Release Notes for Cisco UCS Management Pack, Release 2.x For VMware vRealize Operations Manager

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Revision History

Release	Date	Description
2.0(6)	February 2023	Updated the section **System Requirements**. Added support for VMware vRealize Operations Manager version 8.10.
	July 2022	Added a note in **System Requirements**.
	November 2021	Added support for VMware vRealize Operations Manager version 8.6.
2.0(6)	October 2021	Updated with information on Release 2.0(6)
2.0(5)	July 2020	Added support for VMware vRealize Operations Manager version 8.0 and 8.1.
2.0(4)	February 2020	Updated the dependent libraries.

Release	Date	Description
2.0(3)	September 2017	Added support for Cisco UCS Manager Release 3.2
	April 2018	Added support for VMware vRealize Operations Manager Version 6.7
	October 2018	Added support for VMware vRealize Operations Manager Version 7.0
	May 2019	Added support for VMware vRealize Operations Manager Version 7.5
2.0(2)	May 2016	Updated with information on Release 2.0(2)
2.0(1)	April 2016	Published release notes for Cisco UCS Management Pack, Release 2.0(1)

Introduction

Cisco UCS Management Pack for the vRealize Operations Manager contains UCS Manager Adapter which enables monitoring of the UCS domains on the Operations Manager web UI. The pack uses the XML API exposed by the Cisco UCS Manager to get the data from the UCS domains. This data is used for monitoring the health and faults of the various resources in the UCS domain. This pack also establishes the relation between physical and virtual infrastructure.

System Requirements

The following is the support matrix for Cisco UCS Management Pack for the vRealize Operations Manager:

Cisco UCS Management Pack Version	Supported VMware vRealize Operations Manager Version	Supported UCS Manager Version
2.0(6)	8.3, 8.4, 8.5, 8.6 and 8.10	3.1, 3.2, 4.0, 4.1 and 4.2
2.0(5)	8.0 and 8.1	3.1, 3.2, 4.0 and 4.1
2.0(4)	6.6.1, 6.7, 7.0, and 7.5	3.1, 3.2 and 4.0
2.0(3)	6.3, 6.4, 6.5, 6.6, 6.7, 7.0, and 7.5	2.1, 2.2, 3.1, 3.2, and 4.0
2.0(2)	6.0, 6.1, 6.2, 6.3, and 6.4	2.1, 2.2, 3.0, and 3.1
2.0(1)	6.0 and 6.1	2.1, 2.2, 3.0, and 3.1

Note   Cisco UCS Management Pack is not supported with vRealize Operations Manager Cloud.

Note   Cisco UCSM Management Pack Version 2.0(6) is compatible with vROps 8.0 to 8.2 in non-FIPS mode but it is not certified by VMware. This management pack is certified by VMware for vROps 8.3 to 8.10 (FIPS and non-FIPS mode).

Note   Collection issue found in Cisco UCSM Management Pack Version 2.0(5) is resolved in the Version 2.0(6).

Note   Deprecated credentials have been removed in 2.0(6). If you added UCSM instances using deprecated credentials, then you have to add the credentials again for the UCSM instances.

Note   The vROPs 8.0 version might work with Cisco UCS Management Pack 2.0.4 after vROPs upgrade. However, it is recommended to upgrade to Cisco UCS Management Pack 2.0.5, as the 2.0.4 version is not certified with vROPs 8.0 and above.

Note   Running the UCS Management pack v2.0(3) for vROPs with Cisco UCS Manager Release 3.0 will display a collection status error. If you are on Cisco UCS Manager Release 3.0, upgrade to Cisco UCS Manager Release 3.1 or later releases to avoid this issue.

Note   If **Only TLS 1.2** option is enabled in Cisco UCS Manager, then use Cisco UCS Management Pack 2.0(3) or higher to manage your servers.

Note   Ensure that the vRealize Operations Manager configuration is as per the sizing guidelines. For more information on the sizing guidelines, see https://kb.vmware.com/s/article/2093783.

Upgrade to Cisco UCS Management Pack, Release 2.x

Any Cisco UCS Management Pack, Release 2.x can be upgraded to the latest release. Any upgrade prior to Release 2.0(1) is not supported. To upgrade the Management Pack, see the Cisco UCS Management Pack for VMware vRealize Operations Manager.

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Important   If you are upgrading from 2.0(1) or 2.0(2) to higher versions, we recommend that you do the following:

- During installation, check the **Reset Default Content** check box for overwriting the alert definitions

- Restart the vRealize Operations Manager after the installation

- Reconfigure all the adapter instances

New and Changed Features

This section provides an overview of the significant new and changed features in this release. This section does not provide an exhaustive list of all enhancements included in this release.

Release 2.0(6)

This section briefly describes the key features introduced in Cisco UCS Management Pack.

- New properties added: "Server Name" and "User Label"

- SDK upgraded to 8.3

- EULA update

- FIPS support

- Bug fix - CSCvx26212: Adapter VROPs for Cisco UCS with collection problem

- Removal of deprecated credentials from vROps UI

- Other bug fixes

Release 2.0(5)

This section briefly describes the key features introduced in Cisco UCS Management Pack.

- Enhanced authentication mode using token-based APIs to communicate with vRealize Operations Manager

- VMware API call optimization

- Deprecated logger class changes

- Updated the dependent libraries

- Implementation of support for Python 3 during installation

Release 2.0(4)

This section briefly describes the key features introduced in Cisco UCS Management Pack.

- Updated the dependent libraries.

Release 2.0(3)

This section briefly describes the key features introduced in Cisco UCS Management Pack.

• Support for manual discovery of the resources

• Support for creating adapter instances using proxy server details

• Added resource kinds, metrics and properties related to S3X60 chassis and servers. For more information, see the following **Resource Kinds and Metrics** table

Resource Kinds and Metrics

The following table lists the resource kinds and the supported metrics for this release:

Resource Kind	Properties	Metrics
UCS Chassis	Storage Enclosure | Serial	
	Storage Enclosure | Model	
	Storage Enclosure | Vendor	
	Storage Enclosure | Local Disk | Serial	
	Storage Enclosure | Local Disk | Model	
	Storage Enclosure | Local Disk | Firmware Version	
	Storage Enclosure | Local Disk | Servers Associated	
	Storage Enclosure | Local Disk | Vendor	
UCS Server	UUID	
	Blade Server | Storage Enclosure | Serial	
	Blade Server | Storage Enclosure | Model	
	Blade Server | Storage Enclosure | Vendor	
	Blade Server | Storage Enclosure | Local Disk | Serial	
	Blade Server | Storage Enclosure | Local Disk | Model	
	Blade Server | Storage Enclosure | Local Disk | Firmware Version	
	Blade Server | Storage Enclosure | Local Disk | Vendor	

Resource Kind	Properties	Metrics
UCS FI IO Module		Backplane Port | Error Counter | Align-Delta(packets/sec)
		Backplane Port | Error Counter | Deferred-Tx-Delta(packets/sec)
		Backplane Port | Error Counter | FCS-Delta(packets/sec)
		Backplane Port | Error Counter | Int-Mac-Rx-Delta(packets/sec)
		Backplane Port | Error Counter | Int-Mac-Tx-Delta(packets/sec)
		Backplane Port | Error Counter | Out Discard-Delta(packets/sec)
		Backplane Port | Error Counter | Rx Error-Delta(packets/sec)
		Backplane Port | Error Counter | Rx Error-Total(packets)
		Backplane Port | Error Counter | Tx Error-Delta(packets/sec)
		Backplane Port | Error Counter | Tx Error-Total(packets)
		Backplane Port | Error Counter | Under-Sized-Delta(packets/sec)
		Backplane Port | Rx Counters | Rx-Delta (Bps)
		Backplane Port | Rx Counters | Rx-Delta (packets/sec)
		Backplane Port | Rx Counters | Rx-Total (bytes)
		Backplane Port | Rx Counters | Rx-Total (packets)
		Backplane Port | Tx Counters | Tx-Delta (Bps)
		Backplane Port | Tx Counters | Tx-Delta (packets/sec)
		Backplane Port | Tx Counters | Tx-Total (bytes)
		Backplane Port | Tx Counters | Tx-Total (packets)

Resource Kind	Properties	Metrics
UCS System IO Controller	Serial Model Firmware Version Shared Adapter | Serial Shared Adapter | Model Shared Adapter | Firmware Version	Operational State Temperature | Cmc Temperature (Celsius) Temperature | Front Temperature (Celsius) Temperature | Mid Temperature (Celsius) Temperature | Rear Temperature (Celsius) Temperature | Vic Temperature (Celsius) Shared Adapter | Operational State Shared Adapter | Fabric Port | NI Error Counters | Too Short (errors) Shared Adapter | Fabric Port | NI Error Counters | Too Long (errors) Shared Adapter | Fabric Port | NI Error Counters | In Range (errors) Shared Adapter | Fabric Port | NI Error Counters | Frame Tx (errors) Shared Adapter | Fabric Port | NI Error Counters | Crc (errors)

Resource Kind	Properties	Metrics
UCS Service Profile		iSCSI vNIC | Error Counters | Rx-Error-Delta (packets/Sec)
		iSCSI vNIC | Error Counters | Tx-Error-Delta (packets/Sec)
		iSCSI vNIC | Error Counters | Rx-Error-Total (packets)
		iSCSI vNIC | Error Counters | Tx-Error-Total (packets)
		iSCSI vNIC | Rx Counters | Rx-Delta (Bps)
		iSCSI vNIC | Rx Counters | Rx-Delta (packets/sec)
		iSCSI vNIC | Rx Counters | Rx-Total (bytes)
		iSCSI vNIC | Rx Counters | Rx-Total (packets)
		iSCSI vNIC | Tx Counters | Tx-Delta (Bps)
		iSCSI vNIC | Tx Counters | Tx-Delta (packets/sec)
		iSCSI vNIC | Tx Counters | Tx-Total (bytes)
		iSCSI vNIC | Tx Counters | Tx-Total (packets)

Release 2.0(2)

This section briefly describes the key features introduced in Cisco UCS Management Pack.

- Support for vRealize Operations Manager 6.2, 6.3, and 6.4

- Added model, serial, vendor, and the firmware version for hardware resources as properties in UCS Manager adapter. For more information, see the following **Resource Kinds and Metrics** table

- Includes defect fixes

Resource Kinds and Metrics

The following table lists the resource kinds and the supported metrics for this release:

Resource Kind	Properties	Metrics
UCS Chassis	Serial Operational State Model PSU | Serial PSU | Model PSU | Firmware Version Fan Module | Serial Fan Module | Model Fan Module | Fan | Serial Fan Module | Fan | Model	Operational State Input Power (watts) Output Power (watts) Fan Module | Exhaust Temperature Fan Module | Fan | Speed (RPM) PSU | Input Voltage (volts) PSU | Internal Temperature (celsius) PSU | Output Current (Amps) PSU | Output Power (watts) PSU | Output Voltage (volts)
UCS FI IO Module	Serial Model Firmware Version	Operational State

Resource Kind	Properties	Metrics
UCS Server		

Resource Kind	Properties	Metrics
	Serial	Operational State
	Current Operational Power	Operational Power
	Model	Blade Server | Server Motherboard | Memory Array | Memory Unit | DDR Array Temperature (celsius)
	BIOS Version	
	Board Controller Version	Blade Server | Server Motherboard | Power | Consumed Power (watts)
	CIMC Controller Version	
	Blade Server | Server Adaptor Unit| Model	Blade Server | Server Motherboard | Power | Input Current (Amps)
	Blade Server | Mother Board | Storage Controller | Firmware Version	Blade Server | Server Motherboard | Power | Input Voltage (volts)
	Blade Server | Mother Board | Storage Controller | Model	Blade Server | Server Motherboard | Processor Unit | CPU Temperature (celsius)
	Blade Server | Mother Board | Storage Controller | Serial	Blade Server | Server Motherboard | Processor Unit | Input Current (Amps)
	Blade Server | Mother Board | Storage Controller | Vendor	Blade Server | Server Motherboard | Temperature | Front Temperature (celsius)
	Blade Server | Mother Board | Storage Controller | Local Disk | Firmware Version	
	Blade Server | Mother Board | Storage Controller | Local Disk | Model	Blade Server | Server Motherboard | Temperature | Rear Temperature (celsius)
	Blade Server | Mother Board | Storage Controller | Local Disk | Serial	Rack Unit | Server Motherboard | Memory Array | Memory Unit | DDR Array Temperature (celsius)
	Blade Server | Mother Board | Storage Controller | Local Disk | Vendor	Rack Unit | Server Motherboard | Power | Consumed Power (watts)
	Blade Server | Server Adaptor Unit | Serial	Rack Unit | Server Motherboard | Power | Input Current (Amps)
	Blade Server | Server Adaptor Unit| Firmware Version	Rack Unit | Server Motherboard | Power | Input Voltage (volts)
	Rack Unit | Mother Board | Storage Controller | Firmware Version	Rack Unit | Server Motherboard | Processor Unit | CPU Temperature (celsius)
	Rack Unit | Mother Board | Storage Controller | Model	Rack Unit | Server Motherboard | Processor Unit | Input Current (Amps)
	Rack Unit | Mother Board | Storage Controller | Serial	Rack Unit | Server Motherboard | Temperature-Stats | Front Temperature (celsius)

Resource Kind	Properties	Metrics
	Rack Unit | Mother Board | Storage Controller | Vendor	Rack Unit | Fan Module | Fan | Speed (RPM)
	Rack Unit | Mother Board | Storage Controller | Local Disk | Model	Rack Unit | Fan Module | Exhaust Temperature (celsius)
	Rack Unit | Mother Board | Storage Controller | Local Disk | Serial	Rack Unit | PSU | Input Voltage (volts)
	Rack Unit | Mother Board | Storage Controller | Local Disk | Firmware Version	Rack Unit | PSU | Internal Temperature (celsius)
	Rack Unit | Mother Board | Storage Controller | Local Disk | Vendor	Rack Unit | PSU | Output Current (Amps)
	Rack Unit | Server Adaptor Unit| Model	Rack Unit | PSU | Output Power (watts)
	Rack Unit | Server Adaptor Unit| Serial	Rack Unit | PSU | Output Voltage (volts)
	Rack Unit | Server Adaptor Unit | Firmware Version	
	Rack Unit | PSU | Model	
	Rack Unit | PSU | Serial	
	Rack Unit | Fan Module | Model	
	Rack Unit | Fan Module | Serial	
	Rack Unit | Fan Module | Fan | Model	
	Rack Unit | Fan Module | Fan | Serial	
	Rack Unit | PSU | Firmware Version	

Resource Kind	Properties	Metrics
UCS Fabric Interconnect	Serial	Operational State
	Model	Load-Average
	Kernel Version	Memory Available-Average
	Firmware Version	Memory Cached- Average
	PSU | Serial	Fan Module | Fan | Speed (RPM)
	PSU | Model	Fan Module | Exhaust Temperature (celsius)
	PSU | Firmware Version	PSU | Current (A)
	Fan Module | Serial	PSU | Power (W)
	Fan Module | Model	PSU | Voltage (V)
	Fan Module | Fan | Serial	
	Fan Module | Fan | Model	

Resource Kind	Properties	Metrics
UCS IO Module	Serial Model Firmware Version	Operational State
		Backplane Port | Error Counter | Align-Delta (packets/sec)
		Backplane Port | Error Counter | Deferred-Tx-Delta (packets/sec)
		Backplane Port | Error Counter | FCS-Delta (packets/sec)
		Backplane Port | Error Counter | Int-Mac-Rx-Delta (packets/sec)
		Backplane Port | Error Counter | Int-Mac-Tx-Delta (packets/sec)
		Backplane Port | Error Counter | Out Discard-Delta (packets/sec)
		Backplane Port | Error Counter | Rx Error-Delta (packets/sec)
		Backplane Port | Error Counter | Rx Error-Total (packets)
		Backplane Port | Error Counter | Tx Error-Delta (packets/sec)
		Backplane Port | Error Counter | Tx Error-Total (packets)
		Backplane Port | Error Counter | Under-Sized-Delta (packets/sec)
		Backplane Port | Rx Counter | Rx-Delta (Bps)
		Backplane Port | Rx Counter | Rx-Delta (packets/sec)
		Backplane Port | Rx Counter | Rx-Total (bytes)
		Backplane Port | Rx Counter | Rx-Total (packets)
		Backplane Port | Tx Counter | Tx-Delta (Bps)
		Backplane Port | Tx Counter | Tx-Delta (packets/sec)
		Backplane Port | Tx Counter | Tx-Total (bytes)
		Backplane Port | Tx Counter | Tx-Total (packets)

Resource Kind	Properties	Metrics
UCS Fabric Extender	Serial Model Firmware Version PSU | Serial PSU | Model PSU | Firmware Version Fan | Serial Fan | Model	Operational State PSU | Current (A) PSU | Power (W) PSU | Voltage (V) Fan | Speed (RPM)

Release 2.0(1)

This section briefly describes the key features introduced in Cisco UCS Management Pack.

- Support to collect metrics data for the resources discovered for the configured adapter instance automatically. For more information, see the following **Resource Kinds and Metrics** table

- Support for the following alerts generated by the adapter:
    - UCS fault alerts
    - UCS domain unreachability alerts
    - Server power state change alerts

- Support to view UCS components and their relationship with other UCS and vCenter components in an inventory tree
    - UCSM Overview
    - UCS Health Tree
    - UCS Fabric Interconnect Traffic Statistics
    - UCS Power and Temperature Summary
    - UCS Server Motherboard Statistics

Resource Kinds and Metrics

The following table lists the resource kinds and the supported metrics for this release:

Resource Kind	Property	Metrics
UCS Domain	UCS Manager Version	Availability

Resource Kind	Property	Metrics
UCS Chassis	Serial	Operational State
		Input Power (watts)
		Output Power (watts)
		Fan Module | Exhaust Temperature
		Fan Module | Fan | Speed (RPM)
		PSU | Input Voltage (volts)
		PSU | Internal Temperature (celsius)
		PSU | Output Current (Amps)
		PSU | Output Power (watts)
		PSU | Output Voltage (volts)

Resource Kind	Property	Metrics
UCS Server	Serial	

Resource Kind	Property	Metrics
		Operational State
		Operational Power
		Blade Server | Server Motherboard | Memory Array | Memory Unit | DDR Array Temperature (celsius)
		Blade Server | Server Motherboard | Power | Consumed Power (watts)
		Blade Server | Server Motherboard | Power | Input Current (Amps)
		Blade Server | Server Motherboard | Power | Input Voltage (volts)
		Blade Server | Server Motherboard | Processor Unit | CPU Temperature (celsius)
		Blade Server | Server Motherboard | Processor Unit | Input Current (Amps)
		Blade Server | Server Motherboard | Temperature | Front Temperature (celsius)
		Blade Server | Server Motherboard | Temperature | Rear Temperature (celsius)
		Rack Unit | Server Motherboard | Memory Array | Memory Unit | DDR Array Temperature (celsius)
		Rack Unit | Server Motherboard | Power | Consumed Power (watts)
		Rack Unit | Server Motherboard | Power | Input Current (Amps)
		Rack Unit | Server Motherboard | Power | Input Voltage (volts)
		Rack Unit | Server Motherboard | Processor Unit | CPU Temperature (celsius)
		Rack Unit | Server Motherboard | Processor Unit | Input Current (Amps)
		Rack Unit | Server Motherboard | Temperature-Stats | Front Temperature (celsius)

Resource Kind	Property	Metrics
		Rack Unit | Fan Module | Fan | Speed (RPM)
		Rack Unit | Fan Module | Exhaust Temperature (celsius)
		Rack Unit | PSU | Input Voltage (volts)
		Rack Unit | PSU | Internal Temperature (celsius)
		Rack Unit | PSU | Output Current (Amps)
		Rack Unit | PSU | Output Power (watts)
		Rack Unit | PSU | Output Voltage (volts)
UCS Fabric Interconnect	Serial	Operational State
		Load-Average
		Memory Available-Average
		Memory Cached- Average
		Fan Module | Fan | Speed (RPM)
		Fan Module | Exhaust Temperature (celsius)
		PSU | Current (A)
		PSU | Power (W)
		PSU | Voltage (V)

Resource Kind	Property	Metrics
UCS Service Profile		

Resource Kind	Property	Metrics
		Association State
		vNIC | Error Counter | Rx-Error-Delta (packets/sec)
		vNIC | Error Counter | Tx-Error-Delta (packets/sec)
		vNIC | Error Counter | Rx-Error-Total (packets)
		vNIC | Error Counter | Tx-Error-Total (packets)
		vNIC | Rx Counter | Rx-Delta (Bps)
		vNIC | Rx Counter | Rx-Delta (packets/sec)
		vNIC | Rx Counter | Rx-Total (bytes)
		vNIC | Rx Counter | Rx-Total (packets)
		vNIC | Tx Counter | Tx-Delta (Bps)
		vNIC | Tx Counter | Tx-Total (Bps)
		vNIC | Tx Counter | Tx-Total (packets/sec)
		vNIC | Tx Counter | Tx-Delta (packets/sec)
		vHBA | Error Counter | Rx-Error-Delta (packets/sec)
		vHBA | Error Counter | Tx-Error-Delta (packets/sec)
		vHBA | Error Counter | Rx-Error-Total (packets)
		vHBA | Error Counter | Tx-Error-Total (packets)
		vHBA | Rx Counter | Rx-Delta (Bps)
		vHBA | Rx Counter | Rx-Delta (packets/sec)
		vHBA | Rx Counter | Rx-Total (bytes)
		vHBA | Rx Counter | Rx-Total (packets)
		vHBA | Tx Counter | Tx-Delta

Resource Kind	Property	Metrics
		(Bps)
		vHBA | Tx Counter | Tx-Delta (packets/sec)
		vHBA | Tx Counter | Tx-Total (bytes)
		vHBA | Tx Counter | Tx-Total (packets)

Resource Kind	Property	Metrics
UCS IO Module	Serial	Operational State
		Backplane Port | Error Counter | Align-Delta (packets/sec)
		Backplane Port | Error Counter | Deferred-Tx-Delta (packets/sec)
		Backplane Port | Error Counter | FCS-Delta (packets/sec)
		Backplane Port | Error Counter | Int-Mac-Rx-Delta (packets/sec)
		Backplane Port | Error Counter | Int-Mac-Tx-Delta (packets/sec)
		Backplane Port | Error Counter | Out Discard-Delta (packets/sec)
		Backplane Port | Error Counter | Rx Error-Delta (packets/sec)
		Backplane Port | Error Counter | Rx Error-Total (packets)
		Backplane Port | Error Counter | Tx Error-Delta (packets/sec)
		Backplane Port | Error Counter | Tx Error-Total (packets)
		Backplane Port | Error Counter | Under-Sized-Delta (packets/sec)
		Backplane Port | Rx Counter | Rx-Delta (Bps)
		Backplane Port | Rx Counter | Rx-Delta (packets/sec)
		Backplane Port | Rx Counter | Rx-Total (bytes)
		Backplane Port | Rx Counter | Rx-Total (packets)
		Backplane Port | Tx Counter | Tx-Delta (Bps)
		Backplane Port | Tx Counter | Tx-Delta (packets/sec)
		Backplane Port | Tx Counter | Tx-Total (bytes)
		Backplane Port | Tx Counter | Tx-Total (packets)

Resource Kind	Property	Metrics
UCS Fabric Extender	Serial	Operational State
		PSU | Current (A)
		PSU | Power (W)
		PSU | Voltage (V)
		Fan | Speed (RPM)

Resource Kind	Property	Metrics
UCS FI Server Port UCS FI Uplink Port UCS FI FcoE Storage Port UCS FI FcoE Uplink Port UCS FI Appliance Port UCS FI Eth Port Channel	Operating Speed	Operational State
		Error Counter | Align-Delta (packets/sec)
		Error Counter | Deferred-Tx-Delta (packets/sec)
		Error Counter | FCS-Delta (packets/sec)
		Error Counter | Int-Mac-Rx-Delta (packets/sec)
		Error Counter | Int-Mac-Tx-Delta (packets/sec)
		Error Counter | Out Discard-Delta (packets/sec)
		Error Counter | Rx Error-Delta (packets/sec)
		Error Counter | Rx Error-Total (packets)
		Error Counter | Tx Error-Delta (packets/sec)
		Error Counter | Tx Error-Total (packets)
		Error Counter | Under-Sized-Delta (packets/sec)ra
		Rx Counter | Rx-Delta (Bps)
		Rx Counter | Rx-Delta (packets/sec)
		Rx Counter | Rx-Total (bytes)
		Rx Counter | Rx-Total (packets)
		Rx Counter | Rx-Utilization (%)
		Tx Counter | Tx-Delta (Bps)
		Tx Counter | Tx-Delta (packets/sec)
		Tx Counter | Tx-Total (bytes)
		Tx Counter | Tx-Total (packets)
		Tx Counter | Tx-Utilization (%)

Resource Kind	Property	Metrics
UCS FI FC Port UCS FI FCoE Port Channel UCS FI FC Port Channel	Operating Speed	Operational State Error Counter | Rx-Delta (packets/sec) Error Counter | Rx Error-Total (packets) Error Counter | Tx-Delta (packets/sec) Error Counter | Tx Error-Total (packets) Rx Counter | Rx-Delta (Bps) Rx Counter | Rx-Delta (packets/sec) Rx Counter | Rx-Total (bytes) Rx Counter | Rx-Total (packets) Rx Counter | Rx-Utilization (%) Tx Counter | Tx-Delta (Bps) Tx Counter | Tx-Delta (packets/sec) Tx Counter | Tx-Total (bytes) Tx Counter | Tx-Total (packets) Tx Counter | Tx-Utilization (%) **Note** Rx Utilization and Tx Utilization metrics are not supported for UCS FI FCoE Port Channel.
UCS FI IO Module	Serial	Operational State

Resolved Caveats

The following table lists the resolved caveats in the Cisco UCS Management Pack for vROps:

Defect ID	Symptom	First Affected Release	Resolved in Release
CSCvx26212	Adapter VROPs for Cisco UCS with collection problem.	2.0(5)	2.0(6)
CSCvt93276	Collection Status No data receiving. Error: API call failed, reason = 401	2.0(3)	2.0(5)

Defect ID	Symptom	First Affected Release	Resolved in Release
CSCuw47776	Manual discovery feature is not supported in this release	2.0(1)	2.0(3)
CSCuz18132	FI and FI Ethernet port relationship is not updated	2.0(1)	2.0(2)

Related Cisco UCS Documentation and Documentation Feedback

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

- Cisco UCS Management Pack User Guide, Release 2.x for VMware vRealize Operations Manager
- Cisco UCS Documentation Roadmap
- Release Bundle Contents for Cisco UCS Software, Release 4.1

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