

Automating APIs and Protocols for Cisco Enterprise Solutions

This Cisco API training covers how to programmatically access Cisco data, manage enterprise automation, and increase productivity with Cisco APIs and protocols. This network programmability training will expose to you the inventory of options that let you programmatically access and automate Cisco network devices. With a control of Cisco APIs and protocols, an administrator will have fine-tuned control of the biggest-picture operations and be proficient at automating the network's maintenance and operations.

[CBT Nuggets course material](#) →

WEEK 1

Describe Characteristics of API Styles

150 min.

Introduction to API Styles	2
Remote Procedure Calls (RPC)	4
Simple Object Access Protocol (SOAP)	6
Representational State Transfer (REST)	4
REST In Action	6
API Styles Summary	1

Understand the Challenges of Consuming APIs

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Synchronous vs. Asynchronous APIs	5
Creating an Asynchronous API Call in Python	6
Handling HTTP Error Codes	7
Implementing a Backoff Script	8
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Understand and Explore Data Models

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Structuring Structured Data	1
The Core Concept of Data Models	6
Where YANG Comes Into Play	4
Exploring YANG Data Models in Depth	5
OpenConfig, Native, and IETF Models	5
Summarizing Data Models	1

Automate Cisco IOS-XE Devices with Netconf

Overview	1
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The Netconf Protocol	9
The Netconf Protocol Workflow	3
Netconf Capabilities	8
Getting Data with Netconf and Ncclient	6
Changing Configurations with Ncclient	2
Summarizing Netconf	1

Automate Cisco IOS-XE Devices with RESTCONF

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Creating Interfaces	11
Updating Interfaces	6
URLs and YANG Models	8
Static Routes	8
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