CCNAv7 Enterprise Networking, Security, and Automation (ENSA)
Release Notes

Last updated December 9, 2019

Purpose

The Enterprise Networking, Security, and Automation (ENSA) course is the third course in the CCNAv7 curriculum. This course describes the architectures and considerations related to designing, securing, operating, and troubleshooting enterprise networks. This course covers wide area network (WAN) technologies and quality of service (QoS) mechanisms used for secure remote access. It also introduces software-defined networking, virtualization, and automation concepts that support the digitalization of networks. Students gain skills to configure and troubleshoot enterprise networks and learn to identify and protect against cybersecurity threats. They are introduced to network management tools and learn key concepts of software-defined networking, including controller-based architectures and how application programming interfaces (APIs) enable network automation.

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

- Configure single-area OSPFv2 in both point-to-point and multiaccess networks.
- Explain how to mitigate threats and enhance network security using access control lists and security best practices.
- Implement standard IPv4 ACLs to filter traffic and secure administrative access.
- Configure NAT services on the edge router to provide IPv4 address scalability.
- Explain techniques to provide address scalability and secure remote access for WANs.
- Explain how to optimize, monitor, and troubleshoot scalable network architectures.
- Explain how networking devices implement QoS.
- Implement protocols to manage the network.
- Explain how technologies such as virtualization, software defined networking, and automation affect evolving networks.

The Cisco Networking Academy Enterprise Networking, Security, and Automation (ENSA) is third 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 hands-on labs, activities using Packet Tracer, and a wide array of assessment types and tools throughout the curriculum.

CCNAv7: Enterprise Networking, Security, and Automation (ENSA) Release Notes Curriculum Content

Component	Description
E-Learning Content	14 modules
Videos	32 videos
Labs	12 hands-on and paper-based labs CCNAv7 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	29 Packet Tracer activities Simulation and modeling activities designed for skills exploration, acquisition, reinforcement and expansion.
Interactive Activities	1 Interactive activity
Syntax Checkers	13 Syntax Checker activities Small simulations that expose learners to Cisco command line to practice configuration skills.
Check Your Understanding (CYU)	53 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.
Module Quizzes	14 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.
CCNA Certification Practice Exam	1 Dynamic Certification Practice Exam with Secured Activation. This exam covers knowledge and skills that align to the new Cisco Certified Network Associate v2.0 (CCNA 200-301) Certification objectives. 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)	1
CCNA Certification Practice Exam	1 Dynamic Certification Practice Exam with Secured Activation. This exam covers knowledge and skills that align to the new Cisco Certified Network Associate v2.0 (CCNA 200-301) Certification objectives. 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.
End-of-Course Feedback	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. 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 7.3 to load the Packet Tracer activities within this course and assessments.

Outline

Module	Title
1	Single-Area OSPFv2 Concepts
2	Single-Area OSPFv2 Configuration
3	Network Security Concepts
4	ACL Concepts
5	ACLs for IPv4 Configuration
6	NAT for IPv4
7	WAN Concepts
8	VPN and IPsec Concepts
9	QoS Concepts
10	Network Management
11	Network Design
12	Network Troubleshooting
13	Network Virtualization
14	Network Automation

Updates in CCNAv7

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

Support

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

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