Getting Started With Cisco UCS Director PowerShell Console

Cisco UCS Director PowerShell Console

Cisco UCS Director offers JSON-based REST APIs that enable you to submit workflow requests, examine workflow inputs and output schemas, and fetch reports. You can integrate Cisco UCS Director APIs with Cisco UCS Director PowerShell Console for improved automation of datacenter management.

Cisco UCS Director PowerShell Console provides cmdlet wrappers for the JSON-based APIs. Each cmdlet performs a single operation. The cmdlets are executed in a Microsoft Windows server. Depending on the data returned by the JSON-based APIs, the cmdlets automatically interpret the data and convert it into Windows PowerShell objects. You can chain multiple cmdlets together. To view a list of available cmdlets, see Cmdlets List, on page 3. For more information about REST APIs, see the Cisco UCS Director REST API Getting Started Guide.

The PowerShell Console is different from the PowerShell Agent. The PowerShell Console provides cmdlet wrappers for the JSON-based APIs. The PowerShell Agent interfaces between Cisco UCS Director and Microsoft System Center Virtual Machine Manager (SCVMM) and is responsible for inventory collection and other management functions.

Installing and Configuring

System Requirements

Windows PowerShell is built on top of the .NET Framework common language runtime (CLR) and the .NET Framework. It accepts and returns .NET Framework objects.

To work with PowerShell, you must install the Cisco UCS Director PowerShell console on any Windows-based system that supports the following:

- .NET Framework 4.0 or higher
- Windows PowerShell version 3.0 or 4.0

Determining Windows PowerShell Version

Use the SPSVersionTable command to view information about the Windows PowerShell version that is running on your system.
The following console output is an example of the `$PSVersionTable` command:

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> $PSVersionTable

Name          Value
----          -----  
PSVersion     4.0
WSManStackVersion 3.0
SerializationVersion 1.1.0.1
CLRVersion 4.0.30319.34209
BuildVersion 6.3.9600.16406
PSCompatibleVersions {1.0, 2.0, 3.0, 4.0}
PSRemotingProtocolVersion 2.2
```  

Verifying the Cisco UCS Director PowerShell Console

Use the `Get-Module` command to verify that Cisco UCS Director PowerShell Console has been installed.

The `Get-Module` command displays the type, version, and the name of the module, as shown below.

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> Get-Module

ModuleType Version Name ExportedCommands
---------- ------- ---- ---------------
Binary 5.4.0.0 CiscoUcsdPS {Invoke-userAPICan...
```  

To verify only the version after obtaining the name of the module, use the command as shown below:

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> (Get-Module CiscoUcsdPS).version

Major Minor Build Revision
----- ----- ----- --------
5 4 0 0
```  

Note

The previous two examples show the installed Cisco UCS Director PowerShell Console module to be version 5.4.0.0. The version number might vary when you have a different version installed. For example, if you have upgraded to a newer version.

Cisco UCS Director PowerShell Console Configuration

You must configure the environment variables in the PowerShell console to run the cmdlets against the Cisco UCS Director server. All cmdlets accept the IP address of Cisco UCS Director and the REST Key as optional parameters. If you do not specify these parameters, the cmdlets pick their targets from the PowerShell environment variables UCSD_SERVER and UCSD_RESTKEY.

You can configure the environment variables using the `SetEnvironmentVariable` method as follows:

```
[Environment]::SetEnvironmentVariable("UCSD_SERVER","10.1.1.1","User")
[Environment]::SetEnvironmentVariable("UCSD_RESTKEY","562FDF763A384E78B9BAB7FE02CA13B6","User")
```
You can retrieve the configured environment variables using the `GetEnvironmentVariable` command as follows:

```powershell
[Environment]::GetEnvironmentVariable("UCSD_RESTKEY","User")
```

For environment variable changes to take effect, close the PowerShell console and open it again.

---

**Working with Cmdlets**

### Cmdlets List

You can view the list of available cmdlets by using `Get-Command`.

The following list of cmdlets was obtained by using the `Get-Command`:

```powershell
Get-Command -Module CiscoUcsdPS
```

<table>
<thead>
<tr>
<th>CommandType</th>
<th>Name</th>
<th>ModuleName</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPICancelServiceRequest</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIExecuteVMAction</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetAllCatalogs</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetAllGroups</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetAllVDCs</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetAvailableReports</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetHistoricalReport</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetInstantDataReport</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetPage</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetServiceRequestDetails</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetServiceRequests</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetServiceRequestWorkflow</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetTabularReport</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetVMActionRequests</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetWorkflowInputs</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetWorkflowInputValue</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetWorkflowInputValues</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIGetWorkflowStatus</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIReconfigureVM</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIRollbackflow</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPISubmitServiceRequest</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPISubmitServiceRequestCustom</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPISubmitWorkflowServiceRequest</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPISubmitWorkflowServiceRequestWithG...</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPISubmitWorkflowServiceRequestWithS...</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIValidateWorkflow</td>
<td>CiscoUcsdPS</td>
</tr>
<tr>
<td>Cmdlet</td>
<td>Invoke-UserAPIWorkflowInputDetails</td>
<td>CiscoUcsdPS</td>
</tr>
</tbody>
</table>

---

**Help for Cmdlets**

You can run cmdlets in Cisco UCS Director PowerShell Console. To get help for a cmdlet, use the `?` or `get-Help` command.

When you enter `?` with the cmdlet, you see the syntax, parameters, aliases, and remarks for the cmdlet.
This example shows how to get help for a cmdlet:

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> Invoke-userAPISubmitServiceRequest --?
NAME
   Invoke-userAPISubmitServiceRequest
SYNTAX
   Invoke-userAPISubmitServiceRequest [-catalogName] <string> [-vdcName] <string> [-durationHours] <int> [-beginTime] <long> [-quantity] <int> [-comments] <string> [-server <string>] [-restkey <string>]
ALIASES
   None
REMARKS
   None
```

Each cmdlet has mandatory and optional parameters. For example, the `Invoke-userAPISubmitServiceRequest` cmdlet has `catalogName` as a mandatory parameter, while `server` and `restKey` are optional parameters.

You can get detailed help about an individual parameter of a cmdlet when you use the `get-Help` command, the cmdlet name, and the parameter:

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> get-Help Invoke-userAPISubmitServiceRequest -Parameter catalogName
-catalogName <string>
   Required? true
   Position? 0
   Accept pipeline input? false
   Parameter set name <All>
   Aliases None
   Dynamic? None
```

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> get-Help Invoke-userAPISubmitServiceRequest -Parameter server
-server <string>
   Required? false
   Position? Named
   Accept pipeline input? false
   Parameter set name <All>
   Aliases None
   Dynamic? false
```

### Cmdlets Inputs Definition

The cmdlets that submit a workflow take an array of name-value pairs as workflow inputs. You must specify the input as an array of colon-separated name-value pairs:

```
Name1:value1, Name2:value2
```

For example, to submit a workflow named `user-add-test`, specify the input in the following way:

```
Invoke-userAPISubmitWorkflowServiceRequest user-add-test -parameters
   user-type:Regular,group-id:1,login-name:cmdlettest1,password:test,confirm-password:test,email:user@mail.com
```
Cmdlet Output Types

You can connect commands with the pipe operator (\(\rangle\)), to execute common options on the command output. The output of each command is used as input for the next command.

The following table lists the types of objects that are written to the pipeline by cmdlets.

<table>
<thead>
<tr>
<th>Cmdlet</th>
<th>Return Object Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invoke-userAPICancelServiceRequest</td>
<td>Boolean</td>
</tr>
<tr>
<td>Invoke-userAPIExecuteVMAction</td>
<td>String</td>
</tr>
<tr>
<td>Invoke-userAPIGetAllCatalogs</td>
<td>APITabularReport</td>
</tr>
<tr>
<td>Invoke-userAPIGetAllGroups</td>
<td>APITabularReport</td>
</tr>
<tr>
<td>Invoke-userAPIGetAllVDCs</td>
<td>APITabularReport</td>
</tr>
<tr>
<td>Invoke-userAPIGetAvailableReports</td>
<td>Array of APIReportDefinition</td>
</tr>
<tr>
<td>Invoke-userAPIGetHistoricalReport</td>
<td>Array of HistoricalDataSeries</td>
</tr>
<tr>
<td>Invoke-userAPIGetInstantDataReport</td>
<td>APISnapshotReport</td>
</tr>
<tr>
<td>Invoke-userAPIGetPage</td>
<td>VMDataViewPaginated</td>
</tr>
<tr>
<td>Invoke-userAPIGetServiceRequestDetails</td>
<td>APIServiceRequestDetails</td>
</tr>
<tr>
<td>Invoke-userAPIGetServiceRequests</td>
<td>APITabularReport</td>
</tr>
<tr>
<td>Invoke-userAPIGetServiceRequestWorkFlow</td>
<td>APIWorkflowStatus</td>
</tr>
<tr>
<td>Invoke-userAPIGetTabularReport</td>
<td>APITabularReport</td>
</tr>
<tr>
<td>Invoke-userAPIGetVMActionRequests</td>
<td>APITabularReport</td>
</tr>
<tr>
<td>Invoke-userAPIGetWorkflowInputs</td>
<td>Array of APIWorkflowInputDetail</td>
</tr>
<tr>
<td>Invoke-userAPIGetWorkflowInputValue</td>
<td>String</td>
</tr>
<tr>
<td>Invoke-userAPIGetWorkflowInputValues</td>
<td>WorkflowInputValue</td>
</tr>
<tr>
<td>Invoke-userAPIGetWorkflows</td>
<td>Array of CustomActionDefinition</td>
</tr>
<tr>
<td>Invoke-userAPIGetWorkflowStatus</td>
<td>Integer</td>
</tr>
<tr>
<td>Invoke-userAPIReconfigureVM</td>
<td>String</td>
</tr>
<tr>
<td>Invoke-userAPIRollbackWorkflow</td>
<td>SR ID</td>
</tr>
<tr>
<td>Invoke-userAPISubmitServiceRequest</td>
<td>SR ID</td>
</tr>
<tr>
<td>Invoke-userAPISubmitServiceRequestCustom</td>
<td>SR ID</td>
</tr>
<tr>
<td>Invoke-userAPISubmitWorkflowServiceRequest</td>
<td>SR ID</td>
</tr>
<tr>
<td>Invoke-userAPISubmitWorkflowServiceRequestWithGroup</td>
<td>SR ID</td>
</tr>
<tr>
<td>Invoke-userAPISubmitWorkflowServiceRequestWithStartTimerAndDurationHours</td>
<td>SR ID</td>
</tr>
</tbody>
</table>
Cmdlets for Viewing Reports

You can view reports by using the following cmdlets:

- Invoke-UserAPIGetAllCatalogs
- Invoke-UserAPIGetAllGroups
- Invoke-UserAPIGetAvailableReports
- Invoke-UserAPIGetHistoricalReports
- Invoke-UserAPIGetInstantDataReport
- Invoke-UserAPIGetPage
- Invoke-UserAPIGetServiceRequestDetails
- Invoke-UserAPIGetServiceRequests
- Invoke-UserAPIGetServiceRequestWorkflow
- Invoke-UserAPIGetTabularReport
- Invoke-UserAPIGetVMActionRequests
- Invoke-UserAPIGetWorkflowInputs
- Invoke-UserAPIGetWorkflowInputValue
- Invoke-UserAPIGetWorkflowInputValues
- Invoke-UserAPIGetWorkflows
- Invoke-UserAPIGetWorkflowStatus
- Invoke-UserAPIGetAllVDCs

The userAPIGetPage API requires the name of the paginated report as one of the parameters.

The following table provides the report name and its context value:

<table>
<thead>
<tr>
<th>Report Name</th>
<th>Context Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARGEBACK_DETAILS_SERVICES_GLOBAL_TABULAR</td>
<td>None</td>
</tr>
<tr>
<td>PER_CLOUD_ARCHIVED_HYPERV_VM_LIST_REPORT</td>
<td>&lt;cloudName&gt;</td>
</tr>
<tr>
<td>vms.paginated.report</td>
<td>&lt;cloudName&gt;</td>
</tr>
<tr>
<td>PER_CLOUD_ARCHIVED_VM_LIST_REPORT</td>
<td>&lt;cloudName&gt;</td>
</tr>
</tbody>
</table>

For example, specify the following input to fetch a page of the vmware-account account report:
Invoke-userAPIGetPage vms.paginated.report vmware-account 1 10

Example: Obtaining Parameters of a Cmdlet using the Help Command

Cmdlets are executed in the same way as any other PowerShell command. You can apply common operations, such as search and filtering, to the outputs of the commands by using the pipe operator (|).

The following example shows how to obtain the parameters of a cmdlet using the ? command.

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> Invoke-userAPIGetWorkflowInputValues -?
```

NAME

```
Invoke-userAPIGetWorkflowInputValues
```

SYNTAX

```
Invoke-userAPIGetWorkflowInputValues [-srId] <int> [-server <string>] [-restkey <string>] [CommonParameters>
```

ALIASES

None

REMARKS

None

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS>
```

Example: Capturing and Filtering cmdlet Output

When you know the syntax of a cmdlet, you can capture the cmdlet output as shown below:

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> Invoke-userAPIGetWorkflowInputValues 429
```

```
Input Set Id  Action Id  Field Id  Field Value
------------  -------  --------  ------------
18            0       WF_EMPTY_INPUTS
18            156     input_0_user-type471 Regular
18            156     AddUser_231.OUTUT_USER_NAME cmdlettest1
18            156     input_3_password453 test
18            156     input_4_confirm-password361 test
18            156     input_5_email1932 user@mail.com
18            156     input_1_group-id135 1
18            156     input_2_login-name867 cmdlettest1
```

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS>
```

You can further filter the output as shown below:

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> Invoke-userAPIGetWorkflowInputValues 429 | Select-Object 'Field Id', 'Field Value'
```

```
Field Id  Field Value
---------  ------------
WF_EMPTY_INPUTS
input_0_user-type471 Regular
AddUser_231.OUTUT_USER_NAME cmdlettest1
input_3_password453 test
input_4_confirm-password361 test
input_5_email1932 user@mail.com
input_1_group-id135 1
input_2_login-name867 cmdlettest1
```
Example: Displaying a Tabular Report

The following example displays the object value for the Invoke-userAPIGetAllGroups API.

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> Invoke-userAPIGetAllGroups
com.cisco.cuic.api.client.APITabularReport@307e168
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS>
```

Adding "-verbose" to the same syntax displays the list of groups in the form of a tabular report.

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> Invoke-userAPIGetAllGroups -verbose
VERBOSE: Connected to the UCSD at 172.22.234.237, Getting the List of Groups...
VERBOSE: List of Groups returned by the UCSD.
GROUP_ID GROUP_NAME GROUP_CODE GROUP_DESCRIPTION SOURCE COST_CENTER GROUP_CONTACT_NAME GROUP_CONTACT_EMAIL_ADDRESS BUDGET_REQUIRED RESOURCE_LIMITS_SET LDAP_ACCOUNT HOST TAGS GROUP_SHARE_POLICY ALLOWS_RESOURCES_TO_USER TAG
1 Default Group DEF Default Group. All discovered VMs are placed in this group. Local System Administrator No No No
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS>
```

Note
---

For all APIs that return tabular reports, add "-verbose" to the syntax to view tabular reports. When you do not add "-verbose", only the object type and its address are returned.

Example: Canceling a Service Request

This section explains how you can cancel a service request through the PowerShell Console.

**Before You Begin**

Ensure that you have configured the environment variables in the PowerShell Console to run the cmdlets against the Cisco UCS Director server. For more information, see Cisco UCS Director PowerShell Console Configuration, on page 2.

**Step 1**

View the list of cmdlets that are available for use by using Get-Command. The cmdlet for canceling a service request is Invoke–userAPI CancelServiceRequest.

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> Get-Command -?
NAME
Invoke–userAPI CancelServiceRequest
```

**Step 2**

Get the parameters of the Invoke–userAPI CancelServiceRequest cmdlet using the ? command.

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS> Invoke–userAPI CancelServiceRequest –?
NAME
```

```
Invoke–userAPI CancelServiceRequest
```
SYNTAX
Invoke–userAPICancelServiceRequest [-requestId] <int> [-server <string>] [-restkey <string>] [<CommonParameters>]

ALIASES
None

REMARKS
None

The input required for executing the Invoke–userAPICancelServiceRequest cmdlet are:

- **requestId**—Mandatory parameter
- **server**—Optional parameter
- **restKey**—Optional parameter

**Note** You can use the `get-Help` command to get detailed help about the individual parameters of a cmdlet. For more information, see Help for Cmdlets, on page 3.

**Step 3**
Execute the command by passing the service request ID (79 in this example) as follows:

```
Invoke–userAPICancelServiceRequest 79
```

This command returns a Boolean value as output. On successful cancellation of the service request, **True** is returned as output.

```
True
```

**Troubleshooting**

**Connection Exception Error**

**Problem**
A connection exception error occurs when invoking a PowerShell API.

**Description**
When invoking a PowerShell API, the following error message appears:

```
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS>
Invoke -userAPIGetAllCatalogs
INFO: I/O exception <java.net.ConnectException> caught when processing request:
Connection Refused: connect
INFO: Retrying Request
```

Invoke -userAPIGetAllCatalogs : Connection Refused: connect
+ Invoke -userAPIGetAllCatalogs
  + CategoryInfo : InvalidResult: <Couldn't get the Catalogs:String> [Invoke
  -userAPIGetAllCatalogs], ConnectException
  + FullyQualifiedErrorId : Couldn't get the Catalogs,CiscoUcsdPS.userAPIGetAllCatalogsCmdlet
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS>

Solution
Before invoking any PowerShell API, make sure that all the Cisco UCS Director services are up and running. If a service is down, restart the service and invoke the PowerShell API again.

Running Script Disabled

Problem
PowerShell console cannot be started.

Description
When starting Cisco UCS Director PowerShell Console, the following error message appears:
PS C:\Program Files (x86)\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS>
  C:\Windows\System32\windowspowershell\v1.0\powershell.exe -NoExit -File \StartUcsdPS.ps1
Windows PowerShell
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File C:\Program Files <x86>\Cisco\Cisco UCS Director PowerShell Console\Modules\CiscoUcsdPS\StartUcsdPS.ps1 cannot be loaded because running scripts is disabled on this system. For more information, see about_Execution_Policies at http://go.microsoft.com/fwlink/?LinkID=135170.

+ CategoryInfo : SecurityError: <: > [], ParentContainsErrorRecord Exception
+ FullyQualifiedErrorId : UnauthorizedAccess

Solution
The execution policy is part of the security strategy of Cisco UCS Director PowerShell. It determines whether you can load configuration files (including your PowerShell profile) and run scripts. It also determines which scripts must be digitally signed before they are run. The Set-ExecutionPolicy cmdlet changes the user preference for the PowerShell execution policy.

To set the execution policy to Unrestricted, start the Cisco UCS Director PowerShell Console and use the following command:
Set-ExecutionPolicy Unrestricted

Cmdlet Execution Failed

Problem
During the execution of cmdlet, the PowerShell console throws one of the following errors:

• The Cisco UCS Director server could not be reached.
• The operation timed out error.
• IP/REST Key can't be Empty.

Description
Even after configuring the environment variables UCSD_RESTKEY and UCSD_SERVER, the cmdlet has failed to execute.

```powershell
PS C:\UCSDPowerShellTest\Modules\CiscoUcsdPS> [Environment]::SetEnvironmentVariable("UCSD_SERVER","10.1.1.1","User")
PS C:\UCSDPowerShellTest\Modules\CiscoUcsdPS> [Environment]::SetEnvironmentVariable("UCSD_RESTKEY","5E8DA3924FDB4CC49213FCAAE2CBCEEB","User")
PS C:\UCSDPowerShellTest\Modules\CiscoUcsdPS> Invoke-userAPIGetAllGroups
Invoke-userAPIGetAllGroups : IP/REST Key can't be Empty
At line:1 char:1
+ Invoke-userAPIGetAllGroups
+ ~~~~~~~~~~~~~~~~~~~~~~~~~~~
  + CategoryInfo : InvalidArgument: (server/restKey:String) [Invoke
    - userAPIGetAllGroups], ArgumentException
```

**Solution**

Changes to environment variables take effect only after you close the PowerShell and open it again. Whenever you make changes to the environment variables, close the PowerShell console and open it again.
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