



# Configuring CIP

## Restrictions for Configuring CIP

CIP can be enabled on only one VLAN on the switch.

## Information About Configuring CIP

The Common Industrial Protocol (CIP) is an industrial protocol for industrial automation applications. It is supported by Open DeviceNet Vendors Association (ODVA), an organization that supports network technologies based upon CIP such as DeviceNet, EtherNet/IP, CIP Safety and CIP Sync.

Previously known as Control and Information Protocol, CIP encompasses a comprehensive suite of messages and services for the collection of manufacturing automation applications - control, safety, synchronization, motion, configuration and information. CIP allows users to integrate these manufacturing applications with enterprise-level Ethernet networks and the Internet.

## How to Configure CIP

### Default Configuration

By default, CIP is not enabled.

### Enabling CIP

Command	Purpose
1. <b>configure terminal</b>	Enters global configuration mode.
2. <b>cip security {password password   window timeout value}</b>	Sets CIP security options on the switch.
3. <b>interface vlan 20</b>	Enters interface configuration mode.
4. <b>cip enable</b>	Enables CIP on a VLAN.
5. <b>end</b>	Returns to privileged EXEC mode.
6. <b>show running-config</b>	Verifies your entries.
7. <b>copy running-config startup-config</b>	(Optional) Saves your entries in the configuration file.

## Monitoring CIP

**Table 23** Commands for Displaying the CIP Configuration

Command	Purpose
<b>show cip</b> { <b>connection</b>   <b>faults</b>   <b>file</b>   <b>miscellaneous</b>   <b>object</b>   <b>security</b>   <b>session</b>   <b>status</b> }	Displays information about the CIP subsystem.

## Troubleshooting CIP

**Table 24** Commands for Troubleshooting the CIP Configuration

Command	Purpose
<b>debug cip</b> { <b>assembly</b>   <b>connection manager</b>   <b>errors</b>   <b>event</b>   <b>file</b>   <b>io</b>   <b>packet</b>   <b>request response</b>   <b>security</b>   <b>session</b>   <b>socket</b> }	Enables debugging of the CIP subsystem.

## Additional References

The following sections provide references related to switch administration:

## Related Documents

Related Topic	Document Title
Cisco IOS basic commands	<i>Cisco IOS Configuration Fundamentals Command Reference</i>

## Standards

Standards	Title
No new or modified standards are supported by this feature, and support for existing standards has not been modified by this feature.	–

## MIBs

MIBs	MIBs Link
–	To locate and download MIBs using Cisco IOS XR software, use the Cisco MIB Locator found at the following URL and choose a platform under the Cisco Access Products menu: <a href="http://cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml">http://cisco.com/public/sw-center/netmgmt/cmtk/mibs.shtml</a>

## RFCs

RFCs	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature.	–

## Technical Assistance

Description	Link
The Cisco Technical Support website contains thousands of pages of searchable technical content, including links to products, technologies, solutions, technical tips, and tools. Registered Cisco.com users can log in from this page to access even more content.	<a href="http://www.cisco.com/techsupport">http://www.cisco.com/techsupport</a>

