

Earning Your CCNP Enterprise Certification

cisco Live !

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CCIEW#42079

Cisco Webex App

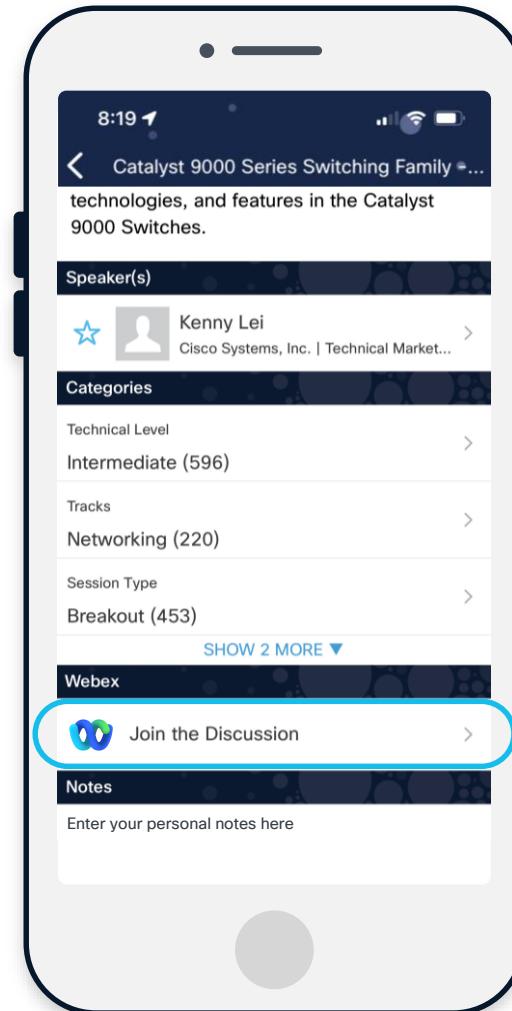
Questions?

Use Cisco Webex App to chat with the speaker after the session

How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
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- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until June 13, 2025.



<https://ciscoevents.com/ciscolivebot/#BRKCRT-2008>

Agenda

- 01 **Value of the Cisco Certification brand**
- 02 **Roadmap and changes**
- 03 **Preparing for the Enterprise exams:**
 - Enterprise Core Blueprint
 - Sample exam questions
 - Tools and resources
- 06 **Q&A**

“CCNP Required”

time this meeting was productive and has brought major changes on. We will visit several places of strategic interest and will discuss possible collaborations nationally.

ssion for global warming and terrorism issues. Among other things will discuss new measures for global security. Last time this meeting was very productive and has brought major changes on Earth. We will visit several places of strategic interest and will discuss possible collaborations nationally.

Among other things will



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position for
YOU !!

has brought major changes on Earth. We will visit several places of strategic interest and will discuss possible collaborations nationally.

meeting was very productive and has brought major changes on Earth. We will visit several places of strategic interest and will discuss possible collaborations nationally.

Will also discuss new measures on global security. Last time this meeting was very productive and has brought major changes on Earth. We will visit several places of strategic interest and will discuss possible collaborations nationally.

Discussions on global warming and terrorism issues among other things will

Benefits of Cisco Certification

- ✓ Increased quality of work.
- ✓ More innovative.
- ✓ Increased productivity.

Keeps you in sync with changing technology.

The benefits of certification are real:

63% Received a job promotion.

82% Are more determined to succeed professionally.

32% Received pay increases of 20% or more.

Cisco Certifications are time-honored proof you know what you're doing. Plus, they're ANSI and NIST certified, which means they're industry certs with greater value in the marketplace.

¹ Pearson VUE 2023 Value of IT Certification

Cisco Career Certifications



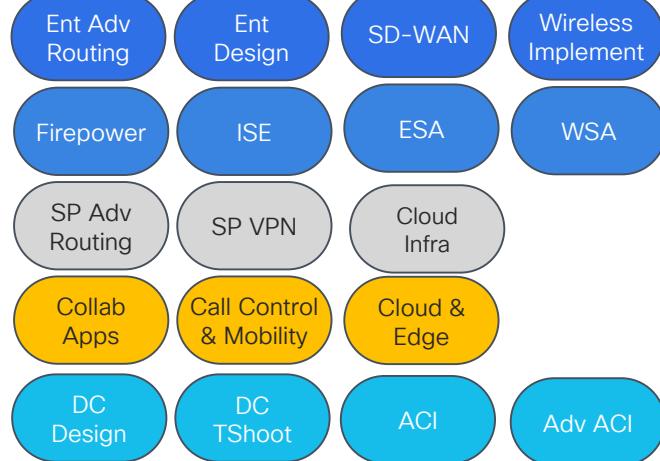
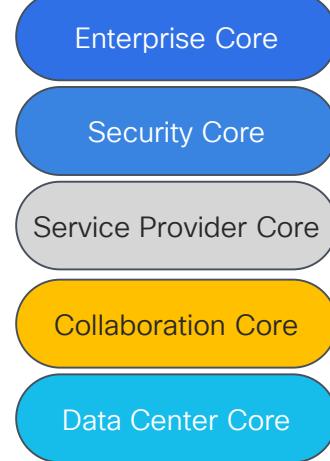
One Exam



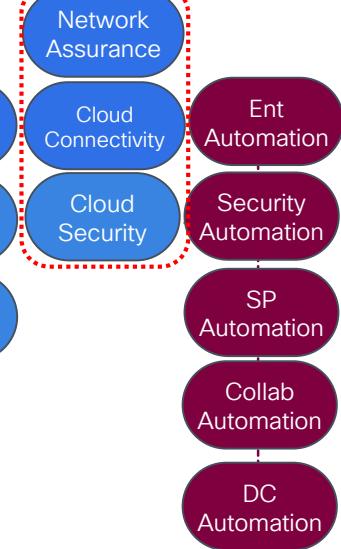
CCNA



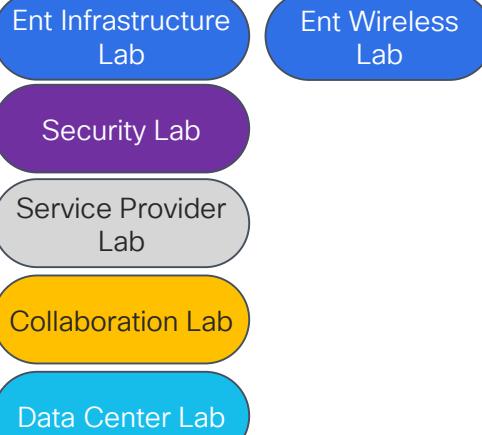
Two Exams: Core + 1 Concentration



Multicloud
Certs



Core + Lab



One Exam



DevNet Associate



Two Exams: Core + 1 Concentration



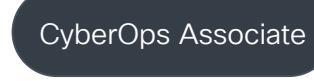
Core + Lab



DevNet Expert



One Exam



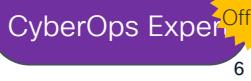
CyberOps Associate



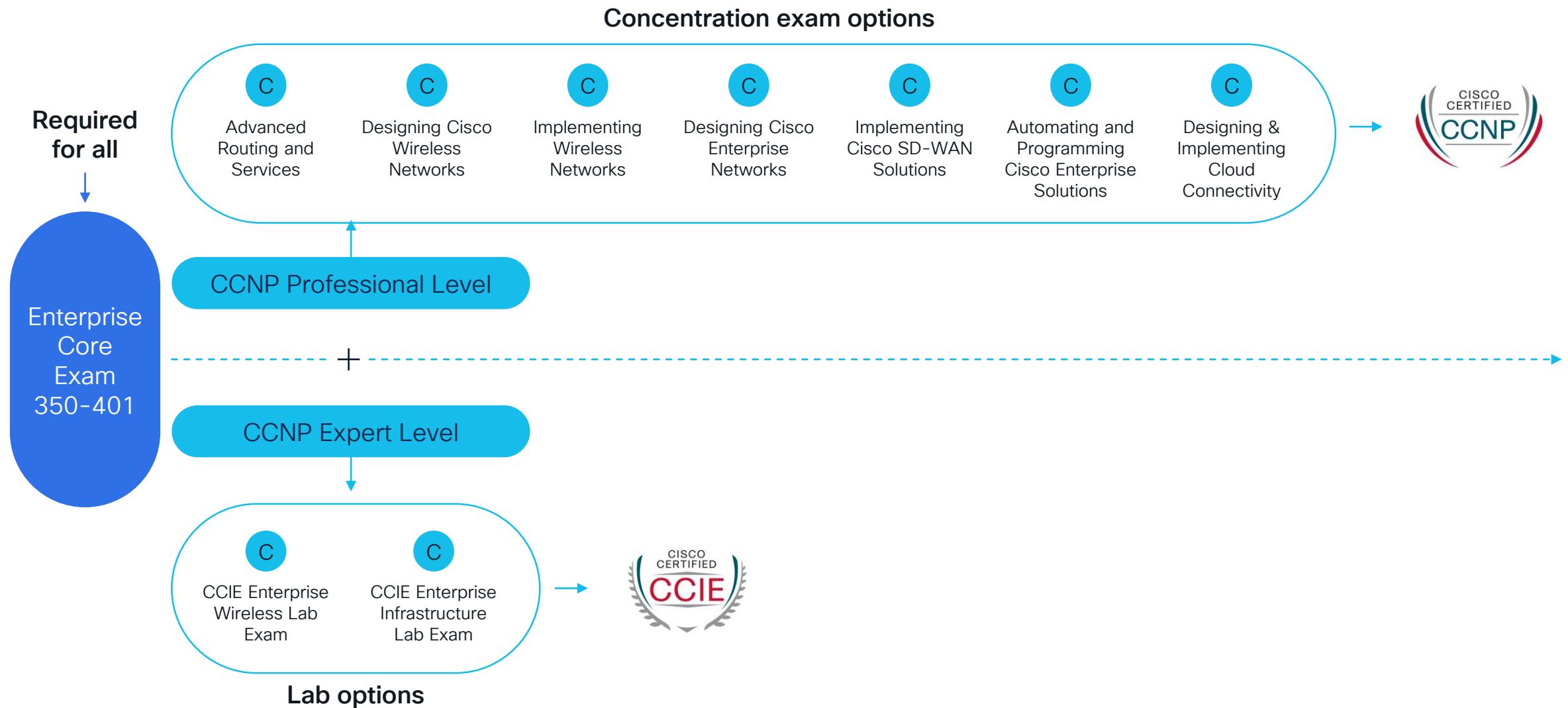
Two Exams: Core + 1 Concentration



Future
Offering



CCNP = Core + 1 concentration (in any order)



Certification Roadmap

Certification roadmap publishing process

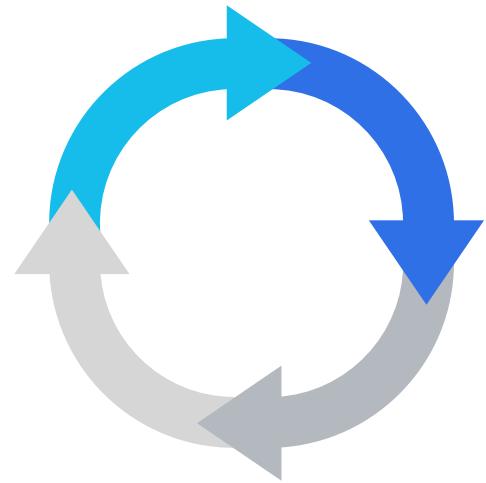
Stay in sync with the latest updates on a regular, rotating schedule

How it works:

1. Cisco **reviews** each technology on the same quarterly schedule each year to make sure our exams align with the latest Cisco technologies.
2. We **announce** blueprint changes 3-6 months in advance along with revised exam topics and release notes, if applicable.
3. We **publish** the updated exam 3-6 months after the exam blueprint publication, if applicable.

Data Center & Collaboration

- Q1: Review/Job Task analysis
- Q2: New blueprints published
- Q3: Updated exam go live



Enterprise & DevNet

- Q2: Review/Job Task analysis
- Q3: New blueprints published
- Q4: Updated exam go live

Security & CyberOps

- Q4: Review/Job Task analysis
- Q1: New blueprints published
- Q2: Updated exam go live

CCNA & Service Provider

- Q3: Review/Job Task analysis
- Q4: New blueprints published
- Q1: Updated exam go live

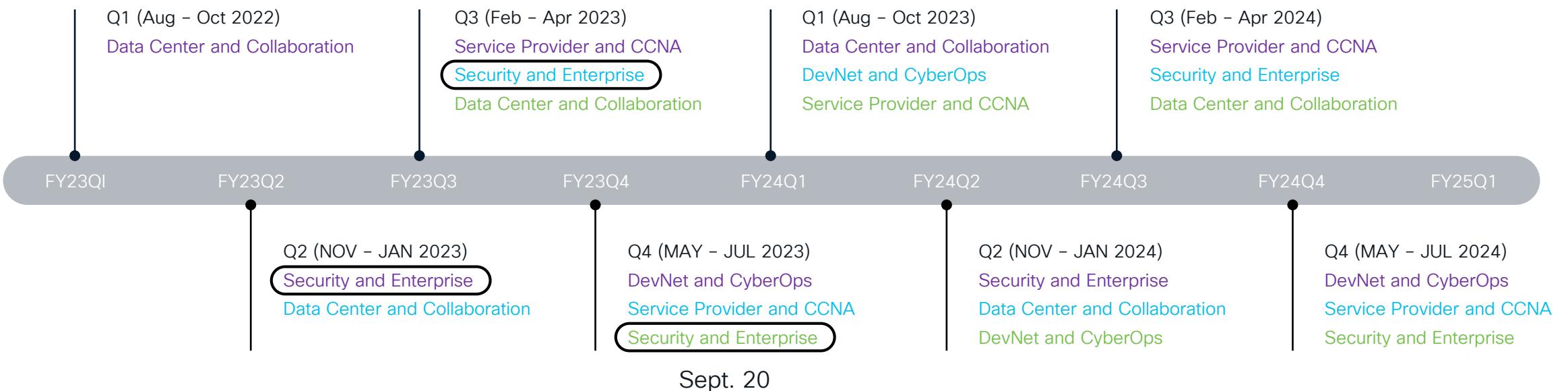
Dates shown reflect Cisco's fiscal year calendar.

Q1: August–October, Q2: November–January, Q3: February–April, Q4: May–July

Certification roadmap

How it works:

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Revision framework

Major revision

(Traditional revision model)

Blueprint version number
v2.1 → v3.0

Every 3-5 years

Large revisions

Major changes

Steep learning curve

Wider alignment (Product & Technology)

Minor revision

(Agile revision model)

v2.1 → v2.2 → v2.3

Every years

Smaller modular revisions

Incremental changes

Easy bite-size learning model

Frequent alignment (Product & Technology)

ENCOR v1.0 vs ENCOR v1.1 summary

Legend
Blue: Minor change
Gold: Removed
Green: Addition

1.0 Architecture

- Describe wireless client density
- Interpret QoS configurations

2.0 Virtualization

- No changes

3.0 Infrastructure

- Spanning Tree enhancements
- Area types
- Describe policy-based routing
- Describe wireless segmentation with groups, profiles, and tags
- Interpret NTP and PTP configurations

4.0 Network Assurance

- ~~Traditional NetFlow configuration~~

5.0 Security

- EAPOL

6.0 Automation

- No changes

ENWLSD v1.0 vs ENWLSD v1.1

Legend
Blue: Minor change
Gold: Removed
Green: Addition

2.4 Apply design requirements for these types of wireless networks

- 2.4.a Data
- 2.4.b Voice and video
- 2.4.c Location
- ~~2.4.d Hyperlocation~~

2.5 Design high-density wireless networks and their associated components ~~(campus, lecture halls, conference rooms)~~

4.2 Design high availability for APs

- 4.2.a AP prioritization
- 4.2.b Fall-back (assigning primary, secondary, and tertiary)
- 4.2.c Embedded Wireless Controller (EWC)

ENAUTO v1.0 vs ENAUTO v1.1

Legend
Blue: Minor change
Gold: Removed
Green: Addition

1.6 Explain the benefits of using network configuration tools such as Ansible and Terraform ~~Puppet~~ for automating IOS XE platforms

2.1 Identify the JSON instance based on a YANG model (including YANG Suite)

2.2 Identify the XML instance based on a YANG model (including YANG Suite)

4.2 Describe the features and capabilities of Cisco DNA Center

- ~~4.2.c Multivendor support (3rd party SDKs)~~
- 4.2 eSDA

4.4 Implement API requests for Cisco DNA Center to accomplish network management tasks

- 4.4.d SDA APIs

5.1 Describe features and capabilities of Cisco SD-WAN vManage ~~Certificate Management~~ APIs

Upcoming Exam Changes

Select the technology tabs below for specific exam changes:

DevNet Cybersecurity Service Provider CCNA Security **Enterprise** Collaboration Data Center CCDE

Exam Number	Release Notes	Exam Topic Blueprint	Learning Matrix
Cisco Enterprise Exams	CCNP Release Notes	Exam Topics	ENCOR v1.1 Learning Matrix
CCNP/CCIE Core Exam Updates			
350-401 ENCOR v1.1		Exam Topics	
CCNP Concentration Exam Updates		Exam Topics	
300-410 ENARSI v1.1		Exam Topics	
300-415 ENSDWI v1.2		Exam Topics	
300-420 ENSLD v1.1		Exam Topics	
300-425 ENWLSD v1.1		Exam Topics	
300-430 ENWLSI v1.1		Exam Topics	
300-435 ENAUTO v1.1		Exam Topics	
300-440 ENCC v1.0		Exam Topics	
300-445 ENNA v1.0		Exam Topics	

Learning Matrix

ID	Domain	Sub-Domain	Task ID	Sub-Task ID	Books	Training	Cisco Live	Online Ref.
1 Architecture								
1.1	Explain the different design principles used in an enterprise network				CCNP and CCIE Enterprise Core ENCOR Official Cert Guide	Implementing and Operating Cisco Enterprise Network Core Technologies	BRKENS-1501	
1.1.a	High-level enterprise network design such as 2-tier, 3-tier, fabric, and cloud							Campus LAN and Wireless LAN Solution Design Guide
1.1.b	High availability techniques such as redundancy, FHRP and SSO							Campus Network for High Availability Design Guide
1.2	Describe wireless network design principles				CCNP and CCIE Enterprise Core ENCOR Official Cert Guide	Implementing and Operating Cisco Enterprise Network Core Technologies	BRKCO-2031	Campus LAN and Wireless LAN Solution Guide
1.2.a	Wireless deployment models (centralized, distributed, controller-less, controller							Cisco Unified Wireless Technology and Architecture
1.2.b	Location services in a WLAN design						BRKEWN-2012	Cisco Unified Wireless Location-Based Services
1.2.c	Client Density							Client Density
1.3	Explain the working principles of the Cisco SD-WAN solution				CCNP and CCIE Enterprise Core ENCOR Official Cert Guide	Implementing and Operating Cisco Enterprise Network Core Technologies	BRKENT-2108	Official Cisco SD-WAN and Cloud Networking YouTube Channel
1.3.a	SD-WAN control and data planes elements							Cisco SD-WAN Getting Started Guide
1.3.b	Benefits and limitations of SD-WAN solutions							Cisco SD-WAN
1.4	Explain the working principles of the Cisco SD-Access solution				CCNP and CCIE Enterprise Core ENCOR Official Cert Guide	Implementing and Operating Cisco Enterprise Network Core Technologies	BRKCRS-2810	SD-Access Design Guide
1.4.a	SD-Access control and data planes elements						BRKENT-2075	
1.4.b	Traditional campus interoperating with SD-Access						BRKENS-2827	
1.5	Interpret wired and wireless QoS configurations				CCNP and CCIE Enterprise Core ENCOR Official Cert Guide	Implementing and Operating Cisco Enterprise Network Core Technologies	BRKCRS-2501	Quality of Service (QoS) Configuration Guide
1.5.a	QoS components							
1.5.b	QoS policy							
1.6	Describe hardware and software switching mechanisms such as CEF, CAI				CCNP and CCIE Enterprise Core ENCOR Official Cert Guide	Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR)	RIB FIB	
							CAM TCAM	
							CEF	

Preparing for your exams

Exam Blueprint

<https://learningnetwork.cisco.com>

The Cisco Learning Network



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[Certifications](#) / [CCNP Enterprise](#) / [350-401 ENCOR Exam Topics](#)

350-401 ENCOR Exam: Implementing Cisco Enterprise Network Core Technologies

Exam Description

Implementing Cisco Enterprise Network Core Technologies v1.0 (ENCOR 350-401) is a 120-minute exam associated with the CCNP and CCIE Enterprise Certifications. This exam tests a candidate's knowledge of implementing core enterprise network technologies including dual stack (IPv4 and IPv6) architecture, virtualization, infrastructure, network assurance, security and automation. The course, Implementing Cisco Enterprise Network Core Technologies, helps candidates to prepare for this exam.

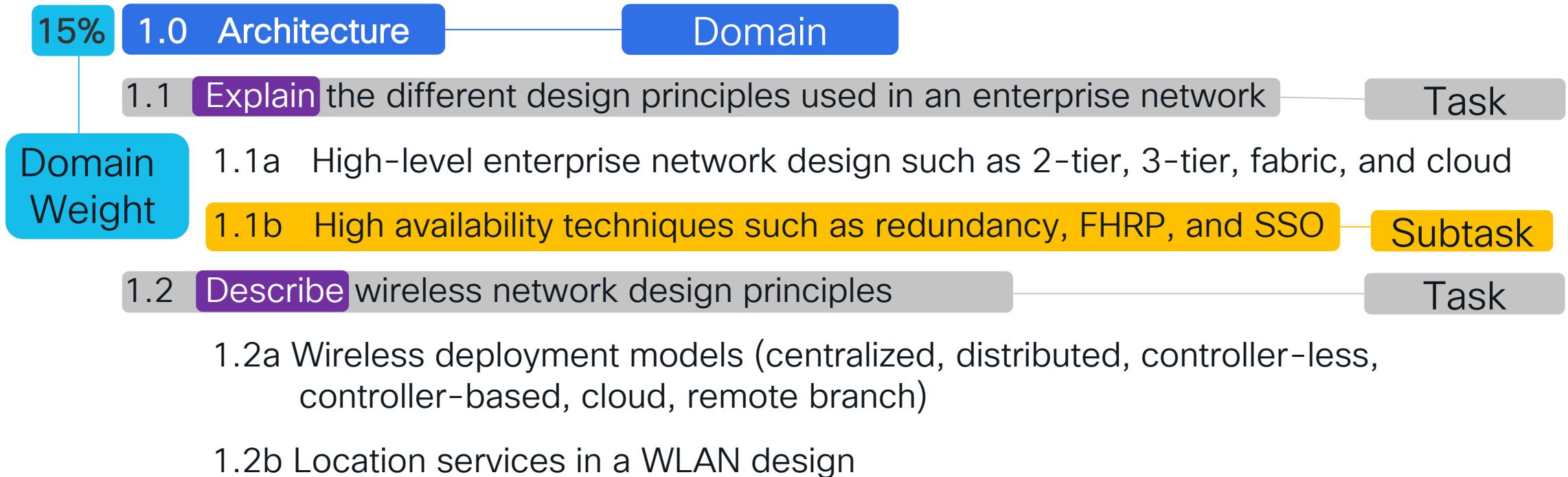
The following topics are general guidelines for the content likely to be included on the exam. However, other related topics may also appear on any specific delivery of the exam. To better reflect the contents of the exam and for clarity purposes, the guidelines below may change at any time without notice.

[Download Complete List of Topics in PDF format](#)

1.0 Architecture	15%	▼
2.0 Virtualization	10%	▼
3.0 Infrastructure	30%	▼
4.0 Network Assurance	10%	▼
5.0 Security	20%	▼
6.0 Automation	15%	▼

Deciphering the Blueprint:

Implementing Cisco Enterprise Network Core Technologies (350-401)



Blueprint Verbs

Describe/Explain/Understand

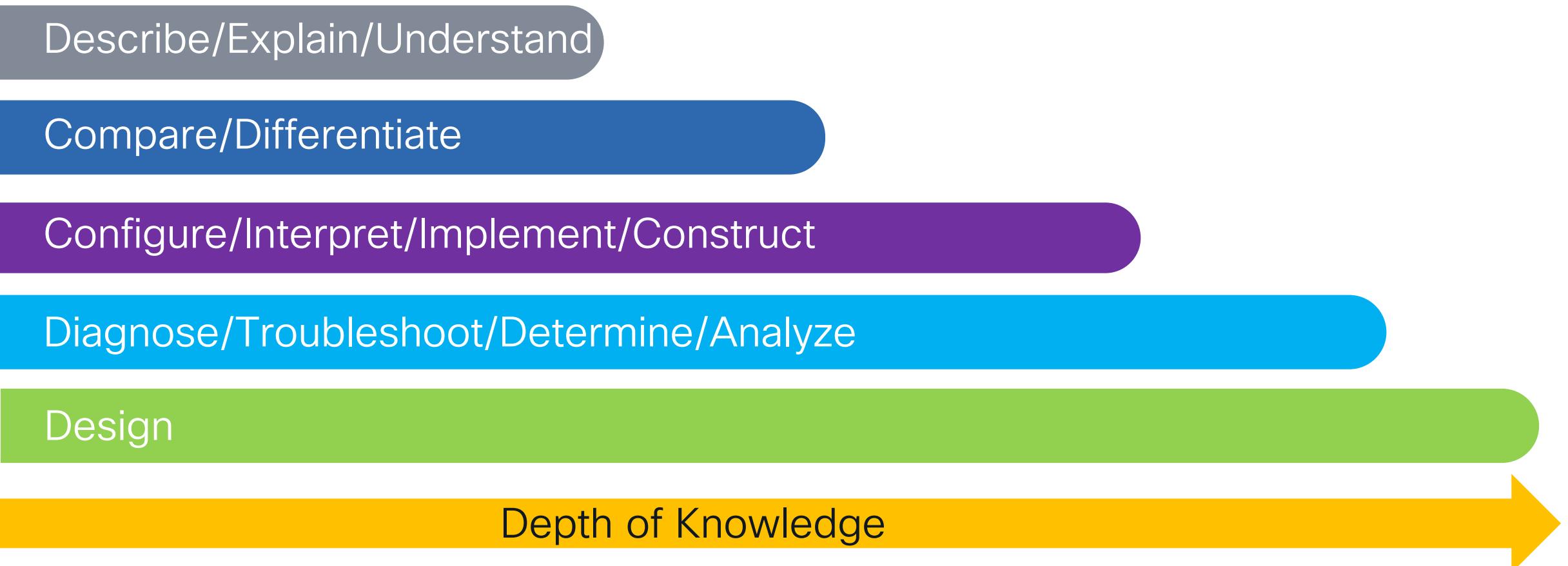
Compare/Differentiate

Configure/Interpret/Implement/Construct

Diagnose/Troubleshoot/Determine/Analyze

Design

Depth of Knowledge



Types of questions

Multiple
choice

Drag and
drop

Labs

Tasks

- 1.1 Explain the different design principles used in an enterprise network
 - 1.1.a Enterprise network design such as 2 Tier, 3 Tier, and Fabric Capacity planning
 - 1.1.b High availability techniques such as redundancy, FHRP, and SSO
- 1.2 Describe design principles of a WLAN deployment
 - 1.2.a Wireless deployment models (centralized, distributed, controller-less, controller-based, cloud, remote branch)
 - 1.2.b Location services in a WLAN design

Multiple Choice “Describe”

Task

1.2 **Describe** wireless network design principles

1.2.a Wireless deployment models (centralized, distributed, controller-less, controller-based, cloud, remote branch)

Question

A customer with multiple stores around the country needs a wireless solution that will provide easy installation, visibility, and easy to manage. Which solution matches the requirements?

- A. centralized
- B. distributed
- C. controller-less
- D. cloud



Study resources

Cisco U.

For You Explore Community View Plans

Implementing and Operating Cisco Enterprise Network Core Technologies | ENCOR

Gain the knowledge and skills needed to install, configure, operate, and troubleshoot an enterprise network.

The Cisco Learning Network Store



Certification Training ▾ Technology Training ▾ All Training ▾

Home / Cisco Study Bundles



ENCOR E-Learning and Exam Bundle

Continuing Education Credits: 64

Labs Practice Questions Self-Paced Training Video Training



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Filters

Clear

SD-Access*

SD-Access



- My Favorites
- Recommended for you

Featured

Event

Technology

Program

Technical Level

170 sessions

Cisco SD-Access - A Look Under the Hood - BRKCRS-2810

Event: 2018 Barcelona

Shawn Wargo, PRINCIPAL ENGINEER, TECHNICAL MARKETING, Cisco Systems, Inc. - Distinguished Speaker

Are you facing some, or all, of these challenges?

- Host Mobility (w/o stretching VLANs)
- Network Segmentation (w/o implementing MPLS)

Real World Use Cases for Deploying and Operating Cisco SD-Access - BRKEMT-2102

Event: 2021 Digital

Ivan Caduff, Technical Solutions Architect, Cisco Systems, Inc. - Distinguished Speaker

Patrick Mosimann, Technical Solutions Architect, Cisco Systems, Inc. - Distinguished Speaker

This Session gives you the possibility to understand how the Cisco DNA can help you towards an intent based operations. A common challenge in today's networks is manageability of the network elements and applications installed on Customers...

Domain 2: Virtualization

Tasks

2.1 Describe device virtualization technologies

2.1.a Hypervisor type 1 and 2

2.1.b Virtual machine

2.1.c Virtual switching

2.2 Configure and verify data path virtualization technologies

2.2.a VRF

2.2.b GRE and IPsec tunneling

2.3 Describe network virtualization concepts

2.3.a LISP

2.3.b VXLAN

Multiple Choice “Configure”

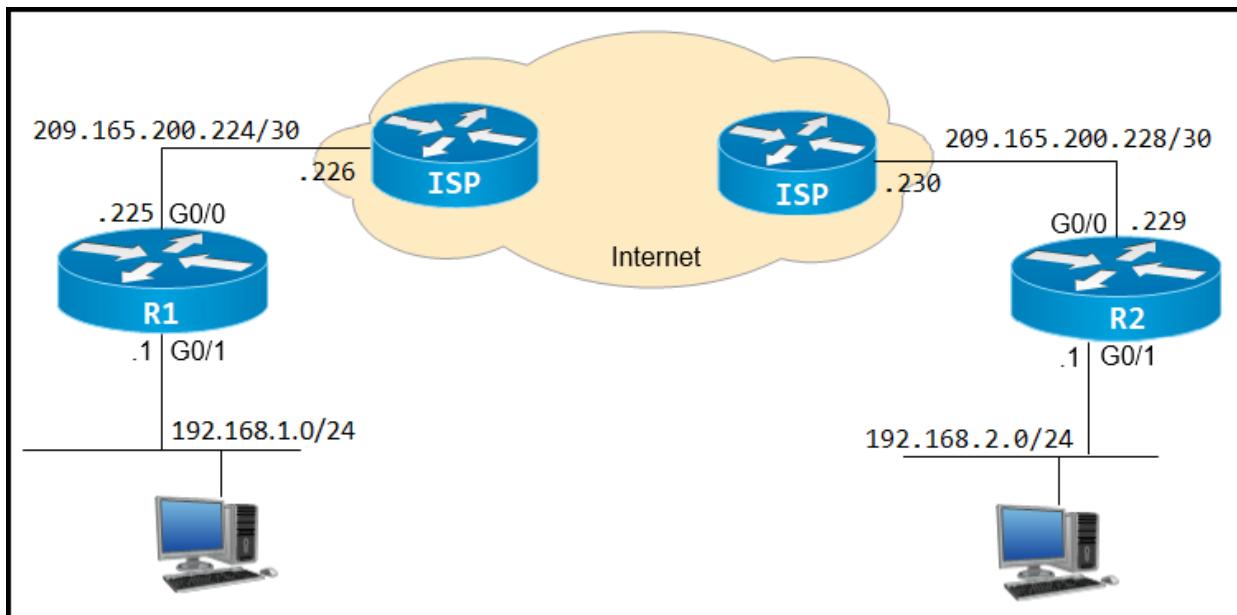
Task

2.2 Configure and verify data path virtualization technologies

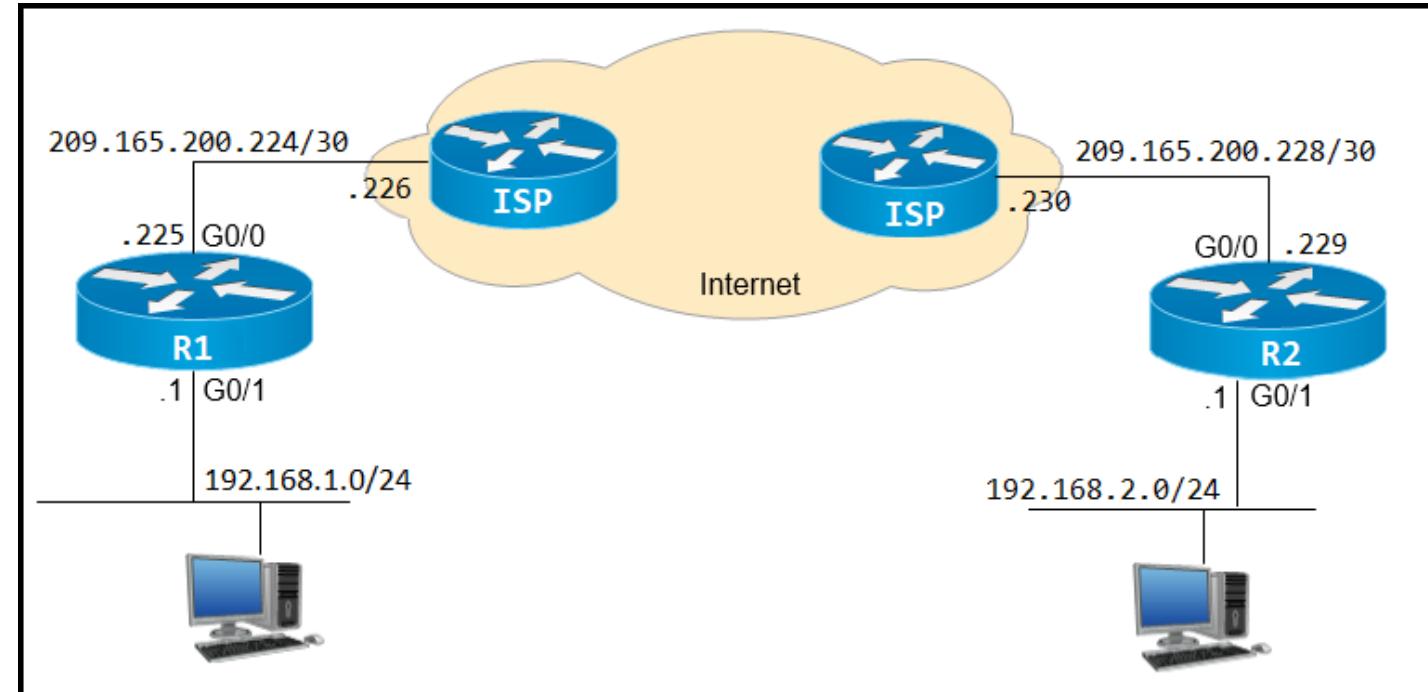
2.2.b GRE and IPsec tunneling

Question

Which configuration is required on R1 to configure a GRE tunnel between R1 and R2?



Which configuration is required on R1 to configure a GRE tunnel between R1 and R2?



A. `interface Tunnel1
ip address 192.168.5.1 255.255.255.0
tunnel source GigabitEthernet0/0
tunnel destination 209.165.200.229`

 ✓

B. `interface Tunnel1
ip address 192.168.1.2 255.255.255.0
tunnel source GigabitEthernet0/0
tunnel destination 209.165.200.230`

C. `interface Tunnel1
ip address 209.165.200.225 255.255.255.252
tunnel source GigabitEthernet0/0
tunnel destination 209.165.200.229`

D. `interface Tunnel1
ip address 192.168.1.1 255.255.255.0
tunnel source GigabitEthernet0/0
tunnel destination 172.16.1.1`

Cisco e-Learning (Self Paced Training)

The screenshot shows the Cisco e-Learning platform interface. At the top, there is a navigation bar with links for Cisco U., For You, Explore, Certifications, Community, View Plans, a search bar containing 'encor', a user icon with 'GK', and a shopping cart icon.

The main content area displays a course card for 'Implementing and Operating Cisco Enterprise Network Core Technologies (New) | ENCOR'. The card includes a brief description: 'Gain the skills you need to configure and manage enterprise networks while you prepare to take 350-401 ENCOR v1.1 exam.' Below the description are icons for a graduation cap, a clock, a document, a funnel, a book, a CE logo, and a file folder. Text below the icons indicates: 'Intermediate', '47h 45m', '32 Courses', '31 Labs', '14 Assessments', '64 Credits', and 'v1.3'.

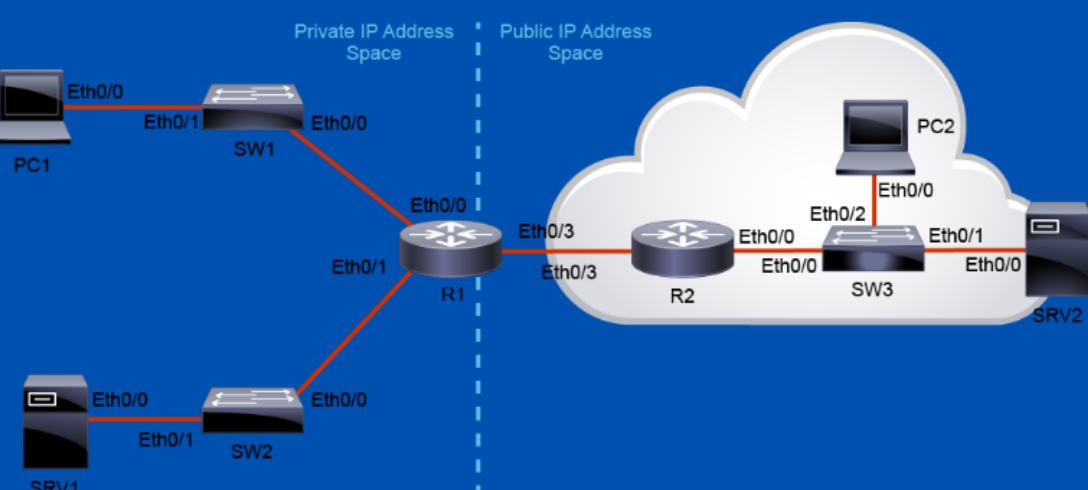
On the right side, a detailed view of the 'Learning Path Curriculum' is shown. The title is 'Implementing and Operating Cisco Enterprise Network Core Technologies (New)'. A progress bar at the top shows 'Learning Path Completion 0%'. The curriculum is organized into 7 numbered sections: 1. Network Switching (7h 25m), 2. Network Routing (12h 10m), 3. Network Security (5h 30m), 4. Wireless Networking (6h 15m), 5. Virtualization and Networking Services (6h 20m), 6. Programmability (4h 30m), and 7. Software-Defined Networking (5h 35m). Each section is preceded by a small icon representing its type: a triangle for Labs, a square for Assessments, and a rectangle for Courses. A 'Expand All' button is located at the top right of the curriculum list.

[Return to Learning Path Overview](#)

 Lab

Configure Standard and Extended ACLs

Through this discovery, you will review the implementation of standard and extended ACLs using both numbered and named configuration methods. SRV2 is a public DNS server. The domain names of the devices are the same as their hostnames. SRV1 and SRV2 are also HTTP/HTTPS servers.



5% complete

- ▶ Introduction
- ≡ ACL Overview
- ▶ ACL Wildcard Masking
- ▶ Types of ACLs
- ≡ Configure Numbered Access Li...
- ≡ Use ACLs to Filter Network Tra...
- ≡ Apply ACLs to Interfaces
- ≡ Configure Named Access Lists
- ▶ Configure Standard and Exten...
- ≡ Control Plane Overview
- ▶ Control Plane Policing
- ▶ Configure Control Plane Policing
- ≡ Summary

Blueprint structure



Hands-on Labs



Lab help

The image shows the Cisco U Lab interface for configuring Standard and Extended ACLs. The top navigation bar includes the Cisco U logo, a bell icon, the title "Lab | Configure Standard and Extended ACLs", a search icon, and an "Exit Lab Mode" button. The left side features two expandable boxes: "Step 3" and "Step 4". The "Step 3" box contains the following text: "Standard ACLs can filter traffic based on source IP address only. A typical best practice is to configure a standard ACL as close to the destination as possible. In this step, you are configuring a numbered standard ACL on R1. The ACL is designed to block traffic from host 10.10.1.10 to the 10.10.2.0/24 network on R1. This ACL will be applied outbound on the R1 Ethernet 0/1 interface." The "Step 4" box contains the following text: "Test the ACL by pinging from PC1 to SRV1. Since the ACL is designed to block traffic with source addresses from the 10.10.1.10 host, PC1 should not be able to ping SRV1. Perform a similar test from PC2 to ensure that other devices still have access to SRV1. Verify the ACL using the `show access-list` command." The right side of the interface includes a "DEVICES" list with numbered entries for PC1, PC2, R1, R2, SRV1, SRV2, SW1, SW2, and SW3. Below the devices is a "RESOURCES" section with links for Scenario, Topology, and Job Aid. The bottom right corner features the Cisco logo.

Step 3

Standard ACLs can filter traffic based on source IP address only. A typical best practice is to configure a standard ACL as close to the destination as possible. In this step, you are configuring a numbered standard ACL on R1. The ACL is designed to block traffic from host 10.10.1.10 to the 10.10.2.0/24 network on R1. This ACL will be applied outbound on the R1 Ethernet 0/1 interface.

Step 4

Test the ACL by pinging from PC1 to SRV1. Since the ACL is designed to block traffic with source addresses from the 10.10.1.10 host, PC1 should not be able to ping SRV1. Perform a similar test from PC2 to ensure that other devices still have access to SRV1. Verify the ACL using the `show access-list` command.

DEVICES

- 1 PC1
- 2 PC2
- 3 R1
- 4 R2
- 5 SRV1
- 6 SRV2
- 7 SW1
- 8 SW2
- 9 SW3

RESOURCES

- Scenario
- Topology
- Job Aid

Lab help

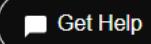
Cisco U.



Lab | Configure Standard and Extended ACLs



Exit Lab Mode X



Step 4

Test the ACL by pinging from PC1 to SRV1. Since the ACL is designed to block traffic with source addresses from the 10.10.1.10 host, PC1 should not be able to ping SRV1. Perform a similar test from PC2 to ensure that other devices still have access to SRV1. Verify the ACL using the [show access-list](#) command.

Answer

On PC1, enter the following command:

```
PC1# ping srv1
Translating "srv1"...domain server (203.0.113.30)

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.10.2.20, ti
U.U.U
Success rate is 0 percent (0/5)
```

First, notice that the DNS requests sent to SRV2 are still functional. SRV2 has resolved the "srv1" domain name and returned the 10.10.2.20 address to PC1. PC1 then sends five echo-request messages to SRV1 but R1 drops the packets and returns ICMP destination unreachable messages to PC1 because of the deny statement in the ACL.



DEVICES

- 1 PC1
- 2 PC2
- 3 R1
- 4 R2
- 5 SRV1
- 6 SRV2
- 7 SW1
- 8 SW2
- 9 SW3

RESOURCES

- Scenario
- Topology
- Job Aid

Tasks

3.1 Layer 2

- 3.1.a Troubleshoot static and dynamic 802.1q trunking protocols
- 3.1.b Troubleshoot static and dynamic EtherChannels
- 3.1.c Configure and verify common Spanning Tree Protocols (RSTP, MST) and Spanning Tree enhancements such as root guard and BPDU guard

3.2 Layer 3

- 3.2.a Compare routing concepts of EIGRP and OSPF (advanced distance vector vs. link state, load balancing, path selection, path operations, metrics, and area types)
- 3.2.b Configure and verify simple OSPF environments, including multiple normal areas, summarization, and filtering

Labs

- Configure
- Construct
- Diagnose
- Troubleshoot

Lablet - Candidate Name

Time Remaining 01:26:03
1 of 1

Comment

Guidelines Topology Tasks

OSPF Process ID 200
Area 0

Lo0: 1.1.1.1 /32 Lo0: 2.2.2.2 /32

10.1.1.0/24

E0/0 E0/0

.1 .2

R1 R2

R1>

Next →

```
graph LR; R1((R1)) --- E0_0_1[E0/0 10.1.1.1/24]; R1 --- Lo0_1[Lo0 1.1.1.1/32]; R2((R2)) --- E0_0_2[E0/0 10.1.1.2/24]; R2 --- Lo0_2[Lo0 2.2.2.2/32]; E0_0_1 --- E0_0_2
```

Task

3.2 Layer 3

3.2.b Configure and verify simple OSPF environments

Question

Tablet - Candidate Name

Comment

Time Remaining 01:17:16
1 of 1

Guidelines Topology Tasks

R1 R2

Task 1:
Configure OSPF according to the topology. Match the network mask of each interface and ensure that all routers use Lo0 for the router ID.

Task 2:
Configure OSPF MD5 authentication between R1 and R2.

Next →

Task

3.1 Layer 2

3.1.b Troubleshoot static and dynamic EtherChannels

Question

Tablet - Candidate Name

Time Remaining 01:17:16
1 of 1

Comment

Guidelines Topology Tasks

S1 S2

Task:
The port channel between Switch1 and Switch2 is not operational. Resolve the issue so that the switches actively negotiate an LACP port channel.

Next →

Live DEMO

Let's try a real Lablet

More about tablets (check it on On-Demand Library)

FULL CONFERENCE

Labs in Cisco's CCNA and CCNP Certification Programs - IBOCRT-2002



DevNet Sandbox Cisco Modeling Labs Demo

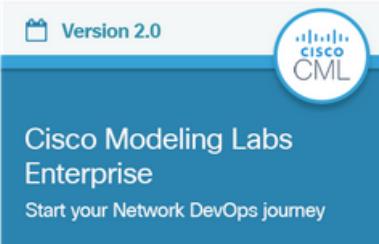
<https://developer.cisco.com>

ALWAYS-ON

Or

RESERVE

Networking Sandbox Highlights



RESERVATION SANDBOX

Cisco Modeling Labs Enterprise

Cisco Modeling Labs is a tool for building virtual network simulations (or labs) for you to test out new topologies, protocols, and config changes; automate network tests via CI/CD pipeline integration; and learn new things about the cool world of networking. This sandbox provides access to a Cisco Modeling Labs system that can be used to explore the capabilities of the newest release of Cisco Modeling Labs Personal and Enterprise.



RESERVATION SANDBOX

Multi Domain

This Sandbox was designed for developers to build applications and operational tools to manage the diverse set of platforms deployed across an enterprise. This Sandbox provides developers access to multiple domains and platforms, including Cisco HyperFlex, Cisco SD-WAN, Cisco Action Orchestrator, as well as open source tools like NetBox and GitLab.



RESERVATION SANDBOX

Cisco SD-WAN

This sandbox consists a complete virtual SD-WAN environment and all of its components, that developers can utilize to develop, debug and test their sample SD-WAN applications. The developer can also interact with the SD-WAN API calls using a variety of REST clients such as POSTMAN.

Tasks

- 4.1 Diagnose network problems using tools such as debugs, conditional debugs, trace route, ping, SNMP, and syslog
- 4.2 Configure and verify Flexible NetFlow
- 4.3 Configure and verify SPAN/RSPAN/ERSPAN
- 4.4 Configure and verify IPSLA
- 4.5 Describe Cisco DNA Center workflows to apply network configuration, monitoring, and management
- 4.6 Configure and verify NETCONF and RESTCONF

Multiple Choice “Describe”

Task

4.6 **Describe** Cisco DNA Center workflows to apply network configuration, monitoring, and management



Question

How does Cisco DNA Center perform a network discovery?

- A. Through a network scan
- B. Through a DHCP server
- C. Using CDP with a seed address
- D. Using SNMP

dCloud Cisco DNA Center Demo (dcloud.cisco.com)

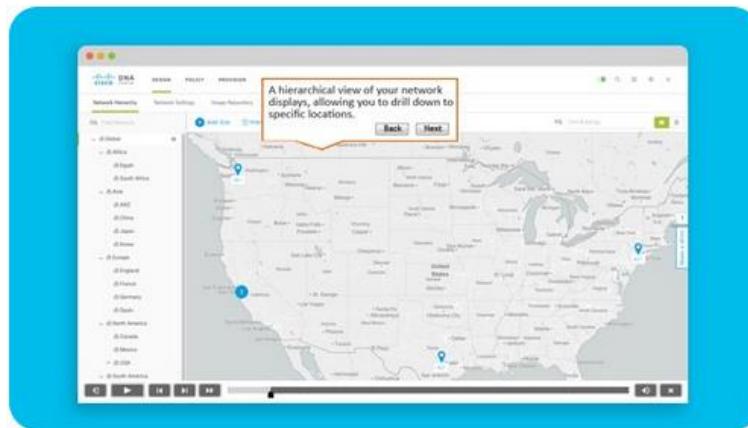
Cisco DNA Center Demos

Get 360-degree contextual insights across users, devices, and applications. Learn more and gain hands-on experience with Cisco DNA Center now.

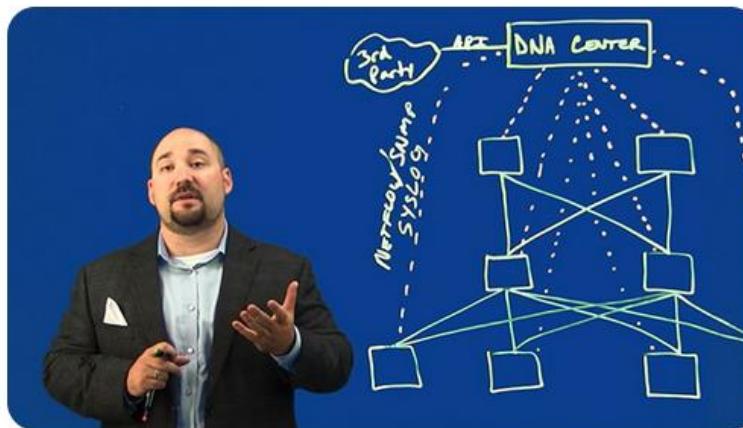
 Watch demo (2:19)

Explore live demo webinar

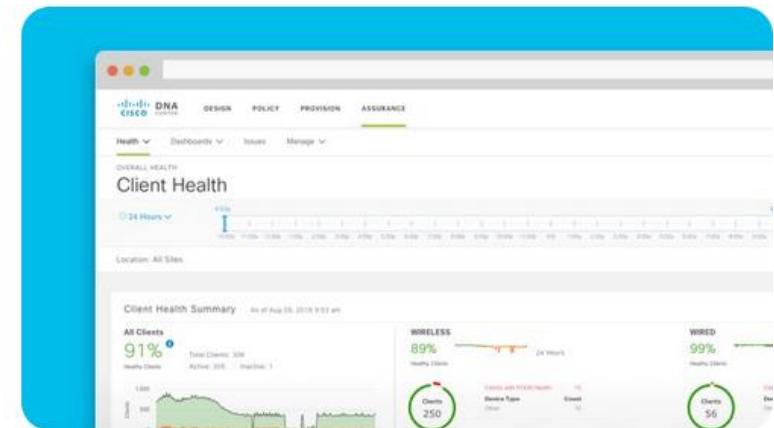
Take demos to the next level



Self-guided demo: Cisco DNA Center



Walk-through: Cisco DNA Center



Live instant demo: Cisco DNA Center

Tasks

- 6.1 Interpret basic Python components and scripts
- 6.2 Construct valid JSON encoded file
- 6.3 Describe the high-level principles and benefits of a data modeling language, such as YANG
- 6.4 Describe APIs for Cisco DNA Center and vManage
- 6.5 Interpret REST API response codes and results in payload using Cisco DNA Center and RESTCONF
- 6.6 Construct EEM applet to automate configuration, troubleshooting, or data collection
- 6.7 Compare agent vs. agentless orchestration tools, such as Chef, Puppet, Ansible, and SaltStack

Drag-and-Drop “Construct”

Task

6.2 Construct valid JSON encoded file

Question

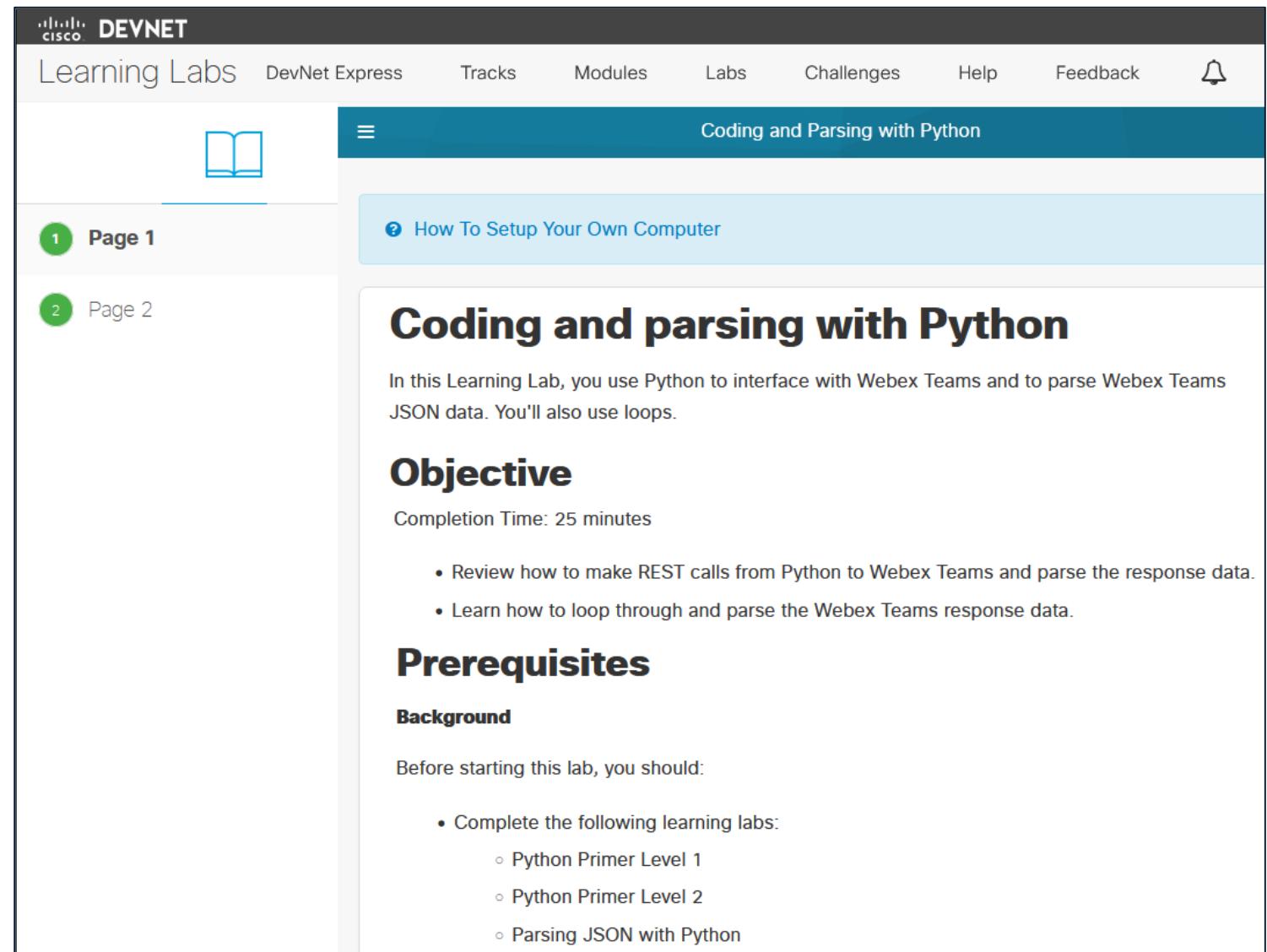
Drag and drop the code snippets onto the blanks in the Python script to convert a Python object into a JSON string.

- A. `json.dumps`
- B. `json`
- C. `json_string`

```
import [REDACTED]  
  
data = {  
    "measurement": "freeMemory",  
    "maxDataPoints": 30,  
    "alert": True,  
    "policy": "1.2.1",  
    "devices": [{"model": "Cisco 9200", "ipv4": '10.10.10.1'}]  
}  
model = data["devices"][0]["model"]  
  
json_string = [REDACTED] (data)  
  
print([REDACTED])
```

DevNet Learning Labs

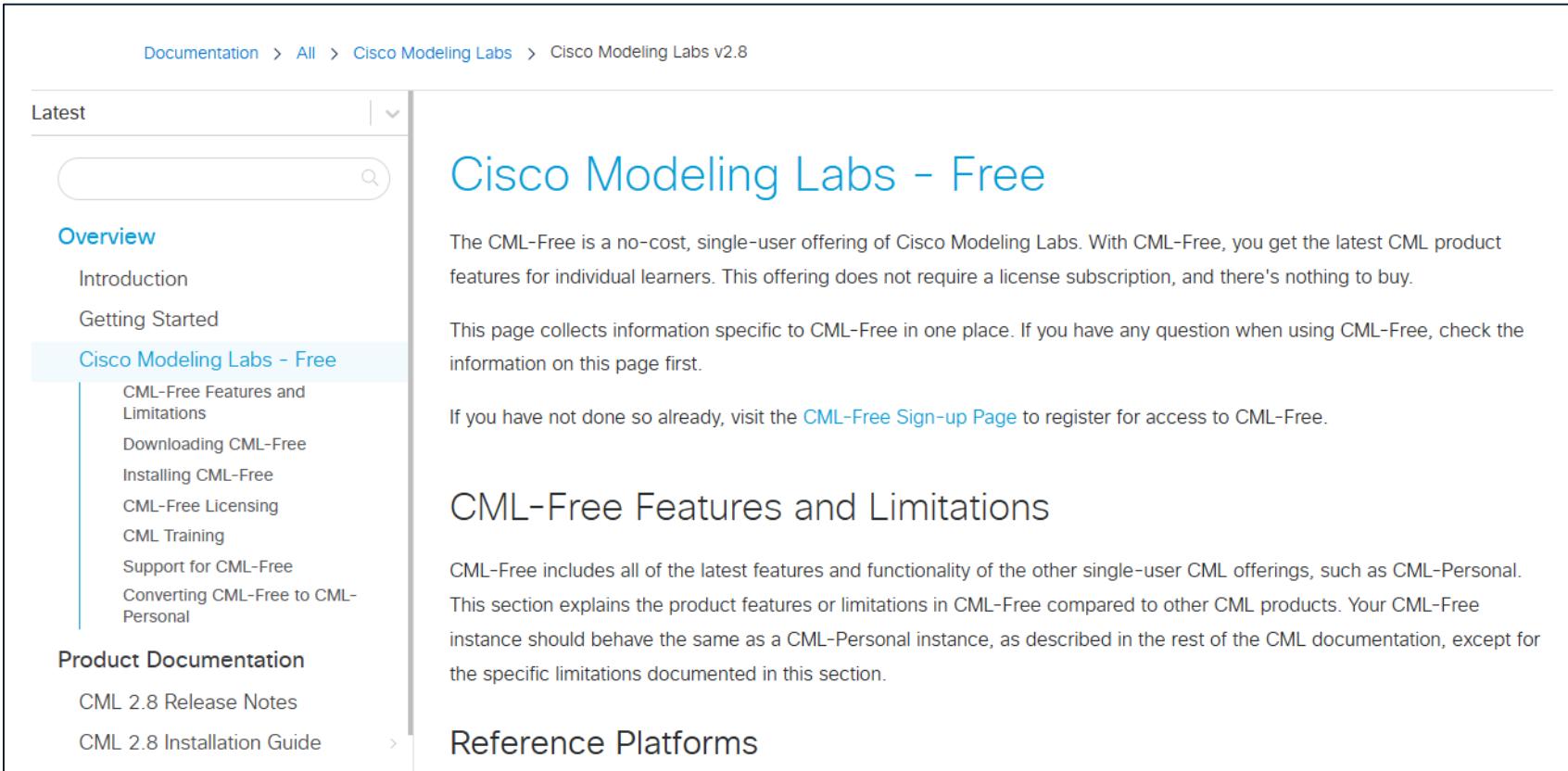
<https://developer.cisco.com>



The screenshot shows the Cisco DevNet Learning Labs interface. The top navigation bar includes the Cisco logo, DEVNET, Learning Labs, DevNet Express, Tracks, Modules, Labs, Challenges, Help, Feedback, and a bell icon. The main content area is titled "Coding and Parsing with Python". On the left, there's a sidebar with a book icon and two items: "Page 1" and "Page 2". The main content area starts with a sub-section titled "How To Setup Your Own Computer". Below it is the main title "Coding and parsing with Python". A description follows: "In this Learning Lab, you use Python to interface with Webex Teams and to parse Webex Teams JSON data. You'll also use loops." A "Objective" section is present with a completion time of "25 minutes" and a list of goals: "Review how to make REST calls from Python to Webex Teams and parse the response data." and "Learn how to loop through and parse the Webex Teams response data.". The "Prerequisites" section includes a "Background" sub-section with a list of requirements: "Complete the following learning labs: Python Primer Level 1, Python Primer Level 2, and Parsing JSON with Python".

Cisco Modeling Labs - Free

<https://developer.cisco.com/docs/modeling-labs/cml-free/>



The screenshot shows a documentation page for Cisco Modeling Labs v2.8. The top navigation bar includes links for Documentation, All, Cisco Modeling Labs, and Cisco Modeling Labs v2.8. A dropdown menu shows 'Latest' and a search bar. The main content area has a title 'Cisco Modeling Labs - Free' and a sub-section 'CML-Free Features and Limitations'. The sidebar on the left contains a 'Latest' dropdown, a search bar, and a navigation menu with sections: Overview (Introduction, Getting Started, Cisco Modeling Labs - Free), Product Documentation (CML 2.8 Release Notes, CML 2.8 Installation Guide), and a 'More' section. The 'Cisco Modeling Labs - Free' section is currently selected, as indicated by a blue background and white text. The 'CML-Free Features and Limitations' section contains text about the no-cost offering and compares it to other CML products.

Documentation > All > Cisco Modeling Labs > Cisco Modeling Labs v2.8

Latest

Cisco Modeling Labs - Free

The CML-Free is a no-cost, single-user offering of Cisco Modeling Labs. With CML-Free, you get the latest CML product features for individual learners. This offering does not require a license subscription, and there's nothing to buy.

This page collects information specific to CML-Free in one place. If you have any question when using CML-Free, check the information on this page first.

If you have not done so already, visit the [CML-Free Sign-up Page](#) to register for access to CML-Free.

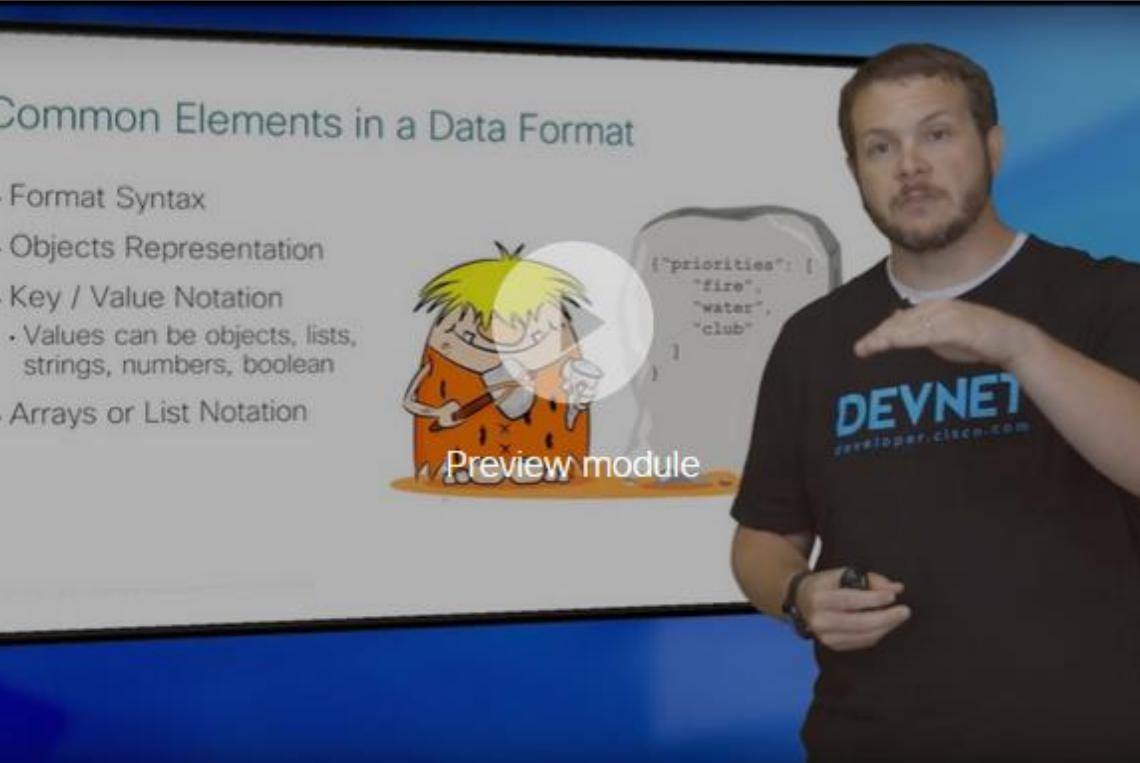
CML-Free Features and Limitations

CML-Free includes all of the latest features and functionality of the other single-user CML offerings, such as CML-Personal. This section explains the product features or limitations in CML-Free compared to other CML products. Your CML-Free instance should behave the same as a CML-Personal instance, as described in the rest of the CML documentation, except for the specific limitations documented in this section.

Reference Platforms

DevNet Video Courses

<https://developer.cisco.com>



The screenshot shows a video player interface. On the left, a video frame displays a presentation slide with the title 'Common Elements in a Data Format' and a list of topics: 'Format Syntax', 'Objects Representation', 'Key / Value Notation' (with a note that 'Values can be objects, lists, strings, numbers, boolean'), and 'Arrays or List Notation'. Below the list is a cartoon character of a caveman holding a spear, with the text 'Preview module' overlaid. On the right, the slide features a man in a black t-shirt with 'DEVNET developer.cisco.com' printed on it, pointing towards the camera. The slide also contains a JSON code block:

```
{"priorities": [ "fire", "water", "club" ]}
```

. The main content area on the right is titled 'Programming Fundamentals' in blue. Below the title is a descriptive text: 'Jumpstart your journey into Network Programmability with this quick introduction to the core programming fundamental topics you'll explore.' To the right of the text is a circular icon containing a Python logo and icons for JSON, XML, and YAML. A large blue button labeled 'Play module' is centered below the title. Below the button, a list of video thumbnails is shown, each with a number, a title, and a duration. The first video is titled '1 Data Formats: Understanding and using JSON, XML and YAML' with a duration of '21:21'. The second video is titled '2 APIs are Everywhere... but what are they?' with a duration of '13:00'.

Common Elements in a Data Format

- Format Syntax
- Objects Representation
- Key / Value Notation
 - Values can be objects, lists, strings, numbers, boolean
- Arrays or List Notation

Preview module

DEVNET developer.cisco.com

Programming Fundamentals

Jumpstart your journey into Network Programmability with this quick introduction to the core programming fundamental topics you'll explore.

Play module

1	Data Formats: Understanding and using JSON, XML and YAML	21:21
2	APIs are Everywhere... but what are they?	13:00

Community - Study groups

 The Cisco Learning Network

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Enterprise Networking Certifications Study Group

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Welcome to the Enterprise Networking Technology track Study Group, the place on the Cisco Learning Network where you can ask questions, share ideas and connect with other members as you prepare for your Certification exams.

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Meet Your Community Managers

This team can help you locate the resources you need to meet your study goals and act as your advocate on the Cisco Learning Network.

 **Karlo Bobiles**
[Connect with me!](#)

Complete Your Session Evaluations



Complete a minimum of 4 session surveys and the Overall Event Survey to be entered in a drawing to win 1 of 5 full conference passes to Cisco Live 2026.



Earn 100 points per survey completed and compete on the Cisco Live Challenge leaderboard.

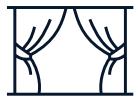


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Contact me at: Insert preferred comms method

Q&A

Thank you

CISCO Live !

