Getting Started

This chapter contains the following sections:

Connecting to Cisco UCS Manager

Step 1 Launch Cisco UCS Manager PowerTool from the desktop shortcut.

Step 2 View all cmdlets, functions, and aliases supported by the Cisco UCS Manager PowerTool.

Get-Command -Module Cisco.UcsManager

Get-Command -Module Cisco.UcsManager | group CommandType

Get-Command -Module Cisco.UcsManager | measure

Step 3 Connect to a Cisco UCS domain.

$handle = Connect-Ucs <ip or hostname> -NotDefault

What to do next

Default UCS

If no handle or name is specified, the Cisco UCS domain handle is added to a DefaultUcs domain list unless the –Ucs parameter is specified, the first cmdlet in the pipeline operates on the default Ucs list.

Connect-Ucs*<ip or hostname>*

Get the Default Ucs list

Get-UcsPSSession

Get UCS consolidated status information

Get - UcsChassis

Get the set of all chassis objects

Get-UcsChassis

Get the object pertaining to chassis 1

Get-UcsChassis -Id 1

Get the set of blades, pertaining to chassis 1

Get-UcsChassis -Id 1 | Get-UcsBlade

Enable HTTP on the FI

Get-UcsHttp | Set-UcsHttp -AdminState enabled

Disable HTTP on the FI

Get-UcsHttp | Set-UcsHttp -AdminState disabled

Disconnect

Disconnect - Ucs

Default UCS List with Multiple UCS

PowerTool cmdlets can work with multiple Cisco UCS domains by specifying multiple handles.

Connect to a Cisco UCS domain

```
$handle1 = Connect-Ucs <ip1> -NotDefault
$handle2 = Connect-Ucs <ip2> -NotDefault
Get-UcsStatus -Ucs $handle1,$handle2
Disconnect-Ucs -Ucs $handle1,$handle2
```

By default, multiple Cisco UCS handles are not allowed in DefaultUcs. However, you can override by using the **Set-UcsPowerToolConfiguration** cmdlet.

```
Get-UcsPowerToolConfiguration
Set-UcsPowerToolConfiguration -SupportMultipleDefaultUcs $true
Connect-Ucs <ip1>
Connect-Ucs <ip2>
Get-UcsStatus
Disconnect-Ucs
```

Connect to multiple Cisco UCS domains using the same login credentials

```
$user = "<username>"
$password = "<password>" |
 ConvertTo-SecureString -AsPlainText -Force
$cred = New-Object System.Management.Automation.PSCredential($user, $password) $servers =
```

```
@("<Imc1>", "<Imc2>", "<Imc3>")
Connect-Imc $servers -Credential $cred
```

Credentials To or From a File

```
Connect-Ucs <ip1>
Connect-Ucs <ip2>
```

Credentials can be stored to a file. The stored credentials are encrypted with a specified Key

```
Export-UcsPSSession -LiteralPath C:\work\labs.xml
Disconnect-Ucs
```

Login can be initiated from credentials stored in a file

```
Connect-Ucs -LiteralPath C:\work\labs.xml
```

Specify proxy while logging in with credentials stored in a file

```
$proxy = New-Object System.Net.WebProxy
$proxy.Address = "http:\\<url>:<port>"
$proxy.UseDefaultCredentials = $false
$proxy.Credentials = New-Object System.Net.NetworkCredential("<user name>", "<password>")
Connect-Ucs -LiteralPath C:\work\lab.xml -Proxy $proxy
```

Login to an additional system and add the credentials to the file

```
Connect-Ucs <ip3>
Export-UcsPSSession -Path C:\work\lab?.xml -Merge
```

IPv6 Support

- Allows connectivity to Cisco UCS Manager using IPv6 addresses

- Provides access to external client applications such as, scp, ftp, tftp, ntp, dns, and external client services such as, sshd, httpd, snmpd over IPv6 addresses.

  Connect-Ucs [2001::0202:*3F*:*E1*:89]**

SSL Handling

When a user connects to a Cisco UCS server and the server cannot recognize any valid certificates; connection establishment depends on InvalidCertificateAction.InvalidCertificateAction is set to Ignore by default. By default PowerTool is configured to establish the connection without taking into account if the certificate is invalid.

You can override this using the**Set-UcsPowerToolConfiguration** cmdlet.

```
Get-UcsPowerToolConfiguration
Set-UcsPowerToolConfiguration -InvalidCertificateAction Fail
```

Name	Description
Fail	The cmdlet does not establish connection if the certificate is not valid.
Ignore	The cmdlet establishes a connection without taking into account that the certificate is invalid.
Default	(Windows default) The cmdlet establishes a connection if the certificate is valid.

Register or Unregister Cisco UCS Central

If you want to have Cisco UCS Central manage a Cisco UCS domain, you need to register that domain. When you register, youneed to choose the types of policies and other configurations, such as backups and firmware, that will be managed by Cisco UCS Central and which will be managed by Cisco UCS Manager.

Before you register a Cisco UCS domain with Cisco UCS Central, do the following:

Step 1 Configure an NTP server and the correct time zone in both Cisco UCS Manager and Cisco UCS Central to ensure thatthey are in sync. If the time and date in the Cisco UCS domain and Cisco UCS Central are out of sync, the registration may fail.

Step 2 Obtain the hostname or IP address of Cisco UCS Central.

Step 3 Obtain the shared secret that you configured when you deployed Cisco UCS Central.

```
$password = "SharedSecret" | ConvertTo-SecureString -AsPlainText -Force
Register-UcsCentral -Name 10.10.10.10 -SharedSecret $password
```

Step 4 Unregister from UCS Central

```
Get-UcsCentral | Unregister-UcsCentral
```

Aliases

Some aliases have been defined for convenience.

```
gal | ? {$_.Name -like "*-Ucs*" } | select Name
```

The following table lists the aliases and the corresponding cmdlets:

Alias	Cmdlet
Acknowledge-UcsBlade	Set-UcsBlade -Lc rediscover
Acknowledge-UcsChassis	Set-UcsChassis -AdminState re-acknowledge
Acknowledge-UcsFault	Confirm-UcsFault

Alias	Cmdlet
Acknowledge-UcsFex	Set-UcsFex -AdminState re-acknowledge
Acknowledge-UcsRackUnit	Set-UcsRackUnit -Lc rediscover
Acknowledge-UcsServerUnit	Set-UcsServerUnit -Lc rediscover
Acknowledge-UcsSlot	Set-UcsFabricComputeSlotEp -AdminState reacknowledge
Add-UcsMo	Add-UcsManagedObject
Associate-UcsServiceProfile	Connect-UcsServiceProfile
Compare-UcsMo	Compare-UcsManagedObject
Decommission-UcsBlade	Set-UcsBlade -Lc decommission
Decommission-UcsChassis	Set-UcsChassis -AdminState decommission
Decommission-UcsFex	Set-UcsFex -AdminState decommission
Decommission-UcsRackUnit	Set-UcsRackUnit -Lc decommission
Decommission-UcsServerUnit	Set-UcsServerUnit -Lc decommission
Disable-UcsDiskLocatorLed	Set-UcsStorageLocalDisk -AdminActionTrigger triggered -AdminAction led-off
Disassociate-UcsServiceProfile	Disconnect-UcsServiceProfile
Enable-UcsDiskLocatorLed	Set-UcsStorageLocalDisk -AdminActionTrigger triggered -AdminAction led-on
Get-UcsCentral	Get-UcsPolicyControlEp
Get-UcsMo	Get-UcsManagedObject
Recommission-UcsBlade	Set-UcsFabricComputePhEp -AdminState enabled
Recommission-UcsChassis	Set-UcsFabricSwChPhEp -AdminState enabled
Recommission-UcsFex	Set-UcsFabricSwChPhEp -AdminState enabled
Recommission-UcsRackUnit	Set-UcsFabricComputePhEp -AdminState enabled
Recommission-UcsServerUnit	Set-UcsFabricComputeMSlotEp -SlotAdminState reacknowledge
Remove-UcsBlade	Set-UcsBlade -Lc remove
Remove-UcsCartridge	Set-UcsCartridge -Lc remove
Remove-UcsChassis	Set-UcsChassis -AdminState remove

Alias	Cmdlet
Remove-UcsFex	Set-UcsFex -AdminState remove
Remove-UcsMo	Remove-UcsManagedObject
Remove-UcsRackUnit	Set-UcsRackUnit -Lc remove
Reset-UcsIoModule	Set-UcsIom -AdminPowerState cycle-immediate -AdminState acknowledged -AdminPeerPowerState policy
Reset-UcsPeerIoModule	Set-UcsIom -AdminPowerState policy -AdminState acknowledged -AdminPeerPowerState cycle-immediate
Set-UcsMo	Set-UcsManagedObject
Sync-UcsMo	Sync-UcsManagedObject
Unregister-UcsCentral	Remove-UcsPolicyControlEp