

VxRail API PowerShell Package

User's Guide

[Abstract](#)

The VxRail PowerShell Package enables you to manage VxRail using PowerShell cmdlets.

November 2019

Revisions

Date	Description
November 2019	Initial release

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About VxRail PowerShell Package

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 package. You can activate VxRail APIs using PowerShell (5.0) after you install the Vxrail.API PowerShell modules.

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 described in section 2.1, or
- Import the modules using the installer procedure described in section 2.2.

2.1 Using standard PowerShell commands

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

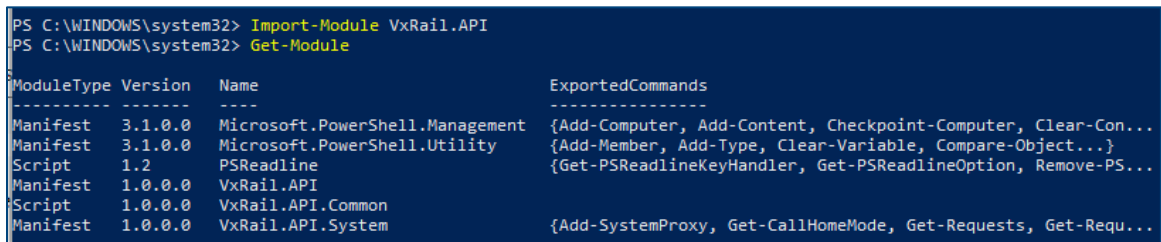
2. To import the module, run the following command from PowerShell:

```
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

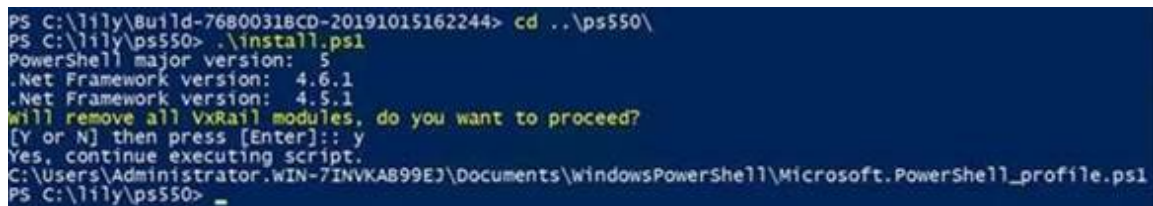
ModuleType Version Name ExportedCommands
-----
Manifest 3.1.0.0 Microsoft.PowerShell.Management {Add-Computer, Add-Content, Checkpoint-Computer, Clear-Con...
Manifest 3.1.0.0 Microsoft.PowerShell.Utility {Add-Member, Add-Type, Clear-Variable, Compare-Object...}
Script 1.2 PSReadline {Get-PSReadlineKeyHandler, Get-PSReadlineOption, Remove-PS...
Manifest 1.0.0.0 VxRail.API
Script 1.0.0.0 VxRail.API.Common
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, go to <https://docs.microsoft.com/en-us/powershell/scripting/developer/module/installing-a-powershell-module?view=powershell-6>

2.2 Using the installer

1. Unzip the package 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

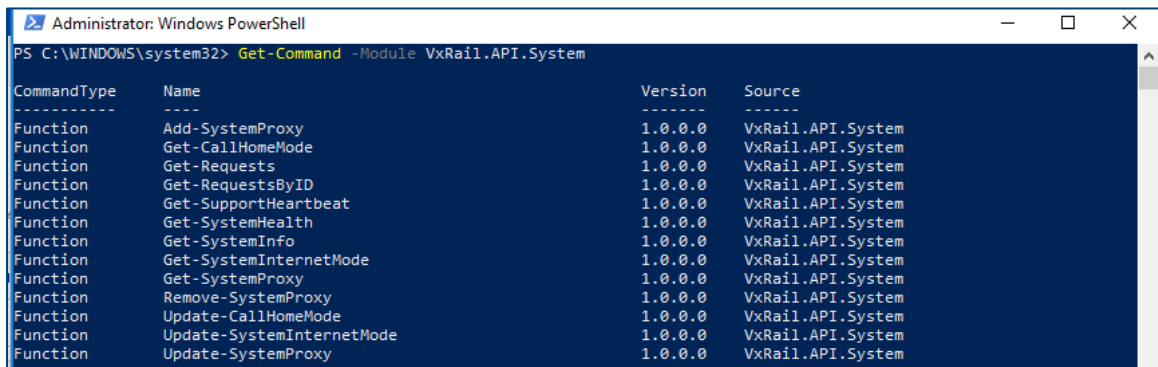
3 PowerShell cmdlets

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

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

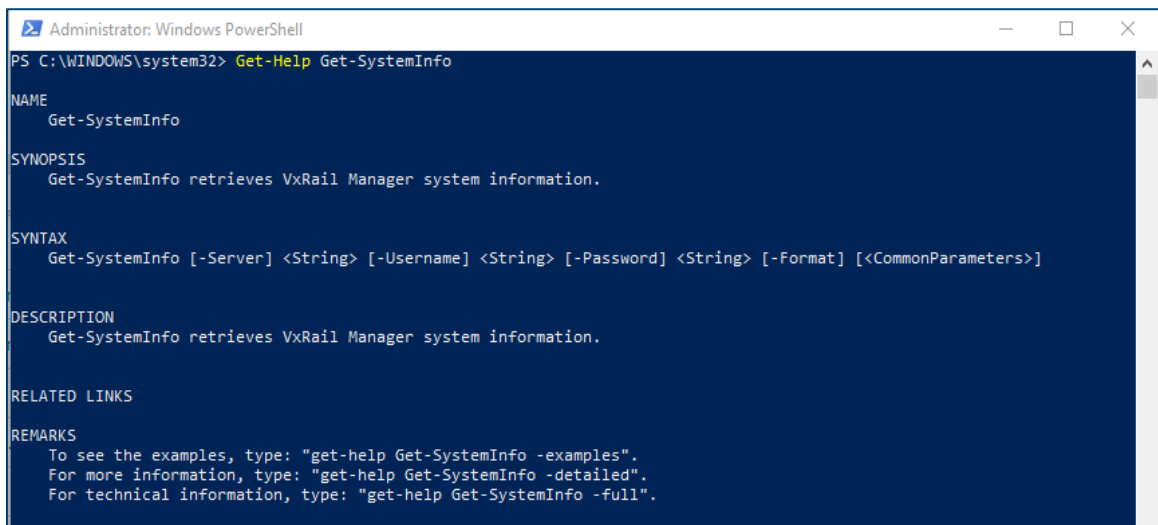
Figure 3 Get command

To list all of 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

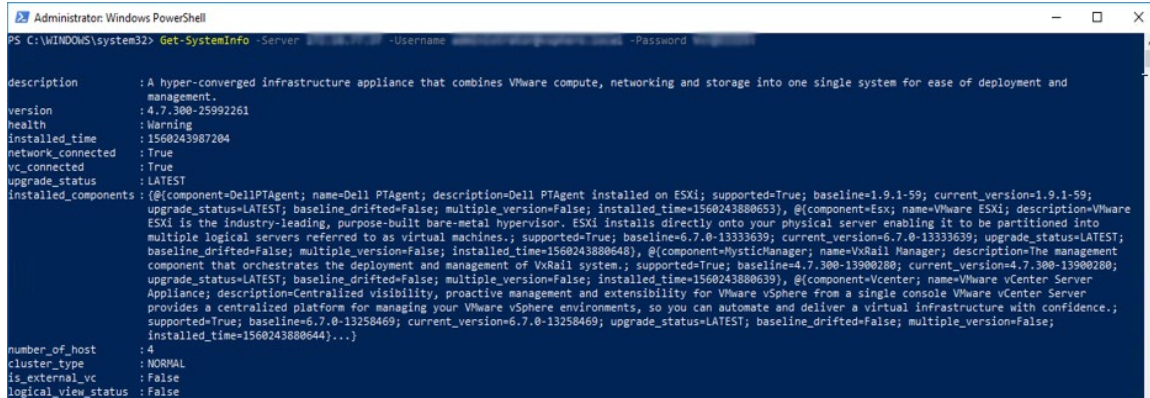
REMARKS
    To see the examples, type: "get-help Get-SystemInfo -examples".
    For more information, type: "get-help Get-SystemInfo -detailed".
    For technical information, type: "get-help Get-SystemInfo -full".
```

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>
```



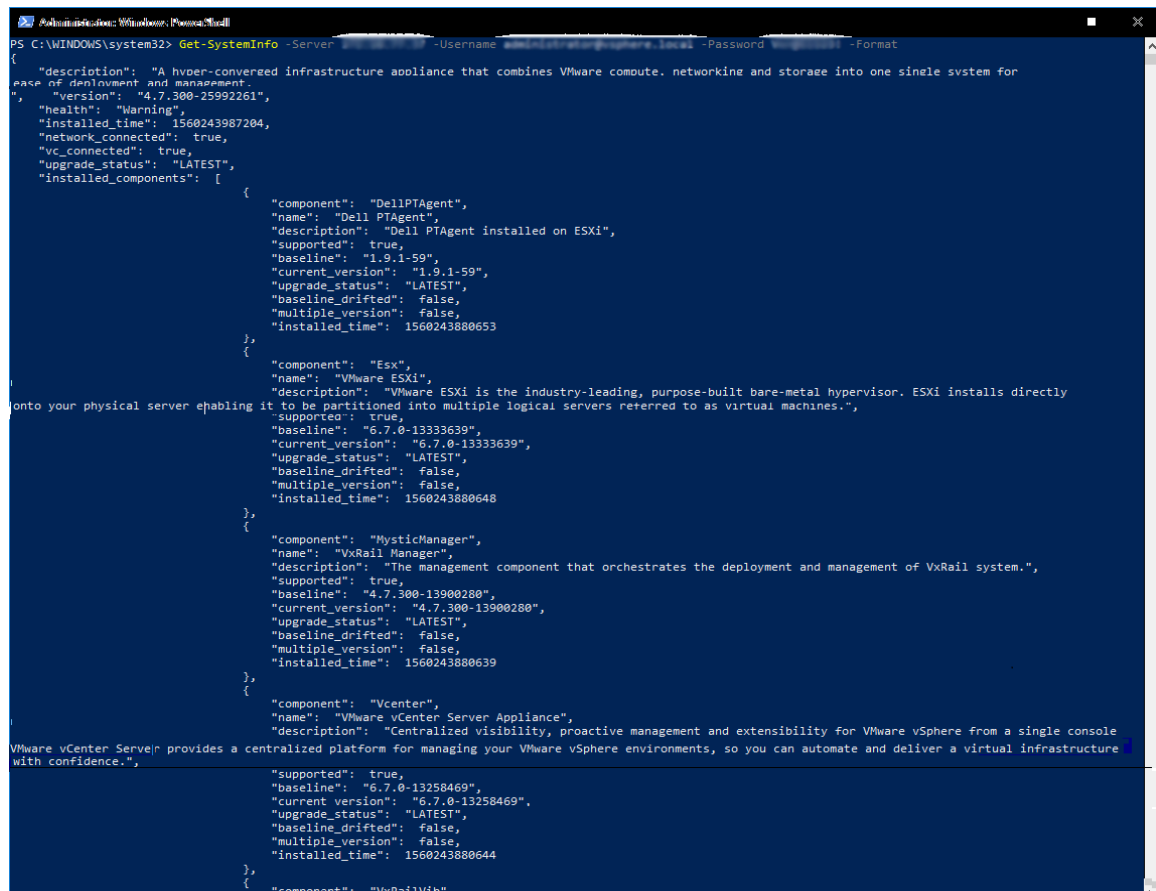
```
PS C:\WINDOWS\system32> Get-SystemInfo -Server <VxRail_IP> -Username <username> -Password <password>

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    : 14
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
```



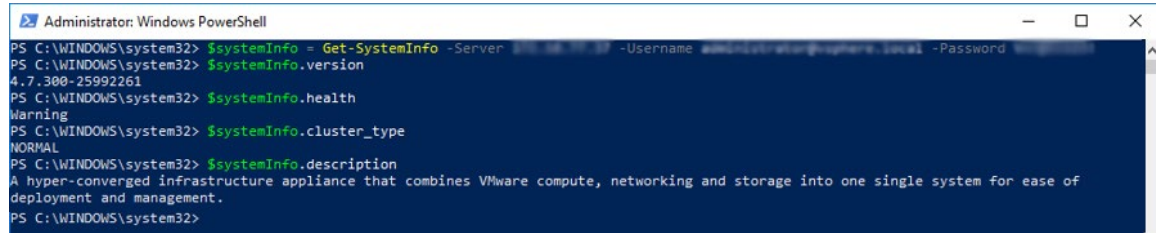
```
PS C:\WINDOWS\system32> Get-SystemInfo -Server <VxRail_IP> -Username <username> -Password <password> -Format
{
  "description": "A hyper-converged infrastructure appliance that combines VMware compute, networking and storage into one single system for
",
  "version": "4.7.300-25992261",
  "health": "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 administrator@system32.local -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 is: 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 vCenters with multiple clusters, each cluster has its own distinct base URL.

The API User's Guide, located on the support website: https://support.emc.com/docu91468_VxRail-Appliance-4.5.x-and-4.7.x-API-Guide.pdf?language=en_US, contains definitions and examples of all VxRail APIs.