

Initial Configuration

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Factory Default Configuration

The IC3000 has a factory default configuration that includes:

- Cisco IoT Field Network Director (FND) version 4.3 installed for configuration, firmware upgrade, periodic inventory and metrics collection, and status monitoring.
- Cisco IOx applications and services.
- IoT Gateway Management Agent (IGMA) for management in conjunction with FND.
- Platform Services manage the system initialization. This includes creating a signed image, enabling Linux kernel support, enabling utilities support, and enabling diagnostics and troubleshooting.

IoT Field Network Director (FND)

IoT Field Network Director (IoT FND) is a software platform that helps to enable a clear separation between communications network management and operational applications such as distribution management systems, outage management systems, and meter data management in utilities. Use the software to manage a multi-service network of routers or a combination of routers and endpoint devices deployed with end-to-end security for your specific use case.

Connect the IC3000 to a laptop on the same network. When the IC3000 is powered up, the service bridge interface which the management port (mgmt0) is attached to sends out DHCP requests. After it obtains an IP address and FND access information (option 43) from the DHCP server, IDA (aka IGMA) will connect to FND, which will then push the device configurations.

IOx Local Manager

Cisco IOx Local Manager is a platform-specific application that is installed on a host system as part of the installation of the Cisco IOx framework on that device. It provides a web-based user interface that you can use to manage, administer, monitor, and troubleshoot apps on the host system, and to perform a variety of related activities. (To manage apps across different devices, you can use Cisco Fog Director. See the Cisco Fog Director documentation for additional information.)

Cisco IOx is an application enablement platform that provides uniform and consistent hosting capabilities for various types of apps across various Cisco platforms. This platform brings together Cisco IOS, the industry-leading networking operating system, and Linux, the leading open source platform. Linux-based applications can run on Cisco devices in the Cisco IOx framework, so using this platform, you can bring custom applications and interfaces to the network.

With Cisco IOx, developers can create a wide variety of IoT apps, such as data aggregation system and control systems.

If the IC3000 operates in standalone mode, without a connection to FND, IDA will assign a fixed link local IPv4 address, 169.254.10.1, to the service bridge interface that the management port (mgmt0) is attached to.

End users could connect a device, a laptop for example, directly to the management port of the device, launch a browser on the laptop, and access IOx local manager at https://169.254.128.2:8443 from the browser.

The Local Manager login page will appear.

Basic device configuration functions are available on the Device Config tab on local manager.

Additional Information

For information about FND, go to the following:

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

Cisco Fog Director Reference Guide:

http://www.cisco.com/c/en/us/support/cloud-systems-management/fog-director/products-technical-reference-list.html

Cisco IOx Local Manager User Guide

https://www.cisco.com/c/en/us/td/docs/routers/access/800/software/guides/iox/lm/reference-guide/1-6/iox local manager ref guide.html

For additional information about Cisco IOx, go to the following:

DevNet documentation on IOx. Provides an overview as well as details by scrolling down the left hand side:

https://developer.cisco.com/site/devnet/support/

IOx Reference Guide:

http://www.cisco.com/c/en/us/support/cloud-systems-management/iox/products-technical-reference-list.html