

Qualys Scanner – Configure VLAN on Hyper-V

This guide will help you configure VLANs on Hyper-V. Note that Hyper-V vSwitch is in trunk mode by default so no special configuration is required for enabling VLAN. Want to know more about VLAN scanning? Check out our [VLAN Scanning Guide](#).

Enable VLAN in Single Network Configuration

Applicable to scanner virtual machines with 1 network adapter.

VLAN configuration from powershell

Powershell allows multiple VLAN configurations.

- 1) Shut down the virtual machine from the GUI or powershell.
- 2) Set the virtual machine network adapter to Trunk mode in order to allow packets from multiple VLANs, as shown in the following example:

```
PS C:\Users\Administrator> Set-VMNetworkAdapterVlan -VMName MyScannerVM  
-Trunk -AllowedVlanIdList "3,4,5,15" -NativeVlanId 0
```

-AllowedVlanIdList is a comma separated or range of VLAN IDs.

-NativeVlanId is required to allow untagged traffic. In the example above, VLAN ID 0 is used at the switch for Untagged traffic.

- 3) Start the virtual machine.

All set. You should be able to configure any VLAN from the list provided via *-AllowedVlanIdList* using the scanner console or from the Qualys UI (go to Scans > Appliances).

Enable VLAN in Split Network Configuration

Applicable to scanner virtual machines with 2 network adapters.

There are multiple ways to enable VLANs in a split network configuration, based on the state of the scanner virtual machine. By default, scanner virtual machines start with one network adapter. A second network adapter can be added as needed after creating the virtual machine.

Method 1 (Recommended)

- 1) Shut down the scanner virtual machine if it's running. The assumption is that the virtual machine has only 1 network adapter at this point.
- 2) Enable VLANs on the network adapter as shown in the section "VLAN configuration from powershell" above.
- 3) Add the second network adapter.

4) List the network adapter VLAN settings as shown in following example:

```
PS C:\Users\Administrator> Get-VMNetworkAdapterVlan -vmname MyScanner-split
```

VMName	VMNetworkAdapterName	Mode	VlanList
MyScanner-split	Network Adapter	Trunk	0,3-5,15
MyScanner-split	Network Adapter	Untagged	

5) Start the virtual machine.

All set. You should be able to configure any VLAN from the list provided via `-AllowedVlanIdList` using the scanner console or from the Qualys UI (go to Scans > Appliances).

Method 2

In this section we'll explain how to configure VLANs on an existing split network scanner virtual machine. The command used in the single network scanner method above can be used with an additional parameter called `-VMNetworkAdapterName`.

Some things to consider:

Problem 1: Hyper-V creates all network adapters with the exact same name – the name is literally 'Network Adapter'. So every network adapter on each virtual machine running on a Hyper-V server has the same name 'Network Adapter'.

Solution: Change the name for one of the network adapters and then configure VLANs on the LAN interface.

Problem 2: Renaming the network adapter is not possible from the Hyper-V GUI. It can only be done from powershell. The option to change a network adapter name is not directly available. All network adapters have the same name and the differentiating factors for each network adapter, such as MAC address, is not accepted by `Rename-*` command as a parameter.

Solution: Run a set of commands to accomplish this by following the examples below.

Follow these steps:

List all network adapters for a VM

```
PS C:\Users\Administrator> Get-VMNetworkAdapter -vmname MyScanner-split
```

Name	IsManagementOs	VMName	SwitchName	MacAddress	Status
Network Adapter	False	MyScanner-split	Intel(R) 82574L Gigabit Network Connection - 172.16	00155D002325	
Network Adapter	False	MyScanner-split	Intel(R) 82574L Gigabit Network Connection #2 - 10.15	00155D002326	

View VLAN settings on these network adapters

```
PS C:\Users\Administrator> Get-VMNetworkAdapterVlan -VMName MyScanner-split
```

VMName	VMNetworkAdapterName	Mode	VlanList
MyScanner-split	Network Adapter	Untagged	
MyScanner-split	Network Adapter	Untagged	

Save them to a variable. This variable is going to be used for changing the adapter name.

```
PS C:\Users\Administrator> $VMNetAdap = Get-VMNetworkAdapter -vmname MyScanner-split
```

```
PS C:\Users\Administrator> $VMNetAdap[0]
```

Name	IsManagementOs	VMName	SwitchName	MacAddress	Status
Network Adapter	False	MyScanner-split	Intel(R) 82574L Gigabit Network Connection - 172.16	00155D002325	

Rename the LAN network adapter. [Scanner supports VLANs only on LAN]

```
PS C:\Users\Administrator> rename-VMNetworkAdapter -VMNetworkAdapter $VMNetAdap[0] -newname "LAN_Adapter"
```

```
PS C:\Users\Administrator> Get-VMNetworkAdapter -vmname MyScanner-split
```

Name	IsManagementOs	VMName	SwitchName	MacAddress	Status
LAN_Adapter	False	MyScanner-split	Intel(R) 82574L Gigabit Network Connection - 172.16	00155D002325	
Network Adapter	False	MyScanner-split	Intel(R) 82574L Gigabit Network Connection #2 - 10.15	00155D002326	

Configure Trunk mode on LAN adapter with desired VLAN ID list

```
PS C:\Users\Administrator> Set-VMNetworkAdapterVlan -VMName MyScanner-split  
-VMNetworkAdapterName LAN_Adapter -Trunk -AllowedVlanIdList "3,4,5,15"  
-NativeVlanId 0
```

```
PS C:\Users\Administrator> Get-VMNetworkAdapterVlan -vmname MyScanner-split
```

VMName	VMNetworkAdapterName	Mode	VlanList
MyScanner-split	LAN_Adapter	Trunk	0,3-5,15
MyScanner-split	Network Adapter	Untagged	

That's it! Users should now be able to configure VLANs from the scanner console.

Additional Resources

[Configure virtual local area networks for Hyper-V](#)

[Rename virtual machine network adapter with identical name](#)

[How to Work with Hyper-V Virtual Network Adapters](#)

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