



New and Changed Feature Information

This section lists all the new and changed features for the Programmability Configuration Guide.

- [New and Changed Programmability Features, on page 1](#)

New and Changed Programmability Features

Feature	Description	Changed in Release	Where Documented
New additions to CLI-based data models	CLI-based YANG data models, also known as unified configuration models were introduced in Cisco IOS XR, Release 7.0.1. The new set of unified YANG config models are generated from CLI command definitions. In this release, the support is extended for new additional CLI-based YANG data models.	Release 7.2.1	Access the Data Models You can also obtain the CLI-based data models from Github repository.
Support for <with-defaults> capability to retrieve default data from data nodes.	The default parameters of a data node can be retrieved using a NETCONF protocol operation that includes the <code><with-default></code> capability.	Release 7.2.1	Retrieve Default Parameters Using with-defaults Capability
gNMI TARGET_DEFINED subscription mode	Support for gNMI <code>TARGET_DEFINED</code> subscription mode.	Release 7.2.1	gRPC Network Management Interface

Feature	Description	Changed in Release	Where Documented
Export LLDP output via gRPC	Export LLDP output via gRPC	Release 7.2.1	Use gRPC Protocol to Define Network Operations with Data Models
gRPC Network Operations Interface (gNOI)	<p>gNOI defines a set of gRPC-based microservices for executing operational commands on network devices. Extensible Manageability Services (EMS) gNOI is the Cisco IOS XR implementation of gNOI.</p> <p>gNOI supports for the following new remote procedure calls (RPCs):</p> <ul style="list-style-type: none"> • Interface <ul style="list-style-type: none"> • SetLoopbackMode • GetLoopbackMode • ClearInterfaceCounters • Layer2 <ul style="list-style-type: none"> • ClearLLDPInterface • BGP <ul style="list-style-type: none"> • ClearBGPNeighbor 	Release 7.2.1	<p><i>Use gRPC Protocol to Define Network Operations with Data Models</i> chapter</p> <p>gRPC Network Operations Interface</p>

Feature	Description	Changed in Release	Where Documented
Install label support for <code>openconfig-platform</code> data model	<p>Support to display label information about the software version for <code>openconfig-platform</code> data model.</p> <p>For example, in the data model, the component OPERATING_SYSTEM displays information about the label.</p> <pre> </component> <component> <name>IOSXR-NODE 0/RP0/CPU0</name> <config> <name>0/RP0/CPU0</name> </config> <state> <name>0/RP0/CPU0</name> <type xmlns:idx="http://openconfig.net/yang/platform-types"> idx:OPERATING_SYSTEM</type> <location>0/RP0/CPU0</location> <description>IOS XR Operating System</description> <software-version>7.2.1</software-version> <removable>true</removable> <oper-status xmlns:idx="http://openconfig.net/yang/platform-types"> idx:ACTIVE</oper-status> </state> </pre> <p>The following example shows the gRPC or gNMI output:</p> <pre> "IOSXR-NODE 0/RP0/CPU0": { "state": { "description": "IOS XR Operating System", "location": "0/RP0/CPU0", "name": "0/RP0/CPU0", "oper-status": "openconfig-platform-types:ACTIVE", "removable": true, "software-version": "7.2.1", "type": "openconfig-platform-types:OPERATING_SYSTEM" }, "subcomponents": { "subcomponent": { "<platform>-iosxr-infra-1.0.0.2-r721": { "state": { "name": "<platform>-iosxr-infra-1.0.0.2-r721" } } } } } </pre>	Release 7.2.1	<p><i>Drive Network Automation Using Programmable YANG Data Models</i> chapter</p> <p>YANG Data Model</p>

