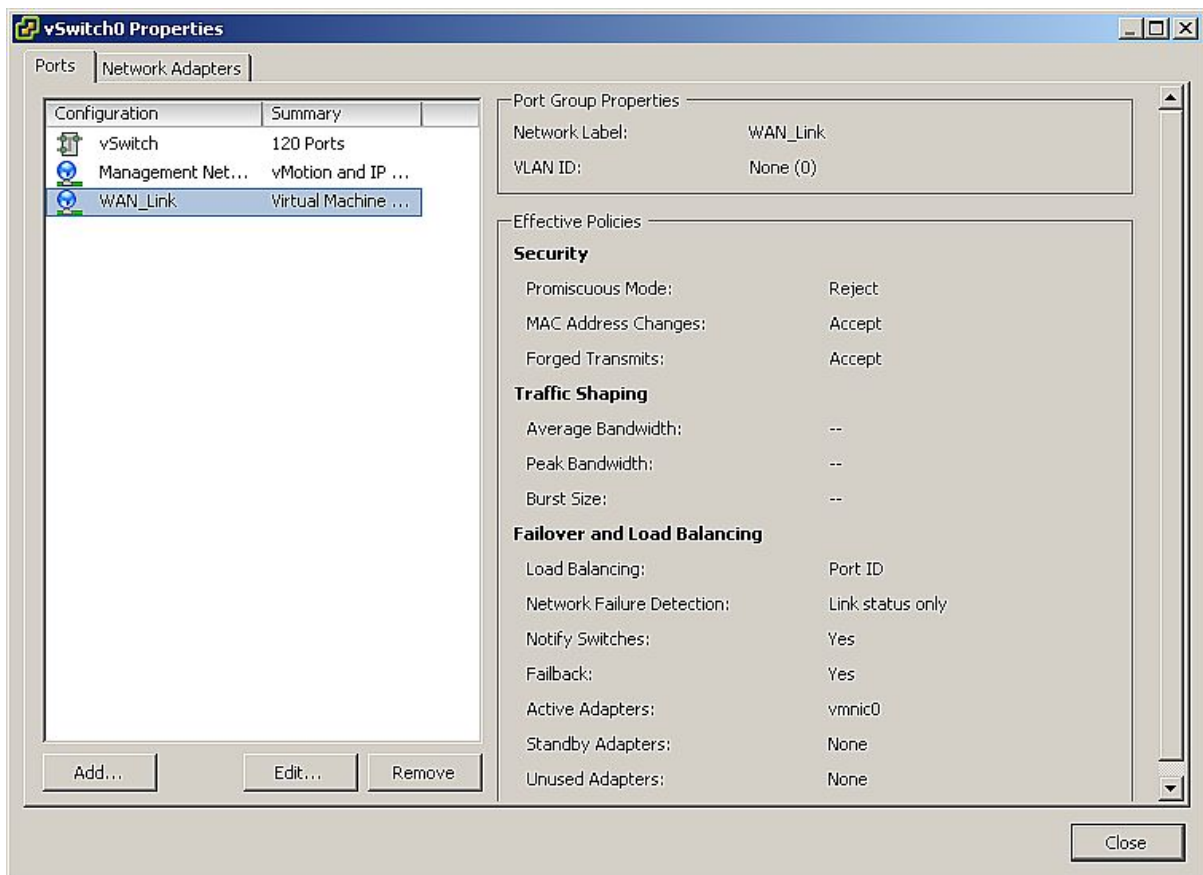
Review the information, click **Back** if there are changes to be made otherwise, click **Finish** to add the new Port Group.



This is the preview of the Port Group that will be added.

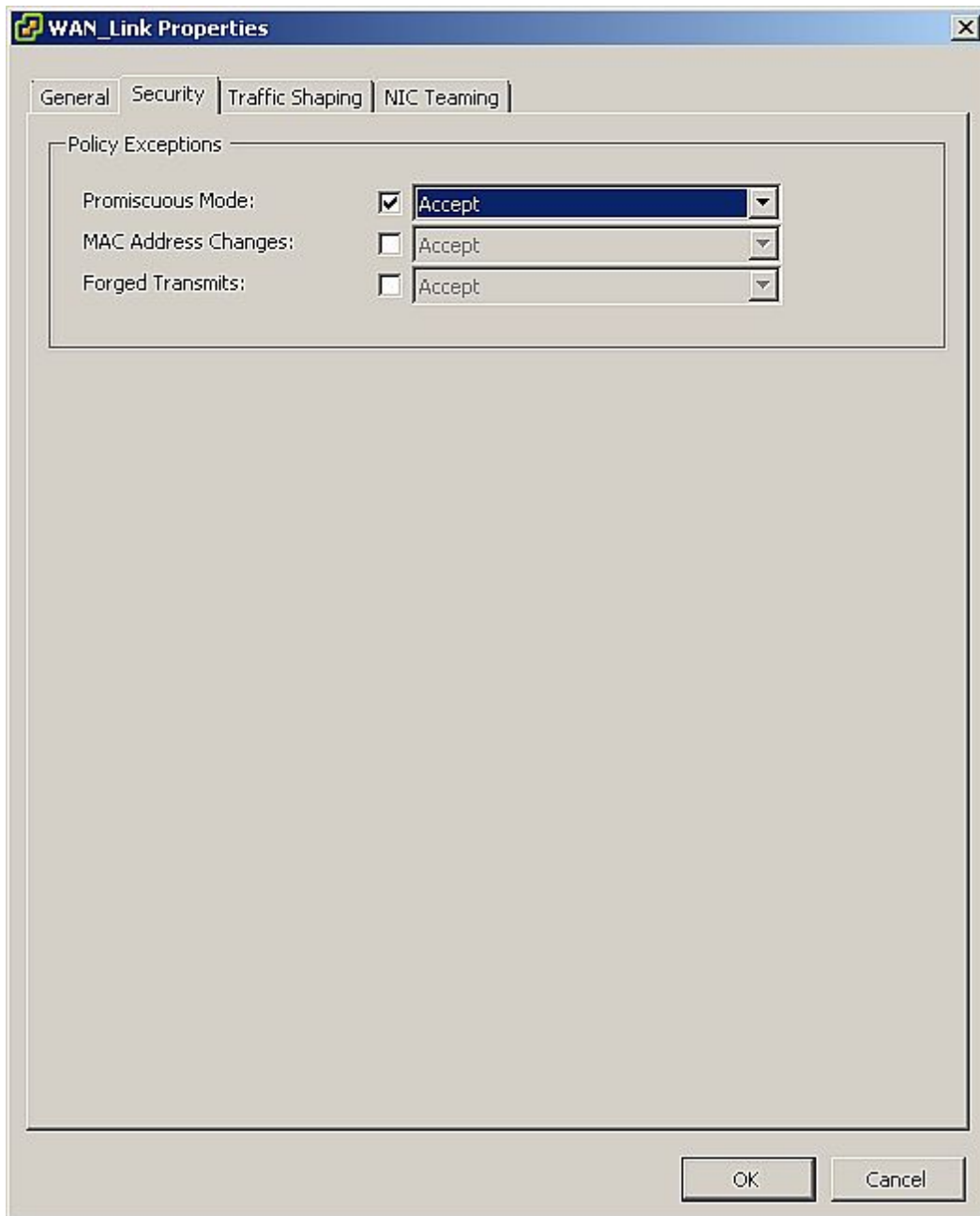
After adding a new Port Group, the Security setting needs to be updated to enable Promiscuous mode. When Promiscuous mode is not enabled, traffic will not pass through the bridge.

From the vSwitch Property window, select or click the target Port Group, **WAN_Link** in this case, and click **Edit**.



A screenshot showing available Port Group(s) within a vSwitch

Under Security (*tab*), enable **Promiscuous Mode** and set the value to **Accept**. Click **OK** to commit the changes. Note: only enable promiscuous mode on **Port Group** level.



The Security (*tab*) allows the **Promiscuous Mode** to be set which is required in Wanos.

Server_LAN

The Server_LAN connects to the physical Servers or Virtual Servers. When connecting to a physical Servers or a LAN like a branch office, then select a physical Interface as like the WAN_link. In this example we will connected to a Virtual Server network.

If the Virtual Server Port Group does not yet exist, repeat the steps outlined in [WAN_Link](#) and add another Port Group (e.g. Server_LAN) for the lan0 side.

Select a VLAN that will isolate the Virtual Servers from the rest of the network. The Server_LAN can also be replaced with a VLAN that isolates physical servers or workstation LAN.

Ensure the Wanos Bridge is placed between two separate **Outside** (Router or Firewall) and **Inside** (Server or Workstation LAN) networks to ensure the traffic will pass through the Wanos Bridge for optimization.

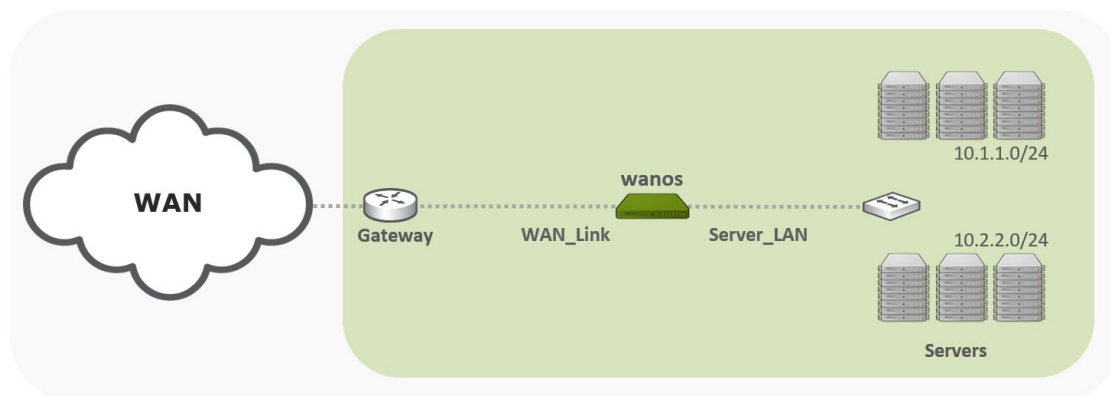
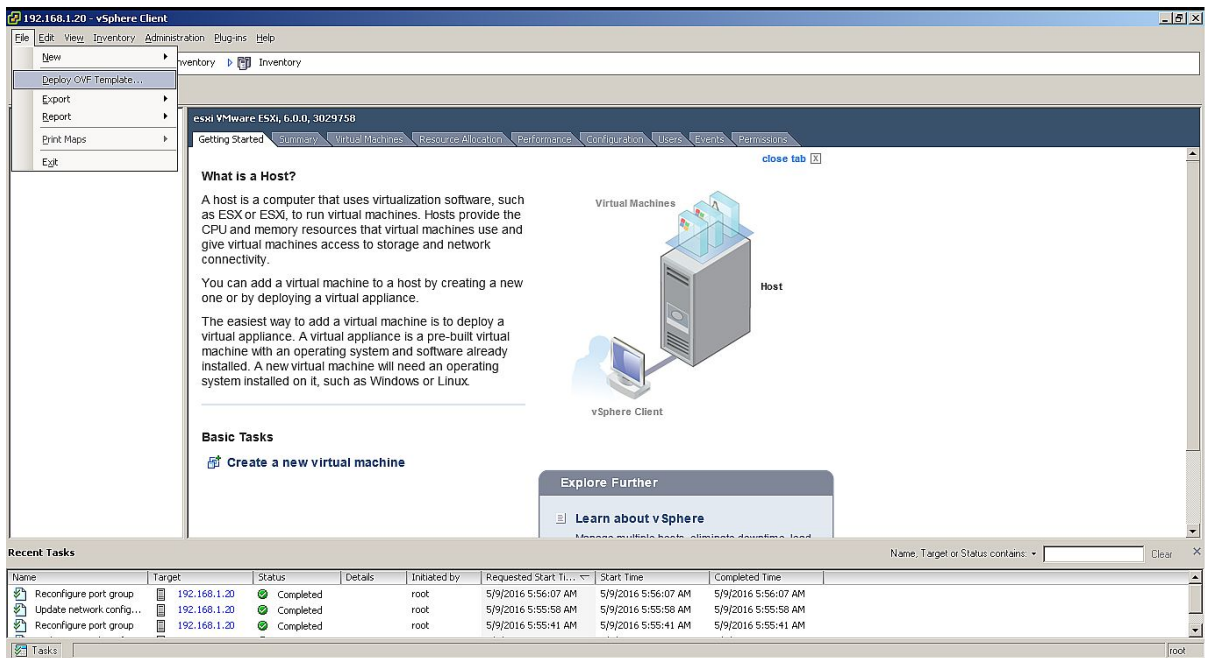


Illustration to demonstrate the isolated Outside and Inside networks..

Deploy Wanos Appliance

After downloading the **Virtual Appliance OVA**, decompress the zip file to extract the OVF file into a directory of your choice (e.g. Downloads).

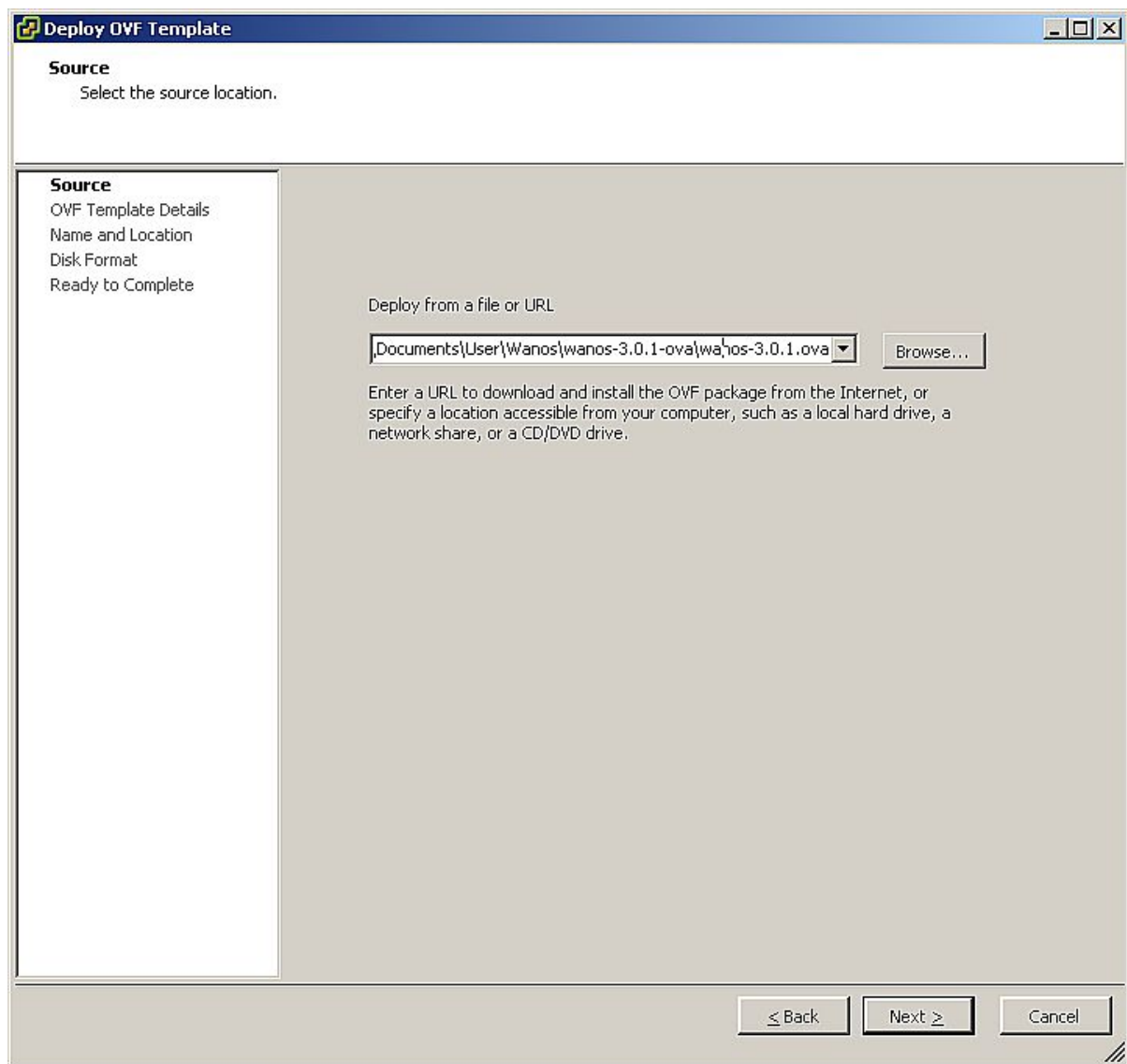
To get started, launch vSphere Client, select **File > Deploy OVF Template**



Screenshot of a vSphere Client navigating to a Deploy new OVF Template.

Deploy Wanos-HQ

Locate the extracted Wanos **OVF** file by clicking **Browse** then point to the directory where Wanos was extracted. Click **Next** to continue. The next window will show the **OVF Template Details**. Click **Next** to continue.



Specify the location of the extracted Wanos OVA file.

Set the **Name** and Click **Next** to continue.

The screenshot shows a window titled "Deploy OVF Template" with standard window controls (minimize, maximize, close) in the top right corner. Below the title bar, the text "Name and Location" is displayed, followed by the instruction "Specify a name and location for the deployed template".

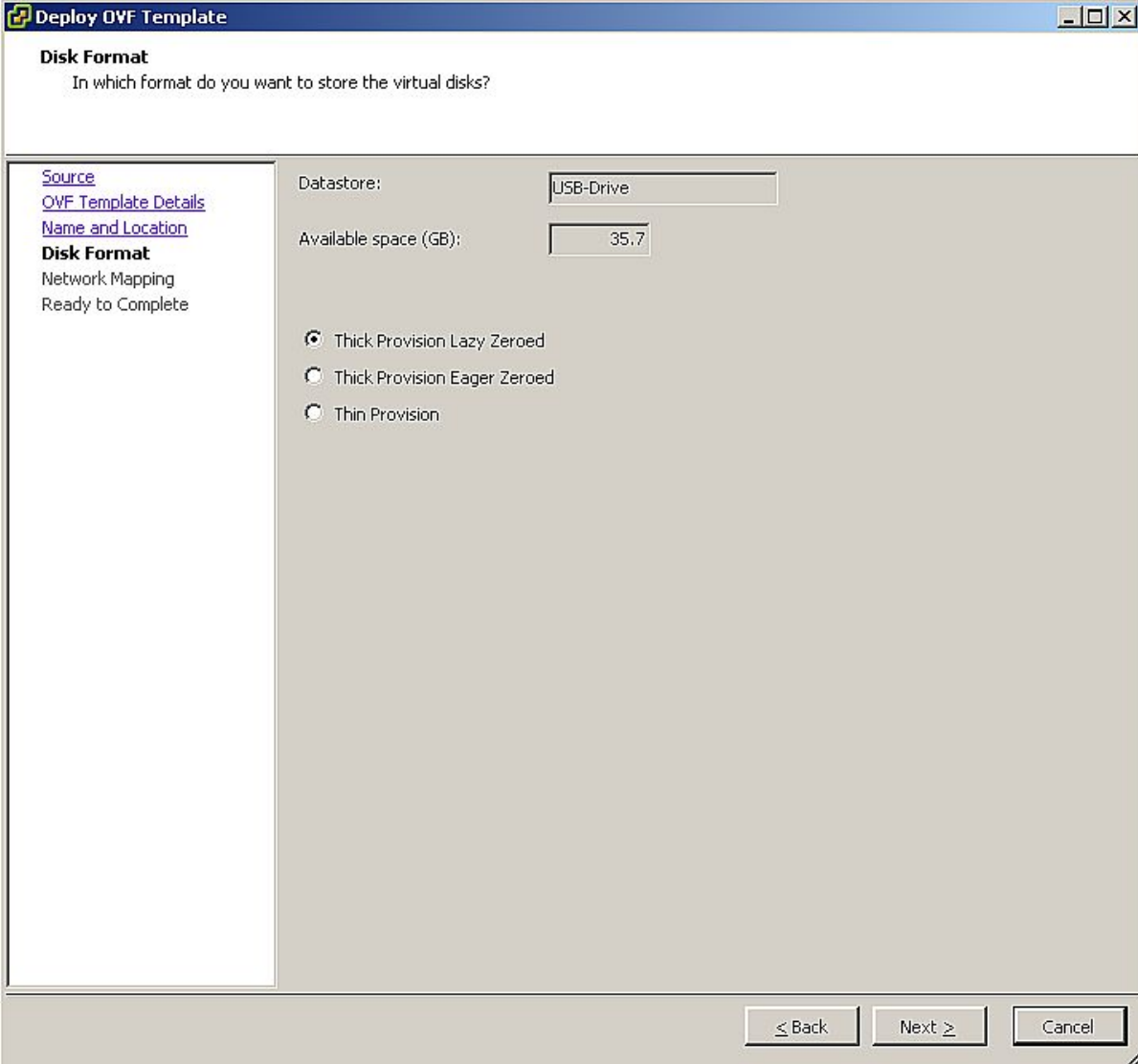
On the left side, there is a vertical list of steps: "Source", "OVF Template Details", "Name and Location" (which is bolded, indicating it is the current step), "Disk Format", "Network Mapping", and "Ready to Complete".

The main area of the dialog is a light gray background. At the top of this area, the label "Name:" is followed by a text input field containing the text "Wanos-HQ". Below the input field, a note reads: "The name can contain up to 80 characters and it must be unique within the inventory folder."

At the bottom right of the dialog, there are three buttons: "< Back", "Next >", and "Cancel".

Screenshot of the Name field set to Wanos-HQ.

Choose the appropriate **Disk Format** and click **Next** to continue. **Thick Provision Eager Zeroed** is recommended for production systems.



The screenshot shows a window titled "Deploy OVF Template" with a "Disk Format" step. The window contains a sidebar with navigation links: "Source", "OVF Template Details", "Name and Location", "Disk Format" (highlighted), "Network Mapping", and "Ready to Complete". The main area displays "Datastore: USB-Drive" and "Available space (GB): 35.7". Three radio buttons are present: "Thick Provision Lazy Zeroed" (selected), "Thick Provision Eager Zeroed", and "Thin Provision". At the bottom, there are "Back", "Next", and "Cancel" buttons.

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](#)

Datastore:

Available space (GB):

Thick Provision Lazy Zeroed
 Thick Provision Eager Zeroed
 Thin Provision

A screenshot of the Disk Format.

Map the **Source Network** to the **Destination Network** according to the table below.
Click **Next** to continue.

Source Network	Destination Network
wan0	WAN_Link
lan0	Server_LAN

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

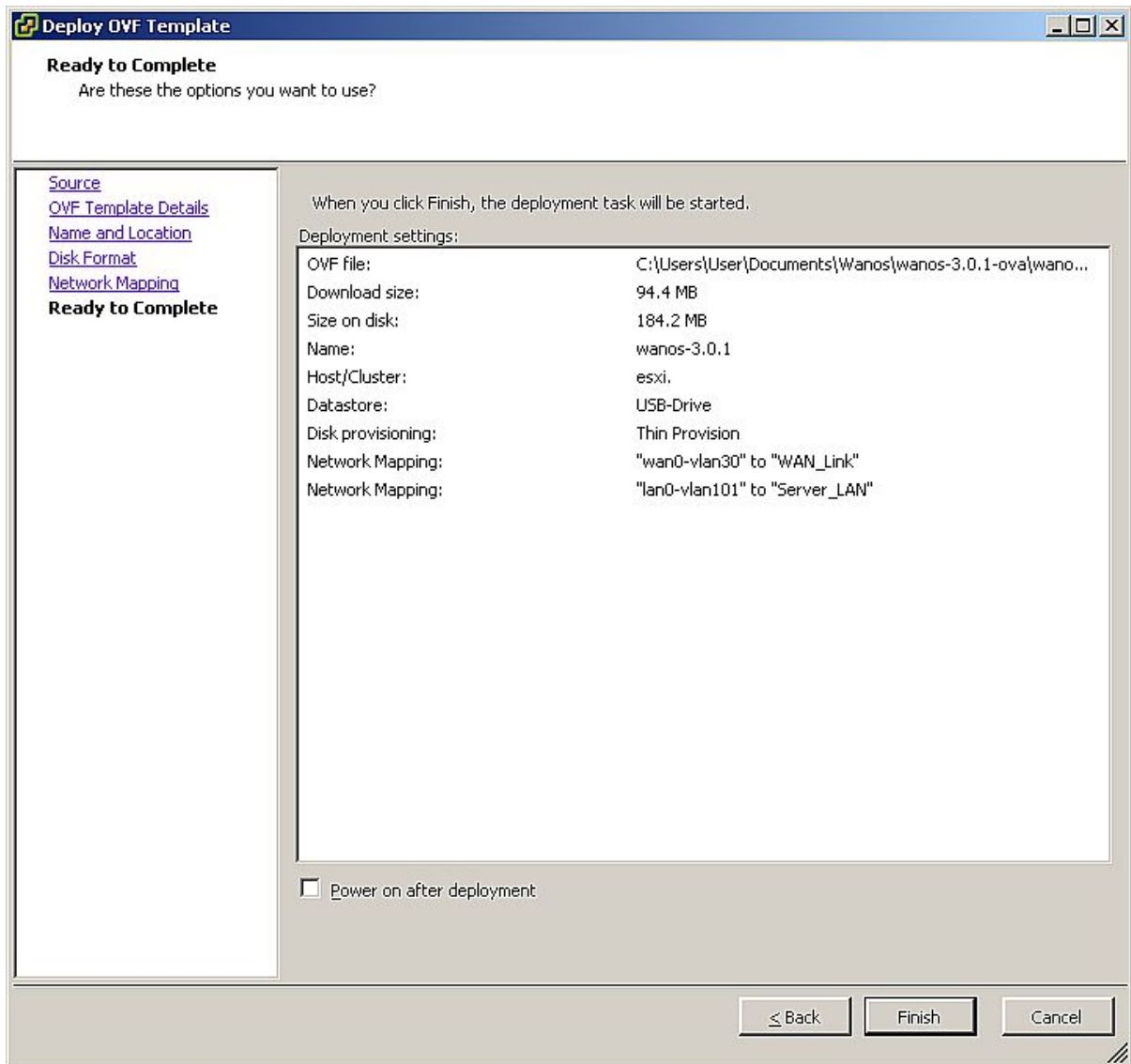
Source Networks	Destination Networks
wan0-vlan30	WAN_Link
lan0-vlan101	Server_LAN

Description:
The wan0-vlan30 network

< Back Next > Cancel

Mapping is based on the explanation in the introductory part of [Configure ESXi vSwitch](#).

Review the Deployment settings. Click **Back** if needed otherwise, click **Finish** to complete the deployment the Virtual Machine. Ensure that **Power on after deployment** is not checked or marked.



Last section of the Deploy OVF Template wizard that will allow the administrator to make changes before deployment.

Follow the steps outlined in [Deploy Wanos-HQ](#) to deploy Wanos in other locations or offices. Adjust the parameters based on the deployment strategy across different sites.

Resource Reservation

Optionally, depending on performance requirements, resources can be reserved. A reservation specifies the guaranteed minimum allocation for a virtual machine.

Performance and Compatibility will vary depending on the hardware used. Review the hardware and performance guides for more information:

[Sizing Guide](#)

[Hardware Guide](#)

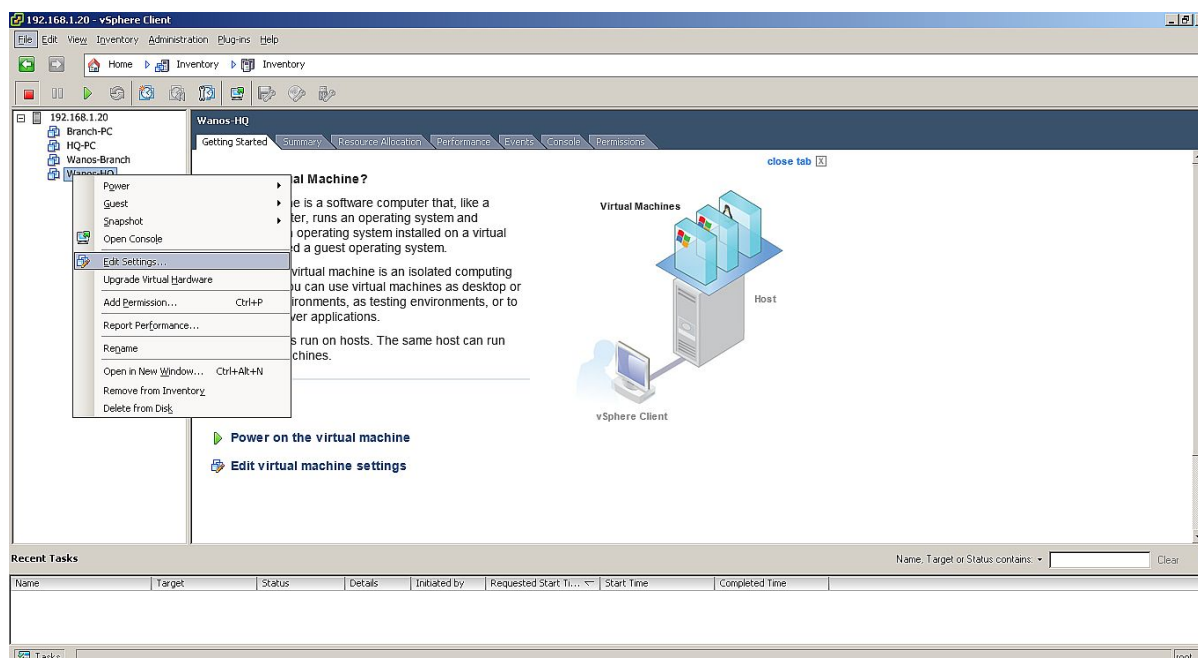
[Performance Guide](#)

For example, Wanos-HQ can be configured as follows:

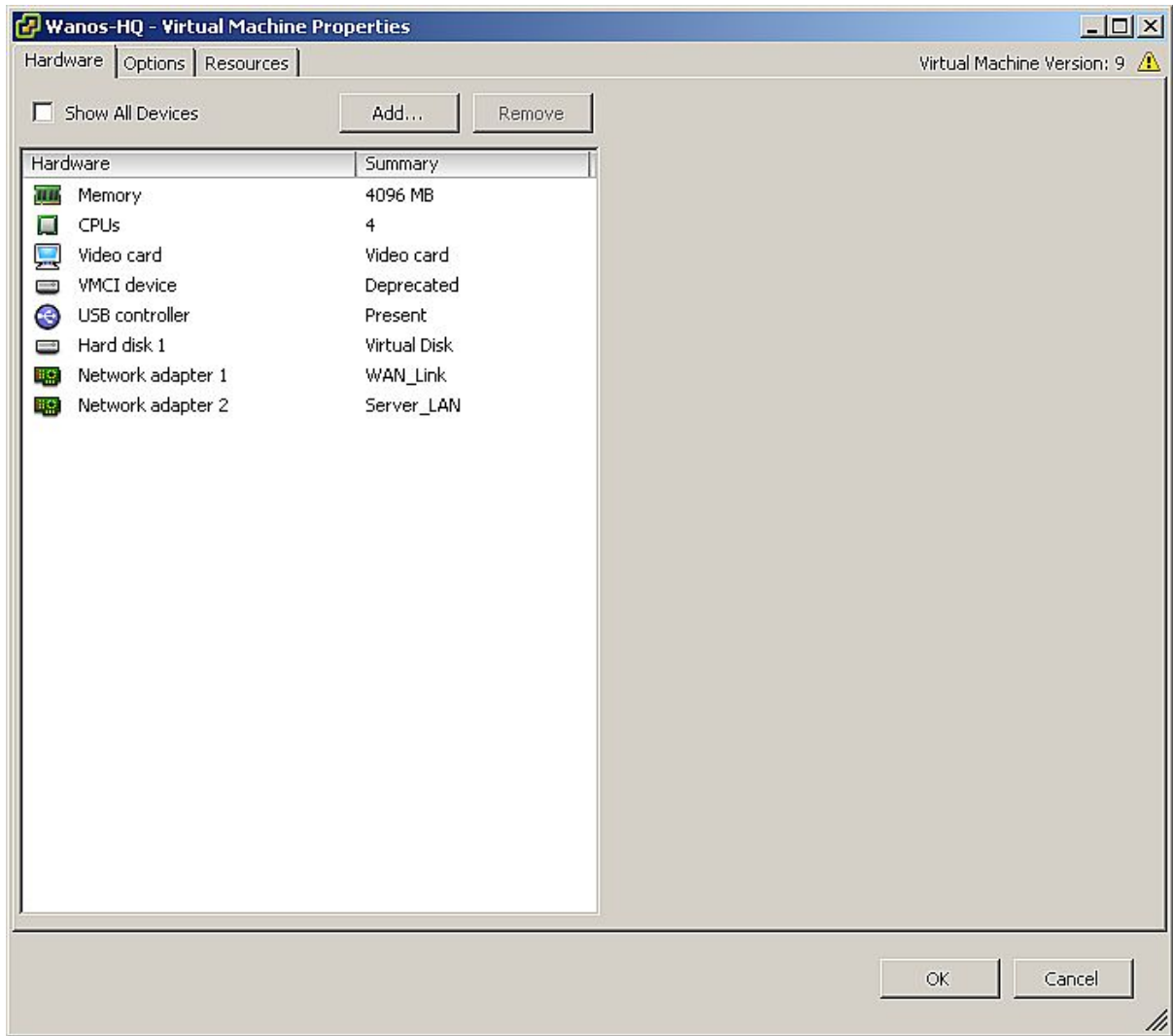
Hardware	
CPU	4 (2 cores, 2 virtual sockets)
Memory	4 GB
Resources	
CPU	Reservation: 2000 MHZ
Memory	Reservation: 4096 MB

This is an example resource reservation setting.

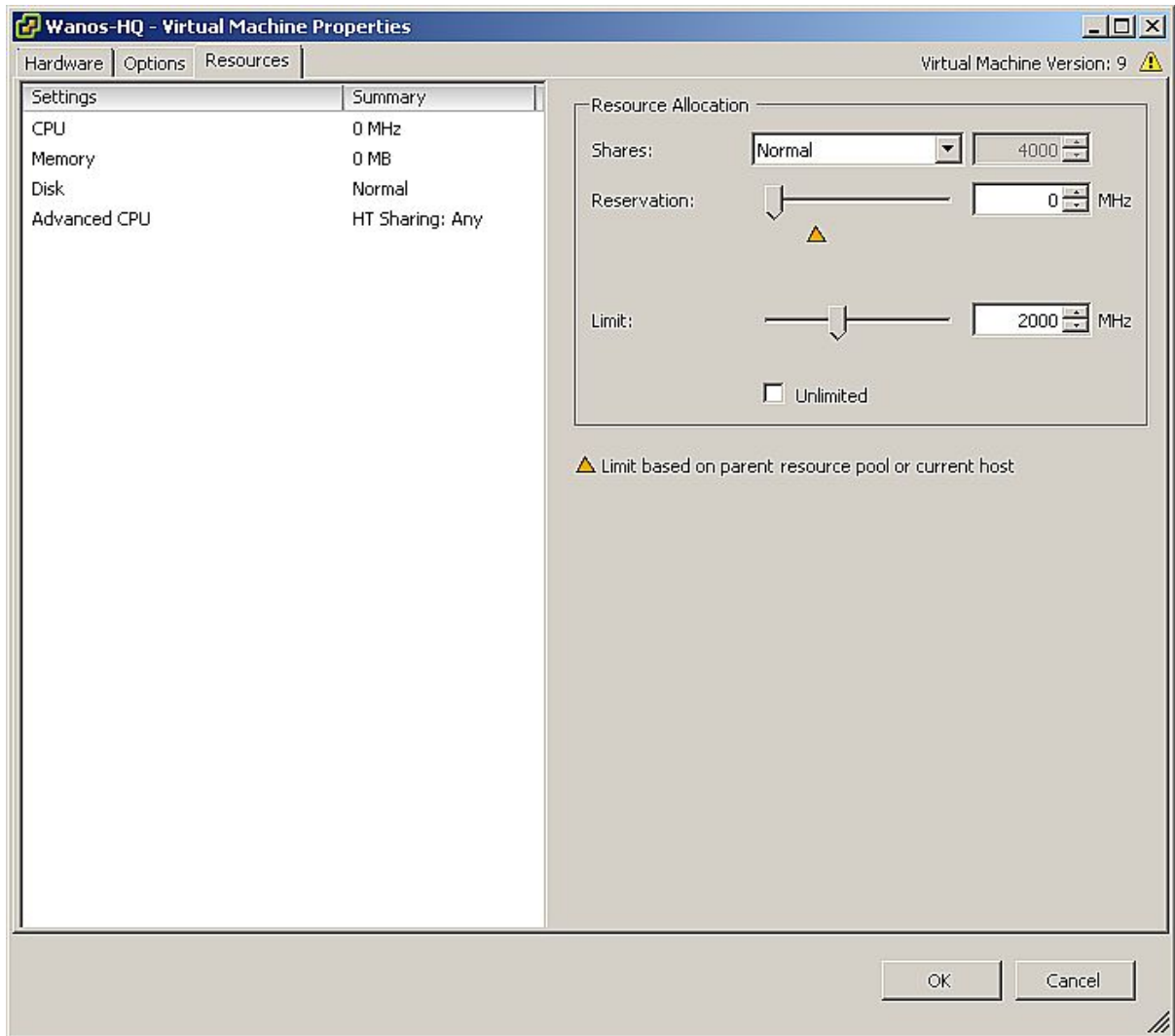
Resource reservation can be modified by navigating to **Server > Virtual Machine** (*right click – Edit Settings*) > **Hardware** and **Resources** (*tab*). Please refer to the screenshots below for reference.



Screenshot navigating to a virtual machine's edit settings.



Overview of < **UXk UY** (tab) settings.



Screenshot of **FYgci fWg** (tab). This allows the administrators to set the guaranteed minimum allocation for Wanos-HQ.

IP Configuration

At this point, Wanos is installed and configured on the VMware vSphere (ESXi) Hypervisor. If the network is on the default 192.168.1.0/24 subnet the admin can proceed to access the UI using the default IP Address. Alternatively, to configure the IP Address from the command line, the following steps can be used.

Log into Wanos-HQ using this username and password:

Username: **tc**

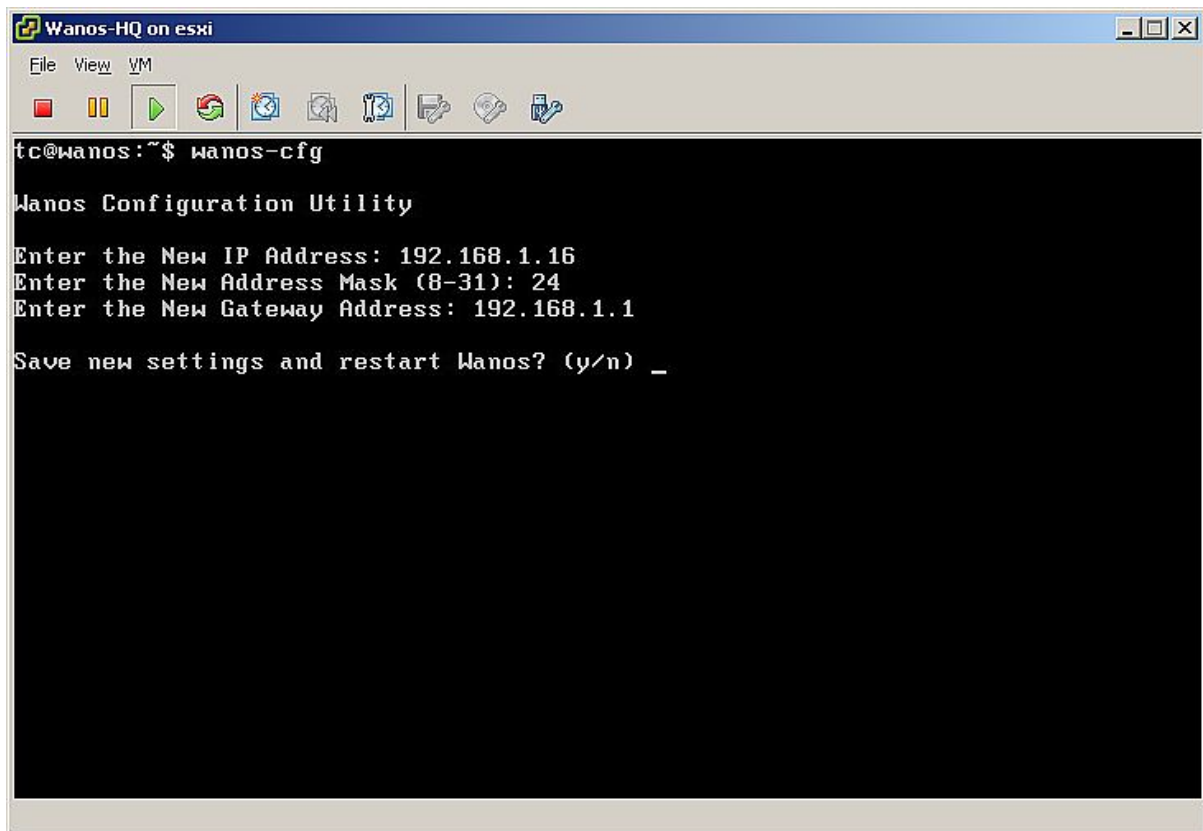
Password: **ChangeM3**

Run the 'wanos-cfg' command line utility from the terminal.

Set the IP Address, Network Mask and Gateway Address. Press **Y** to save the settings or **N** to discard the information.

By default, Wanos uses the following information:

IP Address	192.168.1.200
Network Mask	24
Gateway Address	192.168.1.1



A screenshot showing the wanos-cfg utility on vSphere ESXi.

Update Software

Always ensure to be running the latest Wanos version. A step-by-step [wanos update process](#) guide is available.