Earning Your CCNP Enterprise Certification

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How

1. Find this session in the Cisco Live Mobile App
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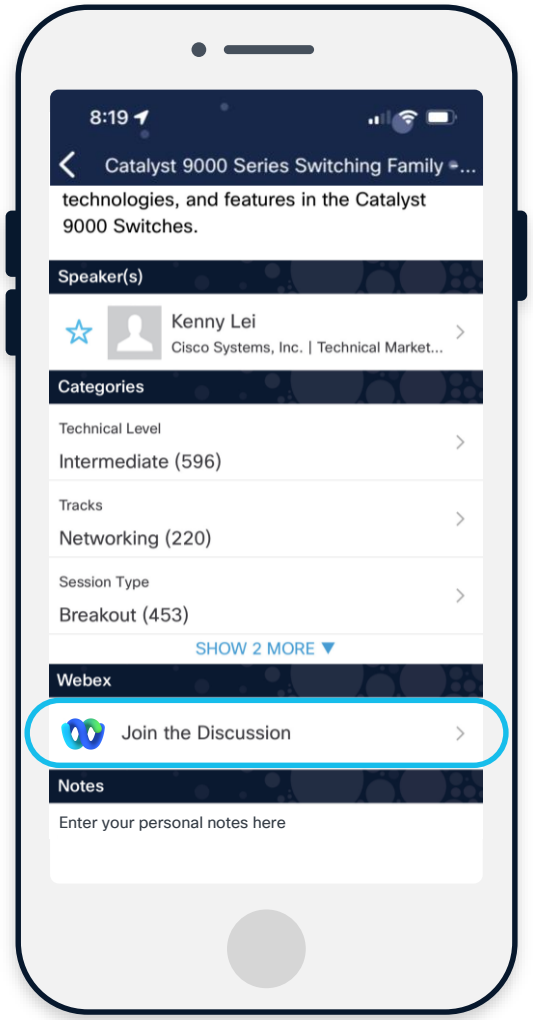
Webex spaces will be moderated by the speaker until June 13, 2025.



https://ciscolive.ciscoevents.com/
ciscolivebot/**#BRKCRT-2008**

Agenda

01 Value of the Cisco

02 Certification brand

03 Roadmap and changes

04 Preparing for the

05 Enterprise exams:

- Enterprise Core Blueprint
- Sample exam questions
- Tools and resources

06 Q&A

“CCNP Required”

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.

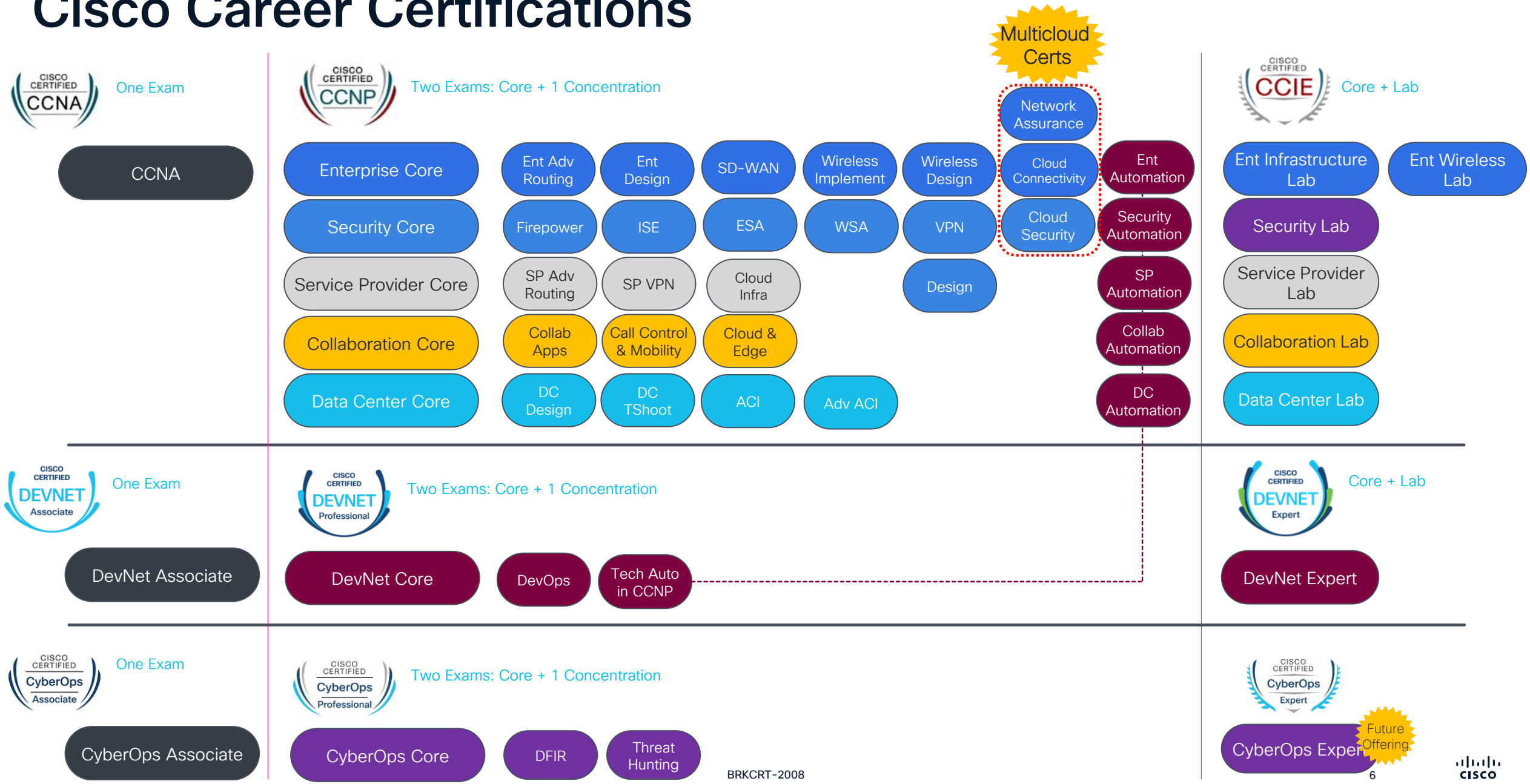
82% Are more determined to succeed professionally.

32% Received pay increases of 20% or more.

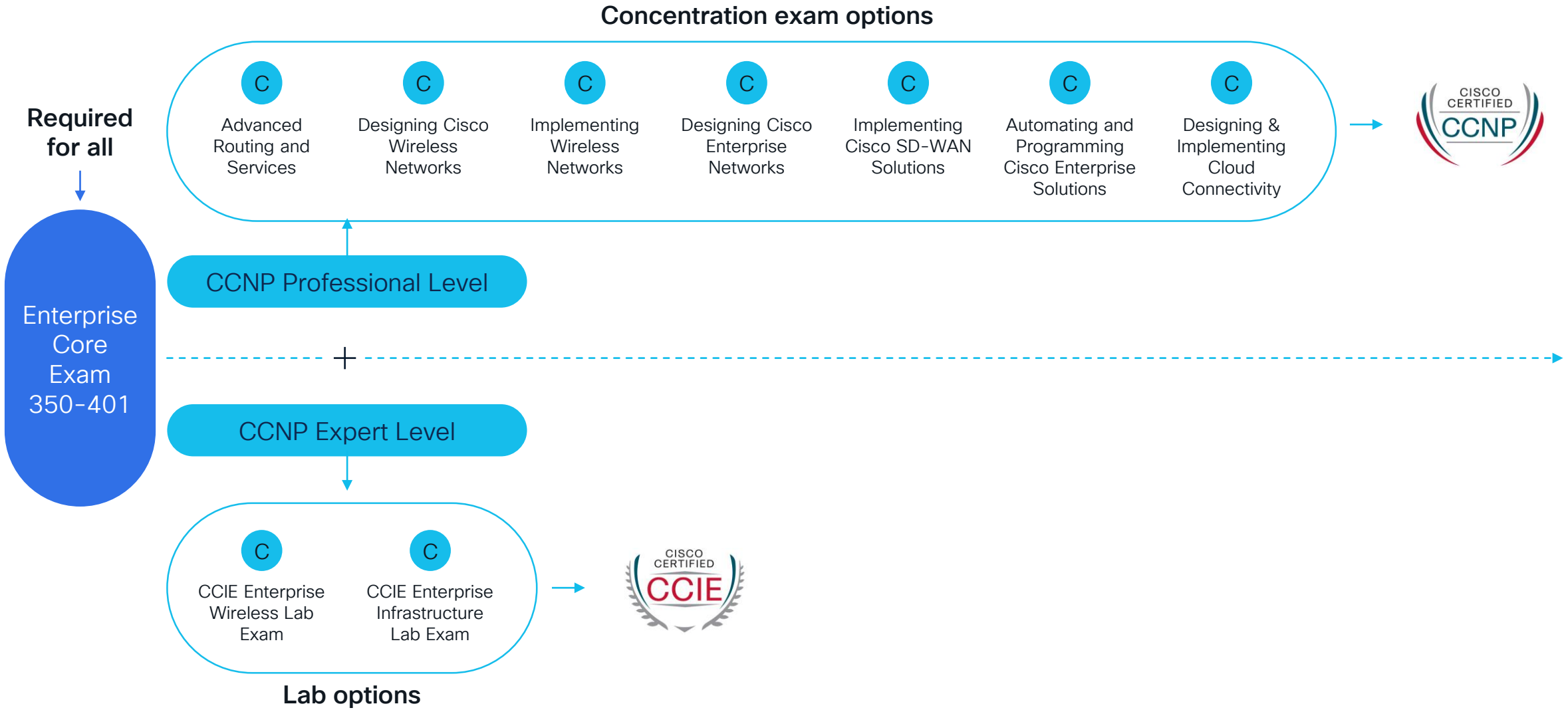
Cisco Certifications are time-honored proof you know what you're doing. Plus, they're ANSI and NIST certified, which means they're industry certs with greater value in the marketplace.

[1] Pearson VUE 2023 Value of IT Certification

Cisco Career Certifications



CCNP = Core + 1 concentration (in any order)



Certification Roadmap

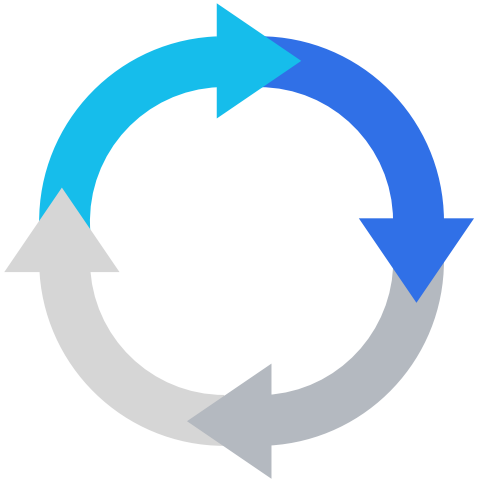
Certification roadmap publishing process

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

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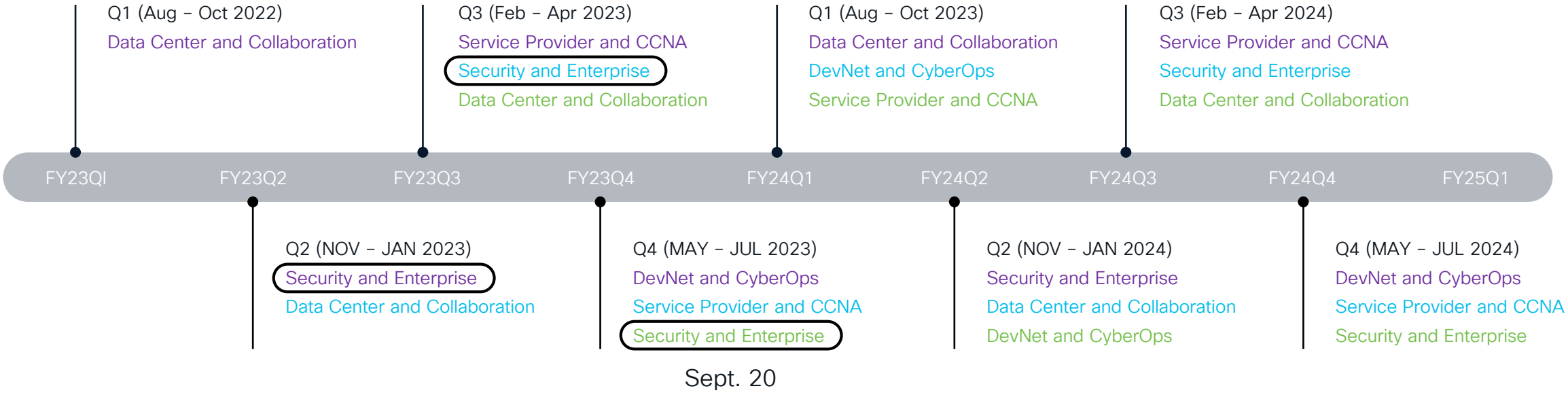


Revision framework

Major revision

(Traditional revision model)

Large revisions

Major changes

Steep learning curve

Wider alignment (Product & Technology)

Minor revision

(Agile revision model)

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

https://learningnetwork.cisco.com/s/cisco-certification-roadmaps

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		
CCNP/CCIE Core Exam Updates			
350-401 ENCOR v1.1		Exam Topics	ENCOR v1.1 Learning Matrix
CCNP Concentration Exam Updates			
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	

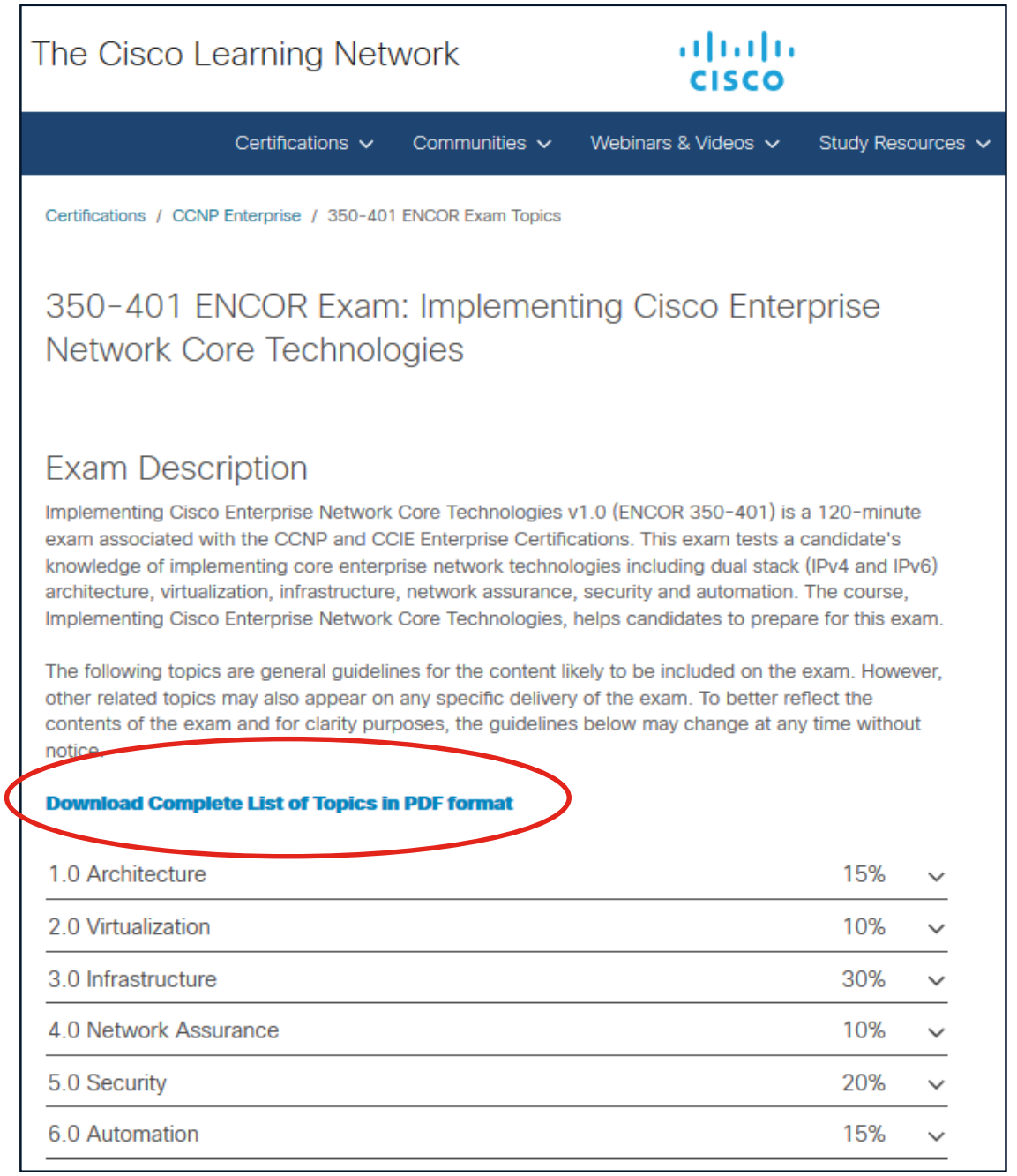
Learning Matrix

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 BRKENS-1500 BRKENS-2030	
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	BRKCOC-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, CA		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

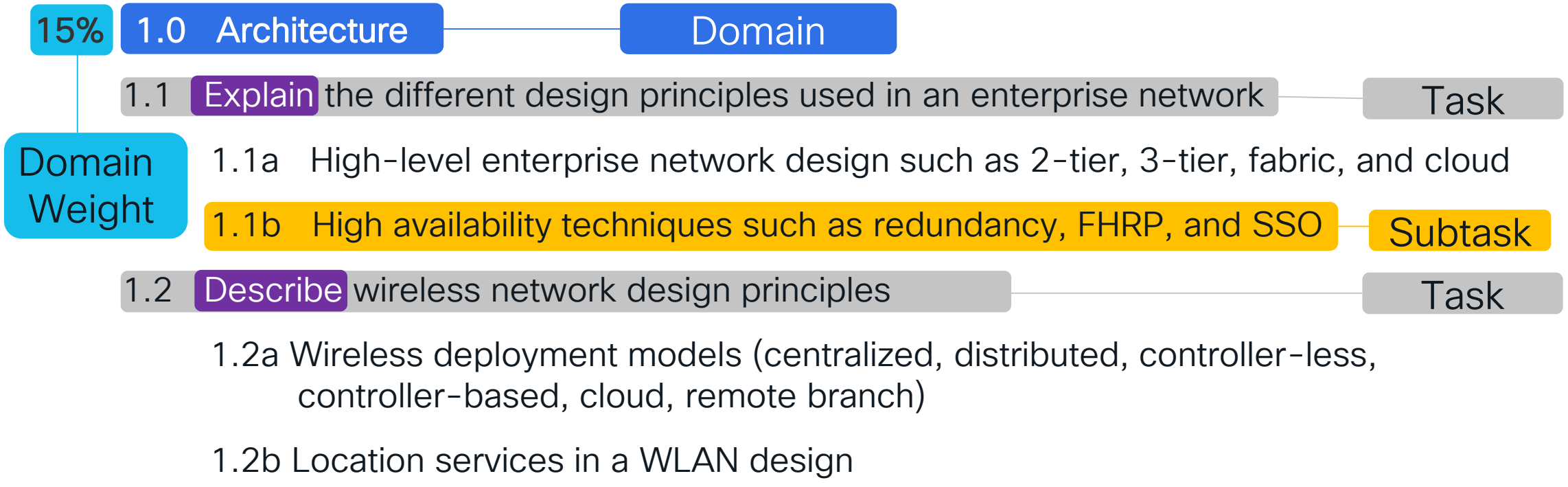
Exam Blueprint

https://learningnetwork.cisco.com

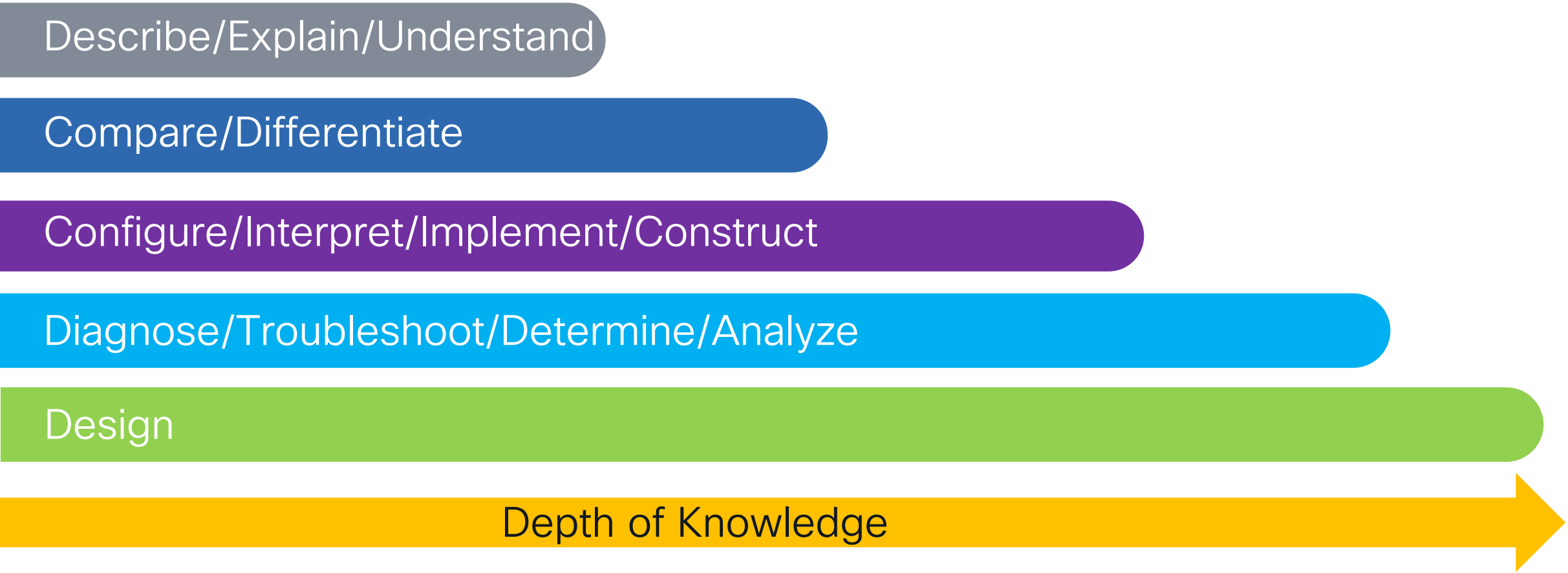


Deciphering the Blueprint:

Implementing Cisco Enterprise Network Core Technologies (350-401)



Blueprint Verbs



Types of questions

Multiple choice

Drag and drop

Labs

Tasks

Domain 1: Architecture

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?

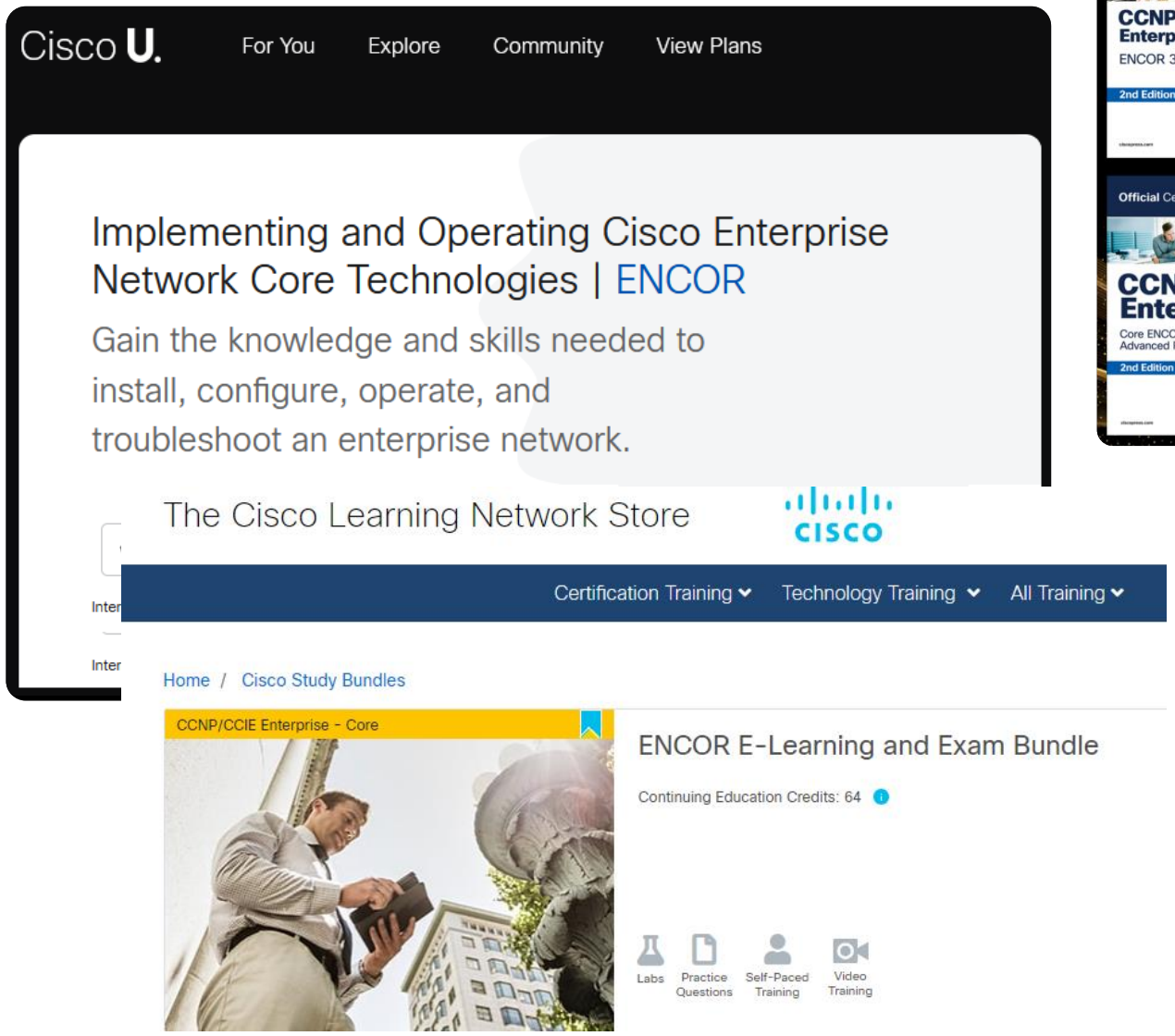
A. centralized

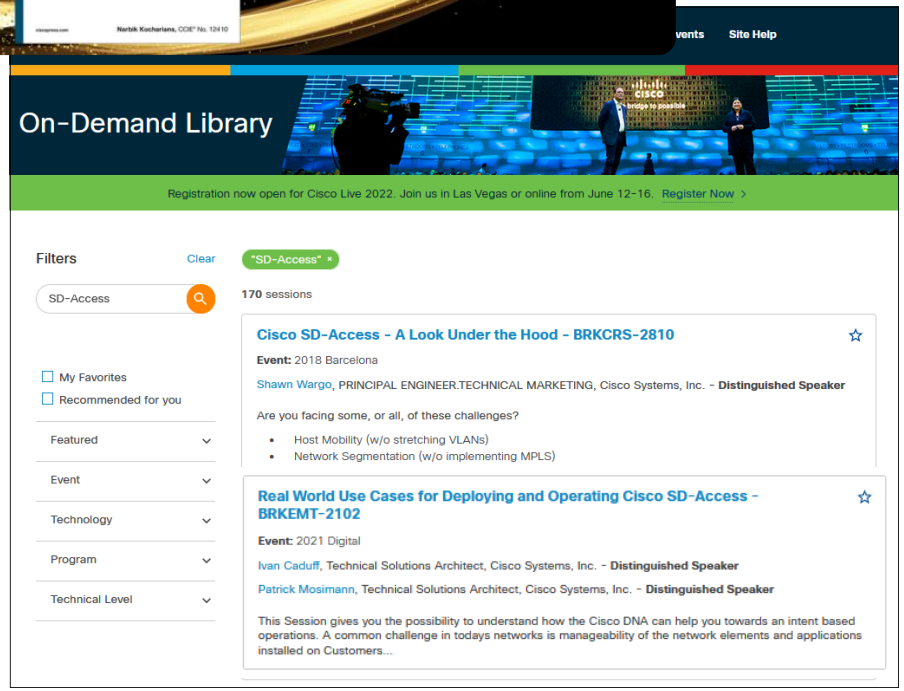
B. distributed

C. controller-less

D. cloud

Study resources





Tasks

Domain 2: Virtualization

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

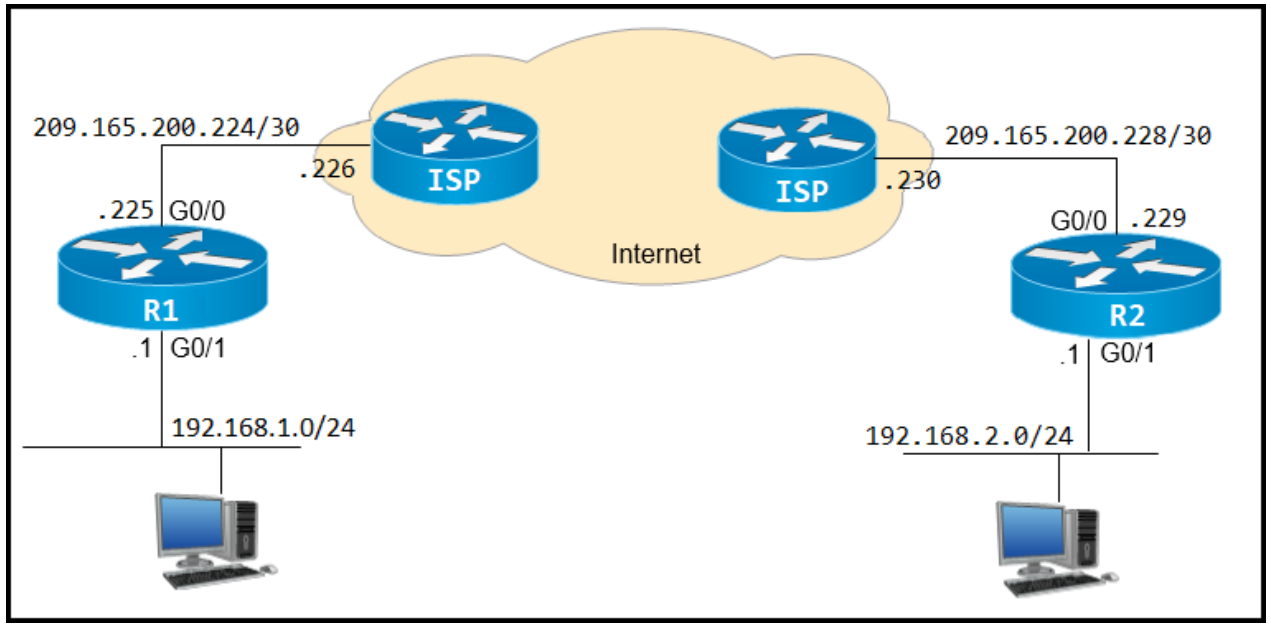
- 2.3.a LISP
- 2.3.b VXLAN

Multiple Choice “Configure”

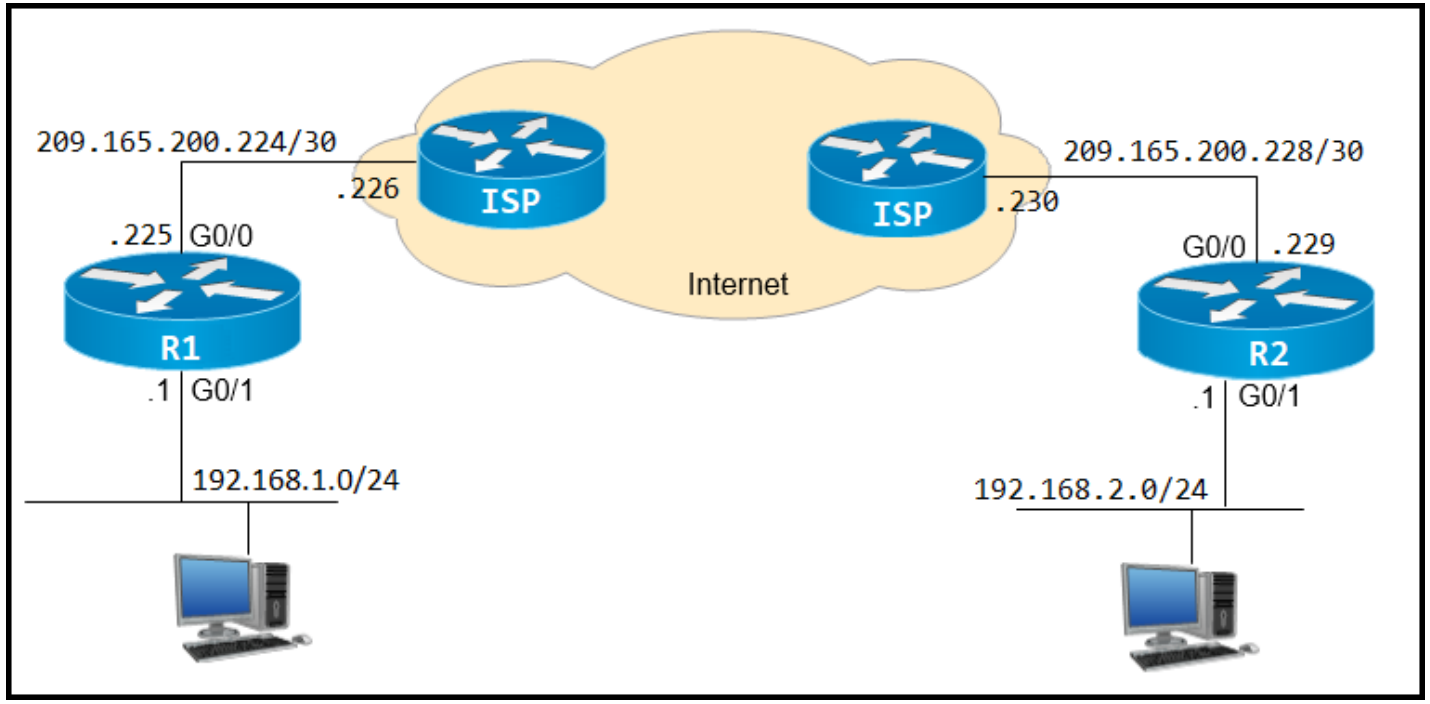
Task → 2.2 Configure and verify data path virtualization technologies

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?



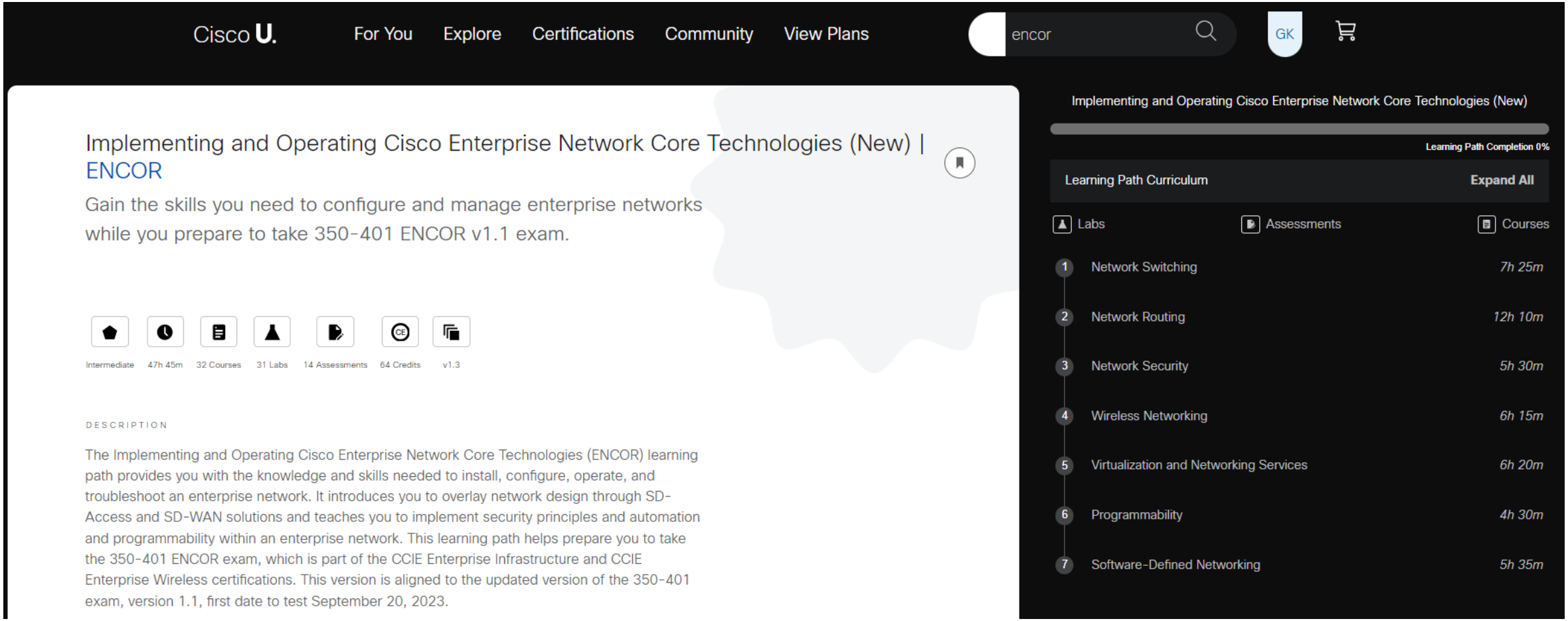
A.
```
interface Tunnel1
 ip address 192.168.5.1 255.255.255.0
 tunnel source GigabitEthernet0/0
 tunnel destination 209.165.200.229
```

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

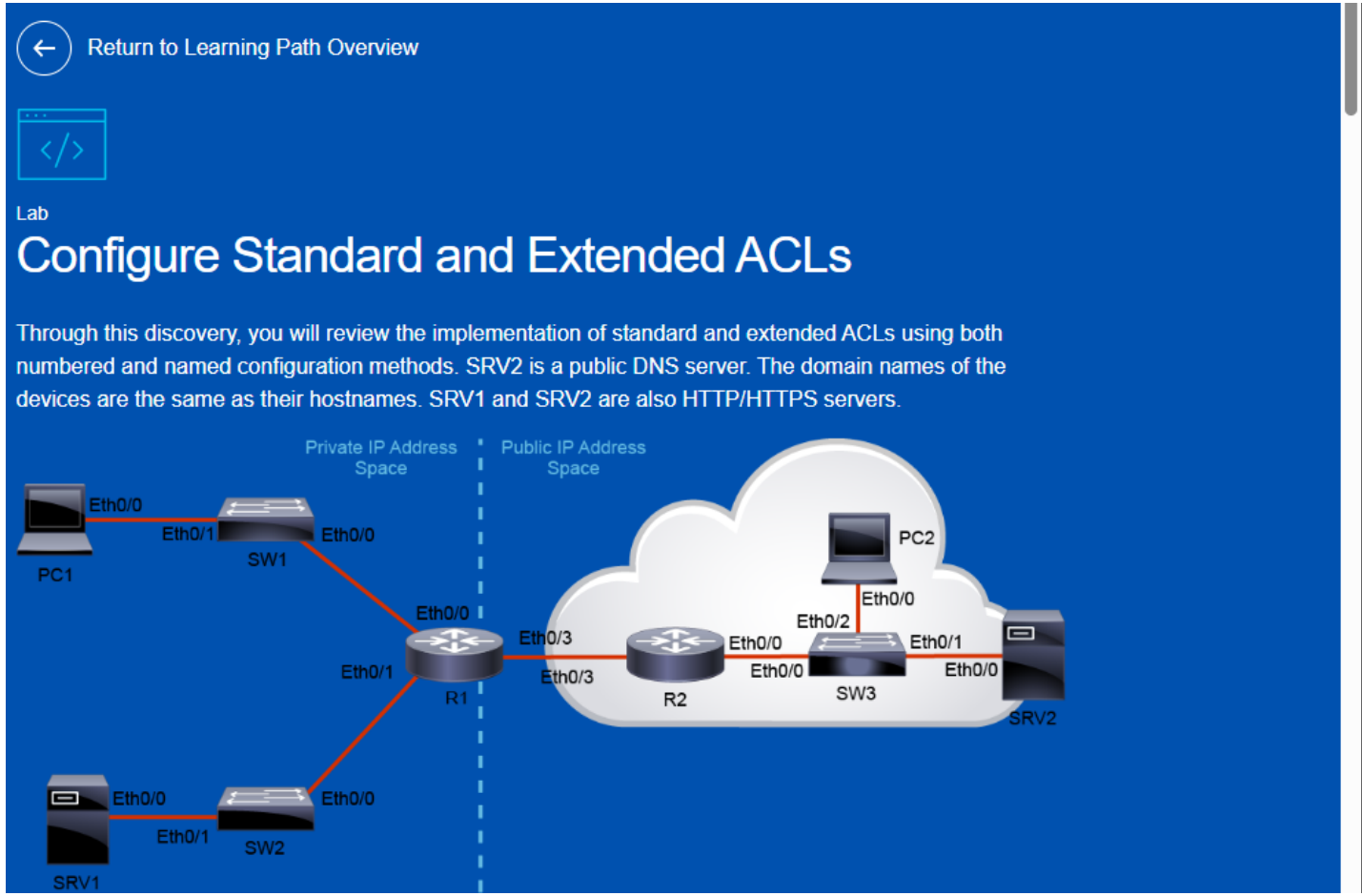
C.
```
interface Tunnel1
 ip address 209.165.200.225 255.255.255.252
 tunnel source GigabitEthernet0/0
 tunnel destination 209.165.200.229
```

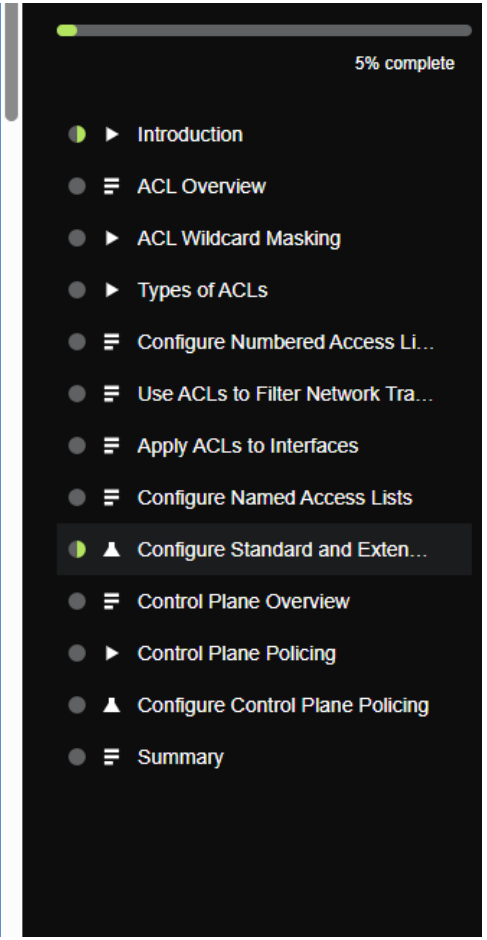
D.
```
interface Tunnel1
 ip address 192.168.1.1 255.255.255.0
 tunnel source GigabitEthernet0/0
 tunnel destination 172.16.1.1
```

Cisco e-Learning (Self Paced Training)



ENCOR

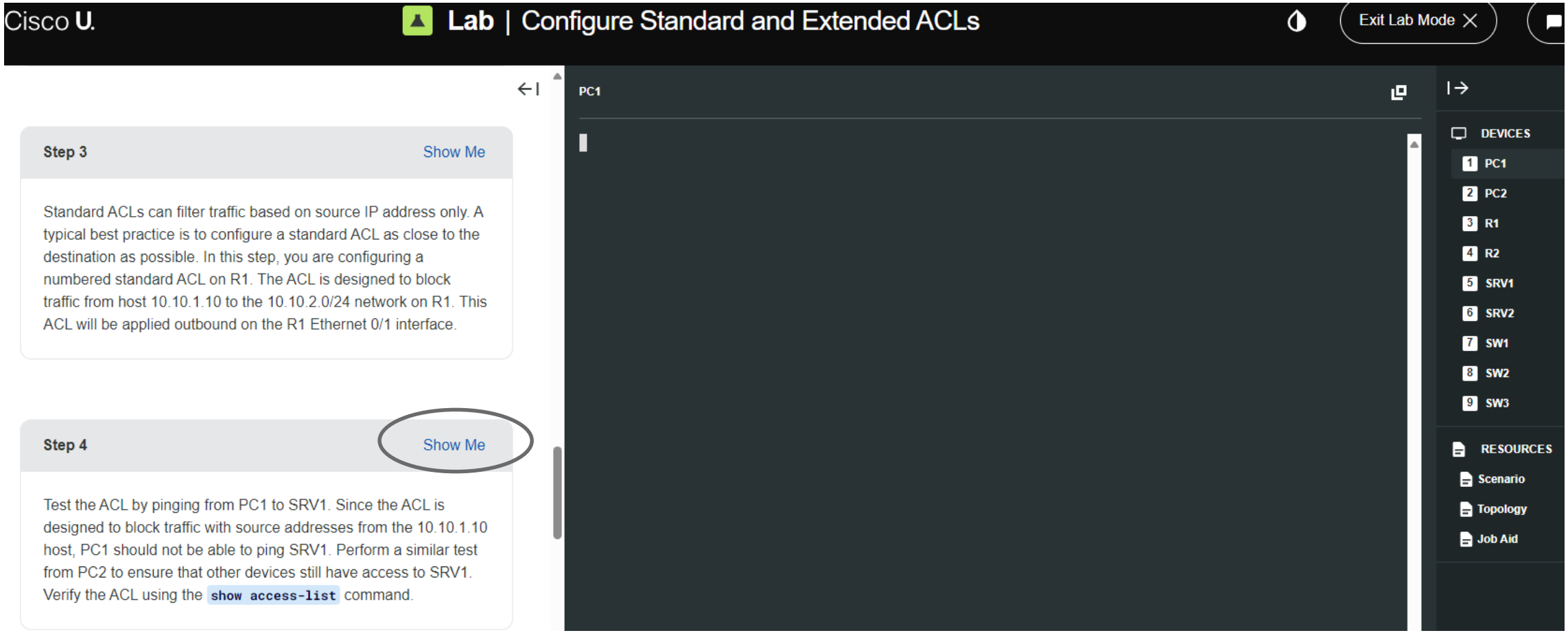




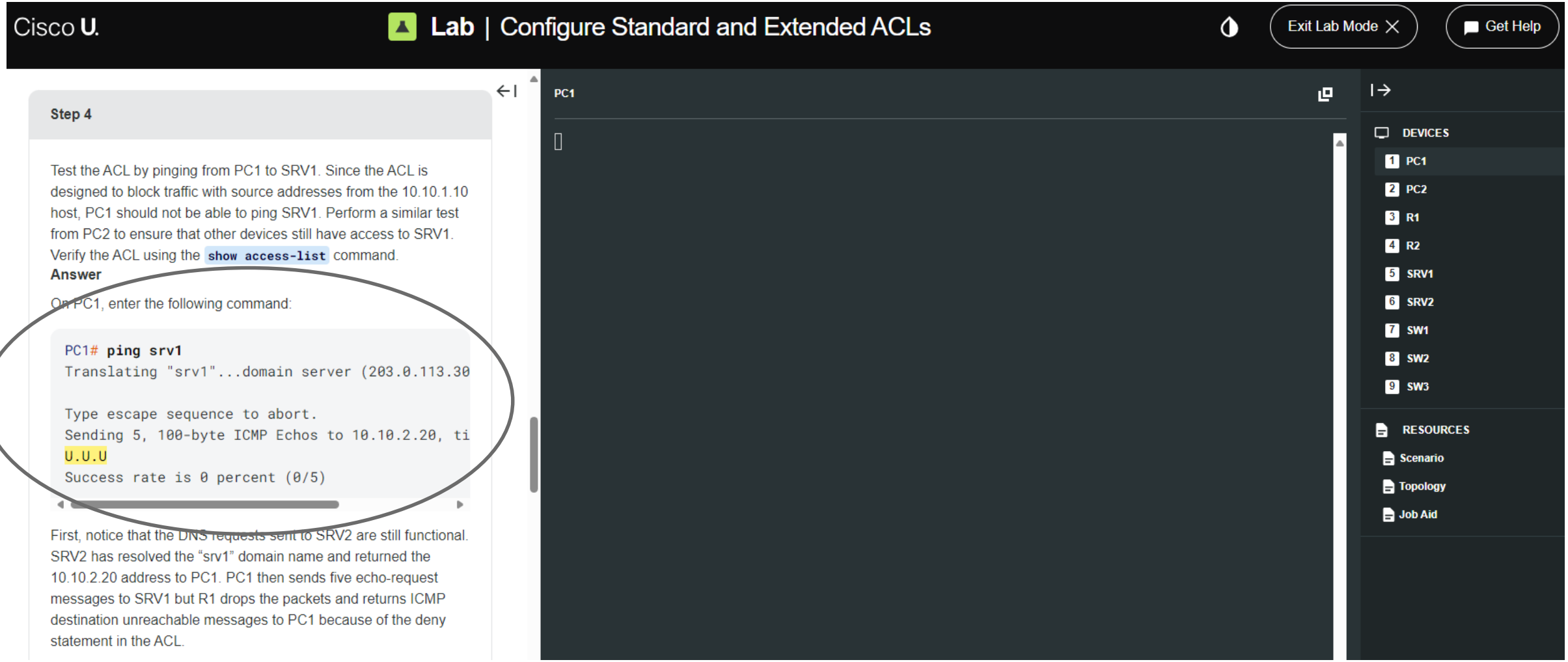
Blueprint structure

Hands-on Labs

Lab help



Lab help



Tasks

Domain 3: Infrastructure

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

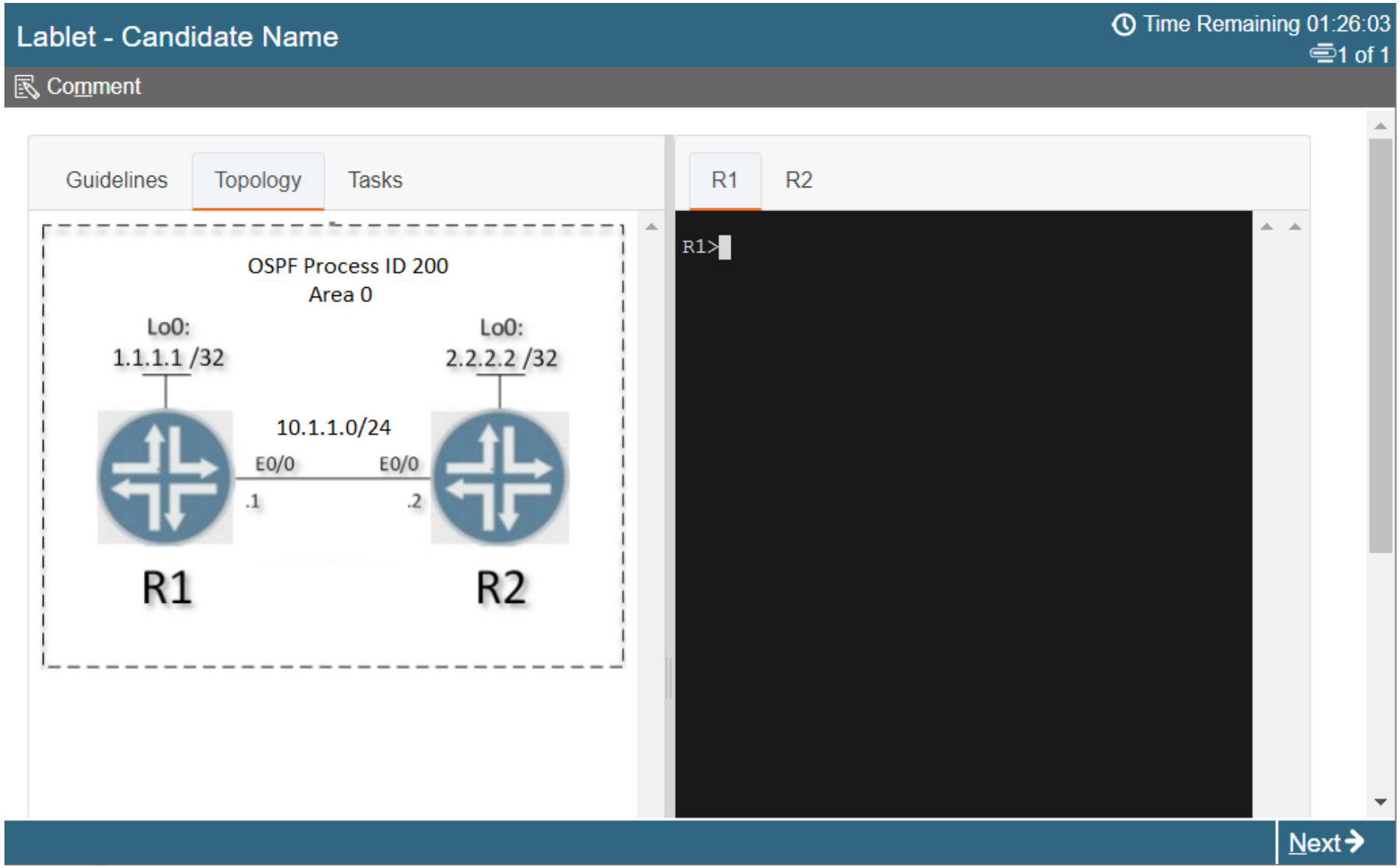
3.2 Layer 3

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

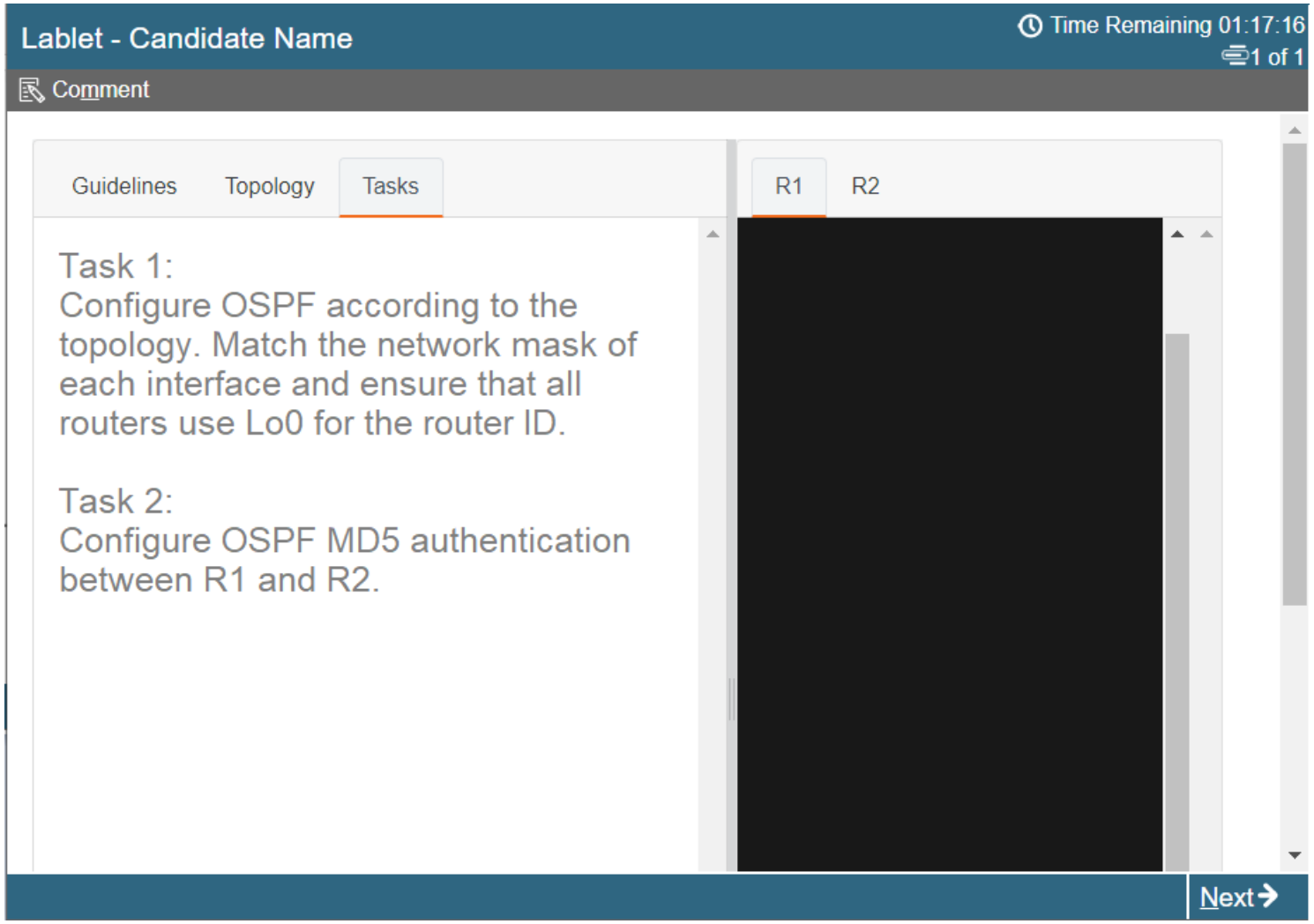


Task

Question

3.2 Layer 3

3.2.b Configure and verify simple OSPF environments

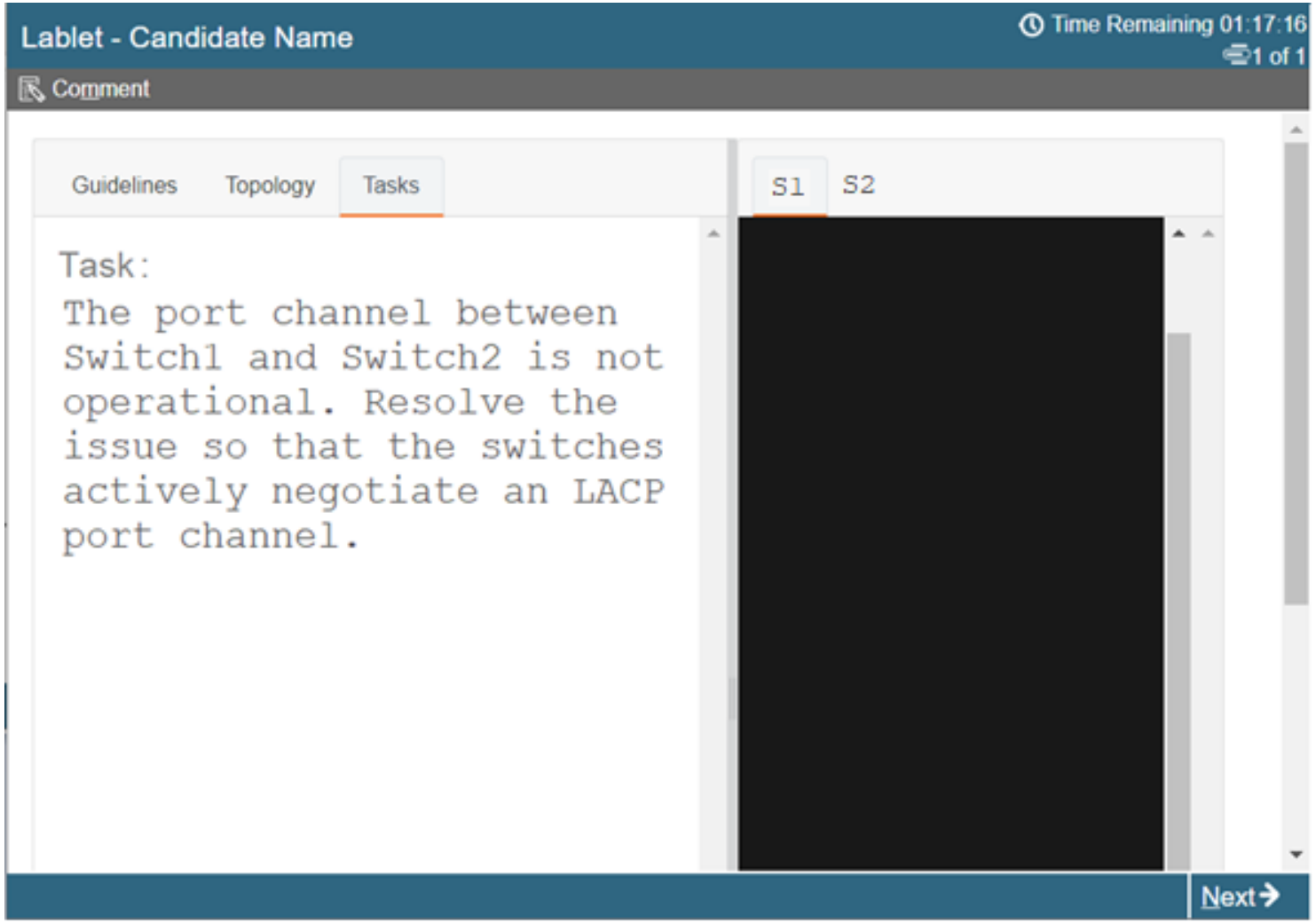


Task

Question

3.1 Layer 2

3.1.b Troubleshoot static and dynamic EtherChannels



Live DEMO

Let’s try a real Lablet

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

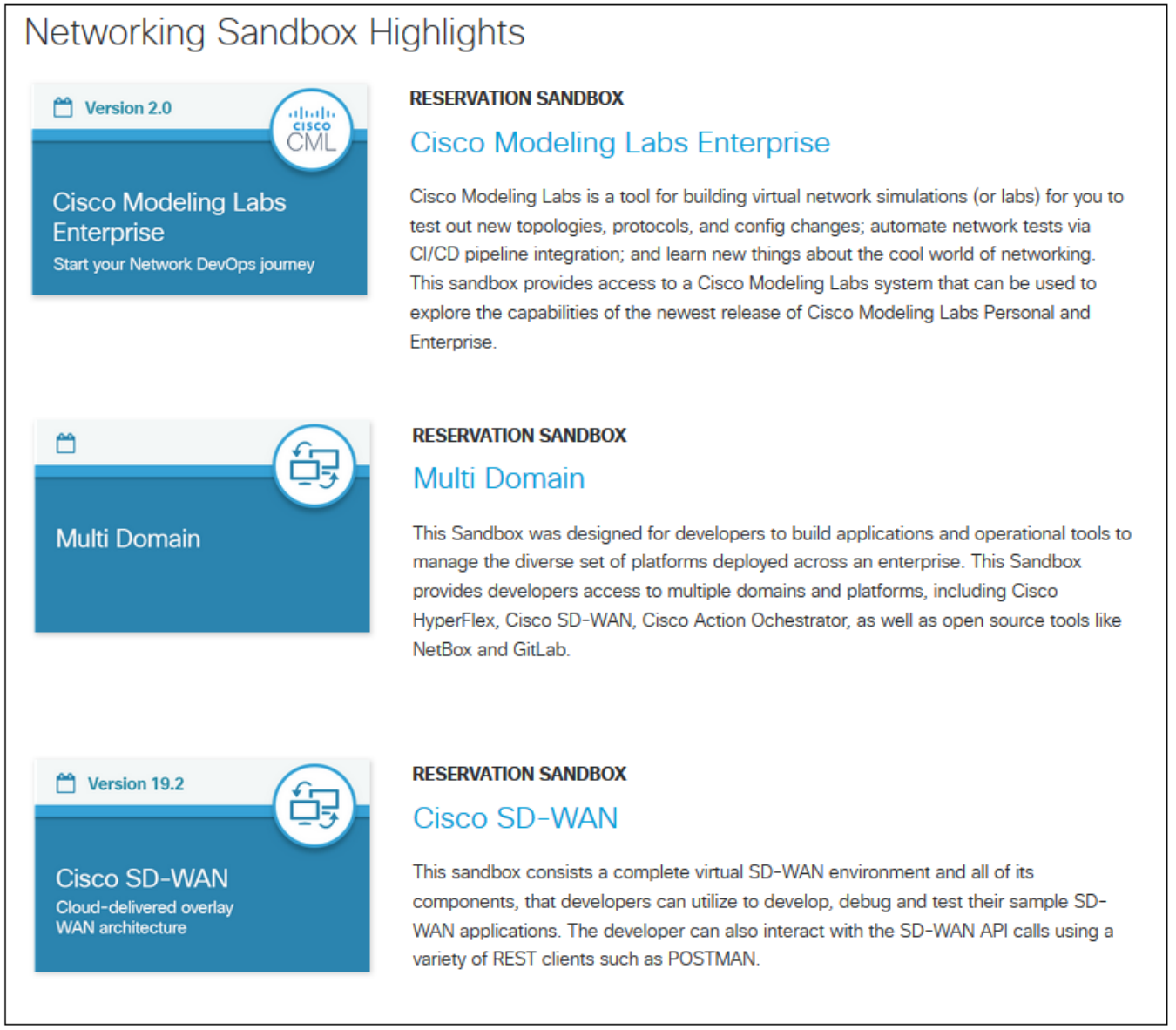
DevNet Sandbox Cisco Modeling Labs Demo

https://developer.cisco.com

ALWAYS-ON

or

RESERVE



Tasks

Domain 4:

Network Assurance

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	Question
4.6 Describe Cisco DNA Center workflows to apply network configuration, monitoring, and management	How does Cisco DNA Center perform a network discovery?

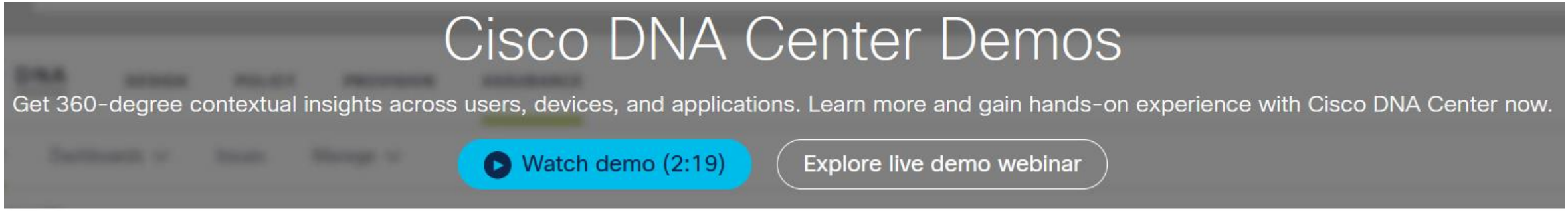
A. Through a network scan

B. Through a DHCP server

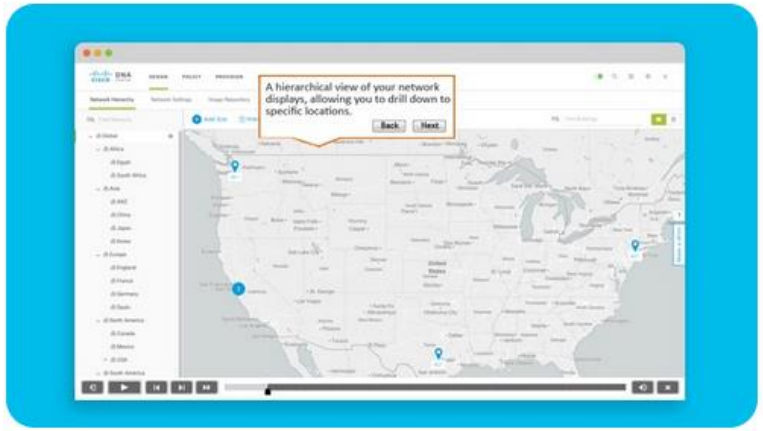
C. Using CDP with a seed address

D. Using SNMP

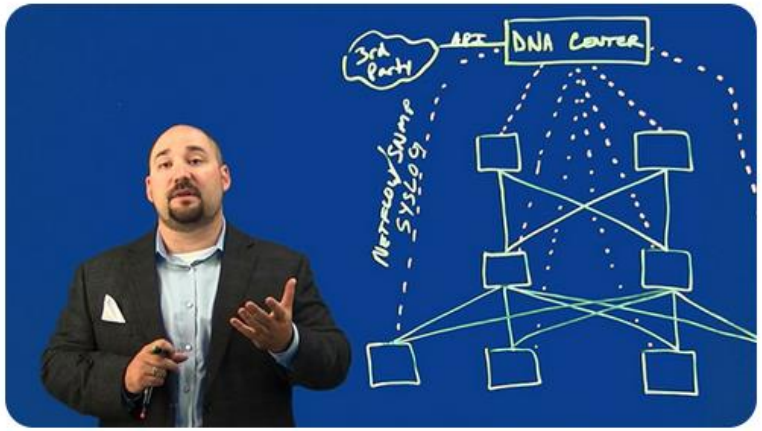
dCloud Cisco DNA Center Demo (dcloud.cisco.com)



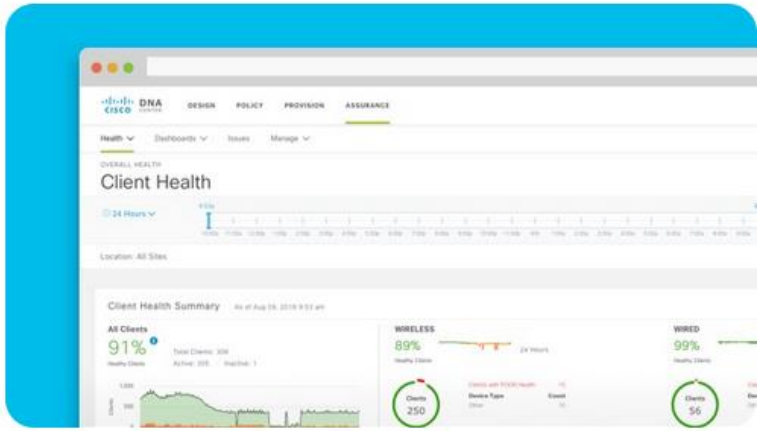
Take demos to the next level



Self-guided demo: Cisco DNA Center



Walk-through: Cisco DNA Center



Live instant demo: Cisco DNA Center

Tasks

Domain 6: Automation

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

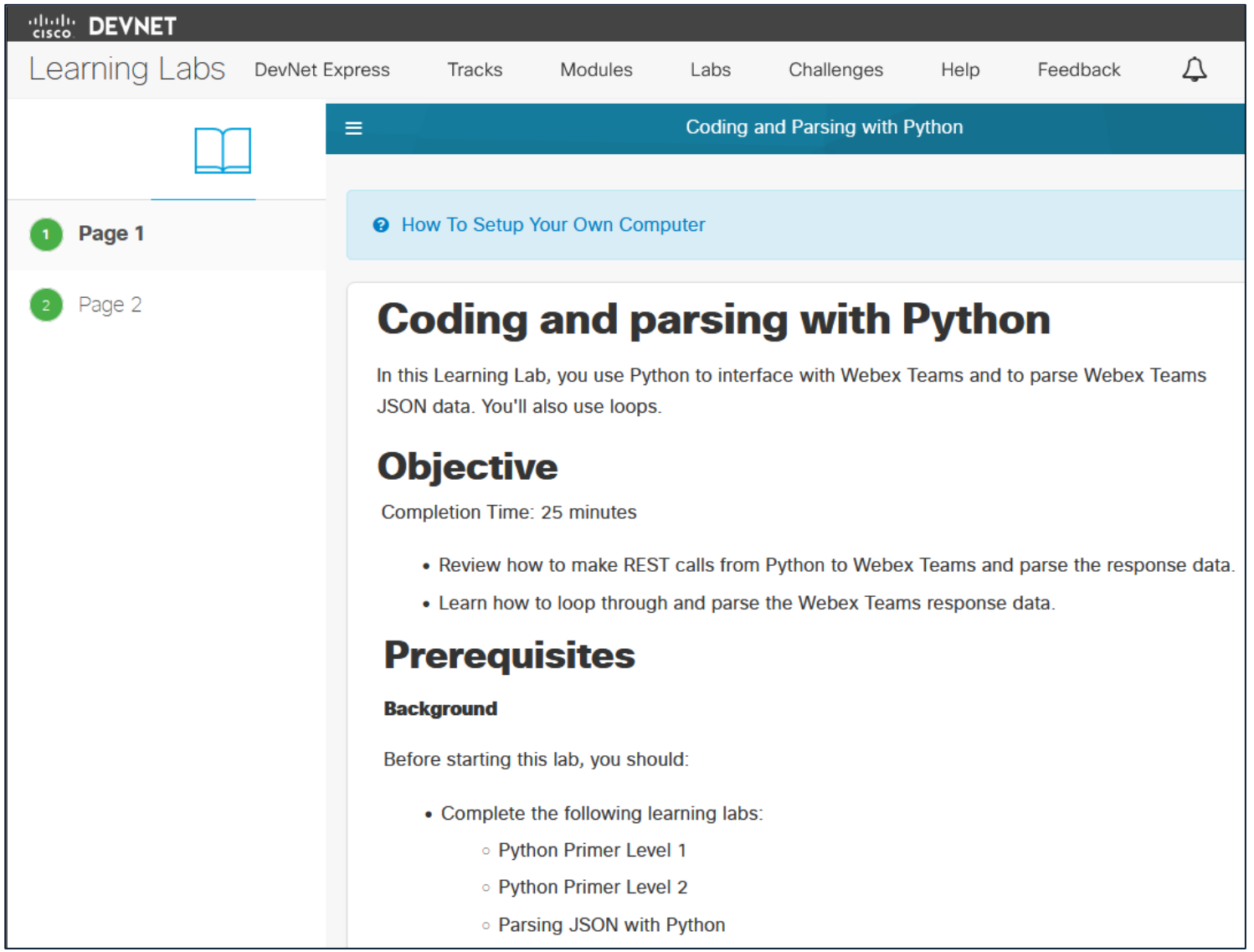
B. json

C. json_string

```
import [          ]

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 = [          ]    (data)

print(  [          ]  )
```

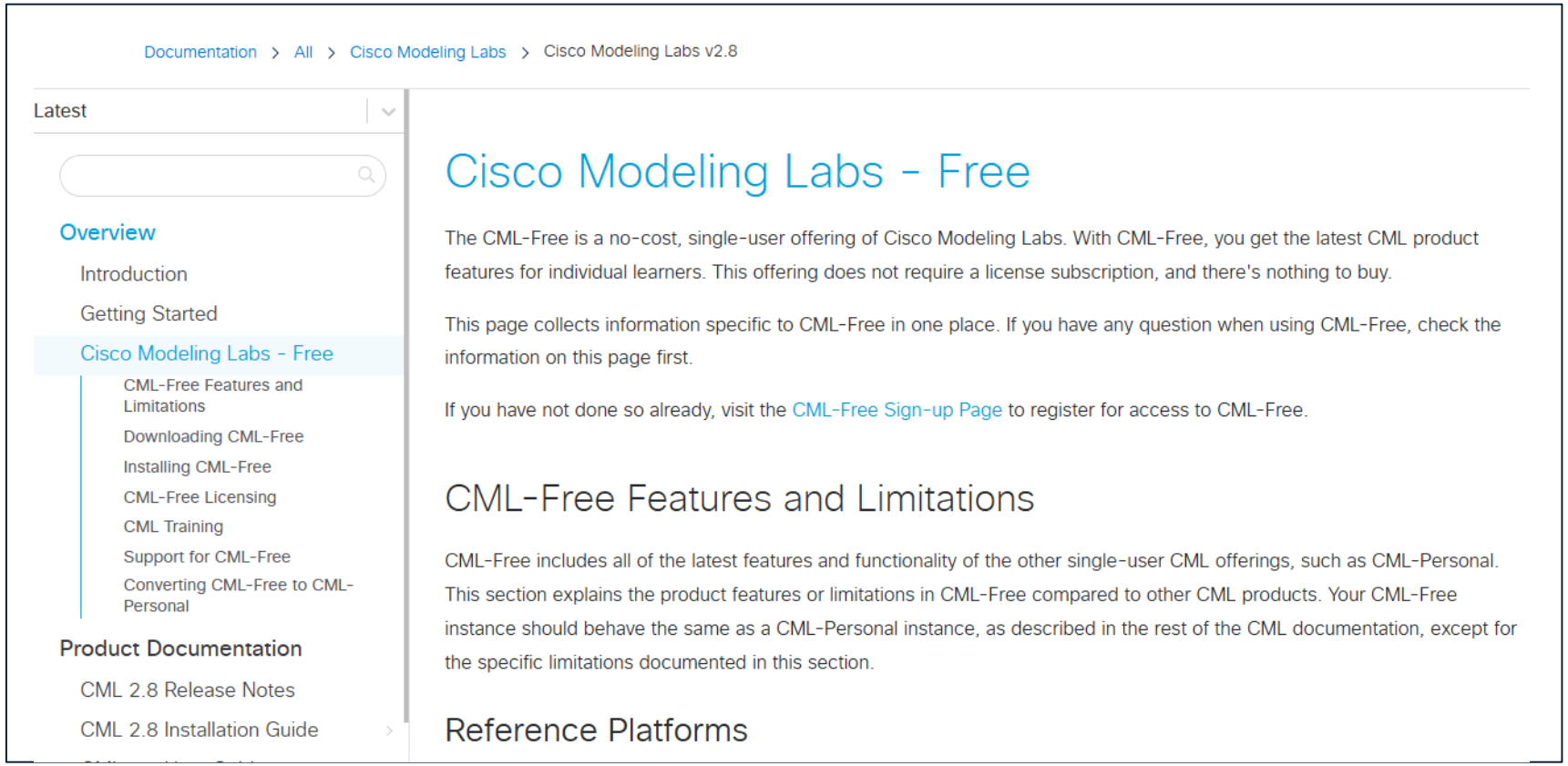
DevNet Learning Labs

https://developer.cisco.com



Cisco Modeling Labs - Free

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



DevNet Video Courses

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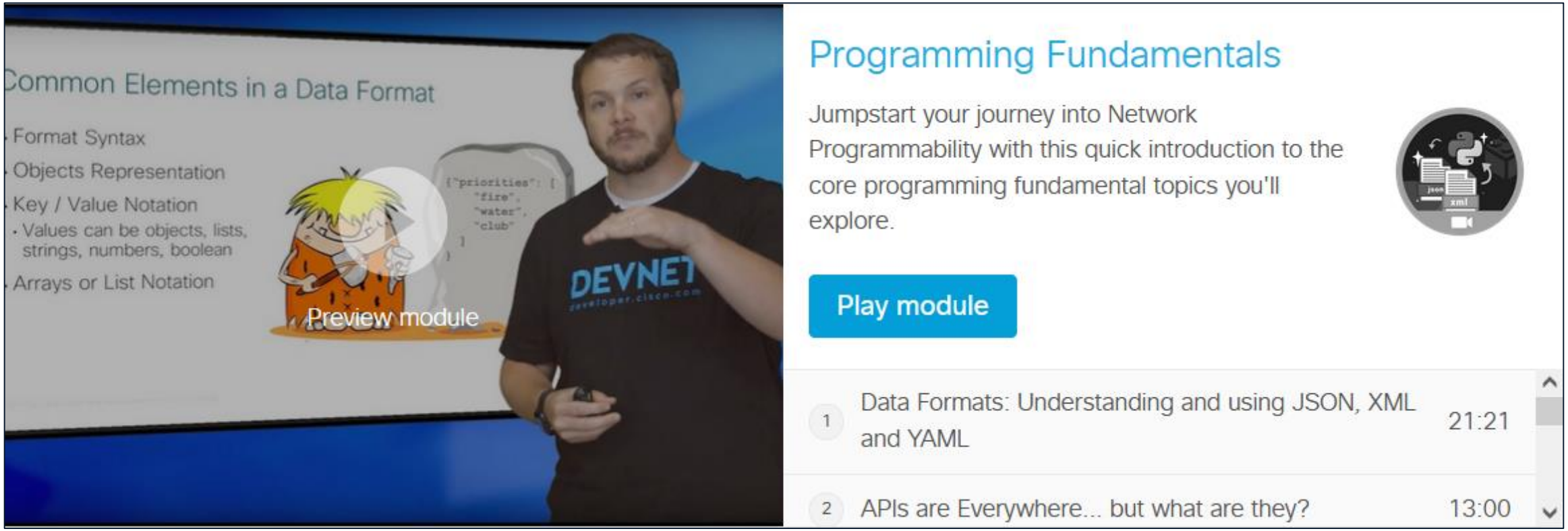
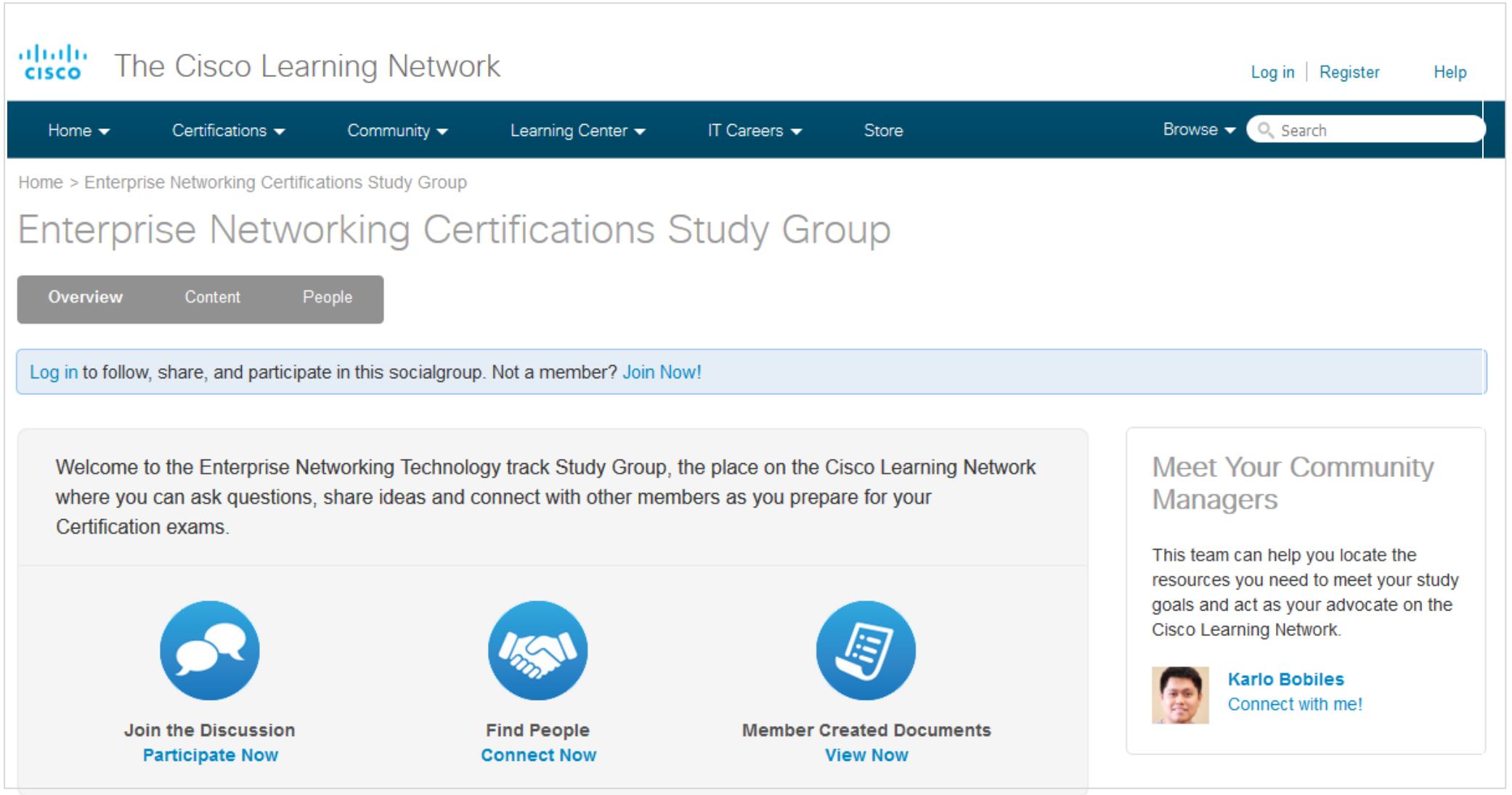


Community – Study groups



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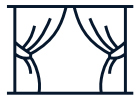

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Q&A

Thank you

cisco Live !


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