

Connected Grid NMS Agent (CGNA) Support

This chapter contains the following sections:

- Connected Grid NMS Agent (CGNA) Support, on page 1
- CGNA Overview, on page 1
- WebSocket Support, on page 2

Connected Grid NMS Agent (CGNA) Support

CGNA is a subsystem running on IOS which provides connectivity and manageability with network management system like FND and IOT Operations Dashboard. Complete documentation sets for IoT Field Network Director and IoT Industrial Network Director can be found in the following links:

https://www.cisco.com/c/en/us/support/cloud-systems-management/iot-field-network-director/series.html

https://www.cisco.com/c/en/us/support/cloud-systems-management/industrial-network-director/series.html#%7Etab-documents

CGNA Overview

The majority of features are implemented on the IR1800 including basic profile, execution profile, heartbeat profile, and firmware download. Some features like bspatch will not be imported on the IR1800 due to the limitation on the IOS image.

CGNA has four different profiles for different use cases. They are:

- Profile - This is the basic profile. It can be configured to support tunnel provision, registration, and periodic update.
- Execution profile - This can be configured to execute CLI commands
- Heartbeat profile - This can be configured to send heartbeat messages
- Transport profile - This can be configured to provide different transport protocol for the basic profile to use. Currently only supports WebSocket.

CGNA also provides CLIs for resumable image retrieval from network management system and simple SNMP server for redirecting events to WebSocket connection.

WebSocket Support

Traditional IOS provided the WebSocket service in the IOSd kernel. Polaris IOS-XE moves the WebSocket service out of the IOSd kernel for improved performance. The websocket version will be upgraded to 3.2.3.