

Cisco Enhanced Device Interface 2.2

Product Features

Q. What is Cisco® Enhanced Device Interface (EDI)?

A. Cisco EDI is an external implementation and extension of the Cisco network element interface designed to increase the productivity of both the end user and the management application developer in the areas of device configuration and troubleshooting.

Q. Why should you deploy Cisco EDI?

A. The following types of users will benefit from using Cisco EDI:

- Users with management applications who need a comprehensive Extensible Markup Language programmatic interface (XML PI) for device configuration
- Users that rely on scripting tools or direct network element access for device configuration and troubleshooting

Q. What benefits can customers expect from deploying Cisco EDI Version 2.2?

A. Table 1 lists the benefits Cisco EDI 2.2 provides.

Table 1. Key Features and Benefits

Key Feature	Benefits
Comprehensive device configuration and command support	Can be positioned as the single point for device configuration, thus eliminating the common loss-of-sync problem associated with multiple entry points into the device (for example, direct command-line interface [CLI] configuration). Troubleshooting commands may be initiated from Cisco EDI (built-in functions, device commands, user-defined scripts).
OS parser emulation (CLI syntax check command context validation)	Eliminates common user errors.
Grouping capability	Allows for the definition of administrative domains. Access control may be performed at the administrative domain level. Simplifies configuration and administrative tasks.
Group least common denominator CLI (that is, a common CLI)	This allows users to perform group operations without the possibility of generating an unsupported command.
Context-based CLI	This capability allows users to simultaneously apply changes to one or more devices by simply selecting the context. Provides a single point for network configuration.
Macro CLI	Helps enable users to push commands to various types of platforms (Cisco Catalyst® OS, Cisco IOS® Software, and Cisco PIX® OS) that have variation in CLI commands.
Operational data model	Provides applications with an XML interface to retrieve from network elements the operational data that is available through the CLI show commands. Allows you to create a model specification file, an XML file, and an XSD.
XML PI	Full set of device commands described in XML. Can be programmatically read by management applications, eliminating the need to hardcode CLI text commands and simplifying application development. Provides Java APIs over XML PI. Cisco EDI provides Java client API libraries that take Java objects as inputs and return Java objects; you can use these APIs to develop your own applications. You can also use these APIs in existing applications.

GUI applications	<p>Eclipse-based GUI applications:</p> <p>Config Manager: For editing and viewing device configuration</p> <p>Macro Command Manager: Creates macros across the various device OS versions. Allows for the provisioning of the network, using the macro grouping capability.</p> <p>Command Translator: Helps enable you to translate Cisco Catalyst Operating System configurations to the equivalent, supported Cisco IOS Software configurations.</p> <p>Command Analyzer: Helps enable you to compare two Cisco IOS images. Also allows you to check commands for completeness.</p> <p>Command Modeler: Provides an infrastructure to generate and validate device-independent CLI models. You can use the generated device-independent CLI models to generate device-specific Java code.</p>
Configuration compliance	<p>Provides Cisco EDI with the capability to verify the configuration commit. It displays details about the success or failure of the configuration on the given network.</p> <p>This helps you ensure that the configuration commit is successful and complies with the candidate configuration.</p>

Q. Is Cisco EDI an element management system (EMS)?

A. No, Cisco EDI is an extension of the device's interface, and it complements management applications (such as EMSs).

Q. Is Cisco EDI software available to download from Cisco.com?

A. Yes, Cisco EDI software is available for download at <https://upload.cisco.com/cgi-bin/swc/fileexg/main.cgi?CONTYPES=ccu-forum>.

Q. Why does Cisco EDI provide some functions and features traditionally associated with an EMS?

A. Cisco EDI includes some of the traditional EMS features (for example, discovery and basic inventory data collection). Some of these features are used when Cisco EDI is deployed as a standalone system and when it is deployed with a management application that does not offer those capabilities. Furthermore, Cisco EDI provides configuration access to the devices and thus needs to be aware of the devices' configuration and status (basic inventory data collection).

Q. Can I disable features in Cisco EDI if they are supported by my management application?

A. No, currently there is no on/off option for Cisco EDI features. Instead, the management application does not use these features. For example, if the management application supports device discovery, then device discovery in Cisco EDI is not used, and the management application provides the device identification to Cisco EDI.

Q. Will Cisco EDI be used by Cisco management applications?

A. Yes, this is planned for future releases.

Q. What Cisco operating systems does Cisco EDI support?

A. Cisco E-DI 2.2 supports Cisco IOS Software, Cisco PIX OS, and Cisco Catalyst OS.

Q. What major features are provided in Cisco EDI?

A. Cisco EDI features are partitioned into the following main categories:

- Base management features
- Enhanced CLI
- XML PI
- GUI applications

Q. What are base management features?

A. Base management features comprise a set of features that are device independent. That is, they do not require a device package in order to function. Some examples include device discovery, basic inventory, and so on.

Q. What is a device support package?

A. Cisco EDI requires a device support package for specific device and OS combinations in order to provide full device support (all three main feature categories). A device package is a data file that contains the “learned” CLI for a given device as well as the XML schemas (XSDs) for the XML PI.

Q. Is the XML PI based on existing standards or is it Cisco proprietary?

A. The XML PI is standards-based, and it is in compliance with the IETF NETCONF draft specification (operations).

Q. What is supported over the XML PI?

A. Because Cisco EDI is capable of “learning” a device’s CLI, the XML PI provides comprehensive device-configuration support.

Q. What equipment does Cisco EDI support?

A. The supported equipment and OS release (for example, Cisco IOS Software Release 12.2) is enhanced on a regular basis. However, at the time that Cisco EDI 2.2 is released, the devices and operating systems listed in Table 2 are supported.

Table 2. Supported Devices and OS Releases

Device Package Name	Device Package Version	Supported Cisco IOS Software Release
Cisco 12000	1.1	12.0(27)S5
Cisco 7600	1.1	12.2(18)SXD4
Cat 6500	1.2	12.1(11b)E1, 12.2(17d)SXB6
Cisco 1700	1.2	12.2(15)T14, 12.3(8)T6
Cat 6500CatOS	1.1	7.6(6)
Cat 3550	1.2	12.1(14)EA1a, 12.1(22)EA2
Cat 4000	1.1	12.1(19)EW1
Cisco 7200	1.1	12.2(13)T14
Cat 2950	1.1	12.1(13)EA1c
Cisco 2600	1.2	12.1(17), 12.2(24a)
Cisco 800	1.1	12.3(8)T7
Cisco AP350IOS	1.1	12.3(2)JA2
Cat 3750	1.0	12.1(19)EA1a
Cisco 3800	1.1	12.3 (11)T
Cisco 1800	1.1	12.3 (11)T
Cisco 3700	1.1	12.3 (6)C
Cisco 2800	1.1	12.3(11)T7
IAD 2400	1.1	12.3 (8)T9
Cisco 2600	1.1	12.3(10e)
Cat6500 with CSM	1.3	12.2.(18)SXE3
Cisco10000	1.2	12.2(31)SB2

Q. How can I get additional device support packages?

A. Additional device support packages are posted to Cisco.com as incremental device upgrades (IDUs) every 6–8 weeks and are available for download to registered Cisco.com users.

Q. What is the next set of device packages Cisco EDI is planning to support?

A. Some of the devices that will be supported after the Cisco EDI 2.2 release are listed in Table 3.

Table 3. Planned Device Packages

Device Package Name	Supported Cisco IOS Software Release
Cisco 800	Cisco IOS Software Release 12.3(8)Y1
Cisco 7300	Cisco IOS Software Release 12.2 (25) S4
Cisco 3700	Cisco IOS Software Release 12.3(10)

Q. Can I run other applications alongside Cisco EDI?

A. Yes, Cisco EDI 2.2 can be run along with other application.

Q. Is Cisco EDI a software-only offering, or can it be bundled with an appliance?

A. Cisco EDI is a software-only offering.

Q. Are Cisco EDI and Cisco CNS Configuration Engine competing products?

A. No. Cisco EDI provides programmatic access to the devices as well as operator access through the enhanced CLI (it is an interface into the device). Cisco CNS Configuration Engine, on the other hand, is primarily designed for zero-touch deployment types of applications.

Product Licensing and Platform Requirements**Q. How is Cisco EDI software licensed?**

A. The software is licensed on a per server basis.

Q. Will Cisco EDI take care of CLI variations across OS versions and platforms?

A. Yes, Cisco EDI supports a feature called Macro CLI, which helps enable users to push commands to various types of platforms (Cisco Catalyst OS, Cisco IOS Software, and Cisco PIX OS) that have variation in CLI commands.

Q. What OSs run Cisco EDI?

A. Linux and Windows.

Q. Are there any plans also to support Solaris?

A. Not for the foreseeable future; however, this may change depending on customer needs.

Q. What hardware platform is required to run Cisco EDI?

A. Table 4 lists the minimum system specifications required for proper system performance.

Table 4. System Specifications

Supported platforms	IBM PC compatible computer
Disk space	Hard drive: Single IDE internal hard drive with a minimum capacity of 20 GB
Hardware	<ul style="list-style-type: none"> • Network interfaces: 1 network interface that supports 10 Mbps or more • Console port: 1 RJ-45 console port • Display monitor: 1 RGB display monitor port • 20 GB minimum available disk drive space
Memory	2 GB minimum memory
CPU	Processor: Intel Pentium 4 1.6 GHz or more

For More Information

For more information about Cisco EDI, visit

<http://www.cisco.com/en/US/products/ps6456/index.html>, contact your local account representative, or send an e-mail to ask-edi@cisco.com.



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