CCNA Certification Preparation
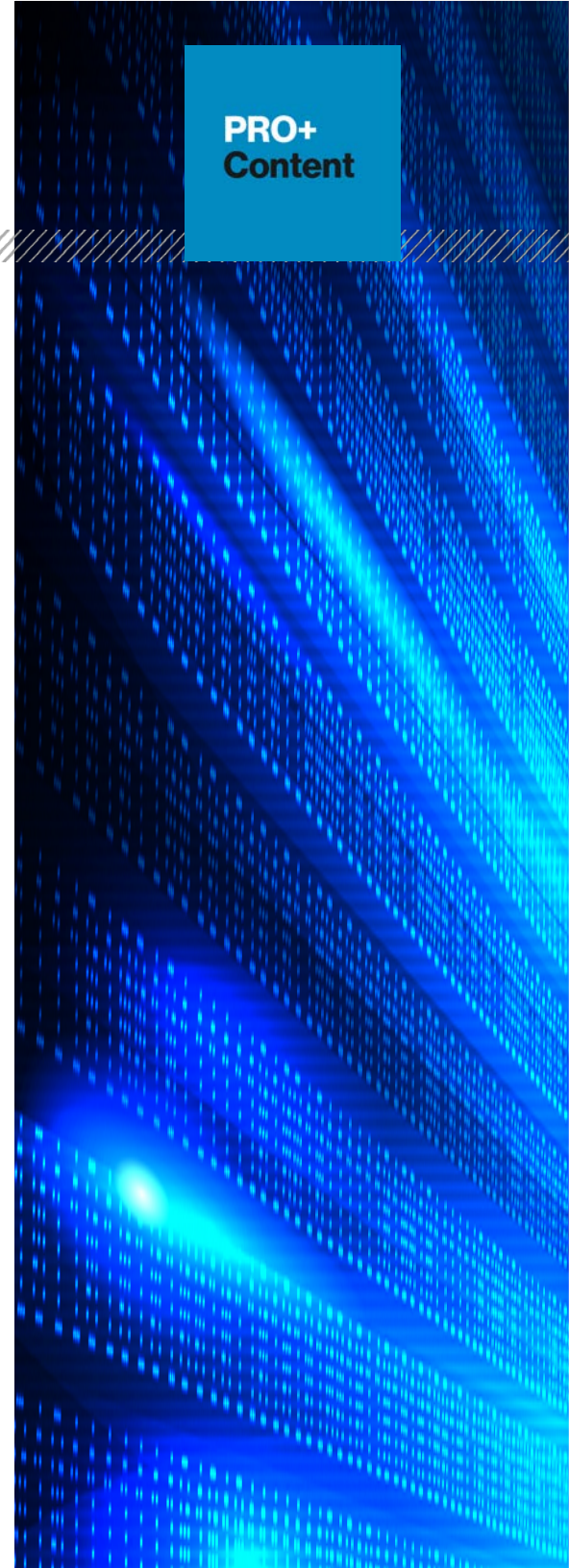
Your guide to the Cisco Certified Network Associate (CCNA) certification

In this e-guide:

Achieving your Cisco Certified Networking Associate (CCNA) certification requires a true in-depth understanding of network fundamentals and network security technologies. Not only will obtaining this certification expand your career opportunities, but it will also benefit your employer's network.

With the new 200-120 CCNA Routing and Switching curriculum, Cisco has made some changes to the topics that you need to study. We can help you stay on track.

The following articles explain recent changes that have been made to the CCNA certification, and will provide you with a practice quiz to test your knowledge.

CCNA changes: Realigning the entry-level Cisco certification

Shamus McGillicuddy, Enterprise Management Associates

Cisco made changes to its CCNA program to help admins become voice, wireless and security specialists faster.

Cisco has streamlined its Cisco Certified Network Associate certifications by reducing the amount of core routing and switching expertise an administrator needs to obtain a CCNA Voice, CCNA Security and CCNA Wireless accreditation. These changes will allow IT pros to use an entry-level Cisco certification to accelerate their careers as specialists in these disciplines, Cisco said.

The Cisco Certified Network Associate (CCNA) has long been Cisco's foundational certification. Administrators had to pass two rigorous exams on routing and switching -- the ICND1 and ICND2 -- to obtain a standard CCNA before taking additional exams on wireless, voice or security to obtain specialist CCNA certifications. This approach has encouraged administrators to get a deep foundation of networking skills before trying to develop expertise in a specific branch of networking.

But employers are looking for more entry-level administrators who can do more than plug in and configure voice, wireless and security systems. They don't necessarily want all their voice, security and wireless administrators to know how to work with routing protocols like BGP and OSPF.

"Job roles are changing," said Ramesh Bijor, product marketing manager at Cisco. "Companies are asking associate-level engineers to do more. They are being asked to troubleshoot and debug system problems with increasing levels of complexity and feature implementations."

More enterprises are creating dedicated job roles in these specialty areas, creating a demand for a more streamlined entry-level Cisco certification program, Bijor said. Cisco commissioned Forrester Research to survey 1,500 enterprises on the subject. It found that 80% of companies will have network administrators dedicated to security in 2013; 69% will have dedicated voice administrators; and 66% will have dedicated wireless administrators.

Of course, entry-level administrators with core routing and switching skills remain just as important to employers, so Cisco will continue to test candidates on these skills with its rebranded CCNA Routing and Switching certification. Cisco will, however, consolidate the exams and test preparation for CCNA Voice, CCNA Security and CCNA Wireless. For these accreditations, administrators will only need to take two exams rather than three. The first exam will evaluate their knowledge of the routing and

switching technologies most relevant to their chosen specialty, and the
second exam will test their skills in voice, video or wireless.

Not only will this redesigned CCNA help employers find entry-level
specialists, but it will help network administrators differentiate themselves
early on in their careers, according to Cushing Anderson, program vice
president for IDC.

"When we do surveys on hard-to-find skills, routing and switching, voice and
security now appear at the top and wireless isn't far behind that," Anderson
said. "We're finding that those skills are teachable to entry-level positions.
Some level of certification can help make those candidates more
employable and also give employers some known competencies that they
should be skilling their staff to."

This realignment of entry-level Cisco certifications will allow administrators
to define a career path for themselves earlier than they have in the past.

"It allows a Cisco engineer to decide right up front if they want to specialize
in security or unified communications," said Zeus Kerravala, principal analyst
and founder of Westminster, Mass.-based ZK Research. Employers want
administrators who can quickly fill a specialized role "versus a more jack of
all trades administrator."

"Those specialist skills are valuable earlier on in an employee's lifecycle,"
Anderson said. "They don't need to be generalists and then specialists.
Being more knowledgeable in one or several specialty areas makes an
employee more valuable."

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🔖 New Cisco collaboration certification plan rolls voice, video CCNA into one

Lynn Haber, Senior Writer

Cisco is replacing its CCNA Voice, CCNA Video and CCNP Voice certifications with the CCNA Collaboration and CCNP Collaboration certifications.

Cisco today introduced two industry role-based certifications for collaboration that address the convergence of voice, video, data and mobile applications.

The new Cisco Certified Network Associate (CCNA) Collaboration and Cisco Certified Network Professional (CCNP) Collaboration certifications aim to teach the skills required to help customers meet the growing need for collaboration in a workplace that is geographically diverse with a workforce that is increasingly mobile, according to Cisco.

Noting that collaboration is a catalyst for the transformation in the workplace, Tejas Vashi, director for product strategy and marketing with Cisco Services, said that the new Cisco collaboration certifications address

a skills gap and that IT professionals need to be retrained to have a broader picture of collaboration as it's evolving.

The new Cisco collaboration certification strategy targets engineers who implement, configure, deploy and troubleshoot collaboration and communication infrastructures.

Cisco is encouraging partners to pursue the new collaboration certifications but Cisco's partner organization has not announced any timeline or requirements for partners to get the new certifications. The existing CCNA Voice and CCNA Video certifications, as well as the CCNP Voice certification, remain valid. However, partners should stay tuned for such announcements in the coming months.

Cisco plans to merge CCNA Voice and CCNA Video tracks into the new CCNA Collaboration certification, which requires two exams but has no prerequisites, according to Antonella Corno, manager for product strategy with Learning@Cisco.

"Those two exams cover all of the skills for integrating voice, video, the collaboration platform, integrated with the concept of on premise and cloud-based services," Corno said.

The CCNP Voice certification, meanwhile, consisted of five exams. To map to the new CCNP Collaboration certification, the content has been reorganized into four exams, one of which is new.

The migration plan for the new collaboration certifications is a chapter that the company started last year, according to Corno, with the rollout of the Cisco Certified Internetwork Expert (CCIE) Collaboration certification, expert-level track. "Now were offering the CCNP and CCNA Collaboration certifications, completing a certification path," she said.

All of the CCNA Collaboration exams and courseware is currently available. The CCNP Collaboration exams and courseware will follow by the end of April. Cisco will retire the older CCNA Voice and Video certifications and CCNP Voice certification about six months after the new materials are available. So, the CCNA certifications will retire in August and the CCNP certification will retire in the fall.

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⚑ Cisco IoT certification upgrades target IT pros

Sonia Groff, Liberty Mutual

Cisco has added IoT and cloud topics to its CCNA and CCNP certification programs; Cyber adAPT and Napatech join forces to launch an integrated threat detection system.

Cisco has expanded its certification program to include topics on the Internet of Things and cloud networking. The new Cisco Certified Network Associate (CCNA) and Cisco Certified Network Professional (CCNP) certifications are available globally. Cisco said the new certifications teach networking professionals how to connect, automate and orchestrate services and provide the infrastructure to support big data analytics. The IoT-focused CCNA certificate concentrates on how to operate converged industrial networks. The curriculum is targeted at plant administrators, as well as control and IT/network engineers working in manufacturing. The cloud-focused CCNP certification teaches professionals how to create infrastructure as a service products to enable the enterprise to control cloud deployments.

Cyber adAPT and Napatech create integrated threat detection system

Cyber adAPT and Napatech have just launched a new integrated product aimed at accelerating threat detection in high-speed networks.

The enhanced Cyber adAPT blends Cyber adAPT's real-time scanning detection product with Napatech's four-port, 1 Gbps network accelerator to support higher speed processing. "Staying ahead of the data growth curve often requires a combined solution and very often cannot be provided by only one company," said Napatech CTO Peter Ekner, in a statement. "It is through the integration process that we are able to address the needs of today's overtaxed network infrastructure."

AT&T, IBM use IoT to improve water management systems

AT&T and IBM have teamed up to bring the Internet of things to civil engineering. More specifically, the two companies will connect monitoring devices to water pipes. The purpose of this venture is to find leaks in pipes it would take water managers much longer to find without the use of IoT technology, according to the firms. According to CNT research, 2.1 trillion

gallons of purified water are lost each year because of leaks. In the AT&T/IBM initiative, acoustic sensors are attached to the pipes and are able to pick up the sound of a leak. The data collected from the sensors is sent to the cloud over an AT&T wireless network and then uploaded onto IBM software for managers to review the information. AT&T has reported that so far, it has connected 22 million devices to the Internet. And IBM has invested $3 billion in an Internet of Things business unit. The two companies plan on undertaking more IoT projects focusing on cities and utilities.

Juniper Research predicts mobile data traffic to reach 197,000 PB by 2019

A recent Juniper Research study on mobile phone traffic predicts that mobile phone data will reach 197,000 petabytes by 2019, doubling the amount of mobile traffic generated in 2014. While most of the data will be offloaded to Wi-Fi networks, 41% of the data will be carried over cell networks, the study said. According to the research, the average smartphone user will double his data usage over the next four years, primarily due to increased consumption of HD videos across 4G networks. Juniper Research also found that machine-to-machine traffic is likely to increase, fueled by telematics and automobile-based information and entertainment systems. North America and Western Europe is expected to have the highest offload factor between now and 2019.

Cisco CCNA exam: Are you ready?

Chris Partsenidis, Firewall.cx

Achieving your Cisco Certified Networking Associate (CCNA) certification requires more than just studying. It requires a true in-depth understanding of network fundamentals and network-security technologies covered in the CCNA curriculum. Our updated CCNA quiz has been completely redesigned to reflect the new CCNA Routing and Switching (200-120) requirements and to help you test your knowledge and understanding of a variety of CCNA topics.

With the new 200-120 CCNA Routing and Switching curriculum, Cisco has made some much-needed changes to steer the exam away from topics covered in other CCNA certifications (e.g. wireless, security) and focus more on the routing and switching technologies.

A few of the major changes include a noticeable reduction of emphasis on IP subnetting coverage -- a very important section in previous CCNA Routing and Switching exams -- and a significant increase of emphasis on IPv6 topics. There is also complete absence of any wireless topics, which are now covered in the CCNA wireless exam.

The new CCNA Routing and Switching exam now focuses more on routing and switching technologies – among them Enhanced Interior Gateway Routing Protocol, open shortest path first (OSPF) virtual LANs (VLANs), and Virtual Router Redundancy Protocol – while high-availability technologies such as VRRP, HSRP and GLBP have made an appearance, as they are now frequently used in today's networks and also occupy an important portion of the next certification level, CCNP Routing and Switching.

We have prepared two 10-question quizzes to help you practice for the exam. See below for some sample questions from each of these quizzes. When you feel prepared, head over to SearchNetworking to see how well you do.

Practice Quiz One: Study Questions

1. Host A receives a frame and discards it after determining that it is corrupt. At which OSI layer are frames checked for errors?

2. Which command is used to verify the encapsulation type on a frame relay link?

3. What is used in standard access lists?

4. What actions does the Dynamic Host Configuration Protocol (DHCP)
server take when there is an IP address conflict?

5. What would the result be when the following commands are executed
on a Cisco Catalyst switch:

    a. TechTarget-SW1 (config-if)# switchport port-security;

    b. TechTarget-SW1 (config-if)# switchport port-security mac-
    address sticky

Practice Quiz Two: Study Questions

1. Which command is used to encrypt all plain-text passwords on a Cisco
router?

2. Which open standard protocol is used in VPN implementations to
ensure secure end-to-end communications?

3. Which command shows the last method used to power cycle a router?

4. Explain the purpose of inverse ARP.

5. Which parameters are used to calculate OSPF cost in Cisco routers?

Now that you know what to expect, and what you may still need to study, you can access our practice quizzes at any time on SearchNetworking:

- Practice Quiz Part 1

- Practice Quiz Part 2

Good luck!

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