

Experience Today the
Network of Tomorrow.

Cisco Expo
2009

What's New in Expert Certifications



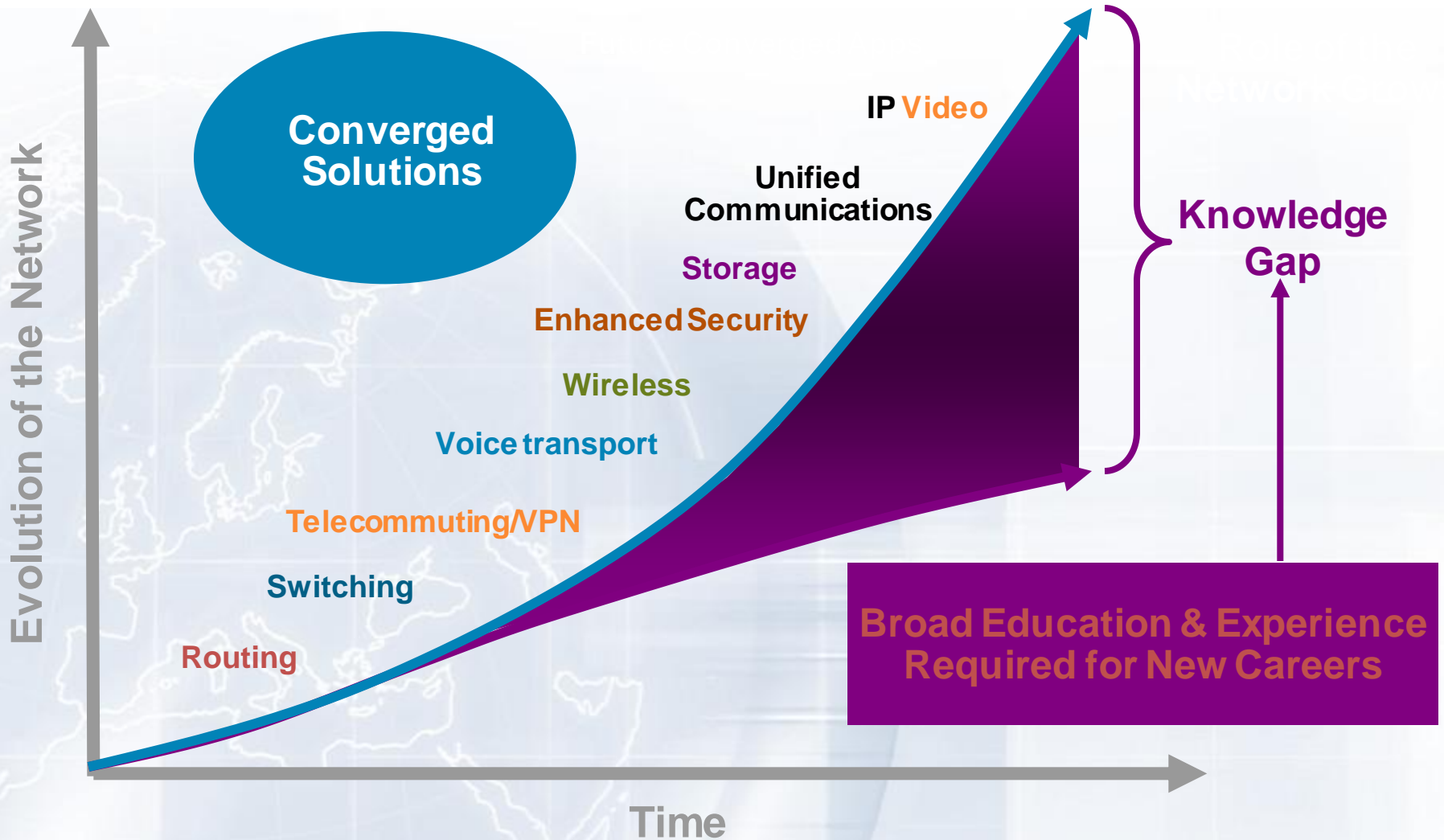
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Business Development
Learning@Cisco

Welcome to the Human Network.



- High Level View
- CCIE Update
- CCIE 360
- Mobile Testing
- Cisco Press

Emergence of a Skills Gap



Companies are dedicating job roles now and expecting to increase the trend within 5 years

Security

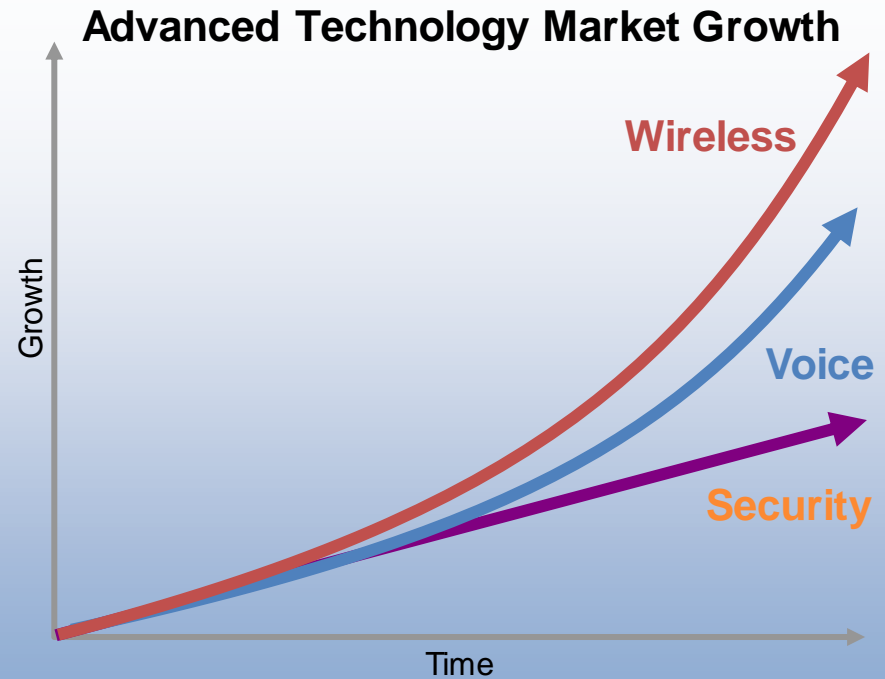
From 46% dedicated now to 80% in 5 years

Voice

From 40% now to 69% in 5 years

Wireless

From 39% now to 66% in 5 years



2008 Worldwide Survey by Forrester Consulting on Behalf of Cisco



Value of Certifications to Professionals and Employers

- Screen job applicants and validate technical knowledge
- Ensure quality and competency
- Platform for career development
- Provide credibility with customers
- Recertification to maintain skills

“Do I have the training and skills I need to stay competitive?”

“Does my workforce have the ability to deal with the increased pace of change? Do I?”



Broad and Deep Talent Gap

Networking skilled people gap est. at ~3M in 2012

Right Experts, Right Place, Right Time

North America

Market Need: 656,000
AT Market Need: 116,000

Central and Eastern Europe/Russia/CIS

Market Need: 261,000

China

Market Need: 430,000

Japan

Market Need: 179,000

Latin America

Market Need: 216,000

Middle East & Africa

Market Need: 238,000

India

Market Need: 334,000

Rest of APAC

Market Need: 190,000

Source: IDC Skill Gaps Research and Bain 2007 Global Job Market Analysis

What's New to Meet the Challenges?

- Cisco Expert Training and Certifications updates
- More opportunities to test through mobile labs
- New Social Learning Community
- CCNA Concentrations



Cisco CCENT Certification

- Skills to configure, operate and troubleshoot a small routed and switched network
- Basic optimization of a LAN
- Connection to other networks (LANs and WANs)
- Identify and mitigate basic security threats
- Basics of wireless LANs



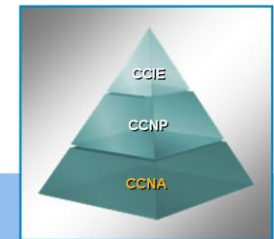
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Cisco CCNA Network Associate

- Skills to install, operate and troubleshoot small to medium size, enterprise branch networks
- Identification and mitigation of common security threats
- Day Two troubleshooting
- Configuring wireless LANs and implications for network
- More hands-on exercises—30-50% of each course



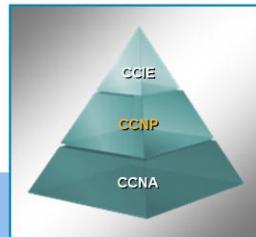
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Cisco CCNP Network Professional

- Ability to install, configure and troubleshoot converged local and wide area networks with 100-500+ nodes
- Manage core and edge as an integrated network infrastructure, ensuring quality of service
- Prerequisite: CCNA
- Four required exams



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CCIEs Worldwide

- Most highly respected IT certification for over 15 years
- Hands-on lab differentiates CCIE
- Just over 20,000 worldwide; less than 3 percent of all Cisco certified professionals
- Demonstrate strong commitment and investment in networking career, life-long learning, and dedication to remaining an active CCIE
- CCIE Storage updated July, 2008

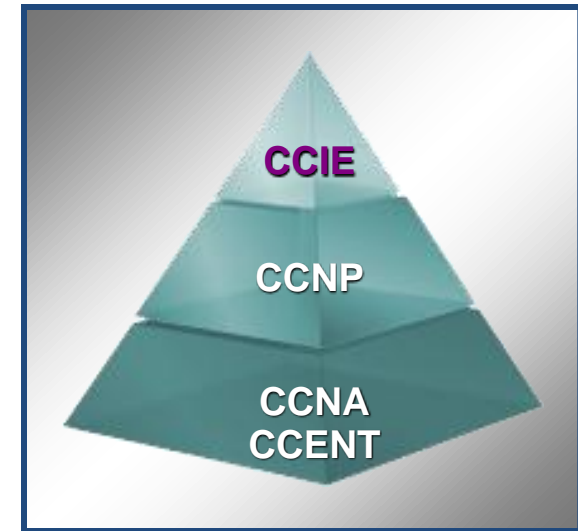


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Cisco CCIE Certification

- CCIE R&S: Configure and troubleshoot complex converged networks to increase bandwidth, improve response time, maximize performance, and support global operations
- CCIE Security: Configure complex, end-to-end secure networks, troubleshoot integrated environments, anticipate and respond to network attacks and implement mitigation techniques
- CCIE Service Provider: Configure and troubleshoot advanced technologies to support service provider networks, such as service provisioning, MPLS, VPNs, service level agreements and basic security.
- CCIE Storage: Configuring and troubleshoot storage area networks over variety of interfaces
- CCIE Voice: Configure complex end-to-end telephony network, troubleshooting and resolving VoIP-related problems
- CCIE Wireless: Planning, designing, implementing, operating and troubleshooting an organization's wireless network and mobility infrastructure



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- CCIE Wireless launched November, 2009



Introducing CCIE Wireless



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Forrester Consulting Findings...

A recent study commissioned by Cisco and conducted by Forrester Consulting found that there is a pervasive need for wireless networking skills.

In fact, the study found that 36 percent of the global companies surveyed reported that they have dedicated wireless specialists in their IT organizations today, a number that is expected to almost double to 66% in the next five years.



Introducing Cisco CCIE Wireless

Validates expertise to design, manage, and determine mission and business-critical wireless network decisions, as well as the job skills and technical knowledge required of an expert-level wireless network engineer.

Written exam: #350-050

Validates that professionals have the expertise to plan, design, implement, operate and troubleshoot Enterprise Wireless Local Area Networks (WLAN).

Lab Exam: 8 hour, hands-on.

Focuses on implementing Enterprise WLAN solutions, such as the Autonomous Infrastructure, Unified Infrastructure, Unified Controllers and AP's, Unified WCS and Location and Voice over Wireless.



The need for experts who can design, deploy, manage, and troubleshoot WLANs are growing exponentially.

Cisco recognizes this need and created CCIE Wireless:

Benefits of Hiring CCIE Certified Wireless Professionals

- Validates top talent in the wireless networking industry
- Indicates that an individual has mastered major aspects of WLAN technology
- Provides confidence that staff is proficient in the latest Cisco wireless technologies

Benefits of CCIE Certified Wireless Certification

- Greater opportunity for salary increase and job advancement in wireless networking industry
- Validates expertise in major aspects of WLAN technology
- Provides next step for individuals interested in a career in managing or working with Cisco wireless technologies

Introducing Cisco CCIE Wireless

Written beta:

- One of the highest participation rates of any CCIE beta exam
- Global participation, October 7th-November 14th, 2008

Lab Beta: January, 2009

Written Exam Live: February 17, 2009

Lab Exam Live: April, 2009

Registration for Exams Opens: February 17, 2009

Written: www.pearsonvue.com/cisco

Lab: <http://www.cisco.com/web/learning/le3/ccie/exam/index.html>

Products:

Cisco Wireless Access Points:

- Cisco Aironet 1240AG Series (Lightweight and Autonomous version)
- Cisco Aironet 1250AG Series

Cisco Wireless LAN Controllers:

- Cisco 4400 Series
- Cisco 2100 Series
- Cisco Catalyst 6500 Series Wireless Services Module (WiSM)

Cisco Wireless Location Appliance:

- Cisco 2700 Series Wireless Location Appliance

Cisco Aironet Wireless LAN Client Adapters:

- Cisco Aironet 802.11A/B/G Wireless PCI Adapter

Cisco Wireless Phones:

- Cisco Unified Wireless IP Phone 7921G

Products:

Cisco Catalyst Switches:

- Cisco Catalyst 3560-E Series Switches
- Cisco Catalyst 2960 Series Switches
- Cisco Catalyst 6500-E Series Switches
- Cisco Secure Access Control Server for Windows (ACS)
- Cisco Wireless Control System (WCS)

Software:

- Cisco Unified Wireless Network Rel. 4.2
- Cisco Aironet 1240AG Series IOS Rel. 12.3.(8)JE(x)
- Cisco Unified Wireless Network Rel. 4.2 for 2100/4400 WLAN Controllers and Catalyst 6500 Series Wireless Services Module
- Cisco 2700 Series Location Based Services Appliance, version 3.1
- Cisco Catalyst 6500 SUP720/MSFCC3 IOS Rel. 12.2 SXH
- Cisco Catalyst 2960 Series Switches IOS Rel. 12.2SE(x) LAN BASE feat. set.

Cisco Press Wireless Publications

- Deploying License Free Wireless LANS
- 802.11 Wireless LAN Fundamentals
- Cisco Mobile IP Networks
- Cisco Wireless LAN Security
- Cisco 802.11 Wireless Networking
- WI-FI Hotspots: Set Up Public WANS
- Wireless Home Networking
- Deploying Voice Wireless
- Wireless Networks First Steps
- Mobile IP Technology and Applications

CCIE Voice Lab Exam Enhancement



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Cisco CCIE Voice Lab Exam Refresh

CCIE Voice Lab Exam v3.0 addresses key skills demanded of expert-level Voice Specialists, particularly with regard to skills defining integrated network services and mitigating future performance problems.

- Acknowledges in-depth knowledge and experience in regards to Cisco Unified Communications Manager 7.0 (CUCM) solutions
- Provides strong configuration and troubleshooting skills to solve critical issues in complex VoIP network implementations and operations
- Skills assessed include
 - Cisco Unified Communications Manager 7.0
 - Cisco Contact Center Express 7.0
 - Cisco Unified Presence 7.0
 - Cisco Unity Connection 7.0
 - Other Media and VoIP Applications
 - Routers with IOS v12.4T Train and Cisco Catalyst 3750 Switches on 12.2 Main Train



CCIE Security Lab Exam Enhancement



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CCIE Security Lab Exam: Market & New Exam Elements

Overall Perception of Security Skill Need

Despite the importance that 73% of IT managers place on security skills, just 57% also said they believed their IT employees were proficient in such skills. This represents a gap of **16% between the skills IT organizations need and those they have in place.**

NetworkWorld, February 2008

Refreshed CCIE Security Lab Exam

- Addresses latest security and risk management demands
- Reflects the demands upon network security specialists
 - Greater alignment to job roles and real-world performance tasks
 - Validates implementation and troubleshooting skills
- Incorporates Cisco's newest security infrastructure and solutions

CCIE Security Lab Exam: Assessment Elements

Security Expert Requirements

- Capable of configuring end-to-end complex networks, troubleshooting integrated environments, and understanding common attacks and mitigation techniques
- Expert knowledge of security and VPN solutions
- Solid understanding of Windows, Unix, Linux and HTTP, SMTP, FTP, and DNS
- Core IP routing not required, but must demonstrate in-depth understanding of Layer 2 and 3 network infrastructure

New Exam Dates

- October 2008 New Lab Exam Blueprint Available
- Mid-April 2009 Exam FCS “Go Live”

CCIE Security Lab Exam: Blueprint

- Implement secure networks using Cisco ASA firewalls and Cisco IOS firewalls
- Implement secure networks using Cisco VPN solutions
- Configure Cisco Intrusion Prevention System (IPS) to mitigate network threats
- Implement identity management solutions
- Implement control plane and management plane security
- Configure advanced Cisco IOS security
- Identify and mitigate network attacks

CCIE Security Lab Exam: Equipment and Software Versions

- Cisco Integrated Services Routers (ISR) series running Cisco IOS version - **12.4T**
- Cisco Catalyst 3560 series switches running - **12.2(x)SE**
- Cisco ASA 5500 series firewalls running version - **8.x**
- Cisco IPS 4240 Appliance Sensor running version - **6.x**
- Cisco Secure ACS version - **4.1**
- Test PC for testing and troubleshooting
- Candidate PC for rack access

Cisco 360 Learning Program for CCIE Routing and Switching



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For CCIE Routing and Switching The Smart Way to Develop Expert Talent

Cisco Driven High Standards

- Only Cisco authorized expert program
- Selected learning partners and certified CCIE instructors
- Aligned to Cisco products and lab topologies
- Cisco authorized documentation, tools, and references

Leading Learning Methodology

- Online accessibility 24x7
- Reports: scoring, progression, trending, and individual or team
- Open standards learning management system (LMS)

Comprehensive Blended Learning

- Over 400 hours of instruction in a six months program
- Instructor-led training
- On Demand classes
- Recorded, searchable lectures
- Practice labs

Focus on Expert Learning

- Extensive Range of Topics
- Protocols: BGP, SIP, etc.
- Products: 6500, 7200, etc.
- Technologies: multicast, etc.
- Usage: troubleshooting, etc.

The Pathway to Excellence for high-potential networking professionals

Value to Networking Professionals

- Marketability: Build networking knowledge and skills to the expert-level
- Potential: Increase knowledge, competency and confidence to prepare for the very select CCIE exam

Value to Corporations

- Business Success: Experts reduce operation and deployment costs and issues, solve issues more quickly, provide greater ROI to organizations' business
- Talent Management: Develop more expert level skills, and retain key talent

Cisco 360 Learning Program

Comprehensive Immersive Training



The Cisco 360 Concept: A Six-Stage Pathway to Success

The Cisco 360° concept utilizes a blended methodology, learning modules, and formative assessments to give learners the ability to customize their training and keep them informed of their absorption of the material as they progress through the various stages of the curriculum.

1. Assessment

2. Planning

3. Learning

4. Practice

5. Review

6. Mastery

Assessment

Planning

Mastery

360°

Learning

Review

Practice

Learning Resources:

1. **Pre-assessment** → Diagnostic
2. **Workshops** → Classroom
3. **Library** → Reference
4. **Lessons** → Learning
5. **Practice Labs** → Exposure
6. **Assessments** → Learning Checks
7. **Mentoring** → SME Coaching

Curriculum Developed with a Blended Learning Methodology



Cisco 360 Learning Program for CCIE R&S

Advanced Workshop 1

The first of two 5-day workshops that include lessons, lab guide, and 16 hours of assessment labs including instructor time and feedback to provide learner mentoring and support.

Advanced Workshop 2

The second of two 5-day workshops that include instructor time and feedback to provide learner mentoring and support.

Mentoring Services

Coaching and mentoring services provided by an instructor or mentor certified by Cisco to evaluate, analyze, and guide learners to best practices and optimal approaches to network engineering problem solving.

Practice Equipment

Access to lab equipment for use with matching topologies and specifications according to Cisco 360 specifications.

Mobile Labs



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Mobile Labs for CCIE R&S Green, Mobile, and Global

From Lab Racks



To Virtual



For Customers and Partners

- ✓ Currently available for qualified CCIE Routing and Switching lab candidates
- ✓ Enabling program growth and scaling
- ✓ Removing travel barriers from recognizing and certifying talent
- ✓ Partnering with local Learning Partners and account teams to meet local needs
- ✓ Leveraging technology to maintain global premiere status of CCIE brand
- ✓ Creating an agile, timely, testing alternative method for emerging markets



Extending Lab Testing Around The World

CCIE Routing and Switching



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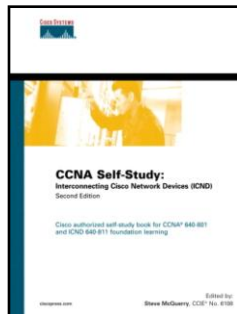
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Cisco Press Resources

Enhances Classroom or Web-Based Training

Cisco Press Learning Path



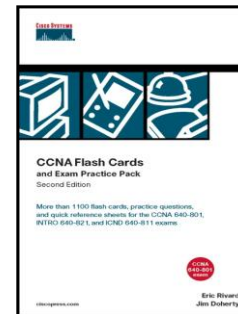
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Experience



Prepare



Practice



Expert-Level

www.ciscopress.com

Q & A



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