

# Program Update

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# Agenda

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Course Portfolio

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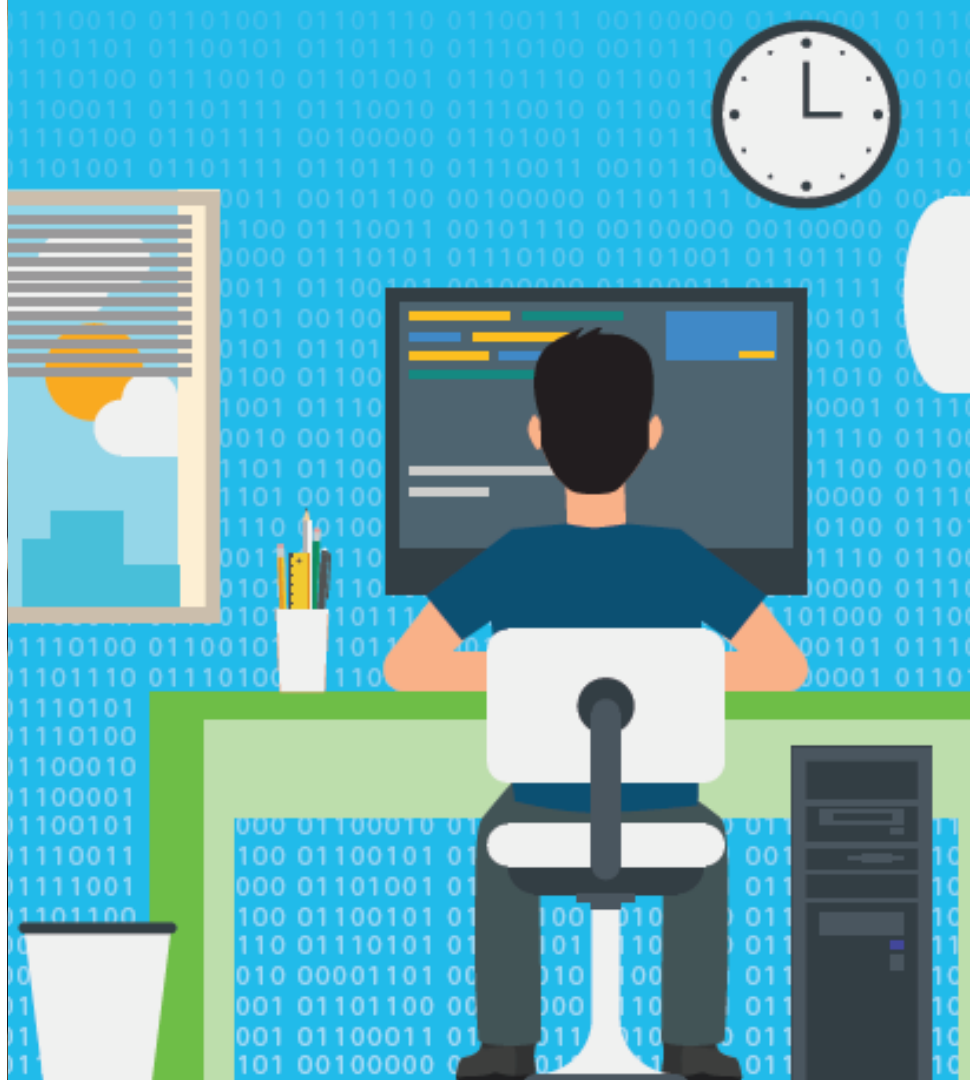
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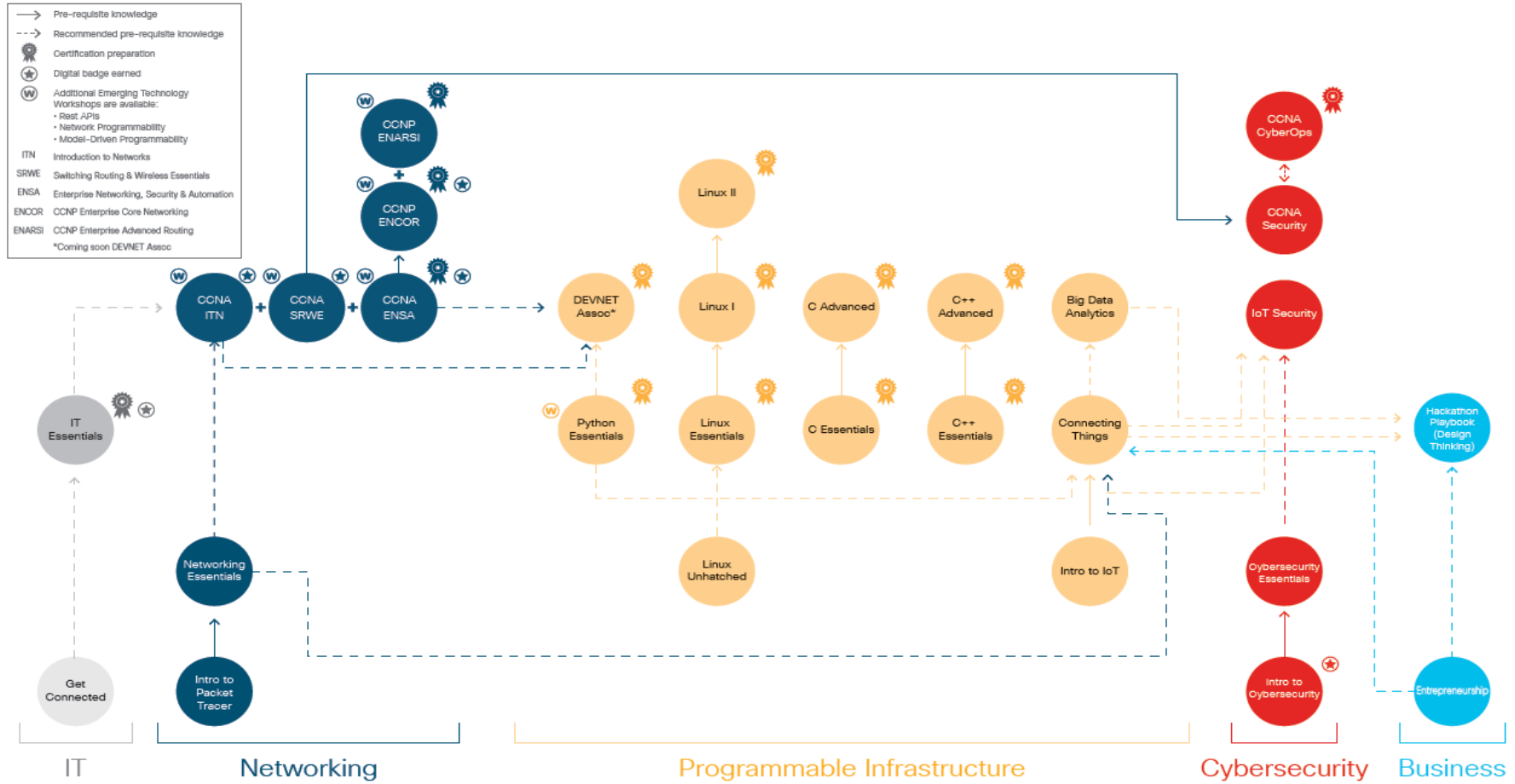
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Packet Tracer Accessibility



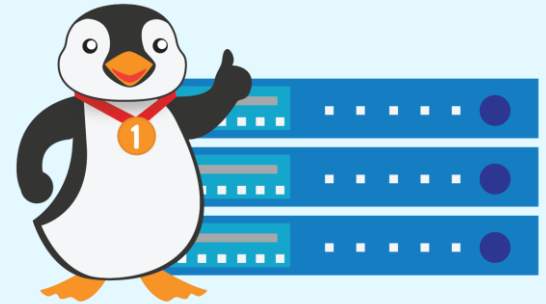
# Cisco Learning & Career Pathways



# Linux Updates

NDG is sponsoring Linux I and Linux II for Cisco Networking Academies for the next sixty (60) days!  
Valid from 1<sup>st</sup> April – 1<sup>st</sup> of June

⚠ This offer is for Instructor-led (ILT) courses only. Self-paced courses and Public campaigns do not qualify for free access.



More info: [https://www.netdevgroup.com/online/content/linux/learn\\_linux\\_free.html](https://www.netdevgroup.com/online/content/linux/learn_linux_free.html)

**Linux Unhatched** v2 is now available in Italian, **German** and Spanish.

Grundlegende Linux-Kenntnisse. Der 8-stündige Kurs behandelt 19 grundlegende Linux-Befehle und schafft damit eine Basis für die Nutzung der Linux-Kommandozeile.

More info: <https://www.it-bildungsnetz.de/aktivitaeten/kursangebote/ndg-linux-unhatched.html>

# IT Essentials 7.1

Release in May 2020

## What's new?

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- Secure Assessments
  - Inclusion of Badging
- 
- Deutsche Übersetzung in der Planung
  - Ziel ist August 2020
  - Validatoren bitte bei Veronika Lietz melden !!!

# Emerging Technologies Workshop

## Model-Driven Programmability

### Workshop Overview

With the increasing size of the modern network and the frequency of changes required by the business, managing and automating networks via a Command Line Interface (CLI) is ineffective and error prone. A new approach, using Model Driven Programmability, enables transactional changes, by defining standardized device models and APIs. This workshop introduces students to device level programmability competencies, to automate configuration and management tasks using standardized YANG device models and using the RESTCONF and NETCONF device level APIs.

### Benefits

Every networking student will benefit in grasping the importance of YANG, as language to “model” a networking device, combined with the robustness of the RESTCONF and NETCONF device level programmability APIs. Students will also experiment and develop Python scripts to manage networking devices at scale, using the Model Driven Programmability approach.

### Learning Outcomes

- Understand the value, set-up and use of software concepts and tools relevant to network programmability (Python scripting, Git, JSON, Postman, APIs).
- Describe a different approach to software-defined networking (SDN), including central application policy control.
- Use Python with combination of RESTCONF and NETCONF APIs to retrieve and update the device's configuration
- Understand the value of joining professional communities of practice to working in the network programmability domain. Participate in Cisco DevNet, GitHub, and Stack Overflow.

Badge is  
coming in  
May

New!  
GA!



### Features

**Target Audience:** Vocational, 2-year and 4-year College, 4-year University students

**Prerequisites:** Basic programming, CCNA: SRWE level networking skills

**Languages:** English

**Course Delivery:** Instructor-led

**Equipment:** Virtual Cisco SW Router, DevNet Sandbox, or Real Equipment with Cisco ISR4k routers

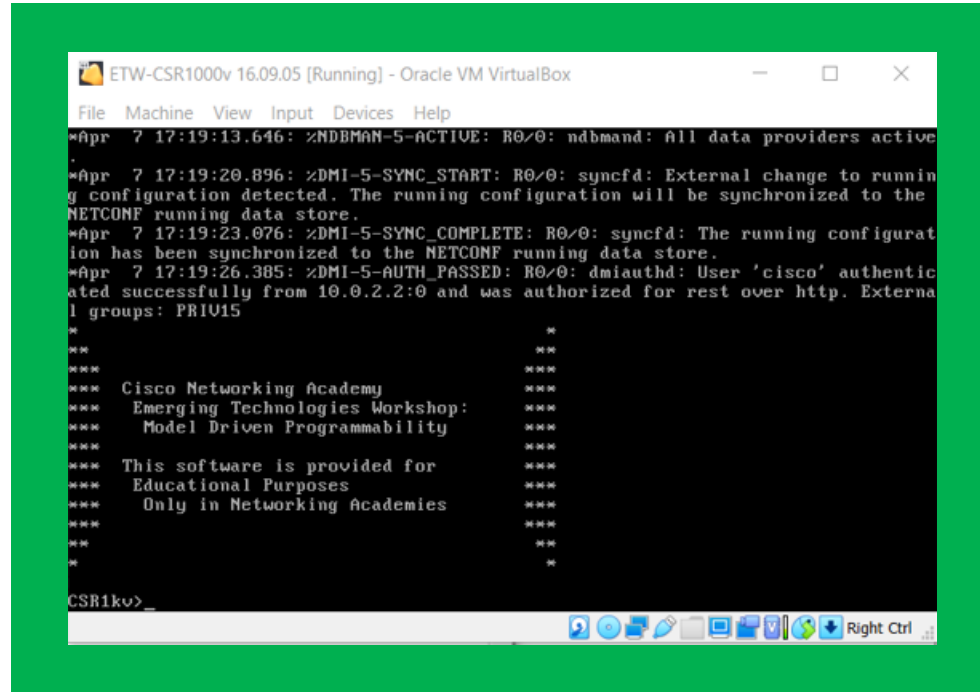
**Estimated Time to Complete:** 8 hours

**Recommended Insertion Points:** After CCNA: SRWE, with CCNA Security or CCNP ENCOR

**Instructor Training:** Required, self-paced option available

# ETW: MDP Flexible Equipment Options

Real-world  
Cisco Router  
with IOS-XE  
Running on  
Student's PC



```
ETW-CSR1000v 16.09.05 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
*Apr 7 17:19:13.646: %NDBMAN-5-ACTIVE: R0/0: ndbmand: All data providers active
.
*Apr 7 17:19:20.896: %DMI-5-SYNC_START: R0/0: syncfd: External change to running
configuration detected. The running configuration will be synchronized to the
NETCONF running data store.
*Apr 7 17:19:23.076: %DMI-5-SYNC_COMPLETE: R0/0: syncfd: The running configurat
ion has been synchronized to the NETCONF running data store.
*Apr 7 17:19:26.385: %DMI-5-AUTH_PASSED: R0/0: dmiauthd: User 'cisco' authentic
ated successfully from 10.0.2.2:0 and was authorized for rest over http. Externa
l groups: PRIU15
*
**
**
**
** Cisco Networking Academy **
** Emerging Technologies Workshop: **
** Model Driven Programmability **
**
** This software is provided for **
** Educational Purposes **
** Only in Networking Academics **
**
**
**
**
CSR1kv>_
```

# NetAcad Digital Badges





# Two Types of Networking Academy Digital Badges

## For Course Completion

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- Achieve minimum qualification score on first attempt of final exam **(70% or more)**
- Complete end of course survey
- Marked Pass/Completed by instructor

## For Recognition

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- 1, 5, 10, 15 and 20 years of active instructor
- Multiply for Growth program
- Learn-A-Thons

# Release Scope

## For Course Completion

- CCNA: Introduction to Networks
- CCNA: Switching, Routing and Wireless Essentials
- CCNA: Enterprise Network, Security and Automation
- CCNP Core Networking
- Introduction to Cybersecurity



## For Recognition

- 1, 5, 10, 15 and 20 years of active instructor
- Multiply for Growth program
- Learn-A-Thons



# Earning & Accepting a Networking Academy Badge

Step 1

Complete the criteria required to earn the badge

Step 2

Receive an email from Acclaim with instructions

Step 3

Accept your badge on Acclaim, it's free for life!

Step 4

Share your badge on resume and social media

# Information

acclaim  
by Credly



This badge was issued to [ALAN MURRAY JR.](#) on 1 February 2019.  
Expires on 15 February 2022

Verify



[Additional  
Details](#)

## CCNA: Switching, Routing, and Wireless Essentials

Issued by [Cisco](#)

Cisco verifies the earner of this badge successfully completed the Switching, Routing, and Wireless Essentials course and achieved this student level credential. Has a foundation in switching operations, wired and wireless LAN configuration using security best practices, redundancy protocols, and developed problem-solving skills. Earner participated in up to 45 practice activities and accumulated up to 21 hours of hands-on labs using Cisco hardware and/or the Cisco Packet Tracer simulation tool.

### Skills

Access Connectivity

Access Security

First-hop Redundancy

High Availability

IP Services

Routing

Switching Protocols

Wireless LAN Controllers

### Earning Criteria

- ☑ Passing grade from Networking Academy instructor
- ☑ Passing score on final exam.

← Recipient

← Badge Name

← Issuer

← Description

← Skills/Knowledge

← Criteria

# FY20 NetAcad Badge Availability - Target

Apr

May\*

Jun\*

July\*

## Courses

- CCNA: ITN
- CCNA: SWRE
- CCNA: ENSA
- CCNP Core Networking
- Introduction to Cybersecurity

- IT Essentials
- CCNP Advance Routing
- Cybersecurity Essentials
- I2IoT
- I2PT
- Networking Essentials
- ETW: Model Driven Programmability

- ETW: Network Programmability
- ETW: Experimenting with REST APIs
- IoTF CT
- IoTF BD&A
- IoTF Security

- DevNet Associate
- CyberOps Associate
- Network Security \*

## Recognition

- Multiply for Growth
- Learn-A-Thons
- Years of Service

\* Planned

# CCNA Updates



# CCNA v7 Downloadable - Policy

## *From CCNAv7 FAQ..*

**Q22.** *Is there an option to download CCNA v7 course content to be used offline?*

**A:** *The general policy regarding course delivery is described in the NetAcad Membership Guide (Section 2.2) Academies must ensure that **all students taking the class are enrolled in the Cisco NetAcad.com learning platform and use the Networking Academy materials including assessments.** NetAcad courses are designed to be delivered using the NetAcad.com platform in order to provide an effective and **optimal learning experience** for students as well as to **protect Cisco's intellectual property** contained within these courses. For business cases that cannot comply with this policy and require exception, we will provide a link to an Offline Content Request form that will be available in Jan 2020 and can be used to submit details regarding the need for offline content. If approved, you will be notified with information regarding how to obtain access to the offline content.*

# CCNA v7 Downloadable - Intended Use Cases

- Primary use cases - No student access to NetAcad.com (e.g. prisons and restricted military environments)
- Not intended for low bandwidth use cases (scalable solution in-work)
- Executable file hosted on end devices (Windows, Mac, Linux)
- Application will be linked to each device (not transferable)
- Limitations of no student access:
  - Does not include Final or Module Group exams
  - Unable to earn Certificate of Completion, Letter of Merit or Digital Credential
- CCNA v7 Downloadable Request Form available
- Submit requests to: <http://cs.co/90011eGtR>



# CCNA & CCNA Cyber Ops Exam Pricing

As of Feb 24, 2020

Cisco is moving to a Country Pricing Model for select exams

- Exam pricing will be based on the Country in which you sit for the certification exam
  - Countries in Group 1 - \$300 (Germany in that group, 264,- €)
  - Countries in Group 2 - \$255
  - Countries in Group 3 - \$195
- Qualifying Networking Academy Participates will still receive discounts
  - Students** with NetAcad discount will pay ~\$125 in all Country Groups
  - Instructors** with NetAcad discount will pay ~\$90 in all Country Groups
  - Instructor Trainers** with NetAcad discount will pay ~\$65 in all Country Groups
- To learn more about Certification Pricing and Costs per Country please visit:  
<http://www.vue.com/vouchers/pricelist/cisco.asp#prices>

# Discount voucher for 200-301 Cisco® Certified Network Associate (CCNA®) exam

- CCNA Certification with discount voucher: **\$50USD.**
- For the first 3000 Instructors and Instructor Trainers who complete CCNA 7.0 ENSA Instructor Training and meet discount qualifications before August 31, 2020.
- Promotion starts Feb 24, 2020.

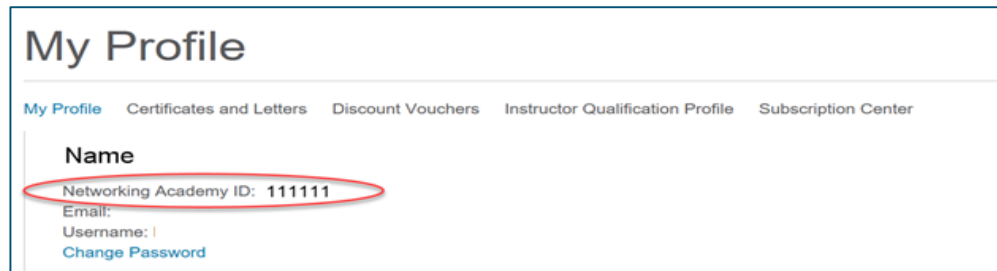


**Promotion discounts will follow normal voucher process**

# CCENT (ICND1 100-105)

## Extended for Networking Academy Students & Instructors only

- Last Day to test for Networking Academy **July 31, 2020**
- Exam Name and Number will change  
**100-110 INVITATION ONLY - CCENT, Interconnecting Cisco Networking Devices**
- Networking Academy Course discounts for qualifying students and instructors will follow normal expiration dates (valid for six months and must be requested in the first three months) All CCENT Vouchers expire by July 31, 2020
- Networking Academy Course discounts will stop being issued on July 10, 2020



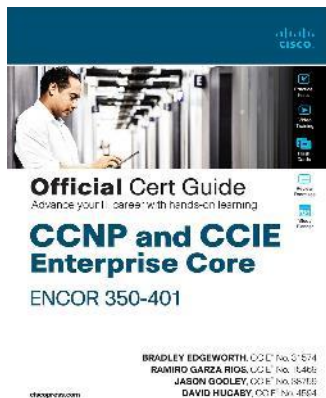
# CCNP Enterprise Updates

Core Networking (ENCOR)  
Advanced Routing (ENARSI)



# CCNP Enterprise - Course Content

Both courses require the Cisco Press Official Cert Guide as student textbook

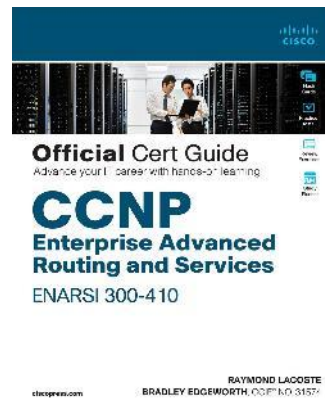


**Certification Guide**  
Available in book and e-Book formats

## Book

ISBN-10: 1-58714-523-5

ISBN-13: 978-1-58714-523-0



**Certification Guide**  
Available in book and e-Book formats

## Book

ISBN-10: 1-58714-525-1

ISBN-13: 978-1-58714-525-4

# CCNP Enterprise: Core Networking (ENCOR) Leveraged and Key New Topics

## Leveraged course material

ROUTE

SWITCH

TSHOOT

CCNA  
Security

CCNA  
R&S v6

CCNP  
Enterprise:  
Core  
Networking  
(ENCOR)

## Key new topics

- Wireless (RF, infrastructure, roaming, authenticating, troubleshooting)
- Multicast (concepts, protocols)
- Fabric technologies (SD-Access, SD-WAN)
- Overlay tunnels (IPSec, VXLAN, LISP)
- QoS (mechanisms, applications)
- Security (network access control, threat defense, endpoint and infrastructure security)
- Programmability concepts (APIs, data models, DevNet, GitHub, Python basics)
- Virtualization concepts (NFV, VMs, virtual switching)
- Automation tools (Embedded Event Manager, Agent and Agentless tools)

# CCNP Enterprise: Advanced Routing (ENARSI) Leveraged and Key New Topics

## Leveraged course material

ROUTE

TSHOOT

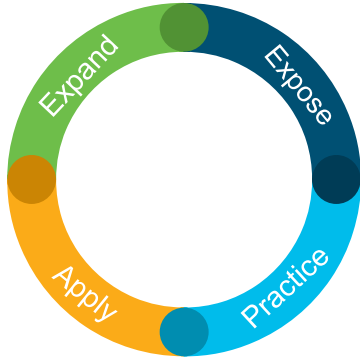
CCNA  
Security



## Key new topics

- MPLS Layer 3 VPNs
- Dynamic Multipoint VPN
- DMVPN security
- Advanced BGP
- Troubleshooting IPv6 ACLs
- Flexible Netflow
- Troubleshooting CoPP
- IPv6 First Hop Security
- Cisco DNA Center Assurance

# Enhanced Course Design



## Learning Effectiveness

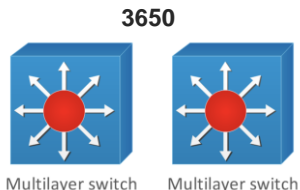
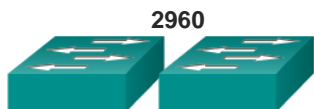
- ✓ Designed for skills progression
- ✓ Better student engagement
- ✓ Improved user experience
- ✓ Build hands-on skills

- **New!** Quizzes, chapter-group exams, and secure final exam
- **New!** Videos for topics not covered in labs
- **New!** Labs, assessments and videos embedded within new UI for improved student experience
- **New!** Virtual Machine lab to practice network programmability
- **New!** Optional Packet Tracer activities for further skill-building and practice



# CCNP Enterprise 8.0 – Lab Equipment

## CCNP R&S 7



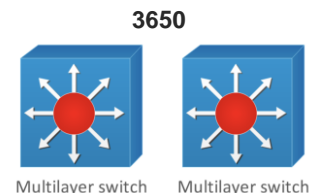
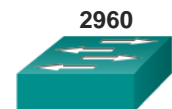
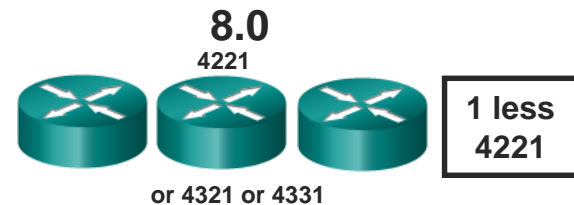
## For CCNP Enterprise 8.0:

- NIM-2T Serial ports needed for 2 of 3 routers
- Packet Tracer 7.3.0 or higher required for optional Packet Tracer activities



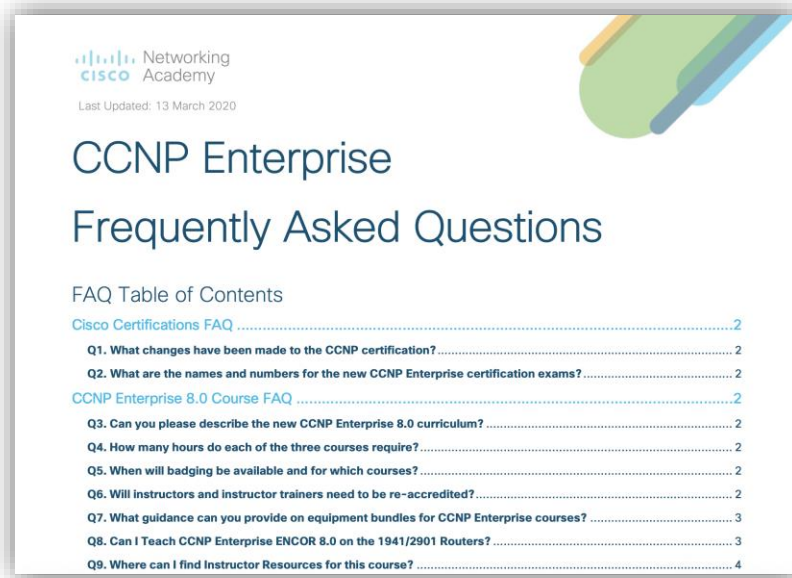
Refer to posted  
[CCNP Enterprise  
Equipment List](#)

## CCNP Enterprise



# CCNP Enterprise Course Resources

- Product Overview
- Scope and Sequence
- Release Notes
- Instructor Planning Guides (includes Instructor PPTs)
- Instructor Lab Source Files
- Instructor Packet Tracer Source Files
- Optional Packet Tracer Activity Source Files
- Student Lab Source Files
- Student Packet Tracer Source Files
- Exam Design Documents



Access Course Resource Page through NetAcad.com

<https://www.netacad.com/portal/resources/course-resources/ccnp-encor>  
<https://www.netacad.com/portal/resources/course-resources/ccnp-enarsi>

# Packet Tracer Accessibility



# PT Accessibility

- Packet Tracer is an accessible application
- Accessibility is getting improved with ongoing application development
- Accessibility is almost identical between Windows, Mac and Linux but may depend on the screen reader used

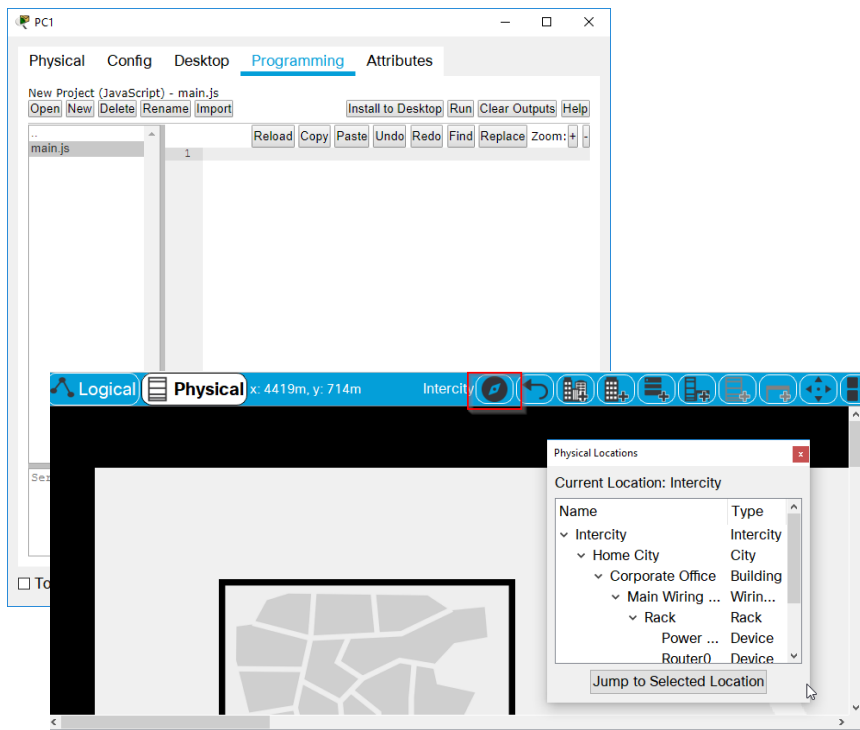
PT offers:

- Screen reader support
  - Navigation using Tab
  - Keyboard shortcuts
- 
- You can tab through all elements
  - Keyboard shortcuts are detailed in the Help file

# Features

- User challenge is how to add a device, click it, drag etc.  
The Workspace List can be used to build a network topology in accessible way; configure devices physical properties (slots, NICs)
- Device configuration dialog is also accessible. It can be used with screen reader and keyboard navigation
- CLI is mostly accessible with some caveats; reading the whole console output may be not perfect
- Event List and individual PDU details modes are accessible; it is designed for keyboard navigation and for screen reader

# Open issues



- All webpage-based UI (i.e. Programming) is not currently accessible
- Instruction window is not fully accessible
- Activity Wizard is not friendly
- Physical Workspace has limitations but Physical Locations dialog can help
- Some menu items do not have shortcuts but Alt + menu navigation is still possible

