Unboxing, Installing, and Connecting the IC3000

This section contains the following topics:

Introduction

The IC3000 Industrial Compute Gateway (IC3000) is an edge computing platform which extends the cloud computing paradigm to the edge of the network. Instead of hosting applications in a remote data center, applications can now be hosted on the edge itself. Imagine, if we can host specific applications in the field close to the sensors, meters or the things. whatever may be the IOT use case, IC3000 serves the purpose by allowing us to deploy applications that need more cores and memory.

Note The documentation set for this product strives to use bias-free language. For purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

The Cisco IC3000 Industrial Compute Gateway is fully supported by Cisco IoT Field Network Director for zero-touch deployment, lifecycle management, application management, monitoring, and troubleshooting securely at scale from a single pane of glass.

The IC3000 is a mid-range, low-power, fanless, edge server ruggedized for Industrial Applications. It is powered by a 4 core 1.2GHz Intel Rangeley CPU with 8 GB of 1333MHz DDR3 memory, and a 100GB mSATA drive (internal). For connectivity it supports 2x1GbE SFP and 2x10/100/1000Base-T with a management port.

This next section describes the phases you will need to follow for a successful installation.

Note Examples shown in this document use IP addresses that are from a lab environment and should not be used on a typical customer installation.

Unboxing, Installing and Connecting to the IC3000 Device

Unboxing the IC3000

Complete details for the hardware installation of the product are covered in the Cisco IC3000 Industrial Compute Gateway Hardware Installation Guide . The following steps are a high level overview.

Installing the IC3000

1. Review the general description of the unit in the Product Overview section of the hardware installation guide.
2. Check the Equipment, Tools, and Connections section of the hardware installation guide to ensure you have everything you need for the installation.
3. Review the procedures for Mounting, Grounding, Connecting to DC Power and Connecting to the IC3000 in the hardware installation guide.
4. If you are installing the device in a Hazloc location, follow the printed instructions that came inside the box with the device.
5. Power on the device.

Connecting the IC3000 to a PC

Procedure

Step 1 Connect a PC to the device. If your PC warns you that you do not have the proper drivers to communicate with the device, you can obtain them from your computers manufacturer or go to:

https://software.cisco.com/download/home/282774227/type/282855122/release/3.1

Step 2 Determine how your computer mapped the new COM port that was created when you installed the USB-to-serial port driver. You need this information to appropriately configure your serial communications program in the next step.

Step 3 Start your serial communications program and connect to the router. The console port settings to use for the serial connection are:

- 9600 baud
- 8 data bits
- 1 stop bit
- no parity
- no flow control

If the device is properly connected and powered up, you should see the **ic3k>** prompt.

Step 4 Verify that your computer is properly connected to the device by checking the LEDs on the unit as described in the Hardware Installation Guide.

What to do next

There is a new banner during boot starting with release 1.3.1, informing the user to use Local Manager or FND for configuring the networking and device. For example:

```
Press RETURN to get started


*****************************************************************************

                     *
*     CLI is for viewing configuration, settings and device information       *
*
                                   *
*     Use Field Network Detector/Local Manager for configuring IC3000         *
*****************************************************************************
```

IC3000 Show Commands

The following show commands are supported on the device via the console. Unlike other Cisco routers, the IC3000 only supports one user mode, which is user EXEC mode. The device prompt shows as **ic3k**>.

The CLI and prompt is a CLISH wrapper built on top of Linux OS for administrator usage.

Table 1: show commands

Show Command	Description
show version	shows the version information
show dns	shows the domain name service information
show ida status	shows the device management tool connection information
show ntp	shows the network time protocol information
show techsupport	shows the technical support logs
show iox	shows the IOx application hosting information
show iox summary	shows the application hosting summary
show iox detail	shows the application hosting details
show operating-mode	shows operating mode information
show ntp manual config	shows the ntp configuration pushed from FND or LM
show ntp association	shows the ntp association information
show ntp status	shows whether the device has been synced with ntp server
show ntp mode	shows whether ntp config mode is in auto or manual mode
show dns manual config	shows the dns configuration pushed from FND or LM
show dns mode	shows whether dns config mode is in auto or manual mode
show clock	shows the time on the device
help standalone-mode	shows instructions for configuring standalone-mode
help managed-mode	shows instructions for configuring managed-mode

Show Command	Description
show sfp information port3/port4	Shows the Fiber/Copper SFP details.
show golden image	Shows the golden image and golden application image (If the device is shipped with application).
show tech support usb2/sdcard	Show tech support no longer prints on console. Support has been added for downloading logs to usb2.

There are examples of command output to illustrate the show commands located in Additional Administration > Troubleshooting. Your device may show different results depending on your configuration.

Related Documentation

All of the IC3000 documentation is found here:

https://www.cisco.com/c/en/us/support/routers/3000-series-industrial-compute-gateways/tsd-products-support-series-home.html

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/support/cloud-systems-management/iox/products-technical-reference-list.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/

Cisco IOx:

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