

Lumen Alarm Guide

Updated October 8, 2020

“Lumen” is defined for purposes of this Alarm Guide as CenturyLink Communications, LLC d/b/a Lumen Technologies Group and its affiliated entities providing Services subject to this Alarm Guide. This Managed Services Alarm Guide (“Alarm Guide”) applies when Customer orders CenturyLink SD-WAN with Versa Networks, CenturyLink SD-WAN with Cisco Meraki, or Managed Network Service. Terms used but not defined in this Alarm Guide will have the meaning set forth in the Agreement. This Alarm Guide is subject to change.

1. CenturyLink SD-WAN with Versa Networks

Lumen polls appliances/circuits every four minutes to check health. The following alarms may occur, and actions will be taken, as per the table below:

Alarm Type	Definition	Alarm Severity	Lumen Action Taken
Daemon Down	Detects when the SD-WAN software service goes down.	Critical Incident	An automatic ticket is generated if SD-WAN software goes down.
Interface Down	Detects when an interface is down.	Critical Incident	Ticket is auto-generated if interface remains down for 12 minutes.
Branch Disconnect	Detects when branch device is not connected to either controller.	Critical Incident	Ticket is auto-generated if branch device remains down for 12 Minutes.
High CPU	Detects when Lumen provided CPE exceeds defined thresholds.	Incident	Ticket is auto-generated if CPE remains above 80% for 20 minutes.
High Memory	Detects when memory exceeds defined thresholds.	Incident	Ticket is auto-generated if CPE remains above 80% for 20 minutes.
BGP Neighbor Down	Detects when a BGP neighbor is not in an established state.	Incident	Ticket is auto-generated if BGP neighbor remains down for 12 minutes.
Circuit Down	Detects when an SD-WAN overlay tunnel to both SD-WAN controllers is down across any transport path.	Incident	Ticket is auto-generated if SD-WAN overlay tunnels to both SDWAN controllers are down for 20 minutes.

CPE Interface Bouncing	Detects when interface on Lumen provided CPE is bouncing.	Incident	Ticket is auto-generated if interface bounces 5 or more times in a 25 minute window.
CPE VRRP Switchover	Reports on failover between two appliances configured in HA utilizing VRRP.	Incident	Ticket is auto-generated if alarm active for 12 minutes.
OSPF Neighbor State Change	Detects a change in OSPF neighbor state (when applicable).	Incident	Ticket is auto-generated if OSPF state is NOT 'Full' for 12 minutes.

2. CenturyLink SD-WAN with Cisco Meraki

The following alerts will be enabled on MX Appliances as part of the Lumen **standard configuration**:

Alarm Type	Definition	Alarm Severity	Lumen Action Taken
MX goes offline for 5 minutes.	If the MX is unreachable from dashboard for the configured number of minutes, it will generate an alert.	Critical Incident	A ticket is generated per Alert trigger and email sent to the customer.
The primary uplink status changes.	If the device has redundant links and the status of the primary uplink changes, it will generate an alert. The change of status in the primary link could be a failover event or downed link. There is an event for primary link down and up.	Incident	A ticket is generated per Alert trigger and email sent to the customer.
Cellular connection state changes.	This alert will be triggered if the Cellular connection goes up or down.	Incident	A ticket is generated per Alert trigger and email sent to the customer.

3. Managed Network Services

Alarm Type	Definition	Alarm Severity	Lumen Action Taken
Device Down	Detects when a device is unreachable by the Network Management System.	Critical Incident	Ticket is auto-generated if no response is received from the device within 10 minutes.

4. Definitions

“Critical Incident” is defined as an incident that produces a situation in which one or more Managed Devices becomes inoperable, produces incorrect results, or fails catastrophically.

“Incident” is defined as an incident that produces a situation in which the operability of one or more Managed Devices is adversely impacted.

“Managed Device” is defined as an eligible CPE device managed as part of a Managed Service.