Cisco Routing and Switching Certification Program

Demand for Trained and Experienced Routing and Switching Professionals

The digital transformation of business is driving adoption of programmable network architectures with a corresponding need for expanded skills and knowledge from network engineers. To meet these evolving job roles, Cisco continues to develop training and certification products that enable Enterprises to successfully innovate and migrate to a digital-ready network.

The program includes:

- **Skills Building:** Recommended tools to help you learn best practices and gain hands-on experience. From entry level to expert level, we offer instructor-led and self-paced training options with a hands-on focus for every learning style and budget.
- **Skills Validation:** Assess Cisco routing and switching knowledge and new skills proving to hiring managers that IT professionals are ready to design and deploy digital-ready network.
- **Skills Reinforcement:** Continually hone skills throughout your career as an Enterprise network engineer.

Gain Job-Ready Practical Skills

The CCENT, CCNA Routing and Switching, CCNP Routing and Switching, and CCIE Routing and Switching certification programs are practical, relevant, and job-ready certification curricula aligned closely with the specific tasks expected of these in demand professionals. Cisco realizes that the network professional increasingly must focus on design, configuration, and support responsibilities as the technical consultant, specialist or expert on a networking team. Therefore, the Cisco curriculum is specific to the best practices of network administrators, engineers, and experts using the latest Cisco network solutions.
## Cisco Certified Entry Networking (CCENT)

The CCENT certification validates the ability to install, operate and troubleshoot a small enterprise branch network, including basic network security.

<table>
<thead>
<tr>
<th>Pre-requisite(s)</th>
<th>No Prerequisites</th>
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| Topic Focus            | - Network Fundamentals  
                        | - LAN Switching Fundamentals  
                        | - Routing Fundamentals  
                        | - Infrastructure Services  
                        | - Infrastructure Maintenance |
| Job Role(s)            | Network Support Engineers |
| Experience Level (Years) | 0–2 |
| Required Exam(s)       | 100–105 ICND1 |
| Recommended Training   | Interconnecting Cisco Networking Devices Part 1 |

[www.cisco.com/go/ccent](http://www.cisco.com/go/ccent)

## Cisco Certified Network Associate Routing and Switching (CCNA Routing and Switching)

Beyond basic networking skills, the Cisco CCNA Routing and Switching curriculum will expose IT professionals to software driven networking principles, virtualized networking functions and resources, IPv6, VPN technologies, QoS and the power of next generation technologies.

<table>
<thead>
<tr>
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| Topic Focus            | - Combination of both ICND1  
                        | and ICND2 Topics  
                        | - Network Fundamentals  
                        | - LAN Switching Fundamentals  
                        | - Routing Fundamentals  
                        | - Infrastructure Services  
                        | - Infrastructure Maintenance  
                        | - LAN Switching Technologies  
                        | - Routing Technologies  
                        | - WAN Technologies  
                        | - Infrastructure Services  
                        | - Infrastructure Maintenance |
| Job Role(s)            | Network Administrators,  
                        | Network Specialist  
                        | Network Support Engineers  
                        | Network Administrators |
| Experience Level (Years) | 1 – 3 |
| Required Exam(s)       | 200–125 CCNAX  
                        | 100–105 ICND1  
                        | 200–105 ICND2 |
| Recommended Training   | Interconnecting Cisco  
                        | Networking Devices:  
                        | Accelerated  
                        | Interconnecting Cisco  
                        | Networking Devices Part 1  
                        | Interconnecting Cisco Networking Devices Part 2 (ICND2) |

[www.cisco.com/go/ccnars](http://www.cisco.com/go/ccnars)
# Cisco Routing and Switching Certification Program

## Cisco Certified Network Professional Routing and Switching (CCNP Routing and Switching)

The CCNP Routing and Switching certification will distinguish network engineers who have the ability to plan, implement, verify and troubleshoot local and wide-area enterprise networks and work collaboratively with specialists on advanced security, voice, wireless and video solutions.

<table>
<thead>
<tr>
<th>Pre-requisite(s)</th>
<th>Valid CCNA Routing and Switching certification or any CCIE Certification can act as a prerequisite.</th>
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</table>
| Topic Focus      | • Implementing Secure Routers with Advanced IP Addressing  
                   • Planning, configuring, and verifying the implementation of complex switching solutions  
                   • Maintenance of complex routed and switched networks  
                   • Network troubleshooting using technology-based practices |
| Job Role(s)      | System Engineers  
                   Network Consultants  
                   System Integrators |
| Experience Level (Years) | 3 - 6 |
| Required Exam(s) | 300-101 ROUTE  
                   300-115 SWITCH  
                   300-135 TSHOOT |
| Recommended Training | Implementing Cisco IP Routing  
                         Implementing Cisco IP Switched Networks  
                         Troubleshooting and Maintaining Cisco IP Networks |

[www.cisco.com/go/ccnprs](http://www.cisco.com/go/ccnprs)

## Cisco Certified Internetwork Expert Routing and Switching (CCIE Routing and Switching)

Earn the highly regarded CCIE Routing and Switching certification and be among the elite and prove your ability to implement and troubleshoot complex networks improving uptime, increase user productivity and provide business agility.

<table>
<thead>
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<th>Pre-requisite(s)</th>
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| Topic Focus      | • Configure, validate, and troubleshoot complex enterprise network infrastructure  
                   • Understand how infrastructure components interoperate  
                   • Translate functional requirements into specific device configurations |
| Job Role(s)      | Senior Network Engineers |
| Experience Level (Years) | 7+ |
| Required Exam(s) | 400-101 CCIE Routing and Switching Written Exam  
                   CCIE Routing and Switching Lab Exam v5 |
| Recommended Training | Expert Level Training for CCIE Routing and Switching |

[www.cisco.com/go/cciers](http://www.cisco.com/go/cciers)