ESXi Pre-Installation IP Address PowerShell Script

August 2021

Abstract

VxRail PowerShell enables you to set ESXi management IP using PowerShell cmdlets.

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Contents

About VxRail network configuration PowerShell bundle

Starting with VxRail 7.0.300, you can configure ESXi management network, including IP address, netmask, gateway, and vLAN.

Set ESXi management network

VxRail 7.0.300 introduces the ability to set ESXi management network using iDRAC. Starting with 7.0.300, VxM supports up to 2500 single nodes. Each node can be a stand-alone node and can be deployed in different edge locations. Before Day 1 deployment, you must configure ESXi network (IP/netmask/gateway/vLAN) on all nodes, then VxM can establish network connections with those nodes remotely and add them into the cluster.

Note: This feature requires iDRAC version 4.40.x.x or later.

How to install the VxRail API modules

Note: VxRail API modules require PowerShell version 5.0 or later.

Import the modules manually, using the standard PowerShell commands.

1. Extract the module contents to the following directory: **C:\Program Files\WindowsPowerShell\Modules**.
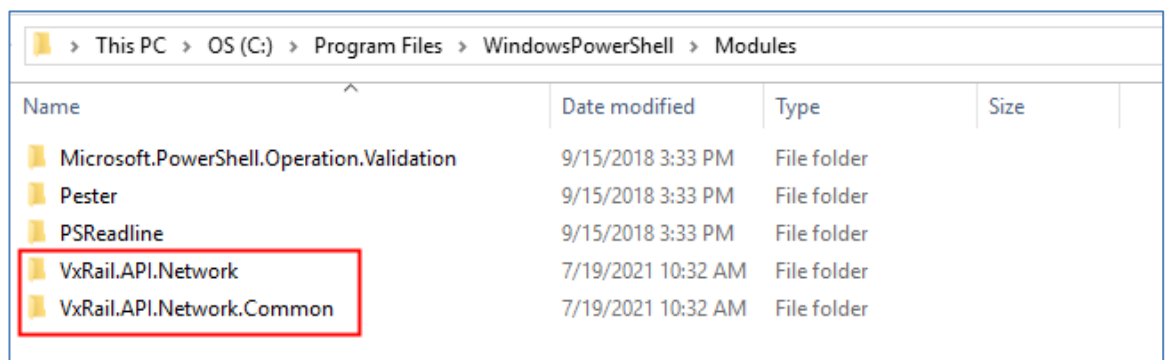

Figure 1   **Extracting the modules**

2. To import the module, run the following command from PowerShell:
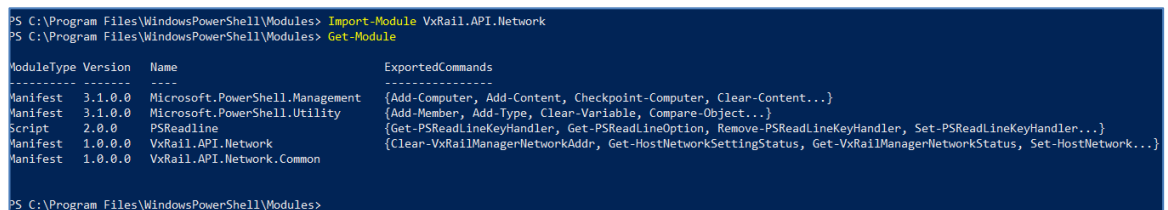
```
Import-module VxRail.API.Network
```


Figure 2   **Importing the PowerShell cmdlet**

3. To confirm that the module has imported successfully, run the following command:

```
Get-Module
```

Modules with name containing "VxRail.API.Network" should be listed as shown in Figure 2.

For PowerShell documentation, go to https://docs.microsoft.com/en-us/powershell/scripting/developer/module/installing-a-powershell-module?view=powershell-6

PowerShell cmdlets

Procedure

1. Configure the ESXi management network using the following command:

   `Set-HostNetwork`.

```
PS C:\Windows\System32\WindowsPowerShell\v1.0> Set-HostNetwork -Server 20.13.92.36 -Username root -Password calvin -HostIP 20.13.92.102 -Netmask 255.255.255.0 -Gateway 20.13.92.1 -Vlan 0
    "@Message.ExtendedInfo": [
                    {
                        "Message": "Successfully Completed Request",
                        "MessageArgs": "",
                        "MessageArgs@odata.count": 0,
                        "MessageId": "Base.1.7.Success",
                        "RelatedProperties": "",
                        "RelatedProperties@odata.count": 0,
                        "Resolution": "None",
                        "Severity": "OK"
                    },
                    {
                        "Message": "The operation successfully completed.",
                        "MessageArgs": "",
                        "MessageArgs@odata.count": 0,
                        "MessageId": "IDRAC.2.4.SYS413",
                        "RelatedProperties": "",
                        "RelatedProperties@odata.count": 0,
                        "Resolution": "No response action is required.",
                        "Severity": "Informational"
                    }
                ]
```

2. Run the `Get-HostNetworkSettingStatus` command to get the configuration status. The status is initializing in the first, and you could repeat running `Get-HostNetworkSettingStatus`. After a few minutes, the network setting will be successful. You can then check the IP address using ESXi commands in the ESXi console, or verify it using the `ping` command.

```
PS C:\Windows\System32\WindowsPowerShell\v1.0> Get-HostNetworkSettingStatus -Server 20.13.92.36 -Username root -Password calvin
Status code: 0, message: init
The network setting is initializing.
```
```
PS C:\Windows\System32\WindowsPowerShell\v1.0> Get-HostNetworkSettingStatus -Server 20.13.92.36 -Username root -Password calvin
Status code: 200, message: ok
The network setting is successful
```

VxRail API network commands

The following API commands are new for the VxRail network.

- **Set ESXi network using iDRAC**

```
Set-HostNetwork [-Server] <String> [-Username] <String> [-
Password] <String> [-HostIP] <String> [-Netmask] <String> [-
Gateway] <String> [[-Vlan] <UInt16>] [[-Proxy] <String>] [[-
ProxyUsername] <String>] [[-ProxyPassword] <String>]
[<CommonParameters>]
```

- **Get ESXi network setting status**

```
Get-HostNetworkSettingStatus [-Server] <String> [-Username]
<String> [-Password] <String> [[-Proxy] <String>] [[-
ProxyUsername] <String>] [[-ProxyPassword] <String>]
[<CommonParameters>]
```

ESXi Pre-Installation IP Address PowerShell Script

Parameter descriptions

-**Server** <iDRAC IP>: The iDRAC IP address (IPv4) of the target Node

-**Username** *<iDRAC username>:* The username of iDRAC account

-**Password** *<iDRAC password>:* The password of iDRAC account

-**HostIP** *<IP>*: IPv4 address to be configured to the host

-**Netmask** *<network mask>:* The network mask (IPv4 format) to be configured to the host

-**Gateway** *<gateway>:* Gateway IP to be configured to the host

-**vLAN** *<vLAN ID>:* Optional. The vLAN to be configured to the host.
The valid value is from 0 to 4095 (including 0 and 4095). Skip it or enter 0 if no vLAN
is used.

-**Proxy** *<Proxy>* Proxy server to access the iDRAC. It should be formatted as:
http://<proxy_ip>:<port>. Optional

-**ProxyUsername** *<ProxyUsername>* Username of the proxy server. Optional

-**ProxyPassword** *<ProxyPassword>* Password of the proxy server. Optional

Help info

You can run the `Get-Help` cmdlet for help information. If you need further information, add the `-examples,` `-detailed,` `or` `-full` parameters to the `Get-Help` command.

```
PS C:\Program Files\WindowsPowerShell\Modules> Get-Help Get-HostNetworkSettingStatus

NAME
    Get-HostNetworkSettingStatus

SYNOPSIS
    Get the host network setting status.


SYNTAX
    Get-HostNetworkSettingStatus [-Server] <String> [-Username] <String> [-Password] <String> [[-Proxy]
<String>] [[-ProxyUsername] <String>] [[-ProxyPassword] <String>] [<CommonParameters>]


DESCRIPTION


RELATED LINKS

REMARKS
    To see the examples, type: "get-help Get-HostNetworkSettingStatus -examples".
    For more information, type: "get-help Get-HostNetworkSettingStatus -detailed".
    For technical information, type: "get-help Get-HostNetworkSettingStatus -full".
```