

VxRail API PowerShell Modules

User's Guide

[Abstract](#)

The VxRail PowerShell modules enable you to manage VxRail using PowerShell cmdlets.

May 2023

Revisions

Date	Description
May 2023	Updated documentation reference
August 2020	Updated documentation reference
November 2019	Initial release

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About VxRail PowerShell Modules

Starting with VxRail 4.7.300, you can manage VxRail using PowerShell cmdlets. Each public API has a corresponding PowerShell cmdlet included in the VxRail PowerShell modules. You can activate VxRail APIs using PowerShell (5.0) after you install the VxRail.API PowerShell modules.

This guide contains information specific to PowerShell only. The VxRail API User Guide is available at the Developer Portal: <https://developer.dell.com/apis/5538/versions/7.0.420/docs/Introduction.md> contains definitions and examples of all VxRail APIs.

2 How to install the VxRail API modules

You can install the modules using either of the following methods:

- Import the modules manually using the standard PowerShell commands. For more information, see section, 2.1.
- Import the modules using the installer. For more information, see section 2.2.

2.1 Using standard PowerShell commands

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

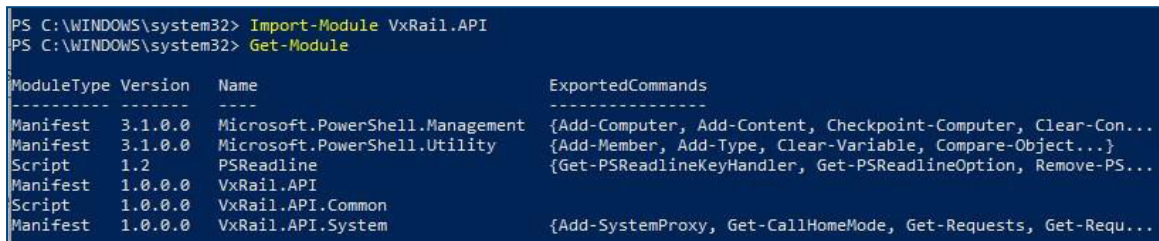
2. To import the module, run the following command from PowerShell:

```
Import-Module VxRail.API
```

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

```
Get-Module
```

Modules with name containing “VxRail.API” should be listed as shown in Figure 1.



```
PS C:\WINDOWS\system32> Import-Module VxRail.API
PS C:\WINDOWS\system32> Get-Module

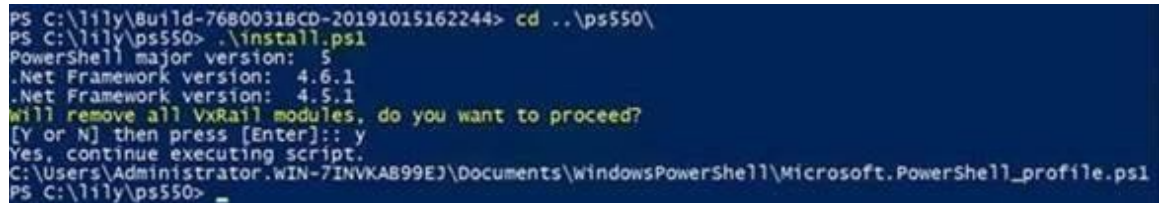
ModuleType Version      Name                               ExportedCommands
-----
Manifest    3.1.0.0      Microsoft.PowerShell.Management   {Add-Computer, Add-Content, Checkpoint-Computer, Clear-Con...
Manifest    3.1.0.0      Microsoft.PowerShell.Utility      {Add-Member, Add-Type, Clear-Variable, Compare-Object...}
Script      1.2          PSReadline                        {Get-PSReadlineKeyHandler, Get-PSReadlineOption, Remove-PS...
Manifest    1.0.0.0      VxRail.API                        {Get-PSReadlineKeyHandler, Get-PSReadlineOption, Remove-PS...
Script      1.0.0.0      VxRail.API.Common                 {Add-SystemProxy, Get-CallHomeMode, Get-Requests, Get-Requ...
Manifest    1.0.0.0      VxRail.API.System                 {Add-SystemProxy, Get-CallHomeMode, Get-Requests, Get-Requ...
```

Figure 1
Importing the PowerShell cmdlet

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

2.2 Using the installer

1. Extract the modules into a folder.
2. Go to that folder and type `.\install.ps1`
3. When prompted with “Will remove all VxRail modules, do you want to proceed?”, type **Y** or **y**.



```
PS C:\lily\build-76800318CD-20191015162244> cd ..\ps550\
PS C:\lily\ps550> .\install.ps1
PowerShell major version: 5
.NET Framework version: 4.6.1
.NET Framework version: 4.5.1
Will remove all VxRail modules, do you want to proceed?
[Y or N] then press [Enter]: y
Yes, continue executing script.
C:\Users\Administrator.WIN-7INVKAB99EJ\Documents\windowsPowerShell\Microsoft.PowerShell_profile.ps1
PS C:\lily\ps550>
```

Figure 2 Using the installer

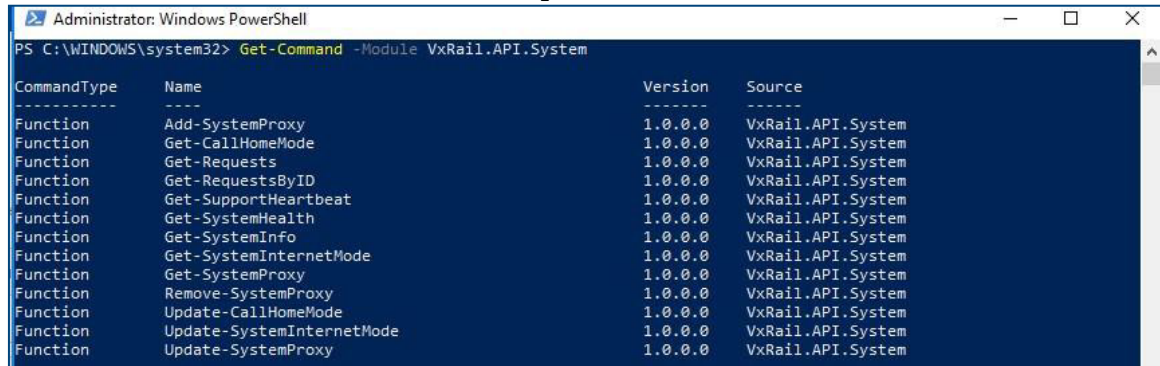
3 PowerShell cmdlets

Commands are available for the following modules:

- VxRail.API.Cluster
- VxRail.API.LCM
- VxRail.API.Support
- VxRail.API.Certificate
- VxRail.API.Chassis
- VxRail.API.Disk
- VxRail.API.Host
- VxRail.API.Telemetry
- VxRail.API.VC
- VxRail.API.System
- VxRail.API.SatelliteNode

Following is an example of listing the commands for the VxRail.API.System module:

```
Get-Command -Module VxRail.API.System
```



CommandType	Name	Version	Source
Function	Add-SystemProxy	1.0.0.0	VxRail.API.System
Function	Get-CallHomeMode	1.0.0.0	VxRail.API.System
Function	Get-Requests	1.0.0.0	VxRail.API.System
Function	Get-RequestsByID	1.0.0.0	VxRail.API.System
Function	Get-SupportHeartbeat	1.0.0.0	VxRail.API.System
Function	Get-SystemHealth	1.0.0.0	VxRail.API.System
Function	Get-SystemInfo	1.0.0.0	VxRail.API.System
Function	Get-SystemInternetMode	1.0.0.0	VxRail.API.System
Function	Get-SystemProxy	1.0.0.0	VxRail.API.System
Function	Remove-SystemProxy	1.0.0.0	VxRail.API.System
Function	Update-CallHomeMode	1.0.0.0	VxRail.API.System
Function	Update-SystemInternetMode	1.0.0.0	VxRail.API.System
Function	Update-SystemProxy	1.0.0.0	VxRail.API.System

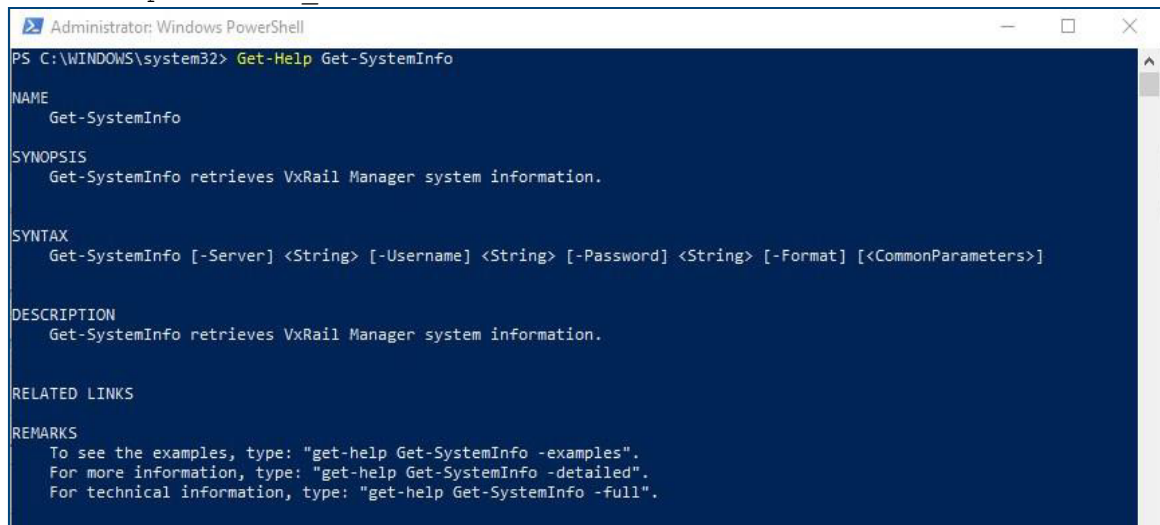
Figure 3 Get command

To list all the commands available for all modules, run:

```
Get-Command -Module VxRail.API.*
```

To show help information for a command, run:

```
Get-Help <Command_Name>
```



```
NAME
    Get-SystemInfo

SYNOPSIS
    Get-SystemInfo retrieves VxRail Manager system information.

SYNTAX
    Get-SystemInfo [-Server] <String> [-Username] <String> [-Password] <String> [-Format] [<CommonParameters>]

DESCRIPTION
    Get-SystemInfo retrieves VxRail Manager system information.

RELATED LINKS

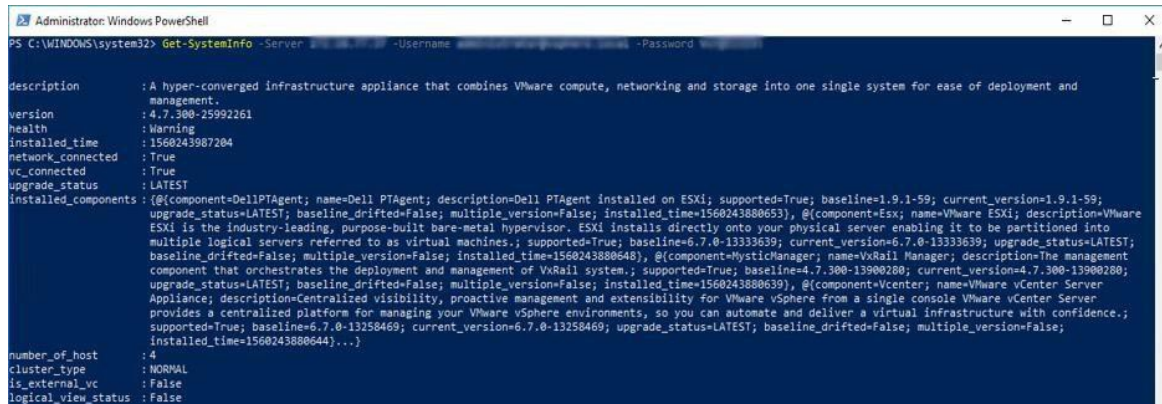
REMARKS
    To see the examples, type: "get-help Get-SystemInfo -examples".
    For more information, type: "get-help Get-SystemInfo -detailed".
    For technical information, type: "get-help Get-SystemInfo -full".
```

Figure 4 Get help.

3.1 Command examples

Following is an example of running a command:

```
Get-SystemInfo -Server <VxRail_IP> -Username <username> -Password <password>
```



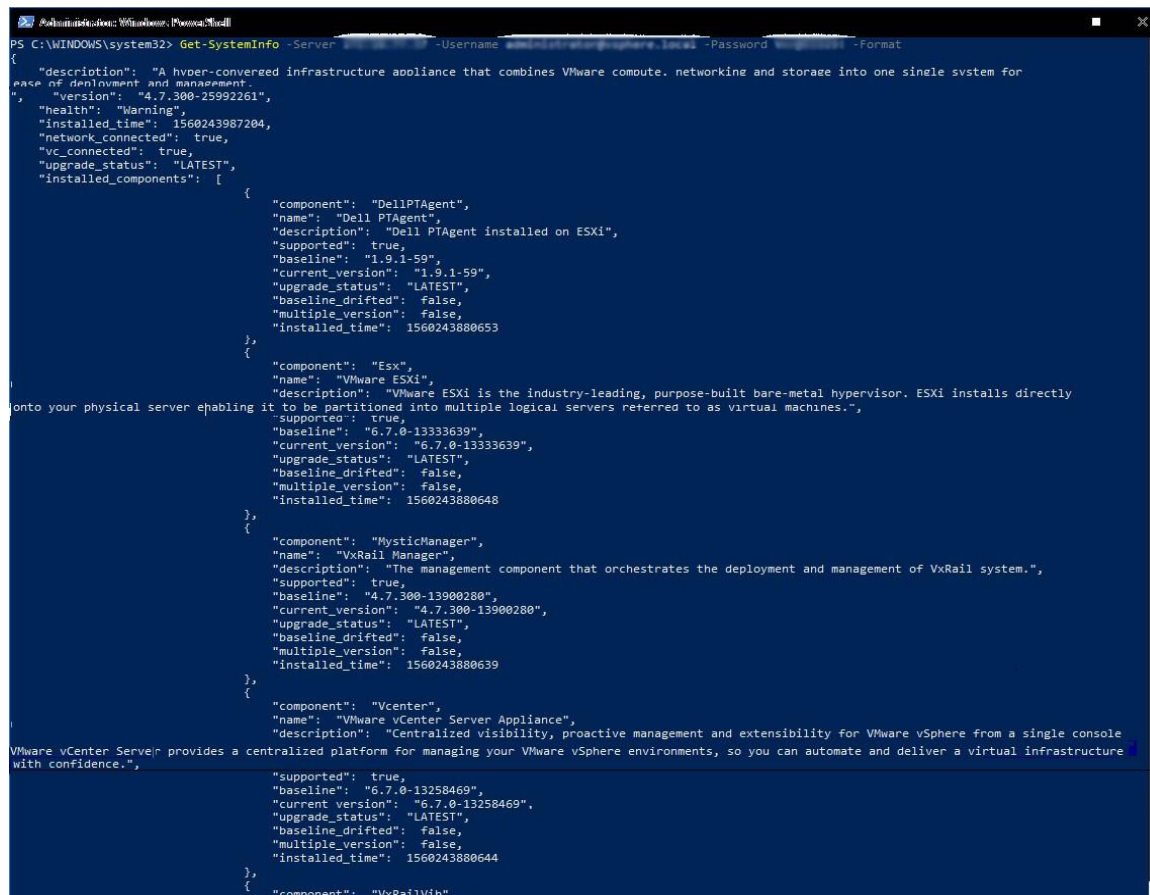
```
PS C:\WINDOWS\system32> Get-SystemInfo -Server <VxRail_IP> -Username <username> -Password <password>

description      : A hyper-converged infrastructure appliance that combines VMware compute, networking and storage into one single system for ease of deployment and
                    management.
version          : 4.7.300-25992261
health          : Warning
installed_time   : 1560243987204
network_connected : True
vc_connected     : True
upgrade_status  : LATEST
installed_components : @(component=DellPTAgent; name=Dell PTAgent; description=Dell PTAgent installed on ESXi; supported=True; baseline=1.9.1-59; current_version=1.9.1-59;
                        upgrade_status=LATEST; baseline_drifted=False; multiple_version=False; installed_time=1560243880653), @(component=Esx; name=VMware ESXi; description=VMware
                        ESXi is the industry-leading, purpose-built bare-metal hypervisor. ESXi installs directly onto your physical server enabling it to be partitioned into
                        multiple logical servers referred to as virtual machines.; supported=True; baseline=6.7.0-13333639; current_version=6.7.0-13333639; upgrade_status=LATEST;
                        baseline_drifted=False; multiple_version=False; installed_time=1560243880648), @(component=MysticManager; name=VxRail Manager; description=The management
                        component that orchestrates the deployment and management of VxRail system.; supported=True; baseline=4.7.300-13900280; current_version=4.7.300-13900280;
                        upgrade_status=LATEST; baseline_drifted=False; multiple_version=False; installed_time=1560243880639), @(component=Vcenter; name=VMware vCenter Server
                        Appliance; description=Centralized visibility, proactive management and extensibility for VMware vSphere from a single console VMware vCenter Server
                        provides a centralized platform for managing your VMware vSphere environments, so you can automate and deliver a virtual infrastructure with confidence.;
                        supported=True; baseline=6.7.0-13258469; current_version=6.7.0-13258469; upgrade_status=LATEST; baseline_drifted=False; multiple_version=False;
                        installed_time=1560243880644)...
number_of_host   : 4
cluster_type     : NORMAL
is_external_vc   : False
logical_view_status : False
```

Figure 5 Command example

Following is an example of running a command with the format flag:

```
Get-SystemInfo -Server <VxRail_IP> -Username <username> -Password <password>
-Format
```

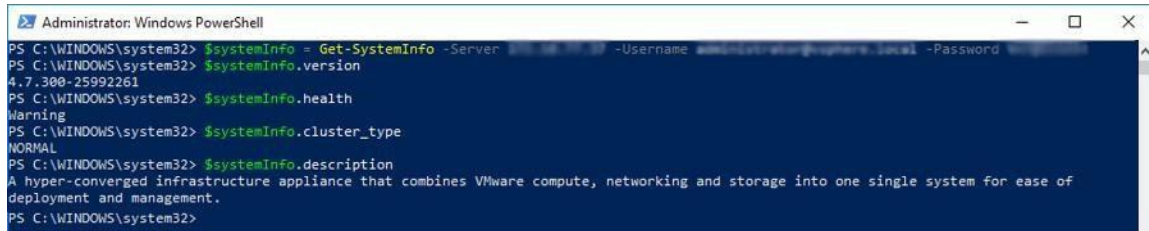


```
PS C:\WINDOWS\system32> Get-SystemInfo -Server <VxRail_IP> -Username <username> -Password <password> -Format
{
  "description": "A hyper-converged infrastructure appliance that combines VMware compute, networking and storage into one single system for
ease of deployment and management.",
  "version": "4.7.300-25992261",
  "health": "Warning",
  "installed_time": 1560243987204,
  "network_connected": true,
  "vc_connected": true,
  "upgrade_status": "LATEST",
  "installed_components": [
    {
      "component": "DellPTAgent",
      "name": "Dell PTAgent",
      "description": "Dell PTAgent installed on ESXi",
      "supported": true,
      "baseline": "1.9.1-59",
      "current_version": "1.9.1-59",
      "upgrade_status": "LATEST",
      "baseline_drifted": false,
      "multiple_version": false,
      "installed_time": 1560243880653
    },
    {
      "component": "Esx",
      "name": "VMware ESXi",
      "description": "VMware ESXi is the industry-leading, purpose-built bare-metal hypervisor. ESXi installs directly
onto your physical server enabling it to be partitioned into multiple logical servers referred to as virtual machines.",
      "supported": true,
      "baseline": "6.7.0-13333639",
      "current_version": "6.7.0-13333639",
      "upgrade_status": "LATEST",
      "baseline_drifted": false,
      "multiple_version": false,
      "installed_time": 1560243880648
    },
    {
      "component": "MysticManager",
      "name": "VxRail Manager",
      "description": "The management component that orchestrates the deployment and management of VxRail system.",
      "supported": true,
      "baseline": "4.7.300-13900280",
      "current_version": "4.7.300-13900280",
      "upgrade_status": "LATEST",
      "baseline_drifted": false,
      "multiple_version": false,
      "installed_time": 1560243880639
    },
    {
      "component": "Vcenter",
      "name": "VMware vCenter Server Appliance",
      "description": "Centralized visibility, proactive management and extensibility for VMware vSphere from a single console
VMware vCenter Server provides a centralized platform for managing your VMware vSphere environments, so you can automate and deliver a virtual infrastructure
with confidence.",
      "supported": true,
      "baseline": "6.7.0-13258469",
      "current_version": "6.7.0-13258469",
      "upgrade_status": "LATEST",
      "baseline_drifted": false,
      "multiple_version": false,
      "installed_time": 1560243880644
    },
    {
      "component": "VxRailVib"
    }
  ]
}
```

Figure 6 Formatted command

You can access command results from a variable:

```
$systemInfo = Get-SystemInfo -Server <server_ip> -Username <username> -  
Password <password>  
$systemInfo.version  
$systemInfo.health  
$systemInfo.cluster_type  
$systemInfo.description
```



```
Administrator: Windows PowerShell  
PS C:\WINDOWS\system32> $systemInfo = Get-SystemInfo -Server 10.10.10.10 -Username admin -Password 12345678  
PS C:\WINDOWS\system32> $systemInfo.version  
4.7.300-25992261  
PS C:\WINDOWS\system32> $systemInfo.health  
Warning  
PS C:\WINDOWS\system32> $systemInfo.cluster_type  
NORMAL  
PS C:\WINDOWS\system32> $systemInfo.description  
A hyper-converged infrastructure appliance that combines VMware compute, networking and storage into one single system for ease of  
deployment and management.  
PS C:\WINDOWS\system32>
```

Figure 7 Using variable

A API Documentation

VxRail RESTful API documentation is available onboard your VxRail Appliance in software versions 4.7.300 and later. To access onboard API documentation, enter the following address in a web browser:

`https://<VxM_IP>/rest/vxm/api-doc.html`

The base URL for the VxRail API: https://<VxM_IP>/rest/vxm/. The base URL is for a single VxRail cluster only. <VxM_IP> is the network IP address of the VxRail Appliance.

For customer-supplied VMware vCenter Server with multiple clusters, each cluster has its own distinct base URL.

The VxRail API User Guide is available at the Developer Portal:

<https://developer.dell.com/apis/5538/versions/7.0.420/docs/Introduction.md> contains definitions and examples of all VxRail APIs.