

Certificate of Course Completion

CCNA Routing and Switching: Introduction to Networks

The student has successfully achieved student level credential for completing CCNA Routing and Switching: Introduction to Networks course administered by the undersigned instructor. The student was able to proficiently:

- Explain network technologies.
- Explain how devices access local and remote network resources.
- Describe router hardware.
- Explain how switching operates in a small to medium-sized business network.
- Design an IP addressing scheme to provide network connectivity for a small to medium- sized business network.
- Configure initial settings on a network device.
- Implement basic network connectivity between devices.
- Configure monitoring tools available for small to medium-sized business networks.

Ruben Carvalho

Student

Lycée des Arts et Métiers

Academy Name

Luxembourg

Location

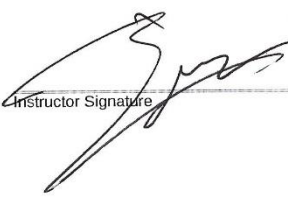
Nov 6, 2018

Date

Yves Wengler

Instructor

Instructor Signature



Nov 7, 2018

Dear Ruben Carvalho

I want to congratulate you on completing the Cisco® **CCNA Routing and Switching: Introduction to Networks** course as part of the Cisco Networking Academy® program. This hands-on, lab-oriented course has prepared you for tremendous career opportunities.


You have achieved student level credential for completing **CCNA Routing and Switching: Introduction to Networks**, and acquired the following capabilities:

- Explain network technologies.
- Explain how devices access local and remote network resources.
- Describe router hardware.
- Explain how switching operates in a small to medium-sized business network.
- Design an IP addressing scheme to provide network connectivity for a small to medium-sized business network.
- Configure initial settings on a network device.
- Implement basic network connectivity between devices.
- Configure monitoring tools available for small to medium-sized business networks.

In today's world, technical literacy is more important than ever, and Cisco is proud to provide you with the knowledge and skills necessary to build and maintain digital networks.

Keep up the great work and best wishes for continued future success.

Sincerely,



Chuck Robbins
Chairman and Chief Executive Officer
Cisco

Certificate of Course Completion

CCNA Routing and Switching: Routing and Switching Essentials

The student has successfully achieved student level credential for completing CCNA Routing and Switching: Routing and Switching Essentials course administered by the undersigned instructor. The student was able to proficiently:

- Determine how a router will forward traffic based on the contents of a routing table.
- Explain how switching operates in a small to medium-sized business network.
- Use monitoring tools and network management protocols to troubleshoot data networks.
- Configure monitoring tools available for small to medium-sized business networks.
- Configure initial settings on a network device.
- Configure Ethernet switch ports.
- Implement VLANs.
- Implement static routing and RIPv2.
- Implement DHCP on a router.
- Implement network address translation (NAT).
- Implement access control lists (ACLs) to filter traffic.

Ruben Carvalho

Student

Lycée des Arts et Métiers

Academy Name

Luxembourg

Location

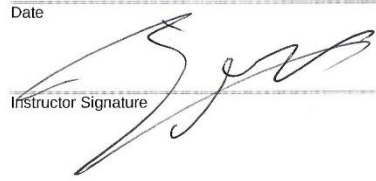
May 3, 2018

Date

Fabrice Roth

Instructor

Instructor Signature





Corporate
Social
Responsibility

Cisco Networking Academy

Nov 20, 2018

Dear Ruben Carvalho

I want to congratulate you on completing the Cisco® **CCNA Routing and Switching: Routing and Switching Essentials** course as part of the Cisco Networking Academy® program. This hands-on, lab-oriented course has prepared you for tremendous career opportunities.

You have achieved student level credential for completing **CCNA Routing and Switching: Routing and Switching Essentials**, and acquired the following capabilities:

- Determine how a router will forward traffic based on the contents of a routing table.
- Explain how switching operates in a small to medium-sized business network.
- Use monitoring tools and network management protocols to troubleshoot data networks.
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Keep up the great work and best wishes for continued future success.

Sincerely,

A handwritten signature in cursive script, appearing to read "Chuck Robbins".

Chuck Robbins
Chairman and Chief Executive Officer
Cisco

Certificate of Course Completion

CCNA Routing and Switching: Scaling Networks

The student has successfully achieved student level credential for completing CCNA Routing and Switching: Scaling Networks course administered by the undersigned instructor. The student was able to proficiently:

- Describe the operations and benefits of the Spanning Tree Protocol (STP).
- Configure and troubleshoot STP operations.
- Describe the operations and benefits of link aggregation and Cisco VLAN Trunk Protocol (VTP).
- Configure and troubleshoot VTP, STP, DTP, and RSTP.
- Configure and troubleshoot inter-VLAN routing
- Configure and troubleshoot EtherChannel and HSRP.
- Configure and troubleshoot basic operations of routers in a complex routed network for IPv4 and IPv6.
- Configure and troubleshoot advanced operations of routers and implement OSPF and EIGRP routing protocols for IPv4 and IPv6.

Ruben Carvalho

Student

Lycée des Arts et Métiers

Academy Name

Luxembourg


Location

Nov 8, 2018

Date

Fabrice Roth

Instructor


Instructor Signature



Corporate
Social
Responsibility

Cisco Networking Academy

Nov 13, 2018

Dear Ruben Carvalho

I want to congratulate you on completing the Cisco® **CCNA Routing and Switching: Scaling Networks** course as part of the Cisco Networking Academy® program. This hands-on, lab-oriented course has prepared you for tremendous career opportunities.

You have achieved student level credential for completing **CCNA Routing and Switching: Scaling Networks**, and acquired the following capabilities:

- Describe the operations and benefits of the Spanning Tree Protocol (STP).
- Configure and troubleshoot STP operations.
- Describe the operations and benefits of link aggregation and Cisco VLAN Trunk Protocol (VTP).
- Configure and troubleshoot VTP, STP, DTP, and RSTP.
- Configure and troubleshoot inter-VLAN routing.
- Configure and troubleshoot EtherChannel and HSRP.
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Keep up the great work and best wishes for continued future success.

Sincerely,

Chuck Robbins
Chairman and Chief Executive Officer
Cisco

Certificate of Course Completion

CCNA Routing and Switching: Connecting Networks

The student has successfully achieved student level credential for completing CCNA Routing and Switching: Connecting Networks course administered by the undersigned instructor. The student was able to proficiently:

- Describe different WAN technologies and their benefits
 - Describe QoS operation.
 - Configure and troubleshoot PPP.
 - Describe evolving networks including cloud, virtualization, SDN, and the Internet of Things
 - Configure PPPoE, GRE, and single-homed eBGP.
 - Troubleshoot end-to-end connectivity in a small to medium-sized business network, using a systematic approach.
 - Configure and troubleshoot extended IPv4 and IPv6 ACLs.
- Explain how to mitigate common LAN security attacks.

Ruben Carvalho

Student

Lycée des Arts et Métiers

Academy Name

Luxembourg

Location

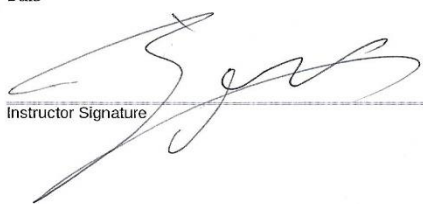
Feb 5, 2019

Date

Yves Wengler

Instructor

Instructor Signature





Cisco Networking Academy

Jan 23, 2019

Dear Ruben Carvalho

I want to congratulate you on completing the Cisco® **CCNA Routing and Switching: Connecting Networks** course as part of the Cisco Networking Academy® program. This hands-on, lab-oriented course has prepared you for tremendous career opportunities.

You have achieved student level credential for completing **CCNA Routing and Switching: Connecting Networks**, and acquired the following capabilities:

- Describe different WAN technologies and their benefits
- Configure and troubleshoot PPP.
- Configure PPPoE, GRE, and single-homed eBGP.
- Configure and troubleshoot extended IPv4 and IPv6 ACLs.
- Explain how to mitigate common LAN security attacks.
- Describe QoS operation.
- Describe evolving networks including cloud, virtualization, SDN, and the Internet of Things
- Troubleshoot end-to-end connectivity in a small to medium-sized business network, using a systematic approach.

In today's world, technical literacy is more important than ever, and Cisco is proud to provide you with the knowledge and skills necessary to build and maintain digital networks.

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Sincerely,

A handwritten signature in cursive script, appearing to read "Chuck Robbins".

Chuck Robbins
Chairman and Chief Executive Officer
Cisco