

CCNAv7.02: Switching, Routing, and Wireless Essentials (SRWE) Release Notes

Last updated February 2, 2021

Purpose

The Switching, Routing, and Wireless Essentials (SRWE) course is the second course in the CCNAv7.02 curriculum. This course focuses on switching technologies and router operations that support small-to-medium business networks. It includes wireless local area networks (WLANs) and security concepts. Students learn key switching and routing concepts. They can perform basic network configuration and troubleshooting, identify and mitigate LAN security threats, and configure and secure a basic WLAN.

By the end of the course, students will be able to:

- Configure VLANs and Inter-VLAN routing, applying security best practices.
- Troubleshoot inter-VLAN routing on Layer 3 devices.
- Configure redundancy on a switched network using STP and EtherChannel.
- Troubleshoot EtherChannel on switched networks.
- Explain how to support available and reliable networks using dynamic addressing and first-hop redundancy protocols.
- Configure dynamic address allocation in IPv6 networks.
- Configure WLANs using a WLC and L2 security best practices.
- Configure switch security to mitigate LAN attacks.
- Configure IPv4 and IPv6 static routing on routers.

The Cisco Networking Academy Switching, Routing, and Wireless Essentials (SRWE) course is the second course in the seventh major release of the CCNA curriculum. These notes provide detailed information about this release, including curriculum content, known issues, and support information.

This 70-hour, instructor-led course includes videos, hands-on labs, Packet Tracer activities, and a wide array of assessment types and tools throughout the curriculum.

Networking Academy CCNA courses can be delivered in person or remotely. Hands-on experiences with physical equipment continue to remain an essential best practice, and Networking Academy has no plan to remove this requirement. Academies need to continue providing access to physical equipment as soon as circumstances allow it. However, to support distance learning, lab activities now provide the option to practice

skills with Packet Tracer Physical Mode (PTPM) or with lab equipment, if available. Packet Tracer 8.0 provides support for students to practice critical skills normally presented in the physical, in-person lab experience. Networking Academy offers this option as a way to address the absence of physical equipment and continue on the path toward student mastery.

Packet Tracer 8.0, 64-bit versions are required for the optimal experience with CCNA 7.02 PTPM activities and scenarios. Due to the extensive set of graphics included in the PTPM scenarios, these activities may experience performance issues or crashes in Packet Tracer 8.0, 32-bit version. All other PTPM activities should perform as normal.

CCNAv7.02: Switching, Routing, and Wireless Essentials (SRWE) Release Notes Curriculum Content

Component	Description
E-Learning Content	16 modules
Videos	15 videos
Labs	14 hands-on and paper-based labs. CCNAv7.02 labs were written using Cisco 4221 routers and 2960 switches. Previous equipment such as the 1941 and 2901 routers can be used, but some modifications for router interface names will be required.
Packet Tracer Activities	31 Packet Tracer activities Simulation and modeling activities designed for skills exploration, acquisition, reinforcement, and expansion.
Interactive Activities	1 Interactive activity
Syntax Checkers	19 Syntax Checker activities Small simulations that expose learners to Cisco command line to practice configuration skills.
Check Your Understanding (CYU)	36 CYUs CYUs are per topic online, self-diagnostic quizzes to help learners gauge content understanding. CYU activities are designed to let students quickly determine if they understand the content and can proceed, or if they need to review. CYU activities do not affect student grades.
SRWEv7.02 -Packet Tracer Physical Mode PTPM) Activities	7 New to this course are Packet Tracer Physical Mode (PTPM) activities which emulate corresponding labs. These can be used instead of the lab when access to physical equipment is not possible.
Module Quizzes	16 Self-assessments that integrate concepts and skills learned throughout the series of topics presented in the module.
Module Group Exams	5

	Instructor Activated Assessments that assesses content from multiple modules. These assessment provide learners the opportunity to apply and validate knowledge learned throughout the course.
Final Exam	1 Dynamic Final Exam with Secured Activation Variables in the design of the exam allows an instructor to administer unique exams to each student and assess each student's learning individually. With Secured Activation, individual assessment item preview and review is disabled to improve validity and security of this summative assessment. Instructors are provided with a visual summary view of how students performed against the competencies outlined for the course.
Packet Tracer Skills Assessment (PTSA)	3 Three PTSAs are available to assess skills learned in the course: <ul style="list-style-type: none"> • 2 Packet Tracer Practice Skills Assessments • 1 Packet Tracer Final Skills Assessment
End-of-Course	1 end-of-course survey to provide feedback for the course.
Accessibility	New UI complies with WCAG 2.1 Level AA Guidelines. All pages contain accessible text and highly descriptive media transcripts. All PDF files in the curriculum have been created with accessible features. Videos have closed captioning available. UI is screen reader and keyboard accessible.
Certificate of Completion	The successful completion of the end-of-course assessment and end-of-course survey are required for receiving the Certificate of Completion.

Equipment List

The equipment list is contained in the scope and sequence document. The list can also be found on [netacad.com](https://www.netacad.com). Although the equipment list has been updated, routers and switches used in the previous versions of CCNA can also be used to achieve the same fundamental CCNA skills for this course.

Known Issues and Caveats	Description
English Spelling	American-English spellings are interspersed in the text of the modules.
Closed Captions	Use the external video link if you are having issues with the embedded videos.
Packet Tracer Program	You must use Packet Tracer version 8 to load the Packet Tracer activities within this course and assessments.

Course Outline

Module	Title
1	Basic Device Configuration
2	Switching Concepts
3	VLANs
4	Inter-VLAN Routing
5	STP Concepts
6	EtherChannel
7	DHCPv4
8	SLAAC and DHCPv6
9	FHRP Concepts
10	LAN Security Concepts
11	Switch Security Configuration
12	WLAN Concepts
13	WLAN Configuration
14	Routing Concepts
15	IP Static Routing
16	Troubleshoot Static and Default Routes

Updates in CCNAv7.02

The topics and design for each of the three courses within CCNAv7.02 were updated to reflect the new Cisco Certified Network Associate v2.0 (CCNA 200-301) Certification objectives.

In version 7.02, PTPM activities have been added to give distance learners a rich, simulated experience that corresponds to many of the real equipment labs in the course.

Support

For general assistance with curriculum, classroom, or program issues, please contact the Networking Academy™ Support Desk by signing into the [netacad.com](https://www.netacad.com)™ learning environment and clicking the Support question mark (?).