Kursangebot der Cisco Networking Academy

cisco. Networking Academy

www.netacad.com

OS & IT

- Get Connected
- Linux Unhatched
- IT Essentials
- Linux Essentials → Linux I → Linux II

Networking

- Introduction to Packet Tracer
- Networking Essentials → CCNA R&S (1–2) → CCNA R&S (3–4) → CCNP R&S (1–3)
- Mobility Fundamentals
- ETW: Network Programmability

Security

- Introduction to Cybersecurity
- Cybersecurity Essentials → CCNA Security
- CCNA Cybersecurity Operations

Internet of Things

- Introduction to Internet of Things
- **IoT Fundamentals**
  - Connecting Things → Big Data & Analytics → Hackathon Playbook
- Smart Grid Essentials

Programming

- Programming Essentials Python → ETW: REST APIs & Cisco Spark
- Programming Essentials C
- Programming Essentials C++ → Advanced Programming C++

Business

- Be Your Own Boss
- Entrepreneurship

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E-mail: netacad-deutschland@cisco.com
Web: www.netacad.com/web/de

Legend

- Exploratory Einführungskurse
- Foundational Grundlagenkurse
- Career Ready Fachkurse
- QR-Code scannen und sofort den Kurs beginnen
- in Deutsch verfügbar
- Instruktoren-Qualifizierung notwendig
- Externe Industriezertifizierung möglich
- kostenpflichtiger Kurs

CCNA — Cisco Certified Network Association
CCNP — Cisco Certified Network Professional
ETW — Emerging Technology Workshop

→ empfohlene Grundlage
→ notwendige Grundlage

Stand: Februar 2018

CCNA R&S 6.0
ITN and RSE Course Release Timeline

Course	Language	Availability
Introduction to Networks (ITN) v6.0	English	Nov 2016
Routing and Switching Essentials (RSE) v6.0	English	Nov 2016
Introduction to Networks (ITN) v6.0	German	March 2017
Routing and Switching Essentials (RSE) v6.0	German	August 2017

CCNA R&S 6.0
ScaN & CN Course Release Timeline

Course	Language	Availability
Scaling Networks (ScaN) v6.0	English	July 2017
Connecting Networks (CN) v6.0	English	July 2017
ScaN and CN v6.0	German	None !!

Viewing Curriculum in Multiple Languages

Deutsch für ITE und CCNA 1/2

Routing and Switching Essentials

Chapter 0
Course Introduction

Chapter 1
Introduction to Switched Networks

Recent Pages · Bookmarks · Course Index · Search · Languages

Select a language for the course:

العربية

Deutsch

English

Español

Français

Português

Русский

简体中文

Packet Tracer 7.1 User Interface

- Available in **German**

- Download .ptl files from Packet Tracer Resource page NetAcad.com → Resources → Packet Tracer Resources

- Copy .ptl file to Packet Tracer languages folder

- Open PT, click Options/Preferences and select language then click on Change Language
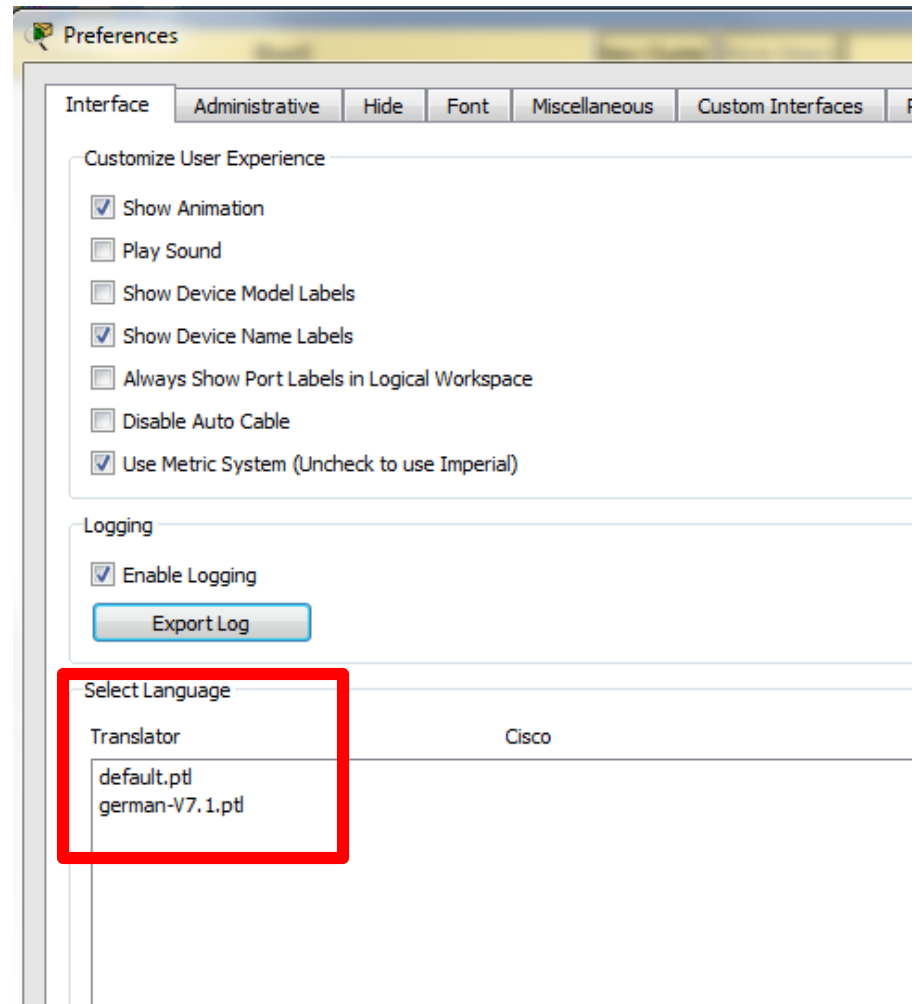
Magnitude of Changes
New Content

	Page
	Topic
	Section
	Chapter

Introduction to Networks	Routing & Switching Essentials	Scaling Networks	Connecting Networks
	Host Routes		WAN Topologies DMVPN
	Password Recovery		Common IPv6 ACL Errors
Extended Traceroute	NTP	Switch Stacking	LAN Security Best Practices
Debugging	Device Discovery	Implement HSRP	SNMPv3 Configuration
Network Troubleshooting		Troubleshoot Multi-area OSPF	Implement PPPoE & eBGP
		VTP, Extended VLANs, and DTP	SPAN
		Troubleshoot Multi-VLAN	Cloud and Virtualization
			Network Programming
			Quality of Service

Magnitude of Changes
Moved Content

Introduction to Networks	Routing & Switching Essentials	Scaling Networks	Connecting Networks
None	Dynamic Routing (additional depth)		
	Single-Area OSPF		
	DTP		
	SVI Inter-VLAN Routing		
	Inter-VLAN Routing Troubleshoot		
	LAN Security		
	Extended IPv4 ACLs		
	All IPv6 ACLs		

Magnitude of Changes
Removed Content

	Page
	Topic
	Section
	Chapter

Introduction to Networks	Routing & Switching Essentials	Scaling Networks	Connecting Networks
None	CIDR and VLSM Review	EIGRP Summarization	Remote Access
	RIPng, Summary Routes	Secure EIGRP	IPsec
		OSPF Summarization	NetFlow
	Wireless LANs	Secure OSPF	Frame Relay
		Wireless LANs	

New Content provided by Bridging Course

Introduction to Networks	Routing & Switching Essentials	Scaling Networks	Connecting Networks
Extended Traceroute	Host Routes	VTP, Extended VLANs, and DTP	WAN Topologies DMVPN
Debugging	Device Discovery	Troubleshoot Multi-VLAN	Implement PPPoE
Network Troubleshooting	NTP	Switch Stacking	Implement eBGP
	Password Recovery	Implement HSRP (S)	Common IPv6 ACL Errors
		Troubleshoot Multi-area OSPF	LAN Security Best Practices
			SNMPv3 Configuration
			SPAN
			Quality of Service
			Cloud and Virtualization
Hands-on Lab	Packet Tracer Lab		Network Programming
https://www.netacad.com/group/resources/ccna-rs-bridge/6.0			Using IP SLA

Experiences with R&S V6

- Course 2 (RSE) with less content, e.g.
  - only Standard IPv4 ACLs are in the scope
    (no extended IPv4 ACL or IPv6 ACL → Course 4)

  - only RIPv2 as a Dynamic Routing Protocol is covered with labs and Packet Tracer Activities *(EIGRP & OSPF → Course 3)*

- Course 4 (CN) has more theoretical foundations
  - Quality of Service
  - Cloud and Virtualization
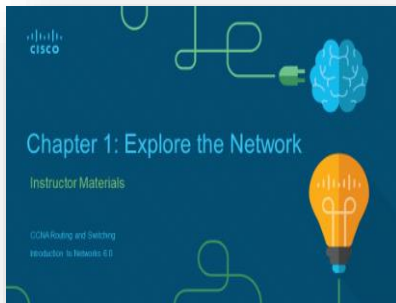 - Software Defined Network (SDN)

- *Share with us your experiences. …*
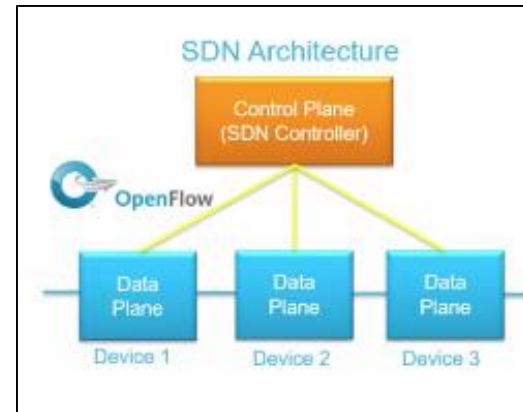
Experiences with R&S V6 - Comments

- *"Leider fiel das Thema IPsec raus."*

- *"OSPF führe ich direkt nach RIPv2 als Vergleich ein."*

- *"LABs sind in kürzerer Zeit durchführbar, was ich gut finde."*

- *"Das Thema WLAN finde ich wichtig und behandle es zusätzlich."*

Updated CCNA R&S Instructor PPT slides Now available!

- Content Enhancement

- Better instructional flow; provided by experienced instructors

- New 16:9 template

Download Now!

https://www.netacad.com/group/resources/ccna-rs-itn/6.0
https://www.netacad.com/group/resources/ccna-rs-rse/6.0
https://www.netacad.com/group/resources/ccna-rs-scaling/6.0
https://www.netacad.com/group/resources/ccna-rs-connect/6.0

NetSpace - Ressources CCNA

Learning Materials

CCNA R&S: Scaling Networks
CCNA Routing & Switching Curriculum

Version 6.0 | Released June 2017 Release Notes & Versions

Course Overview

CCNA R&S: Scaling Networks (ScaN) covers the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality.

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

- Configure and troubleshoot routers and switches
- Resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks
- Implement a WLAN in a small-to-medium network

Read More

Classroom Resources

Instructor PPT
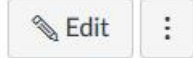Syllabus Shell
Icon Glossary

Translated Instructor Resources

Lab Resources

Student Lab Source Files
Student Packet Tracer Source Files
Instructor Lab Manual
Instructor Lab PDF Files
Instructor Lab Source Files
Instructor Packet Tracer Manual
Instructor Packet Tracer PDF Files
Instructor Packet Tracer Source Files
Packet Tracer PKA Files

Assessment Resources

Skills Assessment
Exam Design Document
Packet Tracer Skills Assessment Design Document

Marketing Resources

Release Notes
Scope and Sequence
CCNA R&S FAQ
Curriculum Overview PPT
Curriculum At-A-Glance

Quick links

Translated Instructor Resources
Packet Tracer Resources
General Assessment Resources
Best Practices for Teaching CCNA R&S
CCNA R&S FAQ
CCNA R&S 6.0 Bridging Course
CCNA R&S: Introduction to Networks Resources
CCNA R&S: Routing and Switching Essentials Re
CCNA R&S Connecting Networks Resources
Scope and Sequence
Errata

Latest News

Webinar Replay: Network Programmability with YANG/NETCONF/RESTCONF
März 02, 2018

Webinar: Tying Certifications to Career Paths: CCNA R&S and CCENT
März 16, 2018

Get Ready for NEW NetAcad + DevNet Workshops
März 07, 2018

New: CCNA Cybersecurity Operations Releases
Januar 24, 2018

CCNA R&S: Connecting Networks 6.0 Rolls Out Two More Languages
Februar 21, 2018

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Instructor Home **1**

SN_Instructor_2018

✎ Edit ⋮

CCNA Routing and Switching: Scaling Networks

↑ Launch Course

👤 Student Resources

In order to avoid potential compatibility issues, you should use the latest version of Packet Tracer.

Publish   Edit   ⚙️▾

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Instructor Home

Resource Link	Description
Working with IOS 15 Universal Image Licenses ↗	View information regarding IOS 15.
Instructor Resources	View informative resources for the CCNA R&S curriculum: • Curricula informational materials (ex. Scope & Sequence) • Assessment resources (ex. Design Documents) • Instructor and student lab and PT resources • Source materials • Instructor Planning Guide and PPT
Assessment Resources	Tutorials on NetAcad assessments, including new activation and assessment viewer features, managing assessments, using Canvas quizzes and item banks, etc.
Packet Tracer Resources	Cisco Packet Tracer provides simulation, visualization, authoring, assessment, and collaboration capabilities, and facilitates the teaching and learning of complex technology concepts.
Course Downloadable	For academies that have a need to deliver the course from a local server, a downloadable option is provided for instructors. The downloadable file is to be downloaded by instructors only and used for instructional purposes. It should not be made available directly to students or other instructors.
Equipment Information	View the Equipment list for this course. For general equipment information, go to Program>Equipment Information on netacad.com.

Curriculum can be down-loaded from the materials of an open class only

Enroll to IPD Opportunities

Course Resources

Course Resources

Networking Courses
Networking Essentials
Mobility Fundamentals
CCNA R&S: Intro to Networks 6.0 | older versions 5.1 5.0
CCNA R&S: Routing and Switching Essentials 6.0 | older versions 5.0
CCNA R&S: Scaling Networks 6.0 | older versions 5.0
CCNA R&S: Connecting Networks 6.0 | older versions 5.0
CCNA R&S 6.0: Bridging
CCNP Routing & Switching 7.1

Security Courses
Introduction to Cybersecurity 2.0 | older versions 1.1
Cybersecurity Essentials
CCNA Security 2.0 | older versions 1.2

IoT Courses
Introduction to IoT
IoT Fundamentals: Connecting Things
IoT Fundamentals: Big Data & Analytics
IoT Fundamentals: Hackathon Playbook

OS and IT Courses
IT Essentials 6.0 | older versions 5.0
NDG Linux Unhatched
NDG Linux Essentials
NDG Linux I & II

Programming Courses
Programming C++ (CPA and CPP)
CLA: Programming Essentials in C

Other Courses
Be Your Own Boss
Entrepreneurship
Get Connected
Introduction to Packet Tracer

Additional Instructor Resources

Packet Tracer Resources
General Assessment Resources
Instructor Professional Development
FAQs for Instructors
Academy Orientation course

Latest News

Webinar Replay: Introduction to Coding
August 30, 2017

Support Desk Changes Planned
August 18, 2017

Packet Tracer 7.1 Now Available
August 04, 2017

Celebrating 20 Years Together!
Juli 21, 2017

Teach Essential Networking Concepts
Juni 21, 2017

go to news & events

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CISCO **Cisco Networking Academy**

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Asset Publisher

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Professional Development Opportunities

05 Feb 2018

Global Instructor Professional Development (IPD) Week

#NetAcadIPD

To enroll in the Global IPD Week course and review the session recordings go to: **http://cs.co/GIPD18**

Already enrolled?

1. enter the course under **I'm Learning**
2. watch session recordings and download the session materials
3. mark your calendars for **26 February to 2 March** to join the live sessions in the next Global IPD Week

The **Program update** sessions are packed with information, including curriculum releases, new netacad.com features, equipment updates and much more!

We have a wide range of topics for our **Technical Sessions** in February: CCNA Cybersecurity Operations, Programming Essentials in Python, Network Programmability in NetAcad, Netflow Operations and more!

Check out the Archive link from the Global IPD Week course homepage to watch previous session recordings and to download materials. Sessions include:

Cisco Spark at Your Academy
Network Scanning: Using NMAP and Wireshark
Metasploit - Let's Understand How Hackers Attack
Python Programming
And much more!

We are offering sessions in ten languages: English, Arabic, Bahasa, Bangla, Burmese, Chinese, French, German, Hindi, Italian, Polish, Portuguese, Russian, Sinhalese, Spanish, Thai, Telugu, Turkish and Vietnamese.

Academy Orientation course

This self-paced course provides new Networking Academy instructors, administrators and other partners a broad overview of Cisco Networking Academy and the services and resources available as part of the program. The orientation course will also help instructors and administrators understand how to use these resources and the Cisco Networking Academy platform in support of the program and its students.

Enroll in the Academy Orientation course.

If you are already enrolled, enter the Academy Orientation course.

Global Instructor Resources

Access Global Instructor Resources to expand your technical knowledge and supplement classroom instruction. If you are already enrolled, enter the Global Instructor Resources course.

Reporting Errors

Curriculum and Assessment Errors

1. Check the curriculum Errata sheet first on Course Resources page
2. Create a ticket with the Global Support Desk

Packet Tracer Errors

1. Reported using the Packet Tracer Application
2. Help menu -> Report an Issue

CCNA R&S: Teaching Methods and Materials

Moodle as one opportunity to provide more or individual information for study groups.

Kapitel 3: Dynamisches Routing

Wichtige Lerninhalte des Kapitels im Überblick:

- 3.1.1.1 Klassifizierung der Routing-Protokolle (2. Grafik)
- 3.1.1.2 Komponenten dynamischer Routing-Protokolle
- 3.1.2.3 Anwendungsfälle für dynamische Routing-Protokolle

Kapitel 3: Dynamisches Routing

- wichtige Lerninhalte
- Präsentation (ausführlich)
- Packet Tracer Übung: RIPv2
  - Lösung PT RIPv2

RIP / RIPng Lab

- Einführung RIP Lab
- RIP / RIPng – Befehlsübersicht
- kohnlehome.de Routingprotokolle Übersicht
- RIPv2 Lab
- RIPng (IPv6) - Lab

Lehrer**innen**fortbildung
Baden-Württemberg

- Course 1 - Introduction to Networks
  - Chapter 01 - Exploring the Network
  - Chapter 02 - Configuring a Network Operating System
  - Chapter 03 - Network Protocols and Communications
  - Chapter 04 - Network Access

- Moodle site with presentations and materials from teacher trainers

- IT Ess, Netw. Ess & CCNA R&S V6

- Access: https://lehrerfortbildung-bw.de/moodle2/login/

- Enrollment key for Cisco-Courses: ospfeigrpripv2

CCNA R&S: Types of Certifications

Exams for CCNA

Option 1: 200-125 CCNA Composite → Course 1, 2, 3 & 4

Option 2: 100-105 ICND1 → Course 1 & 2   +

200-105 ICND2 → Course 3 & 4

Download Exam Topics for more detailed information

Exam Topics

e.g. https://learningnetwork.cisco.com/community/certifications/ccna/ccna-exam/exam-topics

1.0 Network Fundamentals	15%	Show Details
2.0 LAN Switching Technologies	21%	Show Details
3.0 Routing Technologies	23%	Show Details
4.0 WAN Technologies	10%	Show Details
5.0 Infrastructure Services	10%	Show Details
6.0 Infrastructure Security	11%	Show Details
7.0 Infrastructure Management	10%	Show Details

extract

CCNA R&S: Exam Preparation

- Cisco Press Books

  for each course

  Companion Guide **Labs & Study Guide** **Course Booklet**

  31 Days Before Your CCNA Routing & Switching Exam
  Johnson
  Book: 9781587205903
  March 2017

  CCENT/CCNA ICND1 100-105 Official Cert Guide
  Odom
  Book: 9781587205804
  May 2016

  CCNA Routing & Switching Portable Command Guide
  Empson
  Book: 9781587205880
  May 2016

  CCNA Routing and Switching ICND2 200-105 Official Cert Guide
  Odom
  Book: 9781587205798
  July 2016

  - http://www.ciscopress.com/academy
  - Try to order free instructor copies.
  - Consider the correct exam number.

  CCNA Routing and Switching ICND2 200-105 Official Cert Guide Premium Edition and Practice Tests

  Click here to refresh your EPUB.
  Click here to refresh your MOBI.
  Click here to refresh your PDF.
  Download Exam Engine (How to install)
  Access Online Practice Test

  Pearson | Pearson Test Prep

- T. Lammle: CCNA Routing and Switching Complete Study Guide: Exams 100-105, 200-105, 200-125 , Oktober 2016, ISBN: 1119288312

- *Do you have more recommendations?*

Equipment for CCNA R&S

- Cisco NetAcad recommends:
  - 3x Cisco (1900/2900 ISR G2) Routers
  - 3x Cisco Catalyst Layer 2 Switches
  - Serial (WIC) Interface Cards
  - Serial & Ethernet Cabling

- The new CCNA R&S labs are build around the use of IOS 15…

- EMEAR Promotion includes:

CCNA STANDARD CORE BUNDLE			
	CAB-CONSOLE-RJ45=	Console Cable 6ft with RJ45 and DB9F	3
	CAB-CONSOLE-USB=	Console Cable 6 ft with USB Type A and mini-B	3
	CAB-SS-V35FC=	V.35 Cable, DCE Female to Smart Serial, 10 Feet	3
	CAB-SS-V35MT=	V.35 Cable, DTE Male to Smart Serial, 10 Feet	3
	CISCO2901/K9	Cisco 2901 w/2 GE,4 EHWIC,2 DSP,256MB CF,512MB DRAM,IP Base	3
	HWIC-2T=	2-Port Serial WAN Interface Card	3
	WS-C2960-24TT-L	Catalyst 2960 24 10/100 + 2 1000BT LAN Base Image	3

Cisco 1941 ISR EoL

- End-of-Life announced on 31 March
  - End of Sale: 29 September 2018
  - End of Support: 30 September 2023

- May wish to recommend to purchase the 4321 due to the IOS-XE support and future requirements of Network Progammability

- We are looking for other possible replacement options

- New equipment that gets added to the official list is regression tested

2900 ISR Router Replaced by 4321 ISR

- The 2900 Series router End-of-Sale date is December 9, 2017 and we will continue to support products for five years after that.

- Replacement router is the Cisco ISR 4321 (2GE,2NIM,4G FLASH,4G DRAM,IPB). Updated Equipment List by curriculum by following this path – NetAcad.com -> Resources -> Marketing and Program Resources -> Equipment Information -> Equipment Lists by Curriculum.