New Features

New Features for Cisco IOS XE 17.15.1a

New features in this release are listed below:

- Software Supported MACsec
- Higher CPU and RAM Allocation for IOx Applications

New Features for Cisco IOS XE 17.14.1a

New features in this release are listed below:

- Support for CAPWAP and WGB Modes on the Cisco Wi-Fi Interface Module
- Additional Modem Support for Cellular Pluggable Modules
- Support for P-LTE-450 Pluggable Interface Module

New Features for Cisco IOS XE 17.13.1

This chapter contains the following sections:

- Change in Vendor for GNSS Module

- IOX Access to IR1800 On-board Accelerometer and Gyroscope
- Unified Threat Defense (UTD)
- vManage Support for EWC Mode on the Cisco Wi-Fi Interface Module
- Additional Modem Support for Cellular Pluggable Modules
- SD-WAN Remote Access
- Change in CLI Output for the FN980 5G Modem

New Features for Cisco IOS XE 17.12.1a

New features in this release are listed below:

- Access Accelerometer and Gyro Sensor Data from IRM-GNSS
- 5G Standalone Mode (SA) Support
- Uncapped License Implementation

New Features for Cisco IOS XE 17-11-1a

New features in this release are listed below:

- LoRaWAN Pluggable Interface Module Support
- GNSS Support on the GPS/Dead Reckoning Module (IRM-GNSS-ADR)
- Galileo Support on the LTE Pluggable Modules
- Change to Smart Licensing Packaging
- Cisco IoT Operations Dashboard (OD) Support to Configure and Manage the WP-WIFI6-x Module

New Features for Cisco IOS XE 17.10.1a

New features in this release are listed below:

- Digital Subscriber Line (DSL) SFP Support on the IR1800
- vManage Support for the WP-WIFI6-x Module
- Enable Secure Data Wipe Capabilities
- Rawsocket Keepalive Configuration CLI

New Features for Cisco IOS XE 17.9.1

New features in this release are listed below:

- Install Mode Support

- Cellular Boot Time Improvements

- IOS XE Downgrade Warning

- SNMP Polling of Temperature OID

- GPS Mode Enabled By Default

- Packet Capture Support for CANBUS

- GPS and Dead Reckoning Support for the J1939 Connector

New Features for Cisco IOS XE 17.8.1

- Raw Socket Feature Enhancement

- SCADA Enhancement for TNB

- gRPC Network Operations Interface Update

- GNMI Broker (GNMIB) Update

Cellular Serviceability Enhancements

Enhancements have been made for cellular and GPS features as follows:

Trigger points and debug code can be enabled via controller cellular CLIs for generating and trap the debug data automatically without manual intervention. The following CLI options are available:

```
(config-controller)#lte modem serviceability ?
  gps              GPS debugging
  interface-resets  Interface resets/Bearer deletion
  modem-crash      Modem-crash debugging
  modem-resets     IOS initiated unknown modem-resets
```

The debug data includes the following:

- Context Based debug logs (tracebacks, and GPS locations).

- Well formatted debug messages.

- Vendor specific debug data at a broader range.

The debug logs are located in the following location of flash:

```
router#dir flash:servelogs
Directory of bootflash:/servelogs/

259340  -rw-              122   Sep 7 2021 17:40:44 +00:00  gpslog-slot5-20210907-174044
259339  -rw-             1734   Sep 7 2021 12:14:07 +00:00  celllog-slot5-20210905-164628
```

GPS and cellular log files are created separately with file names using the timestamp at the time of the creation. These files are created as follows:

- If the existing file has reached 10Mb, a new file will be created.

- A new file will be created if the feature (GPS, or cellular) is completely disabled, and then re-enabled.

New Features for Cisco IOS XE 17.7.1

Support 1G SFPs

Release 17.7.1 will add support for the following SFPs:

GLC-T-RGD

CWDM-SFP-1470=

CWDM-SFP-1610=

CWDM-SFP-1530=

DWDM-SFP-3033=

DWDM-SFP-3112=

GLC-BX-D-I=

GLC-BX-U-I=

GLC-TE