

Release Notes for Cisco UCS PowerTool Suite, Release 2.x

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About Cisco UCS PowerTool Suite

Cisco UCS PowerTool suite is a set of PowerShell modules that helps automate all aspects of Cisco UCS Manager, Cisco UCS Central, and Cisco IMC. It also helps automate server, network, storage, and hypervisor management. Cisco UCS PowerTool suite enables easy integration with existing IT management processes and tools. The PowerTool cmdlets work on the Cisco UCS Management Information Tree (MIT). The cmdlets can be used to execute read, create, modify, and delete operations on all the UCS Managed Objects (MOs) in the MIT.



Note Prior to the release 2.5(2), the PowerTool modules were posted at cisco.com.

Release 2.5(2) onwards, the PowerTool modules will be available at:
<https://www.powershellgallery.com/profiles/Cisco>.

Revision History

The following table shows the revision history:

Revision	Release	Date	Description
A0	2.0(1)	March 2016	Published release notes for Cisco UCS PowerTool Suite, Release 2.0(1)
B0	2.0(2)	June 2016	Updated the following section for Cisco UCS PowerTool Suite, Release 2.0(2): <ul style="list-style-type: none">• New Features for Release 2.0(2)• Resolved Caveats• Open Caveats

Revision	Release	Date	Description
C0	2.1(1)	October 2016	Updated the following section for Cisco UCS PowerTool Suite, Release 2.0(2): <ul style="list-style-type: none"> • System Requirements • New Features for Release 2.1(1) • Resolved Caveats • Open Caveats
D0	2.2(1)	February 2017	Updated the following section for Cisco UCS PowerTool Suite, Release 2.2: <ul style="list-style-type: none"> • New Features for Release 2.2(1) • Resolved Caveats • Open Caveats
E0	2.3(1)	November 2017	Updated the following section for Cisco UCS PowerTool Suite, Release 2.3: <ul style="list-style-type: none"> • System Requirements • New Features for Release 2.3(1), on page 10
G0	2.5(1)	January 2019	Updated the following section for Cisco UCS PowerTool Suite, Release 2.5: <ul style="list-style-type: none"> • New Features for Release 2.5(1), on page 7
H0	2.5(2)	November 2019	Updated the following section for Cisco UCS PowerTool Suite, Release 2.5: <ul style="list-style-type: none"> • New Features for Release 2.5(2), on page 7
I0	2.5(3)	January 2020	Updated the following section for Cisco UCS PowerTool Suite, Release 2.5: <ul style="list-style-type: none"> • New Features for Release 2.5(3), on page 5

System Requirements

Before installing Cisco UCS PowerTool suite, ensure that the system meets the following requirements:

- Windows PowerShell 3.0 or higher must be installed on the system
- PowerShell 4.0 and higher for UCS Desired State Configuration (DSC) resource
- .NET Framework 4.5 or higher

Cisco UCS Manager

Cisco UCS Manager PowerTool is compatible with the following Cisco UCS Manager releases:

- Release 4.0
- Release 3.2
- Release 3.1
- Release 3.0
- Release 2.5
- Release 2.2
- Release 2.1
- Release 2.0

Cisco UCS C-Series Servers

Cisco IMC PowerTool is compatible with the following Cisco IMC releases:

- Release 4.0
- Release 3.1
- Release 3.0
- Release 2.0 and higher
- Release 1.5 and higher

Cisco UCS E-Series Servers

Cisco IMC PowerTool is compatible with the following Cisco UCS E-Series releases:

- Release 2.2(1) and later for the E-Series servers

Cisco UCS Central

Cisco UCS Central PowerTool is compatible with the following Cisco UCS Central releases:

- Release 2.0
- Release 1.5
- Release 1.4

- Release 1.3
- Release 1.2

Installation Requirements



Important

- It is recommended to uninstall the modules with lower version before upgrading to higher version.
- Close the instances of PowerShell running with the PowerTool module loaded.

Installing PowerTool Modules

Uninstall the PowerShell modules of PowerTool with the older version before installing the new version. To uninstall the PowerTool modules, use the Uninstall-Module Cmdlet.example:

```
Uninstall-Module-Name Cisco.UCSManager
```



Note

Prior to the release 2.5(2), the PowerTool module was posted at cisco.com.

Release 2.5(2) onwards, the PowerTool module will be available at:

<https://www.powershellgallery.com/profiles/Cisco>.

Perform the following steps to install the Cisco PowerTool module(s) from PowerShell gallery:

Procedure

Step 1

Launch PowerShell using **Run as Administrator** on Windows or **sudo** on Non-Windows.

Step 2

Install the following PowerShell modules of PowerTool from PowerShell Gallery using the Install-Module Cmdlet:

- Cisco.IMC
- Cisco.UCSManager
- Cisco.UCSCentral

See the Microsoft documentation for more information about:

```
Install-Module -Name Cisco.UCSManager
```

The PowerTool module packages are available at:

<https://www.powershellgallery.com/profiles/Cisco>

New and Changed Features

New Features for Release 2.5(3)

This section briefly describes the new features introduced in the Cisco UCS PowerTool suite, Release 2.5(3). For detailed information about the features listed, see the documents listed in the [Related Documentation](#) section.

Key Features in Release 2.5(3)

- Support for the new features in Cisco IMC Release 4.0(4h)
- Support for the new features in Cisco UCS Manager Release 4.0(4f)
- Support for the new features in Cisco UCS Central Release 2.0(1j)
- Support for the specified new and updated cmdlets

New and Updated Cmdlets for Release 2.5(3)

Cisco IMC Release 4.0(4h)

Table 1: Cisco IMC Release 4.0(4h)

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
biosVfDCPMMFirmwareDowngrade	IMCBiosVfDCPMMFirmwareDowngrade	x	x		
biosVfIntelSpeedSelect	IMCBiosVfIntelSpeedSelect	x	x		
memoryPersistentMemoryBackup	IMCMemoryPersistentMemoryBackup	x	x		
memoryPersistentMemoryConfigResult	IMCMemoryPersistentMemoryConfigResult	x			
memoryPersistentMemoryConfiguration	IMCMemoryPersistentMemoryConfiguration	x			
memoryPersistentMemoryDimms	IMCMemoryPersistentMemoryDimms		x		
memoryPersistentMemoryGoal	IMCMemoryPersistentMemoryGoal	x	x	x	x
memoryPersistentMemoryImporter	IMCMemoryPersistentMemoryImporter	x	x		
memoryPersistentMemoryLocalSecurity	IMCMemoryPersistentMemoryLocalSecurity	x	x	x	x
memoryPersistentMemoryLogical Configuration	IMCMemoryPersistentMemoryLogical Configuration	x	x		
memoryPersistentMemoryLogical Namespace	IMCMemoryPersistentMemoryLogical Namespace	x	x	x	x
memoryPersistentMemoryNamespace	IMCMemoryPersistentMemoryNamespace	x			
memoryPersistentMemoryNamespace ConfigResult	IMCMemoryPersistentMemoryNamespace ConfigResult	x			
memoryPersistentMemoryRegion	IMCMemoryPersistentMemoryRegion	x			

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
memoryPersistentMemorySecurity	IMCMemoryPersistentMemorySecurity		x	x	x
memoryPersistentMemoryUnit	IMCMemoryPersistentMemoryUnit	x			

Cisco UCS Manager Release 4.0(4f)

Table 2: Cisco UCS Manager Release 4.0(4f)

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
computeAdminAck	UCSMComputeAdminAck	x	x		
equipmentPersistentMemoryUnitCap Provider	UCSMequipmentPersistentMemoryUnitCap Provider	x			
memoryPersistentMemoryConfig Result	UCSMMemoryPersistentMemoryConfig Result	x			
memoryPersistentMemory Configuration	UCSMMemoryPersistentMemory Configuration	x			
memoryPersistentMemoryGoal	UCSMMemoryPersistentMemoryGoal	x	x	x	x
memoryPersistentMemoryLocal Security	UCSMMemoryPersistentMemoryLocal Security	x	x	x	x
memoryPersistentMemoryLogical Namespace	UCSMMemoryPersistentMemoryLogical Namespace	x	x	x	x
memoryPersistentMemoryNamespace	UCSMMemoryPersistentMemoryNamespace	x			
memoryPersistentMemoryNamespace ConfigResult	UCSMMemoryPersistentMemoryNamespace ConfigResult	x			
memoryPersistentMemoryPolicy	UCSMMemoryPersistentMemoryPolicy	x	x	x	x
memoryPersistentMemoryRegion	UCSMMemoryPersistentMemoryRegion	x			
memoryPersistentMemorySecurity	UCSMMemoryPersistentMemorySecurity	x		x	x
memoryPersistentMemoryUnit	UCSMMemoryPersistentMemoryUnit	x			

Cisco UCS Central Release 2.0(1j)

Table 3: Cisco UCS Central Release 2.0(1j)

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
adaptorVmmqConnDef	UCSMComputeAdminAck	x			
biosTokenFeatureGroup	UCSMequipmentPersistentMemoryUnit CapProvider	x			

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
biosTokenParam	UCSMMemoryPersistentMemoryConfigResult	x			
biosTokenSettings	UCSMMemoryPersistentMemoryConfiguration	x	x		
computeFabricEthMonSrcEp	UCSMMemoryPersistentMemoryGoal	x			
computeFabricEthMonSrcEpCont	UCSMMemoryPersistentMemoryLocalSecurity	x			
computeFabricFcMonSrcEp	UCSMMemoryPersistentMemoryLogicalNamespace	x			
computeFabricFcMonSrcEpCont	UCSMMemoryPersistentMemoryNamespace	x			
vnicNetGroup	UCSMMemoryPersistentMemoryNamespaceConfigResult	x			
vnicNetGroupRef	UCSMMemoryPersistentMemoryPolicy	x			

New Features for Release 2.5(2)

This section briefly describes the new features introduced in the Cisco UCS PowerTool suite, Release 2.5(2). For detailed information about the features listed, see the documents listed in the [Related Documentation](#) section.

Key Features in Release 2.5(2)

The following cmdlets are migrated to a new version of API for better performance:

- Get-UCSSoftwareImageList
- Get-UCSSoftwareImage

The above cmdlets are deprecated in older versions of PowerTool, and may not continue to work as expected. Cisco recommends that you upgrade to Cisco UCS PowerTool Core Suite Release 2.5.2 to continue using these cmdlets.

New Features for Release 2.5(1)

This section briefly describes the new features introduced in the Cisco UCS PowerTool suite, Release 2.5(1). For detailed information about the features listed, see the documents listed in the [Related Documentation](#) section.

Key Features in Release 2.5(1)

- Support for new features in Cisco IMC Release 4.0(2c)
- Support for new features in Cisco UCSM Release 4.0(2a)
- Performance enhancement for the following ASD cmdlets:
 - Get-UcsSoftwareImage

- Get-UcsSoftwareImageList
- Support for the following new cmdlets:
 - Get-UcsEquipmentFruVariantStorage
 - Get-UcsEquipmentManufacturingDefStorage
 - Get-UcsEquipmentPhysicalDefStorage
 - Get-UcsEquipmentPictureStorage
 - Get-UcsEquipmentServiceDefStorage
 - Get-UcsEquipmentSlotArrayRefStorage
 - Get-UcsFirmwareUpgradeConstraintStorage

New and Updated Cmdlets for Release 2.5(1)

Cisco IMC Release 4.0(2c)

Table 4: Cisco IMC Release 4.0(2c)

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
adapterSecureUpdate	ImcAdapterSecureUpdate	x	x		
biosVfBmeDmaMitigation	ImcBiosVfBmeDmaMitigation	x	x		
biosVfCbsCmnCpuCpb	ImcBiosVfCbsCmnCpuCpb	x	x		
biosVfCbsCmnCpuGen DowncoreCtrl	ImcBiosVfCbsCmnCpuGen DowncoreCtrl	x	x		
biosVfCbsCmnCpuGlobal CstateCtrl	ImcBiosVfCbsCmnCpuGlobal CstateCtrl	x	x		
biosVfCbsCmnCpuL1Stream HwPrefetcher	ImcBiosVfCbsCmnCpuL1Stream HwPrefetcher	x	x		
biosVfCbsCmnCpuL2Stream HwPrefetcher	ImcBiosVfCbsCmnCpuL2Stream HwPrefetcher	x	x		
biosVfCbsCmnDeterminismSlider	ImcBiosVfCbsCmnDeterminismSlider	x	x		
biosVfCbsCmnGnbNbIOMMU	ImcBiosVfCbsCmnGnbNbIOMMU	x	x		
biosVfCbsCmnMemCtrlBankGroup SwapDdr4	ImcBiosVfCbsCmnMemCtrlBankGroup SwapDdr4	x	x		
biosVfCbsCmnMemMapBank InterleaveDdr4	ImcBiosVfCbsCmnMemMapBank InterleaveDdr4	x	x		

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
biosVfCbsCmncTDPCtl	ImcBiosVfCbsCmncTDPCtl	x	x		
biosVfCbsDfCmnMemIntlv	ImcBiosVfCbsDfCmnMemIntlv	x	x		
biosVfCbsDfCmnMemIntlvSize	ImcBiosVfCbsDfCmnMemIntlvSize	x	x		
biosVfSMEE	ImcBiosVfSMEE	x	x		
biosVfSmtMode	ImcBiosVfSmtMode	x	x		
biosVfSvmMode	ImcBiosVfSvmMode	x	x		
biosVfVMDEnable	ImcBiosVfVMDEnable	x	x		
commSnmpConfigCommit	ImcCommSnmpConfigCommit		x		
equipmentRackEnclosure	ImcEquipmentRackEnclosure	x			
moInvKv	ImcMoInvKv	x			
moKvInvHolder	ImcMoKvInvHolder	x			

Cisco UCSM Release 4.0(2a)

The following tables lists the new and updated cmdlets added for all the features in Cisco UCSM Release 4.0(2a):

Table 5: Cisco UCSM Release 4.0(2a)

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
aaaLoginProfile	UcsAaaLoginProfile	x	x		
biosVfBMEDMAMitigation	UcsBiosVfBMEDMAMitigation	x	x		
coprocessorCard	UcsCoprocessorCard	x			
equipmentCoprocessorUnit	UcsEquipmentCoprocessorUnit	x			
CapProvider	CapProvider				
equipmentRackEnclosure	UcsEquipmentRackEnclosure	x			
equipmentRackEnclosureCapProvider	UcsEquipmentRackEnclosureCapProvider	x			
equipmentSiocCapProvider	UcsEquipmentSiocCapProvider	x			
equipmentSlotEp	UcsEquipmentSlotEp	x			
equipmentSpeedCompatibility	UcsEquipmentSpeedCompatibility				
fabricReservedVlan	UcsFabricReservedVlan	x	x		
fabricReservedVlanFsm	UcsFabricReservedVlanFsm				

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
fabricReservedVlanFsmStage	UcsFabricReservedVlanFsmStage				
fabricReservedVlanFsmTask	UcsFabricReservedVlanFsmTask				
firmwareWaterbaySiocServer Constraint	UcsFirmwareWaterbaySiocServer Constraint	x			
mgmtLeaderEntity	UcsMgmtLeaderEntity				

New Features for Release 2.3(1)

This section briefly describes the new features introduced in the Cisco UCS PowerTool suite, Release 2.3(1). For detailed information about the features listed, see the documents listed in the [Related Documentation](#) section.

Key Features in Release 2.3(1)

- Support for new features in Cisco IMC Release 3.1(1d)
- Support for new features in Cisco UCS Central Release 2.0(1b)
- Support for new features in Cisco UCSM Release 3.2(1d)
- Updated cmdlet `Add-UcsCentralServiceProfileFromTemplate` to create Service profile with service profile template
- Added cmdlet `Get-UcsCentralPolicyUsage` to provide support to fetch policy details for any managed object.

New and Updated Cmdlets for Release 2.3(1)

Cisco IMC Release 3.1(1d)

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
biosVfBootOptionNumRetry	ImcBiosVfBootOptionNumRetry	x	x		
biosVfBootOptionReCoolDown	ImcBiosVfBootOptionReCoolDown	x	x		
biosVfIMCInterleave	ImcBiosVfIMCInterleave	x	x		
biosVfIPV6PXE	ImcBiosVfIPV6PXE	x	x		
biosVfKTIPrefetch	ImcBiosVfKTIPrefetch	x	x		
biosVfLLCPrefetch	ImcBiosVfLLCPrefetch	x	x		
biosVfPSata	ImcBiosVfPSata	x	x		
biosVfSubNumaClustering	ImcBiosVfSubNumaClustering	x	x		
biosVfTPMControl	ImcBiosVfTPMControl	x	x		

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
biosVfXPTPrefetch	ImcBiosVfXPTPrefetch	x	x		
lsbootCdd	ImcLsbootCdd	x	x		
storageFlexUtilController	ImcStorageFlexUtilController	x	x		
storageFlexUtilHealth	ImcStorageFlexUtilHealth	x			
storageFlexUtilOperationalProfile	ImcStorageFlexUtilOperationalProfile	x	x		
storageFlexUtilPhysicalDrive	ImcStorageFlexUtilPhysicalDrive	x			
storageFlexUtilVirtualDrive	ImcStorageFlexUtilVirtualDrive	x	x		
storageFlexUtilVirtualDriveImageMap	ImcStorageFlexUtilVirtualDriveImageMap	x	x		
storageNVMePhysicalDrive	ImcStorageNVMePhysicalDrive	x			
systemBoardUnit	ImcSystemBoardUnit	x			
x86LiveDebug	ImcX86LiveDebug	x			

Cisco UCS Central Release 2.0(1b)

The following tables lists the new and updated cmdlets added for all the features in Cisco UCS Central Release 2.0(1b):

Cmdlet	Operation
Get-UcsCentralPolicyUsage	Provide support to fetch policy details for any managed object.
Add-UcsCentralServiceProfileFromTemplate	Provide support to create service profile if user selects Advance naming options from the GUI.

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
adaptorExtEthIfOperation	AdaptorExtEthIfOperation	x	x		
adaptorHostEthIfOperation	AdaptorHostEthIfOperation	x	x		
adaptorHostFcIfOperation	AdaptorHostFcIfOperation	x	x		
adaptorHostIscsiIf	AdaptorHostIscsiIf	x			
adaptorHostIscsiIfOperation	AdaptorHostIscsiIfOperation	x	x		
adaptorUnitExtn	AdaptorUnitExtn	x			

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
biosVfEnergyPerformanceTuning	BiosVfEnergyPerformance Tuning	x	x		
biosVfEnhancedPowerCappingSupport	BiosVfEnhancedPowerCapping Support	x	x		
biosVfIOEMezz1OptionROM	BiosVfIOEMezz1OptionROM	x	x		
biosVfIOENVMe1OptionROM	BiosVfIOENVMe1OptionROM	x	x		
biosVfIOENVMe2OptionROM	BiosVfIOENVMe2OptionROM	x	x		
biosVfIOESlot1OptionROM	BiosVfIOESlot1OptionROM	x	x		
biosVfIOESlot2OptionROM	BiosVfIOESlot2OptionROM	x	x		
biosVfOutOfBandManagement	BiosVfOutOfBandManagement	x	x		
biosVfPCHSATAMode	BiosVfPCHSATAMode	x	x		
biosVfPCIROMCLP	BiosVfPCIROMCLP	x	x		
biosVfProcessorCMCI	BiosVfProcessorCMCI	x	x		
biosVfRedirectionAfterBIOSPOST	BiosVfRedirectionAfter BIOSPOST	x	x		
biosVfSBMezz1OptionROM	BiosVfSBMezz1OptionROM	x	x		
biosVfSBNVMe1OptionROM	BiosVfSBNVMe1OptionROM	x	x		
biosVfSIOC1OptionROM	BiosVfSIOC1OptionROM	x	x		
biosVfSIOC2OptionROM	BiosVfSIOC2OptionROM	x	x		
biosVfTPMSupport	BiosVfTPMSupport	x	x		
biosVfWorkloadConfiguration	BiosVfWorkloadConfiguration	x	x		
computeChassisFeatMask	ComputeChassisFeatMask	x			
computeDomainHwChangeDiscPolicy	ComputeDomainHwChange DiscPolicy	x	x	x	x
computeDomainPortDiscPolicy	ComputeDomainPortDiscPolicy	x	x	x	x
computeFactoryResetOp	ComputeFactoryResetOp	x	x		
computeGraphicsCardPolicy	ComputeGraphicsCardPolicy	x	x	x	x
computeGroupMembershipRef	ComputeGroupMembershipRef	x			

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
computeHwChangeDiscPolicy	ComputeHwChangeDiscPolicy	x	x	x	x
computePhysicalExtension	ComputePhysicalExtension	x			
computePortDiscPolicy	ComputePortDiscPolicy	x	x		
computePowerSyncDef	ComputePowerSyncDef	x			
computePowerSyncPolicy	ComputePowerSyncPolicy	x	x	x	x
computeRebootLog	ComputeRebootLog	x			
configNetRefItem	ConfigNetRefItem				
configSpotLightItem	ConfigSpotLightItem				
dcxVif	DcxVif	x			
diagLogEp	DiagLogEp	x			
diagMemoryTest	DiagMemoryTest	x			
diagRslt	DiagRslt	x			
diagRunPolicy	DiagRunPolicy	x	x		
diagSrvCapProvider	DiagSrvCapProvider	x			
diagSrvCtrl	DiagSrvCtrl	x	x		
diagSrvCtrlOperation	DiagSrvCtrlOperation	x	x		
diagSrvCtrlOperationFsmTask	DiagSrvCtrlOperationFsmTask				
domainChassisFeature	DomainChassisFeature	x			
domainChassisParam	DomainChassisParam	x			
domainProfile	DomainProfile	x	x		
domainProfileFsmTask	DomainProfileFsmTask				
equipmentChassisProfileFsmTask	EquipmentChassisProfileFsmTask				
equipmentComputeConn	EquipmentComputeConn	x			
equipmentComputeConnPolicy	EquipmentComputeConnPolicy	x	x	x	x
equipmentDriveSecCap	EquipmentDriveSecCap	x			
equipmentFruVariant	EquipmentFruVariant	x			
fabricFcEndpoint	FabricFcEndpoint	x			
fabricFcUserZone	FabricFcUserZone	x			

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
fabricFcUserZoneIvt	FabricFcUserZoneIvt				
fabricFcZoneProfile	FabricFcZoneProfile	x			
fabricFcZoneProfileFsmTask	FabricFcZoneProfileFsmTask				
fabricFcZoneProfileIvt	FabricFcZoneProfileIvt	x			
fabricNetGroupEp	FabricNetGroupEp	x			
fabricNetGroupPermit	FabricNetGroupPermit				
fabricNetGroupRef	FabricNetGroupRef				
fabricNetGroupReq	FabricNetGroupReq				
fabricSanGroup	FabricSanGroup	x			
fabricSanGroupRef	FabricSanGroupRef				
fdBlade	FdBlade	x	x		
fdChassis	FdChassis	x			
fdPhysicalFsmTask	FdPhysicalFsmTask				
fdRackUnit	FdRackUnit	x			
featureChassisDef	FeatureChassisDef	x			
firmwareAck	FirmwareAck	x	x		
inbandPolicy	InbandPolicy	x	x		
inventoryDomainEp	InventoryDomainEp	x	x		
inventoryEp	InventoryEp	x			
inventoryGlobalEp	InventoryGlobalEp	x			
inventoryHolder	InventoryHolder	x			
inventoryInventoryMoMeta	InventoryInventoryMoMeta	x			
lstorageDriveSecurity	LstorageDriveSecurity	x		x	x
lstorageLocal	LstorageLocal	x	x	x	x
lstorageLocalDef	LstorageLocalDef				
lstorageLogin	LstorageLogin	x	x	x	x
lstorageRemote	LstorageRemote	x	x	x	x
lstorageRemoteDef	LstorageRemoteDef				

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
lstorageSecurity	LstorageSecurity	x	x	x	x
mgmtKmip	MgmtKmip	x			
mgmtKmipCertPolicy	MgmtKmipCertPolicy	x	x	x	x
mgmtKmipOperation	MgmtKmipOperation	x	x		
mgmtNamedKmipCertPolicy	MgmtNamedKmipCertPolicy	x	x	x	x
mgmtSecurity	MgmtSecurity	x			
netNetGroupPermit	NetNetGroupPermit				
networkElementOperation	NetworkElementOperation	x	x		
policyChildClass	PolicyChildClass	x			
policyConfigError	PolicyConfigError	x			
policyContext	PolicyContext	x			
policyDestClass	PolicyDestClass	x			
policyDestEp	PolicyDestEp	x			
policyPolicyDestClass	PolicyPolicyDestClass	x			
policyRequestor	PolicyRequestor	x			
policyScope	PolicyScope	x			
policySourceApp	PolicySourceApp	x			
qosclassPolicy	QosclassPolicy	x	x	x	x
storageDiskEnvStats	StorageDiskEnvStats				
storageDiskEnvStatsHist	StorageDiskEnvStatsHist				
storageFlexFlashControllerOperation	StorageFlexFlashController Operation	x			
storageNvmeStats	StorageNvmeStats				
storageNvmeStatsHist	StorageNvmeStatsHist				
storageNvmeStorage	StorageNvmeStorage				
storageSsdHealthStats	StorageSsdHealthStats				
storageSsdHealthStatsHist	StorageSsdHealthStatsHist				
storageVsanRefIvt	StorageVsanRefIvt	x			

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
sysdebugDiagnosticLog	SysdebugDiagnosticLog	x			
vnicIniGrpFcB	VnicIniGrpFcB	x			
vnicIniGrpFcBIf	VnicIniGrpFcBIf	x			
vnicOutbandMgmtEp	VnicOutbandMgmtEp	x			
vnicOutbandMgmtEpFsmTask	VnicOutbandMgmtEpFsmTask				

Cisco UCSM Release 3.2(1d)

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
biosTokenFeatureGroup	BiosTokenFeatureGroup	x			
biosTokenParam	BiosTokenParam	x			
biosTokenSettings	BiosTokenSettings	x	x		
computeGraphicsCardPolicy	ComputeGraphicsCardPolicy				
computeHwChangeDiscPolicy	ComputeHwChangeDiscPolicy	x	x		
computePhysicalExtension	ComputePhysicalExtension				
computePortDiscPolicy	ComputePortDiscPolicy	x	x		
computeRebootLog	ComputeRebootLog				
controllerMgmtDbCheckPol	ControllerMgmtDbCheckPol	x	x		
diagLogEp	DiagLogEp				
diagMemoryTest	DiagMemoryTest	x	x		
domainChassisFeature	DomainChassisFeature	x	x		
domainChassisFeatureCont	DomainChassisFeatureCont				
domainChassisParam	DomainChassisParam	x	x		
equipmentBiosTokenOverride	EquipmentBiosTokenOverride	x	x		
equipmentComputeConn	EquipmentComputeConn				
equipmentComputeConnPolicy	EquipmentComputeConnPolicy	x	x		
equipmentDriveSecCap	EquipmentDriveSecCap	x			
equipmentHostMgmtControllerCap	EquipmentHostMgmt ControllerCap				
equipmentHxCap	EquipmentHxCap	x			

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
equipmentInventoryStatus	EquipmentInventoryStatus	x	x		
equipmentMiniStorageCapProvider	EquipmentMiniStorageCapProvider	x	x		
equipmentNvmeDef	EquipmentNvmeDef	x			
fabricNetGroupRef	FabricNetGroupRef				
fabricSanGroup	FabricSanGroup	x	x		
fabricSanGroupRef	FabricSanGroupRef				
fabricVlanGroupPermit	FabricVlanGroupPermit				
firmwareDriveSecurityConstraint	FirmwareDriveSecurityConstraint				
firmwareDualVicChassisConstraint	FirmwareDualVicChassisConstraint				
firmwareDualVicServerConstraint	FirmwareDualVicServerConstraint				
firmwareModule	FirmwareModule				
firmwareSecondControllerChassisConstraint	FirmwareSecondControllerChassisConstraint				
firmwareSecondControllerServerConstraint	FirmwareSecondControllerServerConstraint				
firmwareServicePack	FirmwareServicePack	x	x		
lsbootNvme	LsbootNvme	x	x		
lsbootNvmeDiskSsd	LsbootNvmeDiskSsd	x	x		
lsbootNvmePciSsd	LsbootNvmePciSsd	x	x		
lstorageDriveSecurity	LstorageDriveSecurity	x			
lstorageLocal	LstorageLocal	x	x		
lstorageLocalDef	LstorageLocalDef	x			
lstorageLogin	LstorageLogin	x	x		
lstorageRemote	LstorageRemote	x	x		
lstorageRemoteDef	LstorageRemoteDef	x			
lstorageSecurity	LstorageSecurity	x	x		
mgmtDbState	MgmtDbState	x	x		

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
mgmtKmpip	MgmtKmpip	x	x		
mgmtKmpipCertPolicy	MgmtKmpipCertPolicy	x	x		
mgmtSecurity	MgmtSecurity	x			
moInvKv	MoInvKv	x	x		
moIpV4AddrKv	MoIpV4AddrKv	x	x		
moIpV6AddrKv	MoIpV6AddrKv	x	x		
moKv	MoKv	x	x		
moKvCfgHolder	MoKvCfgHolder	x	x		
moKvInvHolder	MoKvInvHolder				
moVnicKv	MoVnicKv	x	x		
networkLimit	NetworkLimit				
policyChildClass	PolicyChildClass				
policyConfigError	PolicyConfigError				
policyContext	PolicyContext				
policyDestClass	PolicyDestClass				
policyDestEp	PolicyDestEp				
policyPolicyDestClass	PolicyPolicyDestClass				
policyPolicyScopeContFsm	PolicyPolicyScopeContFsm				
policyPolicyScopeContFsmStage	PolicyPolicyScopeContFsmStage				
policyPolicyScopeContFsmTask	PolicyPolicyScopeContFsmTask				
policyRequestor	PolicyRequestor				
policyRequestorFsm	PolicyRequestorFsm				
policyRequestorFsmStage	PolicyRequestorFsmStage				
policyRequestorFsmTask	PolicyRequestorFsmTask				
policyScope	PolicyScope				
policySourceApp	PolicySourceApp				
storageControllerReference	StorageControllerReference				
storageMiniStorage	StorageMiniStorage	x			

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
storageNvmeStorage	StorageNvmeStorage	x			
storageSsdHealthStats	StorageSsdHealthStats	x			
storageSsdHealthStatsHist	StorageSsdHealthStatsHist	x			
swEtherPort	SwEtherPort				
swPortDiscover	SwPortDiscover				
swPortDiscoverFsm	SwPortDiscoverFsm				
swPortDiscoverFsmStage	SwPortDiscoverFsmStage				
swPortDiscoverFsmTask	SwPortDiscoverFsmTask				
sysdebugDiagnosticLog	SysdebugDiagnosticLog	x	x		
sysdebugDiagnosticLogRepository	SysdebugDiagnosticLog Repository				

New Features for Release 2.2(1)

This section briefly describes the new features introduced in the Cisco UCS PowerTool suite, Release 2.1(1). For detailed information about the features listed, see the documents listed in the [Related Documentation](#) section.

Key Features in Release 2.2(1)

- Support for new features in Cisco IMC Release 3.0(1c) and 3.0(2b)
- Support to launch the UCS Manager HTML GUI automatic login
- Support to specify the JSON file as input for uploading the hardware profile to HCL Tool
- Support to collect advisories for the hardware profile in HCL Tool cmdlet
- Security enhancement to HCL Tool cmdlets

New Aliases

The following table lists the aliases added to support Cisco IMC Release 3.0(1c) features:

Alias	Operation
Enable-ImcBiosProfile	Activates the selected BIOS profile.
Remove-ImcBiosProfile	Deletes the selected BIOS profile.
Reset-ImcEventFilters	Reset all the Event Filters.

Alias	Operation
Backup-ImcBiosProfile	Backups the BIOS configuration by deleting the existing BIOS profile and creating a new profile with the existing backup file. If no backup file exists, then a new backup file is created. Also, it activates the backed-up BIOS profile to the previous configuration.
Clear-ImcOneTimePrecisionBootDevice	Clears the One Time Boot Device configured.

The following table lists the aliases added to support Cisco IMC Release 3.0(2b) features:

Alias	Operation
Remove-ImcRootCACertificate	Deletes the root CA certificate.
Remove-ImcClientCertificate	Deletes the client certificate.
Remove-ImcClientPrivateKey	Deletes the client private key.
Clear-ImcKmipLogin	Deletes the KMIP login details.
Clear-ImcKmipServer	Clears the KMIP server details.

New Cmdlets for Release 2.2(1)

Cisco IMC Release 3.0(2b)

The following tables lists the new cmdlets added for all the features in Cisco IMC Release 3.0(2b):

Cmdlet	Operation
Send-ImcKmipEntity	Provides an option to upload a KMIP entity, such as: <ul style="list-style-type: none"> • Root CA Certificate • Client Certificate • Client Private Key
Receive-ImcKmipEntity	Provides an option to download a KMIP entity, such as: <ul style="list-style-type: none"> • Root CA Certificate • Client Certificate • Client Private Key

Cmdlet	Operation
Get-ImcKmipDownloadStatus	Provides an option to get the upload status of a KMIP entity, such as: <ul style="list-style-type: none"> • Root CA Certificate • Client Certificate • Client Private Key
Get-ImcKmipUploadStatus	Provides an option to get the download status of a KMIP entity, such as: <ul style="list-style-type: none"> • Root CA Certificate • Client Certificate • Client Private Key

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
kmipManagement	KmipManagement	x	x		
kmipServer	KmipServer	x	x		
kmipServerLogin	KmipServerLogin	x	x		

Cisco IMC Release 3.0(1c)

The following tables lists the new cmdlets added for all the features in Cisco IMC Release 3.0(1c):

Cmdlet	Operation
Export-ImcHardwareInventory	Exports the hardware inventory of the system to a remote location.
Send-ImcBiosProfile	Uploads the BIOS profile to the CIMC from a remote location.
Start-ImcOsInstallation	Starts the NI-SCU OS installation process.

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
aaaUserPasswordExpiration	UserPasswordExpiration	x	x		
biosProfile	biosProfile	x	x		x
biosProfileManagement	biosProfileManagement	x	x		
biosProfileToken	biosProfileToken	x			
biosVfPowerOnPasswordSupport	biosVfPowerOnPasswordSupport	x	x		
commSavedVMediaMap	commSavedVMediaMap	x	x		x

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
commRedfish	commRedfish	x	x		
fanPolicy	fanPolicy	x	x		
generateRandomPassword	generateRandomPassword	x			
ipFiltering	ipFiltering	x	x		
oneTimePrecisionBootDevice	oneTimePrecisionBootDevice	x	x		
osiController	OSInstallationController	x			
osiStart	OSInstallation	x			
osiStatus	OSInstallationStatus	x			

New Features for Release 2.1(1)

This section briefly describes the new features introduced in Cisco UCS PowerTool suite, Release 2.1(1). For detailed information about the features listed, see the documents listed in the [Related Documentation](#) section.

Key Features in Release 2.1(1)

- New cmdlets added to interact with the Cisco UCS Hardware and software Compatibility List (HCL) tool
- Support for new features in UCS Manager Release 3.1(2)
- Support for new features in Cisco IMC Release 2.0(10), and 2.0(13)
- Support for new features in Cisco UCS Central Release 1.5
- Support to launch KVM session using both in-band and out-of-band management IP addresses in UCS Manager PowerTool
- Enhancements to ConvertTo-UcsDSCConfig cmdlet to support reading from the log file and to generate the corresponding cmdlet
- Support to launch UCS Manager HTML GUI

New Aliases

The following table lists the aliases added to support Cisco IMC Release 2.0(13) features:

Alias	Operation
Remove-ImcLdapCACertificate	Delete LDAP CA Certificate
Test-ImcLdapBinding	Test LDAP Binding
Reset-ImcPlatformEventFilters	Reset Platform Event filters
Enable-ImcPidCatalog	Activate PID Catalog

The following table lists the aliases added to perform storage operations:

Alias	Operation
Reset-ImcStorageController	Deletes all virtual drives and reset the physical drives
Clear-ImcBootDrive	Clears boot drive
Clear-ImcForeignConfig	Clears foreign configuration
Disable-ImcJbod	Disables JBOD
Enable-ImcJbod	Enables JBOD
Get-ImcTtyLog	Gets TTY log
Import-ImcForeignConfig	Imports foreign configuration

New Cmdlets for Release 2.1(1)

Cisco UCS Manager:

The following table lists new cmdlets added for all the features in UCS Manager, Release 3.1(2):

MO Name	Noun	Get	Set	Add	Remove
adaptorEthAdvFilterProfile	AdaptorEthAdvFilterProfile	x	x	x	
adaptorEthInterruptScalingProfile	AdaptorEthInterruptScalingProfile	x	x	x	x
adaptorFcFnicProfile	AdaptorFcFnicProfile	x	x	x	x
biosVfEnergyPerformanceTuning	BiosVfEnergyPerformanceTuning	x	x		
biosVfIOEMezz1OptionROM	BiosVfIOEMezz1OptionROM	x	x		
biosVfIOENVMe1OptionROM	BiosVfIOENVMe1OptionROM	x	x		
biosVfIOENVMe2OptionROM	BiosVfIOENVMe2OptionROM	x	x		
biosVfIOESlot1OptionROM	BiosVfIOESlot1OptionROM	x	x		
biosVfIOESlot2OptionROM	BiosVfIOESlot2OptionROM	x	x		
biosVfOutOfBandManagement	BiosVfOutOfBandManagement	x	x		
biosVfPCIROMCLP	BiosVfPCIROMCLP	x	x		
biosVfProcessorCMCI	BiosVfProcessorCMCI	x	x		
biosVfRedirectionAfterBIOSPOST	BiosVfRedirectionAfter BIOSPOST	x	x		
biosVfSBMezz1OptionROM	BiosVfSBMezz1OptionROM	x	x		
biosVfSBNVMe1OptionROM	BiosVfSBNVMe1OptionROM	x	x		
biosVfSIOC1OptionROM	BiosVfSIOC1OptionROM	x	x		

MO Name	Noun	Get	Set	Add	Remove
biosVfSIOC2OptionROM	BiosVfSIOC2OptionROM	x	x		
biosVfWorkloadConfiguration	BiosVfWorkloadConfiguration	x	x		
computeFactoryResetOperation	ComputeFactoryResetOperation	x	x	x	x
computePowerSyncDef	ComputePowerSyncDef	x	x		
computePowerSyncPolicy	ComputePowerSyncPolicy	x	x	x	x
controllerHaController	ControllerHaController	x	x		
controllerOperationalVersionHolder	ControllerOperationalVersion Holder	x			
controllerPreferedVersionHolder	ControllerPreferedVersion Holder	x		x	x
cpmaintAck	CpmaintAck	x	x		
cpmaintMaintPolicy	CpmaintMaintPolicy	x	x	x	x
equipmentBinding	EquipmentBinding	x	x		
equipmentCapModSpec	EquipmentCapModSpec	x			
equipmentChassisIssues	EquipmentChassisIssues	x			
equipmentChassisProfile	EquipmentChassisProfile	x	x	x	x
equipmentChassisProfileAssocCtx	EquipmentChassisProfile AssocCtx	x			
equipmentFruVariant	EquipmentFruVariant	x			
equipmentHwCapDerivativeProvider	EquipmentHwCap DerivativeProvider	x			
equipmentHwRevisionModifier	EquipmentHwRevisionModifier	x			
equipmentIOExpander	EquipmentIOExpander	x			
equipmentIOExpanderCapProvider	EquipmentIOExpanderCapProvider	x			
equipmentPciSlotIdEntry	EquipmentPciSlotIdEntry	x			
equipmentPciSlotIdMapping	EquipmentPciSlotIdMapping	x			
equipmentPciSlotSubOEMIdEntry	EquipmentPciSlotSubOEMIdEntry	x			
equipmentSiocTempStats	EquipmentSiocTempStats	x			
equipmentSiocTempStatsHist	EquipmentSiocTempStatsHist	x			
equipmentStorageEncCapProvider	EquipmentStorageEnc CapProvider	x			
equipmentStorageSasExpanderDef	EquipmentStorageSas ExpanderDef	x			

MO Name	Noun	Get	Set	Add	Remove
equipmentSystemIOController	EquipmentSystemIOController	x	x		
fabricFcEndpoint	FabricFcEndpoint	x	x	x	x
fabricFcUserZone	FabricFcUserZone	x	x	x	x
fabricFcZoneProfile	FabricFcZoneProfile	x	x	x	x
firmwareActivityTrigger	FirmwareActivityTrigger	x			
firmwareChassisComponentSpec	FirmwareChassisComponent Spec	x			
firmwareChassisPack	FirmwareChassisPack	x	x	x	x
firmwareExcludeChassisComponent	FirmwareExcludeChassis Component	x		x	x
lsbootEFIShell	LsbootEFIShell	x	x	x	x
lstorageControllerRef	LstorageControllerRef	x		x	x
lstorageDiskSlot	LstorageDiskSlot	x	x	x	x
lstorageDiskZoningConfigDef	LstorageDiskZoningConfigDef	x	x	x	x
lstorageDiskZoningPolicy	LstorageDiskZoningPolicy	x	x	x	x
mgmtCmcSecureBoot	MgmtCmcSecureBoot	x	x		
morefFruRef	MorefFruRef	x	x	x	x
morefImportRoot	MorefImportRoot	x	x	x	x
morefProp	MorefProp	x	x	x	x
morefRef	MorefRef	x	x	x	x
powerFexMember	PowerFexMember	x		x	x
powerFIMember	PowerFIMember	x	x	x	x
sesDiskSlotEp	SesDiskSlotEp	x			
sesEnclosure	SesEnclosure	x			
storageControllerEp	StorageControllerEp	x			
storageControllerRef	StorageControllerRef	x			
storageEmbeddedStorage	StorageEmbeddedStorage	x			
storageEnclosureCap	StorageEnclosureCap	x			
storageEnclosureDiskSlotEp	StorageEnclosureDiskSlotEp	x			
storageHddMotherBoardTempStats	StorageHddMotherBoard TempStats	x			

MO Name	Noun	Get	Set	Add	Remove
storageHddMotherBoard TempStatsHist	StorageHddMotherBoard TempStatsHist	x			
storageLocalDiskEp	StorageLocalDiskEp	x			
storageNvmeStats	StorageNvmeStats	x			
storageNvmeStatsHist	StorageNvmeStatsHist	x			
storageSasLinkDescriptor	StorageSasLinkDescriptor	x			
storageSasPort	StorageSasPort	x			
storageSasPortDescriptor	StorageSasPortDescriptor	x			
storageSasUpLink	StorageSasUpLink	x			
storageVirtualDriveContainer	StorageVirtualDriveContainer	x			
storageVirtualDriveEp	StorageVirtualDriveEp	x			
swFcEndpoint	SwFcEndpoint	x			
swFcUserZone	SwFcUserZone	x			
swFcUserZoneGroup	SwFcUserZoneGroup	x			

Cisco IMC

The following table lists new cmdlets added for all the features in Cisco IMC, Release 2.0(13):

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
activatePIDCatalog	ActivatePIDCatalog	x	x		
adaptorEthRdmaProfile	AdaptorEthRdmaProfile	x	x		
biosVfCmciEnable	BiosVfCmciEnable	x	x		
biosVfPCIeSSDHot PlugSupport	BiosVfPCIeSSDHot PlugSupport	x	x		
downloadLdapCACertificate	DownloadLdapCACertificate	x			
eventManagement	EventManagement	x	x		
exportLdapCACertificate	ExportLdapCACertificate	x			
ldapCACertificate	LdapCACertificate	x	x		
ldapCACertificateManagement	LdapCACertificateManagement	x	x		
lsbootNVMe	LsbootNVMe	x	x		
platformEventFilters	PlatformEventFilters	x	x		

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
storageControllerHealth	StorageControllerHealth	x			
storageControllerNVMe	StorageControllerNVMe	x			
storageSasExpander	StorageSasExpander	x			
uploadPIDCatalog	UploadPIDCatalog	x			

The following table lists new cmdlets added for all the features in Cisco IMC, Release 2.0(13) for UCS 3x60 server:

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
autoPowerProfile	AutoPowerProfile	x	x		
bmcResetReason	BmcResetReason	x			
chassisPIDCatalog	ChassisPIDCatalog	x			
chassisPowerBudget	ChassisPowerBudget	x			
chassisPowerMonitor	ChassisPowerMonitor	x			
chassisPowerUtilization	ChassisPowerUtilization	x			
commEpIpmiLan	CommEpIpmiLan	x	x		
computeServerNode	ServerNode		x		
customPowerProfile	CustomPowerProfile		x		
equipmentSystemIOController	EquipmentSystemIOController		x		
mgmtBackupServer	MgmtBackupServer		x		
mgmtImporterServer	MgmtImporterServer		x		
storageEnclosure	StorageEnclosure		x		
storageEnclosure DiskFwHelper	StorageEnclosure DiskFwHelper		x		
storageEnclosure DiskSlotZoneHelper	StorageEnclosure DiskSlotZoneHelper		x		
thermalPowerProfile	ThermalPowerProfile		x		

The following table lists new cmdlets added for all the features in Cisco IMC, Release 2.0(10):

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
biosVfAutonomous CstateEnable	BiosVfAutonomous CstateEnable	x	x		

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
biosVfHWPMEnable	BiosVfHWPMEnable	x	x		

Cisco UCS Central

The following table lists new cmdlets added for all the features in UCS Central, Release 1.5:

MO Name	Noun	Get	Set	Add	Remove
adaptorEthAdvFilterProfile	AdaptorEthAdvFilterProfile	x	x		
adaptorEthInterruptScalingProfile	AdaptorEthInterruptScalingProfile	x	x		
adaptorFcFnicProfile	AdaptorFcFnicProfile	x	x		
adaptorHostIfConfig	AdaptorHostIfConfig	x			
computeChassisConnPolicy	ComputeChassis ConnPolicy	x	x		
computeChassisConn PolicyOperation	ComputeChassis ConnPolicyOperation	x	x		
computeFactoryResetOperation	ComputeFactory ResetOperation	x	x		
cpmaintAck	CpmaintAck	x	x		
cpmaintMaintPolicy	CpmaintMaintPolicy	x	x	x	x
equipmentBinding	EquipmentBinding	x	x	x	x
equipmentCPMeta	EquipmentCPMeta	x			
equipmentChassisAssocCtx	EquipmentChassis AssocCtx	x			
equipmentChassisIssues	EquipmentChassisIssues	x			
equipmentChassisProfile	EquipmentChassisProfile	x	x	x	x
equipmentChassisProfileAssocCtx	EquipmentChassis ProfileAssocCtx	x			
equipmentChassisRequirement	EquipmentChassis Requirement	x			
equipmentInstance	EquipmentInstance	x			
equipmentInstanceMapping	EquipmentInstance Mapping	x			
equipmentPciDef	EquipmentPciDef	x			
equipmentRequirement	EquipmentRequirement	x			
equipmentSiocTempStats	EquipmentSiocTempStats	x			

MO Name	Noun	Get	Set	Add	Remove
equipmentSiocTempStatsHist	EquipmentSiocTempStatsHist	x			
equipmentSystemIOController	EquipmentSystemIOController	x			
equipmentSystemIOControllerOperation	EquipmentSystemIOControllerOperation	x	x		
equipmentTemplate	EquipmentTemplate	x			
equipmentTemplateMapping	EquipmentTemplateMapping	x			
fabricDceSwSrvPc	FabricDceSwSrvPc	x			
fabricDceSwSrvPcEp	FabricDceSwSrvPcEp	x			
fabricDceSwSrvPcEpOperation	FabricDceSwSrvPcEpOperation	x	x	x	x
fabricDceSwSrvPcOperation	FabricDceSwSrvPcOperation	x	x	x	x
fabricDomainEp	FabricDomainEp	x			
fabricEthMon	FabricEthMon	x			
fabricEthMonDestEp	FabricEthMonDestEp	x			
fabricEthMonDestEpOperation	FabricEthMonDestEpOperation	x	x	x	x
fabricEthMonLan	FabricEthMonLan	x			
fabricEthMonOperation	FabricEthMonOperation	x	x	x	x
fabricEthMonSrcEp	FabricEthMonSrcEp	x			
fabricEthMonSrcEpOperation	FabricEthMonSrcEpOperation	x	x	x	x
fabricEthMonSrcRef	FabricEthMonSrcRef	x			
fabricFcMon	FabricFcMon	x			
fabricFcMonDestEp	FabricFcMonDestEp	x			
fabricFcMonDestEpOperation	FabricFcMonDestEpOperation	x	x	x	x
fabricFcMonOperation	FabricFcMonOperation	x	x	x	x
fabricFcMonSan	FabricFcMonSan	x			
fabricFcMonSrcEp	FabricFcMonSrcEp	x			

MO Name	Noun	Get	Set	Add	Remove
fabricFcMonSrcEpOperation	FabricFcMonSrcEp Operation	x	x	x	x
fabricFcMonSrcRef	FabricFcMonSrcRef	x			
fabricHolder	FabricHolder	x			
fabricLanMonCloud	FabricLanMonCloud	x			
fabricSanMonCloud	FabricSanMonCloud	x			
fabricSystem	FabricSystem	x			
firmwareCatalogPackConfig	FirmwareCatalogPack Config	x	x	x	x
firmwareChassisComponentSpec	FirmwareChassisComponent Spec	x			
firmwareChassisPack	FirmwareChassisPack	x	x	x	x
firmwareConnectionPolicy	FirmwareConnection Policy	x	x		
firmwareDomainInfo	FirmwareDomainInfo	x			
firmwareDomainInfraProfile	FirmwareDomainInfra Profile	x	x	x	x
firmwareExcludeChassis Component	FirmwareExcludeChassis Component	x	x	x	x
firmwareInfraPackConfig	FirmwareInfraPackConfig	x	x	x	x
hcAdmin	HcAdmin	x			
hcCatalogList	HcCatalogList	x			
hcCatalogSource	HcCatalogSource	x			
hcCatalogVersion	HcCatalogVersion	x			
hcCleanup	HcCleanup	x			
hcDownloadPolicy	HcDownloadPolicy	x			
hcDownloader	HcDownloader	x	x	x	x
hcHolder	HcHolder	x			
hcReport	HcReport	x	x	x	x
hcScopeDn	HcScopeDn	x	x	x	x
lsIdentityInfo	LsIdentityInfo	x			
lsbootEFIShell	LsbootEFIShell	x	x	x	x
lstorageControllerRef	LstorageControllerRef	x	x	x	x

MO Name	Noun	Get	Set	Add	Remove
lstorageDiskSlot	LstorageDiskSlot	x	x	x	x
lstorageDiskZoningPolicy	LstorageDiskZoningPolicy	x	x	x	x
mgmtCmcSecureBoot	MgmtCmcSecureBoot	x			
mgmtCmcSecureBootOperation	MgmtCmcSecureBoot Operation	x	x		
orgDomainFirmwareInfo	OrgDomainFirmwareInfo	x			
orgMaintTagFirmwareReport	OrgMaintTagFirmware Report	x			
policyCommunicationOp	PolicyCommunicationOp	x	x		
policyConfigBackupOp	PolicyConfigBackupOp	x	x		
policyControlEpOp	PolicyControlEpOp	x	x	x	x
policyDateTimeOp	PolicyDateTimeOp	x	x		
policyDiscoveryOp	PolicyDiscoveryOp	x	x		
policyDnsOp	PolicyDnsOp	x	x		
policyEquipmentOp	PolicyEquipmentOp	x	x		
policyFaultOp	PolicyFaultOp	x	x		
policyInfraFirmwareOp	PolicyInfraFirmwareOp	x	x		
policyMEpOp	PolicyMEpOp	x	x		
policyMonitoringOp	PolicyMonitoringOp	x	x		
policyPortConfigOp	PolicyPortConfigOp	x	x		
policyPowerMgmtOp	PolicyPowerMgmtOp	x	x		
policyPsuOp	PolicyPsuOp	x	x		
policySecurityOp	PolicySecurityOp	x	x		
policyStorageAutoConfigOp	PolicyStorageAuto ConfigOp	x	x		
storageControllerEp	StorageControllerEp	x			
storageControllerRef	StorageControllerRef	x			
storageEmbeddedStorage	StorageEmbedded Storage	x			
storageEnclosureDiskSlotEp	StorageEnclosureDisk SlotEp	x			
storageEnclosureLocalDiskConfig	StorageEnclosureLocal DiskConfig	x			

MO Name	Noun	Get	Set	Add	Remove
storageOnboardDevice	StorageOnboardDevice	x			
storageSasPort	StorageSasPort	x			
storageSasUpLink	StorageSasUpLink	x			
storageVirtualDriveContainer	StorageVirtualDrive Container	x			
storageVirtualDriveEp	StorageVirtualDriveEp	x			
sysdebugTechSupportOp	SysdebugTechSupportOp	x	x	x	x
tagDef	TagDef	x	x	x	x
tagDriver	TagDriver	x	x	x	x
tagInstance	TagInstance	x	x	x	x
tagSoftwareInst	TagSoftwareInst	x	x	x	x
vnicMonSesFc	VnicMonSesFc	x			
vnicMonSesFcIf	VnicMonSesFcIf	x			

New Features for Release 2.0(2)

This section briefly describes the new features introduced in Cisco UCS PowerTool suite, Release 2.0(2). For detailed information about the features listed, see the documents listed in the [Related Documentation](#) section.

Key Features in Release 2.0(2)

- Support to upgrade from Release 2.0(1)
- Enhancements to Get-UcsSoftwareImageList cmdlet:
 - Support for -AllReleases switch parameter. This parameter enables to retrieve list of all the available images in cisco.com for the selected device type
 - -Version parameter is not supported from this release onwards

New Features for Release 2.0(1)

This section briefly describes the new features introduced in Cisco UCS PowerTool suite, Release 2.x. For detailed information about the features listed, see the documents listed in the [Related Documentation](#) section.

Key Features in Release 2.0(1)

- Support for new features in UCS Manager Release 3.1
- Support for new features in Cisco IMC Release 2.0(9)
- Support for new features in Cisco UCS Central Release 1.4

- Unified installer—Supports unified installer for installing the Cisco UCS Manager, Cisco UCS Central, and Cisco IMC PowerShell modules
- Custom resources for managing Cisco UCS using Windows PowerShell DSC
 - For Cisco UCS Manager:
 - UcsManagedObject resource - Configures any UCS Manager Managed Object (MO) by specifying the MO details
 - UcsSyncFromBackup resource - Applies the configuration from a backup file to multiple Cisco UCS Manager
 - UcsSyncMoWithReference resource: Synchronizes the configuration from a reference Cisco UCS Manager to any Cisco UCS Manager
 - UcsScript resource - Executes Cisco UCS Manager PowerShell cmdlets
 - For Cisco IMC:
 - ImcManagedObject resource - Configures Cisco IMC MO by specifying the MO details
 - ImcScript resource - Executes Cisco IMC PowerShell cmdlets
- Support for Cisco UCS core module with cmdlets for features or actions common to all modules

Module Name Changes in Release 2.0(1)

The following table lists the module name changes in this release:

Previous Module Name	New Module Name
CiscoUcsCentralPS	Cisco.UCSCentral
CiscoImcPS	Cisco.IMC
CiscoUcsPS	Cisco.UCSManager

New Cmdlets for Release 2.0(1)

Cisco UCS Manager:

The following table lists new cmdlets added for all the features in UCS Manager, Release 3.1(1):

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
fabricBreakout	FabricBreakout	x		x	x
fabricCablingSw	FabricCablingSw	x			
fabricLanCloudPolicy	FabricLanCloudPolicy	x			
firmwareExcludeServer Component	FirmwareExcludeServerComponent	x		x	x

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
firmwarePCHStorageConfig Constraint	FirmwarePCHStorageConfigConstraint	x			
firmwareServerType Constraint	FirmwareServerTypeConstraint	x			
lsbootEmbeddedLocal DiskImage	LsbootEmbeddedLocalDiskImage	x	x	x	x
lsbootEmbeddedLocal DiskImagePath	LsbootEmbeddedLocalDiskImagePath	x	x	x	x
lsbootEmbeddedLocal LunImage	LsbootEmbeddedLocalLunImage	x	x	x	x
lstorageControllerDef	LstorageControllerDef	x		x	x
lstorageControllerModeConfig	LstorageControllerModeConfig	x	x	x	x
mgmtHealthAttr	MgmtHealthAttr	x			
mgmtHealthStatus	MgmtHealthStatus	x			
policyEquipment	PolicyEquipment	x	x		
policyPortConfig	PolicyPortConfig	x	x		
securityUnit	SecurityUnit	x			
swVIFRef	SwVIFRef	x			
topInfoSyncPolicy	TopInfoSyncPolicy	x			

Cisco IMC

The following table lists new cmdlets added for all the features in Cisco IMC, Release 2.0(9):

Managed Object (MO)	PowerShell Noun	Get	Set	Add	Remove
certificateManagement	CertificateManagement	x			
selfEncryptStorageController	SelfEncryptStorageController	x	x		
aaaUserPolicy	AaaUserPolicy	x	x		
generatedStorageControllerKeyId	GeneratedStorageControllerKeyId	x			
suggestedStorageControllerSecuritykey	SuggestedStorageControllerSecurityKey	x			

Cisco UCS Central

The following table lists new cmdlets added for all the features in UCS Central, Release 1.4(1):

Managed Object (MP)	PowerShell Noun	Get	Set	Add	Remove
adaptorRnicCapSpec	AdaptorRnicCapSpec	x			
biosVfAltitude	BiosVfAltitude	x	x		
biosVfASPMSupport	BiosVfASPMSupport	x	x		
biosVfConsistentDeviceNameControl	BiosVfConsistentDeviceNameControl	x	x		
biosVfCPUPowerManagement	BiosVfCPUPowerManagement	x	x		
biosVfDDR3VoltageSelection	BiosVfDDR3VoltageSelection	x	x		
biosVfIntelTrustedExecutionTechnology	BiosVfIntelTrustedExecutionTechnology	x	x		
biosVfPCILOMPortsConfiguration	BiosVfPCILOMPortsConfiguration	x	x		
biosVfQPISnoopMode	BiosVfQPISnoopMode	x	x		
biosVfTPMPendingOperation	BiosVfTPMPendingOperation	x	x		
biosVfTrustedPlatformModule	BiosVfTrustedPlatformModule	x	x		
biosVfUSBConfiguration	BiosVfUSBConfiguration	x	x		
callhomeFaultInst	CallhomeFaultInst	x			
callhomeHolder	CallhomeHolder	x			
callhomeHolderFsm	CallhomeHolderFsm	x			
callhomeHolderFsmStage	CallhomeHolderFsmStage	x			
callhomeHolderFsmTask	CallhomeHolderFsmTask	x			
callhomeHttp	CallhomeHttp	x	x		
computeAutoconfigPolicy	ServerAutoconfigPolicy	x	x		
computeBladeDiscPolicy	BladeDiscoveryPolicy	x	x	x	x
computeBladeInheritPolicy	ServerInheritPolicy	x	x	x	x
computeBoardController	ComputeBoardController	x			
computeDomainGroupQual	ComputeDomainGroupQual	x	x	x	x
computeDomainNameQual	ComputeDomainNameQual	x		x	x
computeProductFamilyQual	ComputeProductFamilyQual	x		x	x
computeServerMgmtPolicy	ComputeServerMgmtPolicy	x	x		
equipmentBreakoutCap	EquipmentBreakoutCap	x			
equipmentServerFeatureCap	EquipmentServerFeatureCap	x			

Managed Object (MP)	PowerShell Noun	Get	Set	Add	Remove
extvmmNetworkSets	ExtvmmNetworkSets	x			
extvmmVMNetworkSets	ExtvmmVMNetworkSets	x			
fabricBreakout	FabricBreakout	x			
fabricBreakoutOperation	FabricBreakoutOperation	x	x	x	x
fabricCabling	FabricCabling	x			
fabricCablingSw	FabricCablingSw	x			
fabricEthEstcEpOperation	FabricEthEstcEpOperation	x	x	x	x
fabricEthEstcPcEp	AppliancePortChannelMember	x	x	x	x
fabricEthEstcPcEpOperation	FabricEthEstcPcEpOperation	x	x	x	x
fabricEthEstcPcOperation	FabricEthEstcPcOperation	x	x	x	x
fabricEthLanPcEp	UplinkPortChannelMember	x	x	x	x
fabricEthLanPcEpOperation	FabricEthLanPcEpOperation	x	x	x	x
fabricEthLanPcOperation	FabricEthLanPcOperation	x	x	x	x
fabricEthTargetEp	Appliance	x	x	x	x
fabricEthTargetEpOperation	FabricEthTargetEpOperation	x	x	x	x
fabricEthVlanPc	VlanMemberPortChannel	x	x	x	x
fabricEthVlanPortEp	VlanMemberPort	x	x	x	x
fabricFcEstcEpOperation	FabricFcEstcEpOperation	x	x	x	x
fabricFcoeEstcEpOperation	FabricFcoeEstcEpOperation	x	x	x	x
fabricFcoeSanEpOperation	FabricFcoeSanEpOperation	x	x	x	x
fabricFcoeSanPcEp	FabricFcoeSanPcEp	x			
fabricFcoeSanPcEpOperation	FabricFcoeSanPcEpOperation	x	x	x	x
fabricFcoeSanPcOperation	FabricFcoeSanPcOperation	x	x	x	x
fabricFcoeVsanPc	FabricFcoeVsanPc	x	x	x	
fabricFcoeVsanPortEp	VsanMemberFcoePort	x	x	x	x
fabricFcSanEpOperation	FabricFcSanEpOperation	x	x	x	x
fabricFcSanPcEp	FabricFcSanPcEp	x			
fabricFcSanPcEpOperation	FabricFcSanPcEpOperation	x	x	x	x

Managed Object (MP)	PowerShell Noun	Get	Set	Add	Remove
fabricFcSanPcOperation	FabricFcSanPcOperation	x	x	x	x
fabricFcUplinkOperation	FabricFcUplinkOperation	x	x	x	x
fabricFcVsanPc	VsanMemberFcPortChannel	x	x	x	x
fabricFcVsanPortEp	VsanMemberFcPort	x	x	x	x
fabricLanCloudPolicy	FabricLanCloudPolicy	x	x		
fabricLanPinGroup	EthernetPinGroup	x			
fabricLanPinGroupOperation	FabricLanPinGroupOperation	x	x	x	x
fabricLanPinTarget	EthernetPinGroupTarget	x			
fabricLanPinTargetOperation	FabricLanPinTargetOperation	x	x	x	x
fabricSanPinGroup	FcPinGroup	x			
fabricSanPinGroupOperation	FabricSanPinGroupOperation	x	x	x	x
fabricSanPinTarget	FcPinGroupTarget	x			
fabricSanPinTargetOperation	FabricSanPinTargetOperation	x	x	x	x
fabricSwSubGroup	FabricSwSubGroup	x			
fabricVlanEp	FabricVlanEp	x			
fabricVsanEp	FabricVsanEp	x			
fabricVsanMembership	FabricVsanMembership	x			
firmwareAutoSyncPolicy	FirmwareAutoSyncPolicy	x	x		
firmwareComponentSpec	FirmwareComponentSpec	x			
firmwareExcludeServerComponent	FirmwareExcludeServerComponent	x		x	x
firmwareUpgradeDetail	FirmwareUpgradeDetail	x			
firmwareUpgradeInfo	FirmwareUpgradeInfo	x			
graphicsCard	GraphicsCard	x			
graphicsController	GraphicsController	x			
lsbootEmbeddedLocalDiskImage	LsbootEmbeddedLocalDiskImage	x	x	x	x
lsbootEmbeddedLocalDiskImagePath	LsbootEmbeddedLocalDiskImagePath	x	x	x	x
lsbootEmbeddedLocalLunImage	LsbootEmbeddedLocalLunImage	x	x	x	x
lsbootUEFIBootParam	LsbootUEFIBootParam	x	x	x	x

Managed Object (MP)	PowerShell Noun	Get	Set	Add	Remove
lsFcLocale	LsFcLocale	x			
lsFcZone	LsFcZone	x			
lsFcZoneGroup	LsFcZoneGroup	x			
lsZoneInitiatorMember	LsZoneInitiatorMember	x			
lsZoneTargetMember	LsZoneTargetMember	x			
messageEntry	MessageEntry	x			
mgmtInbandProfile	MgmtInbandProfile	x	x		
policyEquipment	PolicyEquipment	x			
policyPortConfig	PolicyPortConfig	x			
powerChassisMember	PowerChassisMember	x		x	x
powerEp	PowerEp	x			
qosclassDefinition	QosclassDefinition	x	x		
qosclassEthBE	BestEffortQosClass	x	x		
qosclassEthClassified	QosClass	x	x		
qosclassFc	FcQosClass	x	x		
securityUnit	SecurityUnit	x			
smartcallhomeHttpProxy	SmartcallhomeHttpProxy	x	x	x	x
smartcallhomePeriodicInventoryStatus	SmartcallhomePeriodicInventoryStatus	x			
smartcallhomePeriodicSystemInventory	SmartcallhomePeriodicSystemInventory	x	x		
smartcallhomePolicy	SmartcallhomePolicy	x	x	x	x
smartcallhomeProfile	SmartcallhomeProfile	x			
smartcallhomeSource	SmartcallhomeSource	x	x		
smartcallhomeTransportGateway	SmartcallhomeTransportGateway	x	x	x	x
smartlicenseEntitlement	SmartlicenseEntitlement	x			
smartlicenseEntitlementEp	SmartlicenseEntitlementEp	x			
smartlicenseEp	SmartlicenseEp	x			
smartlicenseHolder	SmartlicenseHolder	x			
storageReplicationCtx	StorageReplicationCtx	x			

Managed Object (MP)	PowerShell Noun	Get	Set	Add	Remove
storageSnapshotCtx	StorageSnapshotCtx	x			
topInfoSyncPolicy	TopInfoSyncPolicy	x	x		
vnicIniGrpFc	VnicIniGrpFc	x			
vnicIniGrpFcIf	VnicIniGrpFcIf	x			
vnicProfileSet	VnicProfileSet	x			
vnicRackServerDiscoveryProfile	VnicRackServerDiscoveryProfile	x	x		

Known Limitations and Behavioral Changes

Known Limitations and Behavioral Changes in 2.0(1)

The following are the known limitations in Release 2.0(1):

- Sync-UcsCentralManagedObject cmdlet fails when sending an XML request for configuring the managed object of different providers
- The output of ConvertTo-UcsCentralCmdlet fails if there is a managed object of different providers within a transaction
- Executing Add-UcsCentralAaaDomainGroup without providing DomainGroupDn parameter value does not assign the domain group to the locale. Also, an empty record or a line is created in the assigned domain group's UI

Known Limitations and Behavioral Changes in 2.5(1)

32 Parameter Set Limitation

According to the Microsoft PowerShell framework, cmdlets cannot have more than 32 Parameter Sets. If the number of Parameter Sets for a cmdlet is more than 32, the cmdlet may not be able to identify the Parameters or Parameter Sets correctly, and may behave abnormally.

The following PowerTool cmdlets are affected by this limitation:

- Get-UcsEquipmentFruVariant
- Get-UcsEquipmentManufacturingDef
- Get-UcsEquipmentPhysicalDef
- Get-UcsEquipmentPicture
- Get-UcsEquipmentServiceDef
- Get-UcsEquipmentSlotArrayRef
- Get-UcsFirmwareUpgradeConstraint

After a logical grouping of Parameter Sets is made, each cmdlet is split into two cmdlets. For each existing cmdlet, storage-related Parameter Sets are removed from the original cmdlet and made into a new cmdlet. This provides the following additional storage-related PowerTool cmdlets:

- Get-UcsEquipmentFruVariantStorage
- Get-UcsEquipmentManufacturingDefStorage
- Get-UcsEquipmentPhysicalDefStorage
- Get-UcsEquipmentPictureStorage
- Get-UcsEquipmentServiceDefStorage
- Get-UcsEquipmentSlotArrayRefStorage
- Get-UcsFirmwareUpgradeConstraintStorage

Because storage-specific Parameter Sets now have their own cmdlets, backward compatibility may break while using the original cmdlets for storage-specific Parameter Sets.

Cisco recommends that you use the new storage cmdlets for the specified storage-related Parameter Sets.

Detailed information about the syntax for these cmdlets is available [here](#).

Resolved Caveats

This section lists the resolved caveats for Cisco UCS PowerTool Suite:

Bug ID	Description	First Release Affected	Resolved in Release
CSCve03633	Enhancements for IMC-Powertool User Guide.	2.0(3)	2.4(1)
CSCve45888	For UCS Central 1.5.(1b), UCS Central PoweTool 2.2(1) does not generate the cmdlets for the Service Profiles (SP) created from the Service Profile Templates when using Advance and Manual Entry for SP Naming convention.	2.2(1)	2.3(1)
CSCvc70423	Connections to Cisco IMC running 3.0(1) firmware fails from Cisco IMC PowerTool. The connection fails as the Cisco IMC 3.0(1) uses TLS 1.2 version which is not supported in the current version of the UCS PowerTool Suite.	2.0(1)	2.2(1)

Bug ID	Description	First Release Affected	Resolved in Release
CSCva02758	Get-UcsSoftwareImageList is unable to retrieve the list of images using the MdfId & SoftwareId parameter	2.0(1)	2.2(1)
CSCva01289	When using the Get-UcsSoftwareImage cmdlet to download some images, following error is displayed IMAGE_GUID_INVALID error	2.0(1)	2.1(1)
CSCuy44303	Send-UcsCentralFirmware fails with the following error: The underlying connection was closed: The connection was closed unexpectedly	2.0(1)	2.1(1)
CSCuy11089	Get-UcsSoftwareImageList cmdlet is unable to retrieve the list of drivers for UCS Manager 3.1(1), although they are available for downloads from Cisco.com.	2.0(1)	2.0(2)
CSCux63129	Cisco UCS Manager PowerTool fails to launch.	1.5.3 and before	2.0(1)
CSCux63265	Cisco UcsCentral PowerTool fails to launch on some Operating Systems with the following error: The Module '%CentralPowerTool InstallPath%Cisco UcsCentralPS%' could not be loaded	1.0(1)	2.0(1)
CSCux63164	Cisco IMC PowerTool fails to launch on some Operating Systems with the following error: The Module '%ImcInstallPath %CiscoImcPS%' could not be loaded	1.4(1) and before	2.0(1)

Open Caveats

The following table lists the open caveats for Cisco UCS PowerTool Suite:

Bug ID	Symptom	Workaround	First Affected in Release
CSCup06986	Unable to bind argument to parameter error while running the script.	Remove the cmdlets causing this error from the script and rerun the script.	2.0(1)
CSCum26147	Cisco UCS E-Series GUI does not allow local user password fewer than seven characters. But the PowerTool cmdlets allows setting of one-character password.	Set minimum of seven character passwords, so that you can use the same password with the Cisco UCS E-Series GUI too.	2.0(1)
CSCuo95020	ParameterBindingValidation Exception error occurs on some cmdlets generated from the ConverTo cmdlet using backup file.	To resolve this issue, run the generated cmdlets after performing one of the following: <ul style="list-style-type: none"> • Remove cmdlets which cause this error • Provide the correct format for the affected parameter. 	2.0(1)

Related Documentation

For more information, you can access related documents from the following links:

- [Cisco UCS Manager PowerTool, User Guide](#)
- [Cisco IMC PowerTool, User Guide](#)
- [Cisco UCS Central PowerTool, User Guide](#)
- [Cisco UCS Documentation Roadmap](#)
- [Cisco UCS C-Series Documentation Roadmap](#)
- [Cisco IMC XML API Programmer's Guide for Cisco UCS C-Series Servers](#)
- [Cisco UCS E-Series Documentation Roadmap](#)
- [Release Bundle Contents for Cisco UCS Central Software, Release 1.4](#)
- [Cisco UCS Central XML API Programming Guide](#)

Obtaining Documentation and Submitting a Service Request

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