



# Ultra M MIB



## Important

Not all aspects of this MIB are supported in this release. Refer to [Health Monitoring in the Ultra M Solution](#) for information on the capabilities supported in this release.

```
-- *****
-- CISCO-ULTRAM-MIB.my
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--
-- *****

CISCO-ULTRAM-MIB DEFINITIONS ::= BEGIN

IMPORTS
    MODULE-IDENTITY,
    OBJECT-TYPE,
    NOTIFICATION-TYPE,
    Unsigned32
        FROM SNMPv2-SMI
    MODULE-COMPLIANCE,
    NOTIFICATION-GROUP,
    OBJECT-GROUP
        FROM SNMPv2-CONF
    TEXTUAL-CONVENTION,
    DateAndTime
        FROM SNMPv2-TC
    ciscoMgmt
        FROM CISCO-SMI;

ciscoUltramMIB MODULE-IDENTITY
    LAST-UPDATED      "201711200000Z"
    ORGANIZATION      "Cisco Systems, Inc."
    CONTACT-INFO
        "Cisco Systems
        Customer Service

        Postal: 170 W Tasman Drive
        San Jose, CA 95134
        USA

        Tel: +1 800 553-NETS"
    DESCRIPTION
        "The MIB module to management of Cisco Ultra Services Platform
```

(USP) also called Ultra-M Network Function Virtualization (NFV) platform. The Ultra-M platform is Cisco validated turnkey solution based on ETSI (European Telecommunications Standards Institute) NFV architecture.

It comprises of following architectural domains:

1. Management and Orchestration (MANO), these components enables infrastructure virtualization and life cycle management of Cisco Ultra Virtual Network Functions (VNFs).
2. NFV Infrastructure (NFVI), set of physical resources to provide NFV infrastructure, for example servers, switch, chassis, and so on.
3. Virtualized Infrastructure Manager (VIM)
4. One or more Ultra VNFs.

Ultra-M platform provides a single point of management (including SNMP, APIs, Web Console and CLI/Telnet Console) for the resources across these domains within NFV PoD (Point of Delivery).

This is also called Ultra-M manager throughout the context of this MIB."

```

REVISION      "201711200000Z"
DESCRIPTION   "- Added cultramSiteId as Index to cultramFaultEntry Table."
REVISION      "201707050000Z"
DESCRIPTION   "- cultramFaultDomain changed to read-only in compliance.
- Added a new fault code serviceFailure under 'CultramFaultCode'.
- Added a new notification cultramFaultClearNotif.
- Added new notification group ciscoUltramMIBNotifyGroupExt.
- Added new compliance group ciscoUltramMIBModuleComplianceRev01
which deprecates ciscoUltramMIBModuleCompliance."
REVISION      "201706260000Z"
DESCRIPTION   "Initial version of this MIB module."
 ::= { ciscoMgmt 849 }

```

```

CFaultCode ::= TEXTUAL-CONVENTION
STATUS      current
DESCRIPTION "A code identifying a class of fault."
SYNTAX      INTEGER {
                other(1), -- Other events
                networkConnectivity(2), -- Network Connectivity
                                     -- Failure Events.
                resourceUsage(3), -- Resource Usage Exhausted
                                     -- Event.
                resourceThreshold(4), -- Resource Threshold
                                     -- crossing alarms
                hardwareFailure(5), -- Hardware Failure Events
                securityViolation(6), -- Security Alerts
                configuration(7), -- Config Error Events
                serviceFailure(8) -- Process/Service failures
            }

```

```
CFaultSeverity ::= TEXTUAL-CONVENTION
```

```

STATUS          current
DESCRIPTION
    "A code used to identify the severity of a fault."
SYNTAX          INTEGER {
    emergency(1), -- System level FAULT impacting
                  -- multiple VNFs/Services
    critical(2), -- Critical Fault specific to
                  -- VNF/Service
    major(3), -- component level failure within
               -- VNF/service.
    alert(4), -- warning condition for a service/VNF,
               -- may eventually impact service.
    informational(5) -- informational only, does not
                      -- impact service
    }

CFaultDomain ::= TEXTUAL-CONVENTION
STATUS          current
DESCRIPTION
    "A code used to categorize Ultra-M fault domain."
SYNTAX          INTEGER {
    hardware(1), -- Harware including Servers, L2/L3
                 -- Elements
    vimOrchestrator(2), -- VIM under-cloud
    vim(3), -- VIM manager such as OpenStack
    uas(4), -- Ultra Automation Services Modules
    vnfM(5), -- VNF manager
    vnfEM(6), -- Ultra VNF Element Manager
    vnf(7) -- Ultra VNF
    }
-- Textual Conventions definition will be defined before this line

ciscoUltramMIBNotifs OBJECT IDENTIFIER
 ::= { ciscoUltramMIB 0 }

ciscoUltramMIBObjects OBJECT IDENTIFIER
 ::= { ciscoUltramMIB 1 }

ciscoUltramMIBConform OBJECT IDENTIFIER
 ::= { ciscoUltramMIB 2 }

-- Conformance Information Definition

ciscoUltramMIBCompliances OBJECT IDENTIFIER
 ::= { ciscoUltramMIBConform 1 }

ciscoUltramMIBGroups OBJECT IDENTIFIER
 ::= { ciscoUltramMIBConform 2 }

ciscoUltramMIBModuleCompliance MODULE-COMPLIANCE
STATUS          deprecated
DESCRIPTION
    "The compliance statement for entities that support
    the Cisco Ultra-M Fault Managed Objects"
MODULE          -- this module
MANDATORY-GROUPS {
    ciscoUltramMIBMainObjectGroup,
    ciscoUltramMIBNotifyGroup
    }
 ::= { ciscoUltramMIBCompliances 1 }

ciscoUltramMIBModuleComplianceRev01 MODULE-COMPLIANCE
STATUS          current

```

```

DESCRIPTION
    "The compliance statement for entities that support
    the Cisco Ultra-M Fault Managed Objects."
MODULE      -- this module
MANDATORY-GROUPS {
    ciscoUltramMIBMainObjectGroup,
    ciscoUltramMIBNotifyGroup,
    ciscoUltramMIBNotifyGroupExt
}

OBJECT      cultramFaultDomain
MIN-ACCESS  read-only
DESCRIPTION
    "cultramFaultDomain is read-only."
::= { ciscoUltramMIBCompliances 2 }

ciscoUltramMIBMainObjectGroup OBJECT-GROUP
OBJECTS     {
    cultramNFVIdentity,
    cultramFaultDomain,
    cultramFaultSource,
    cultramFaultCreationTime,
    cultramFaultSeverity,
    cultramFaultCode,
    cultramFaultDescription
}
STATUS      current
DESCRIPTION
    "A collection of objects providing Ultra-M fault information."
::= { ciscoUltramMIBGroups 1 }

ciscoUltramMIBNotifyGroup NOTIFICATION-GROUP
NOTIFICATIONS { cultramFaultActiveNotif }
STATUS        current
DESCRIPTION
    "The set of Ultra-M notifications defined by this MIB"
::= { ciscoUltramMIBGroups 2 }

ciscoUltramMIBNotifyGroupExt NOTIFICATION-GROUP
NOTIFICATIONS { cultramFaultClearNotif }
STATUS        current
DESCRIPTION
    "The set of Ultra-M notifications defined by this MIB"
::= { ciscoUltramMIBGroups 3 }

cultramFaultTable OBJECT-TYPE
SYNTAX         SEQUENCE OF CultramFaultEntry
MAX-ACCESS     not-accessible
STATUS        current
DESCRIPTION
    "A table of Ultra-M faults. This table contains active
    faults."
::= { ciscoUltramMIBObjects 1 }

cultramFaultEntry OBJECT-TYPE
SYNTAX         CultramFaultEntry
MAX-ACCESS     not-accessible
STATUS        current
DESCRIPTION
    "An entry in the Ultra-M fault table."
INDEX          { cultramSiteId, cultramFaultIndex }
::= { cultramFaultTable 1 }

CultramFaultEntry ::= SEQUENCE {

```

```

        cultramSiteId          OCTET STRING,
        cultramFaultIndex      Unsigned32,
        cultramNFVIdentity     OCTET STRING,
        cultramFaultDomain     CFaultDomain,
        cultramFaultSource     OCTET STRING,
        cultramFaultCreationTime DateAndTime,
        cultramFaultSeverity   CFaultSeverity,
        cultramFaultCode       CFaultCode,
        cultramFaultDescription OCTET STRING
    }

cultramSiteId OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..32))
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "This object uniquely identifies a specific instance of a
        Ultra-M fault at site level."
    ::= { cultramFaultEntry 1 }

cultramFaultIndex OBJECT-TYPE
    SYNTAX      Unsigned32
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "This object uniquely identifies a specific instance of a
        Ultra-M fault.

        For example, if two separate computes have a service level
        Failure, then each compute will have a fault instance with a
        unique index."
    ::= { cultramFaultEntry 2 }

cultramNFVIdentity OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..512))
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "This object uniquely identifies the Ultra-M PoD on which this
        fault is occurring.
        For example, this identity can include host-name as well
        management IP where manager node is running,
        'Ultra-M-San-Francisco/172.10.185.100'."
    ::= { cultramFaultEntry 3 }

cultramFaultDomain OBJECT-TYPE
    SYNTAX      CFaultDomain
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "A unique Fault Domain that has fault."
    ::= { cultramFaultEntry 4 }

cultramFaultSource OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..512))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This object uniquely identifies the resource with the fault
        domain where this fault is occurring. For example, this can
        include host-name as well management IP of the resource,
        'UCS-C240-Server-1/192.100.0.1'."
    ::= { cultramFaultEntry 5 }

```

```

cultramFaultCreationTime OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The date and time when the fault was occurred."
    ::= { cultramFaultEntry 6 }

cultramFaultSeverity OBJECT-TYPE
    SYNTAX      CFaultSeverity
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A code identifying the perceived severity of the fault."
    ::= { cultramFaultEntry 7 }

cultramFaultCode OBJECT-TYPE
    SYNTAX      CFaultCode
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A code uniquely identifying the fault class."
    ::= { cultramFaultEntry 8 }

cultramFaultDescription OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE (1..2048))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "A human-readable message providing details about the fault."
    ::= { cultramFaultEntry 9 }

cultramFaultActiveNotif NOTIFICATION-TYPE
    OBJECTS      {
        cultramNFVIdentity,
        cultramFaultDomain,
        cultramFaultSource,
        cultramFaultCreationTime,
        cultramFaultSeverity,
        cultramFaultCode,
        cultramFaultDescription
    }
    STATUS      current
    DESCRIPTION
        "This notification is generated by a Ultra-M manager whenever a
        fault is active."
    ::= { ciscoUltramMIBNotifs 1 }

cultramFaultClearNotif NOTIFICATION-TYPE
    OBJECTS      {
        cultramNFVIdentity,
        cultramFaultDomain,
        cultramFaultSource,
        cultramFaultCreationTime,
        cultramFaultSeverity,
        cultramFaultCode,
        cultramFaultDescription
    }
    STATUS      current
    DESCRIPTION
        "This notification is generated by a Ultra-M manager whenever a
        fault is cleared."

```

```
::= { ciscoUltramMIBNotifs 2 }
```

```
END
```

