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Chapter 3

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Preview exam  
day with 1500  
questions  
tailored to the  
exam domains  
CCNA Routing  
and Switching  
Practice Tests is

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your ultimate tool  
for exam success  
and compliments  
the Sybex Deluxe  
Study Guides and  
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CCNA. Whether  
you're taking the  
200-15

Composite Exam  
or the two-part

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100-105 and  
200-105 exams,  
this book gives  
you the practice  
you need to  
study smarter.  
Seven completely  
unique  
200-question  
practice tests  
cover the seven  
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and Switching

objective

domains, and two

additional unique

50-question

practice exams

provide even

more opportunity

to find areas

where further

review is needed.

These 1500

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questions cover everything you'll see on the exam—network fundamentals; LAN switching technologies; routing technologies; WAN technologies; and

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infrastructure services, security, and management—so you can avoid any exam-day surprises. Fully aligned with the latest versions of the exams, this book helps you focus your study

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time and remove uncertainties so you can face the exam with confidence. The CCNA Routing and Switching exams test your working knowledge of IP data networks, addressing,

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routing, and services; network device security; troubleshooting, and more. These practice tests cover it all to help you discover what you already know, what you still need to learn, and what to



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expect on exam

day. Get a

preview of the

types of

questions you'll

see on the exam

Pinpoint areas in

need of review

Focus your study

time for better

results Gauge

your readiness

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for any CCNA exam The CCNA exams cover a broad range of routing and switching topics, and the questions can get fairly in-depth. Practice makes perfect, and practice tests

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tailored to each of the seven exam domains provide an ideal opportunity to ensure your own top-notch performance. When you're ready to get serious about CCNA

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certification,  
CCNA Routing  
and Switching  
Practice Tests  
are your solution  
for ultimate exam-  
day confidence.

A complete  
preparation guide  
for the entry-level  
networking CCNA  
certification If

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(CCNA), this is  
the study guide  
you need! Seven  
minibooks cover  
all the concepts

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and topics on which you'll be tested, covering the latest version of the exam. Each part of the exam is covered thoroughly in its own section, so you can readily find the information you

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want to study.

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on exam content.

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cover Secure



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and OSPF, and  
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of the exam,  
including the new  
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components  
added in 2008  
Packed with  
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be retired, and Cisco will begin offering new certification programs. The good news is if you're working toward any current CCNA certification, keep going. You have until February 24,

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2020 to complete your current CCNA. If you already have CCENT/ICND1 certification and would like to earn CCNA, you have until February 23, 2020 to complete your CCNA certification in

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the current program.

Likewise, if you're thinking of completing the current

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them between  
now and  
February 23,  
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Study Guide, 2nd Edition gives you everything you need to understand networking concepts, and demonstrate those skills on exam day and beyond.

Completely

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Revised for the  
New 2007  
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(#640-802) Cisco  
networking  
authority Todd  
Lammle has  
completely  
updated this new  
edition to cover  
all of the exam

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objectives for the latest version of the CCNA exam.

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version of the  
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guide features  
expanded  
coverage of key  
topic areas plus  
new material on  
switching,  
network address  
translation, and  
OSPF. Inside,

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hands-on

exercises and

labs to reinforce

critical skills,

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scenarios that

put what you've

learned in the

context of actual

job roles

Challenging



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in each chapter

to prepare you

for exam day

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identifies critical

areas you must

become

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before taking the

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Teaching  
supplements are  
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CCNA Wireless  
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2160 Sample

Questions and

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(Dec 2010)

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640-553)

CCNA Routing

and Switching

Complete Study

Guide

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Cisco Networking  
Technologies is  
an important  
resource for  
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switches,  
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interface and  
cabling, IPv6  
addressing,  
discovery  
protocols,  
wireless  
infrastructure,  
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features and  
encryption  
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and software-  
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**a primary**

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the exam topics.  
The book  
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knowledge and  
best practices  
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skills and a  
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devices, storage  
area networks  
(SANs), and voice  
networks

WRITTEN BY A  
LEADING

EXPERT: Eric  
Stewart is a self-  
employed network  
security contractor  
who finds his  
home in Ottawa,

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Canada. Eric has more than 20 years of experience in the information technology field, the last 12 years focusing primarily on Cisco® routers, switches, VPN concentrators, and security

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appliances. The majority of Eric's consulting work has been in the implementation of major security infrastructure initiatives and architectural reviews with the Canadian Federal Government. Eric



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is a certified Cisco instructor teaching Cisco CCNA, CCNP® , and CCSP® curriculum to students throughout North America and the world. [informit.com/examcram](http://informit.com/examcram)

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as IP addressing,

subnetting, TCP/IP

and OSI

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summarization,

and IP access

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and practice for

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complex scenarios

you will face on

the exam. Well-

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features, and

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exercises, these

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guides help you master the concepts and techniques that will enable you to succeed on the exam the first time.

¿ Wendell Odom, CCIE No. 1624, is the most respected author of Cisco

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CCNA), the more  
advanced CCNP,  
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His books are

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known for their technical depth and accuracy.

Wendell has worked as a network engineer, consultant, instructor, course developer, and book author, and he has produced videos, software,



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and blogs related to Cisco certifications. His website with links to various study tools and resources is at [www.certskills.com](http://www.certskills.com). ; These official study guides help you master all the topics on the

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including: TCP/IP  
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routers and LAN  
switches Ethernet  
switch  
configuration and  
troubleshooting  
Virtual LANs and  
Spanning Tree

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Chapter 3

Protocol Wireless  
LANs IP

addressing and  
subnetting Routing

protocols Router  
configuration and

troubleshooting

Static and

connected routes

VLSM and route

summarization IP

access control lists

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Chapter 3

OSPF and EIGRP  
configuration WAN  
configuration and  
troubleshooting  
Frame Relay  
Network Security  
and VPNs NAT  
IPv6

Troubleshooting

Includes

CCENT/CCNA

ICND1 640-822

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Chapter 3

Official Cert Guide,  
Third Edition and  
CCNA ICND2  
640-816 Official  
Cert Guide, Third  
Edition ; This  
volume is part of  
the Official Cert  
Guide Series from  
Cisco Press.  
Books in this  
series provide

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officially developed exam preparation materials that offer assessment, review, and practice to help Cisco Career Certification candidates identify weaknesses, concentrate their study efforts, and

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enhance their  
confidence as  
exam day nears. ¿

CCNA

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Routing and

Switching 200-120

Official Cert Guide

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Switching 200-120

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Exam 640-802

CCNA ICND Exam

Certification Guide

A brand new

edition of the

number one book

on the

CCENT/CCNA

ICND1 exam! \*

\*This new



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### Chapter 3

edition has been fully updated to refresh the content, add new exercises, and enhance certain essential CCENT and CCNA exam topics. \*The CD offers a brand new practice

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### Chapter 3

exam engine,  
offering a  
wealth of  
customization  
options and  
reporting  
features along  
with several  
hundred exam-  
realistic  
practice  
questions. \*The  
CD also

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## Cisco Exam

### Chapter 3

contains a free network simulator with new exercises. This new edition has been fully updated to refresh the content, add new exercises, and enhance certain

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### Chapter 3

essential CCENT and CCNA exam topics. The previous single chapter on IP Addressing and Subnetting has been completely rewritten, to make the concepts easier to understand and absorb. A

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significant amount of new practice exercises have been added to help master this complex and important topic. These new exercises will help you not only master the concepts

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### Chapter 3

but also help improve your subnet calculation speed, which is a critical factor for success on the exam. In addition to these changes, the TCP/IP and OSI Networking

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Models and Fundamentals of LANs chapters were also completely updated and rewritten. The Numeric Reference Table appendix was also completely revised. In addition to the

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wealth of updated content, this new edition also includes a series of free hands-on exercises to help master several real-world configuration activities.



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These exercises can be performed on the CCNA Network Simulator, ICND1 Lite Edition included for free on the CD-ROM. Finally, the practice test has been

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fully updated  
to the new  
Pearson IT  
Certification  
Practice Test  
software,  
offering a  
wealth of  
customization  
options and  
reporting  
features along  
with several

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hundred exam-  
realistic  
practice  
questions.

CCNA

Collaboration

CICD 210-060

Official Cert

Guide CCNA

Collaboration

CICD 210-060

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Guide from

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Cisco Press enables you to succeed on the exam the first time and is the only self-study resource approved by Cisco. Long-time Cisco expert and trainer Michael Valentine

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shares

preparation  
hints and test-  
taking tips,  
helping you  
identify areas  
of weakness and  
improve both  
your conceptual  
knowledge and  
hands-on  
skills. This  
complete,

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official study  
package  
includes A test-  
preparation  
routine proven  
to help you  
pass the exam  
“Do I Know This  
Already?”  
quizzes, which  
enable you to  
decide how much  
time you need

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### Chapter 3

to spend on  
each section  
Chapter-ending  
exercises,  
which help you  
drill on key  
concepts you  
must know  
thoroughly The  
powerful  
Pearson IT  
Certification  
Practice

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Test software,  
complete with  
hundreds of  
well-reviewed,  
exam-realistic  
questions,  
customization  
options, and  
detailed  
performance  
reports A final  
preparation  
chapter that



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guides you  
through tools  
and resources  
to help you  
craft your  
review and test-  
taking  
strategies  
Study plan  
suggestions and  
templates to  
help you  
organize and

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### Chapter 3

optimize your  
study time Well  
regarded for  
its level of  
detail, study  
plans,  
assessment  
features,  
challenging  
review  
questions and  
exercises, this  
official study

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guide helps you master the concepts and techniques that ensure your exam success.

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Collaboration

CICD 210-060

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Guide is part

of a

recommended

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learning path  
from Cisco that  
includes  
simulation and  
hands-on  
training from  
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Cisco Learning  
Partners and  
self-study  
products from  
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about

instructor-led  
training, e-  
learning, and  
hands-on  
instruction  
offered by  
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Partners  
worldwide,  
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Michael

Valentine,  
CCNA, CCNP,  
CCDP, CCVP,  
CCSI No. 31461,  
has worked in  
IT since 1996,  
and as a  
trainer since  
2001. He is  
currently a  
Cisco trainer  
with Skyline

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Advanced

Technology

Services,

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Communications

and CCNA. His

accessible,

humorous, and

effective

teaching style

has demystified

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technology for thousands of students. He has developed courseware and labs for both Cisco and its training partners, is co-author of CCNA Exam Cram (Exam 640-802), Third Edition, and is



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the author of  
CCNA Voice  
Quick Reference  
Guide. The  
official study  
guide helps you  
master topics  
on the CCNA  
Collaboration  
CICD 210-060  
exam, including  
the following:  
Cisco Unified

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Communications  
components  
Cisco Unified  
Communications  
Manager Express  
administration,  
end user  
management,  
dial plans, and  
telephony  
features Cisco  
Unified  
Communications

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### Chapter 3

Manager

administration,

end point

management,

dial plan

elements and

interactions,

and telephony

and mobility

features Cisco

Unity

Connection

voicemail CM IM

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### Chapter 3

and Presence

support CME and

CUCM management

and

troubleshooting

Monitoring

Cisco Unity

Connection The

CD-ROM contains

more than 140

practice

questions for

the exam,

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### Chapter 3

memory table  
exercises and  
answer keys, a  
glossary flash  
card tool, and  
a study planner  
tool. Pearson  
IT  
Certification  
Practice Test  
minimum system  
requirements:  
Windows Vista

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(SP2), Windows 7, Windows 8.1, or Windows 10; Microsoft .NET Framework 4.5 Client; Pentium-class 1 GHz processor (or equivalent); 512 MB RAM; 650 MB disk space plus 50 MB for each downloaded

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practice exam;  
access to the  
Internet to  
register and  
download exam  
databases This  
volume is part  
of the Official  
Cert Guide  
series from  
Cisco Press.  
Books in this  
series provide

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officially  
developed exam  
preparation  
materials that  
offer  
assessment,  
review, and  
practice to  
help Cisco  
Career  
Certification  
candidates  
identify



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weaknesses,  
concentrate  
their study  
efforts, and  
enhance their  
confidence as  
exam day nears.

The book  
explains CISCO  
CCNA/CCENT  
internetworking  
routing and  
switching

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concepts and guarantees the certification to the readers, with a unique presentation in the field of internet networking. It is written like usual textbooks. The differences are; in the way

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of presenting the required information, which is so simple, the addition of more than 2200 learning questions, and the built-in of 13 exam engines and flash cards. The

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learning

questions, at

the end of a

chapter,

represent a

review to the

information

presented in

that chapter as

well as provide

an easy way for

the preparation

of the real

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exam. The questions are made to focus on the important information. You have two options to read the questions and their answers, either by using the built-in exam

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### Chapter 3

engine at the end of each chapter or by reading the questions and their answers in the EBook. With more than 840 pages, the book includes explanatory text and provides new

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### Chapter 3

types of test formats to simplify both the exam and the presenting of the information to the readers, including over 2200 challenging multiple-choices-single-answer,

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multiple-choice  
s-multiple-  
answers, fill-  
in-the-blank,  
testlet, drag-  
and-drop, and  
simulation test  
formats. A  
variety of  
internetworking  
scenarios and  
exhibits are  
used in this



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### Chapter 3

book to

illustrate the topics related to the CISCO internetworking fundamentals.

In line with modern training and teaching methodology, the questions are included to encourage the

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### Chapter 3

reader to stop and think, as well as to test his knowledge in preparation for a successful CCNA CCENT examination.& ;& ;The book also provides you three built-in CISCO

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CCNA/CCENT

exams' engines. The exams mimic the format on real CISCO exams. The exams are highly organized, so that the reader can easily understand the concepts of the

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### Chapter 3

exams. To be more familiar with the real CISCO exam, each exam in this book contains only 50-60 questions. Moreover, the answers of the questions are comprehensively

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described so that you could understand the concepts behind each question very well and be more confident on the CISCO exam. The exams are made so that you could feel like on real

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CISCO exams.

Therefore, the questions in this book require the same level of analysis as the question on the CCNA/CCENT ICND1 exams.

Varieties of internetworking designing and

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troubleshooting scenarios are described in this book.

While these scenarios prepare you for the exam, you will obtain strong experiences on CISCO switches, CISCO routers,

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CISCO

internetworking  
and the  
associated  
protocols, and  
technologies.

The three

Simulated

CISCOexams make

you more

confident in

the real CISCO

exam. & ; &



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CCENT is the essential certification for the CISCO internetworking routing and switching track.

Understanding the CCENT topics and passing this exam

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successfully,  
are crucial for  
those who want  
to be an  
Internetworking  
professional,  
and is an easy  
mission, just  
follow this  
book. The  
current track  
of the CCNA  
routing and

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switching

contains two exams and two certifications, the CCENT/ICND1 exam 640-822 and the ICND2 exam 640-816.

However, it is possible to obtain the CCNA exam 640-802 by one exam and

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one

certification.

Now, CCENT and CCNA are the most popular entry-level networking and internetworking certification programs. The CCENT certification proves that you

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have a firm foundation in the networking and internetworking field, and it proves that you have a solid understanding of IP protocol, IP routing, switching, and many of CISCO

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device's configurations. ;& ;& ;The book provides in-depth coverage of all official CCNA CCENT exam objectives and uses 2800 router, 1841 router, catalyst 2960 switch, and

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many other  
CISCO devices  
to clarify the  
required  
concepts. It  
also provides  
an up-to-date  
information for  
the newest  
catalyst 2960-S  
switch and  
802.11n  
wireless

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technology. It provides objective-by-objective coverage of all the material the student needs to know for the exam, signaling out critical information, outlining



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necessary

procedures, and  
identifying the  
exam

essentials.& ;&

;The book is  
composed of ten  
chapters. Each  
chapter treats  
each

internetworking  
entity with  
clear, simple,

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### Chapter 3

easy-to-follow sections, text boxes and numerous conceptual figures. The book contains more than 313 Figures, 33 Exhibits, 150 Tables, and hundreds of CISCO Switches'

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and Routers' Configurations. At the end of each chapter, a number of learning questions, exam engine with flash cards and a list of the commands, which are used in that chapter,

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are given. To make the reader/student more familiar with the CISCO exam, which is not requiring explaining the answer, some of the answers are not provided with explanations.

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However,  
explanations  
for these  
answers can be  
obtained easily  
from their  
questions. This  
will preserve  
the reader time  
by eliminating  
all the  
repeated  
information and

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it will not waste his/her time by extra statements. To encourage the reader to stop and think as well as to test his knowledge, the answers are not given directly after the learning

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questions;  
instead, the  
answers are  
listed in  
Appendix A with  
complementary  
discussions.&  
;& ;This book  
uses mainly the  
passive voice  
way of writing  
to give the  
reader strong-s

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straightforward information without confusing the reader by extra-not required statements.

This way of writing is also used by CISCO for devices' configurations, and by several



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### Chapter 3

computer

technical books  
and operating  
systems; hence,  
the reader will  
be more

familiar with  
CISCO devices'  
configurations  
while he/she  
reads this

book.& ;& ;The  
2200 questions

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### Chapter 3

are distributed  
across the book  
as shown

below:

Chapter 1:

Internetworking  
Essentials

Chapter 2:

Internetworking  
IP Protocol and  
IP Addressing

Chapter

3: Subnetting

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### Chapter 3

IP Network and

VLSMs ; 85 &

; Chapter 4:

Internetworking

OS CISCO

Devices ; 239 &

; Chapter 5:

Internetworking

Routing

Protocols 233 &

; Chapter 6:

Internetworking

Switching 219 &

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### Chapter 3

;Chapter 7:

Internetworking

OS Management

Facilities216&

;Chapter 8:

Internetworking

WAN

Technologies&

;188& ;Chapter

9:

Internetworking

Wireless

Technology: an

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### Chapter 3

Introduction 143

& ; Chapter 10:

Internetworking

Security: an

Introduction 94&

; Exam E1& ; 52&

; Exam E2 54&

; Exam E3& ; 54&

; & ; This book

is a unique one

that is

designed to

offer both the

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CCNA/CCENT

study guide and examination guide, and includes 13 built-in exam engines with flash cards.

The book covers essential topics on the Internetworking and security

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that can be understood, even if the students do not have a technical background. The book is necessary for any CISCO Internetworking and security related

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certifications. It is designed and organized for absolute beginners as well as for professional in CISCO internetw orking. For beginners to be able to follow the train of thought and to



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ease the presenting of the technical information to them, the book gradually presents the information by highly organized only ten chapters, and then each chapter is

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decomposed into a number of sections and subsections.

The TRUE/FALSE and Correct/Incorrect types of questions are used to review the important information easily to the beginners. For

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those who have a good technical background and ready for certification, the book can be used as an additional technological certification guide, and the learning

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questions and the three exams can be used as a refresher for their information before taking the exam.

Moreover, Questions like "Try to decide which option gets in which

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blank" and  
"Match ...  
etc." are used  
as a simulated  
"Drag-and-drop"  
type of  
questions in  
the exam.  
Therefore, the  
book knowledge  
is what the  
student needs  
to be a

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successful  
networking  
professional,  
and it is a  
valuable  
technological  
resource for  
those on the  
job with intern  
etworking.& ;&  
;By  
understanding  
perfectly the

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information  
presented in  
this book, inte  
rnetworking-  
engi

Accompanying CD-  
ROM contains  
more than 450  
practice  
questions for  
the exam,  
memory table  
exercises,

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answer keys,  
and a study  
planner tool.

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Certification

All-In-One For

Dummies

A Certification

Guide with 2200

Sample

Questions and

Answers with

Comprehensive



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Explanations:  
the Complete  
One-Week  
Preparation for  
the CISCO  
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CCNA Data  
Center:  
Introducing  
Cisco Data  
Center  
Technologies  
Study Guide

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CCNA Fast Pass

CCNA Routing

and Switching

Complete Deluxe

Study Guide

CCNA Cisco

Certified

Network

Associate Study

Guide, 7th

Edition

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Guide series from Cisco Press to help you learn, prepare, and practice for exam success. They are built with the objective of providing assessment, review, and practice to help ensure you are fully prepared for your certification exam.

CCNA Voice 640-461

*Page 195/382*

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Official Cert Guide presents you with an organized test preparation routine through the use of proven series elements and techniques. "Do I Know This Already?" quizzes open each chapter and enable you to decide how much time you need to

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spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know thoroughly. Master Cisco CCNA Voice 640-461 exam topics. Assess your knowledge with

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chapter-opening  
quizzes Review key  
concepts with exam  
preparation tasks  
Practice with 200+  
realistic exam  
questions on the CD-  
ROM CCNA Voice  
640-461 Official Cert  
Guide focuses  
specifically on the  
objectives for the  
CCNA Voice ICOMM  
exam. Senior voice

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consultants and trainers Jeremy Cioara and Michael Valentine share preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a

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concise manner,  
focusing on  
increasing your  
understanding and  
retention of exam  
topics. The  
companion CD-ROM  
contains a powerful  
Pearson IT  
Certification  
Practice Test engine  
that enables you to  
focus on individual  
topic areas or take a



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complete, timed exam. The assessment engine also tracks your performance and provides feedback on a module-by-module basis, laying out a complete assessment of your knowledge to help you focus your study where it is needed most. Well-

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regarded for its level of detail, assessment features, comprehensive design scenarios, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will enable you to

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succeed on the exam the first time.

The official study guide helps you master all the topics

on the CCNA Voice exam, including:

Voice and data convergence IP

phone connections to the LAN

infrastructure Cisco Unified

Communications

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Manager Express  
CUCM Express IP  
phone configuration  
and voice  
productivity features  
Gateways and  
trunks Cisco Unity  
Express Smart  
Business  
Communications  
System UC500  
series for voice  
CCNA Voice 640-461  
Official Cert Guide is

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part of a recommended learning path from Cisco that includes simulation and hands-on training from authorized Cisco Learning Partners and self-study products from Cisco Press. To find out more about instructor-led training, e-learning,

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and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit [www.cisco.com/go/authorizedtraining](http://www.cisco.com/go/authorizedtraining). The print edition of the CCNA Voice 640-461 Official Cert Guide contains two free, complete practice exam.

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Certification

Practice Test

minimum system

requirements:

Windows XP (SP3),

Windows Vista

(SP2), or Windows

7; Microsoft .NET

Framework 4.0

Client; Microsoft

SQL Server

Compact 4.0;

Pentium class 1GHz

processor (or

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equivalent); 512 MB

RAM; 650 MB disc

space plus 50 MB

for each

downloaded

practice exam Also

available from Cisco

Press for Cisco

CCNA Voice study is

the CCNA Voice

640-461 Official Cert

Guide Premium

Edition eBook and

Practice Test. This



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digital-only certification preparation product combines an eBook with enhanced Pearson IT Certification Practice Test. This integrated learning package: Allows you to focus on individual topic areas or take complete, timed

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exams Includes  
direct links from  
each question to  
detailed tutorials to  
help you understand  
the concepts behind  
the questions  
Provides unique  
sets of exam-  
realistic practice  
questions Tracks  
your performance  
and provides  
feedback on a

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module-by-module basis, laying out a complete assessment of your knowledge to help you focus your study where it is needed most

IT Essentials: PC Hardware and Software Lab Manual, Fourth Edition Cisco Networking

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Academy The only authorized Lab Manual for the Cisco Networking Academy IT Essentials v4.1 course IT Essentials: PC Hardware and Software Lab Manual is a supplemental book that helps the students in the

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Hardware and

Software

Companion Guide,

Fourth Edition

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Hardware and

Software Course

Booklet, Version 4.1

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978-1-58713-261-2

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Covers the

objectives of the

CCNA INTRO exam

and provides review

questions, scenario-



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based exercises,  
and a testing engine  
found on the  
companion CD-  
ROM.

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test preparation  
book, developed  
with Cisco for  
proven and  
comprehensive  
coverage & & CD-  
ROM testing engine

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## Cisco Exam

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has over 200  
question, including  
simulation based as  
on the CCNA exam,  
providing the most  
accurate test  
preparation  
available & & Proven  
training features  
complete concept  
learning and  
retention in the all-  
time best selling  
CCNA preparation

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title

CCNA ICND2

640-816 Official Cert  
Guide

CCNA Collaboration

CICD 210-060

Official Cert Guide

CCNA INTRO Exam

Certification Guide

CCSP Complete

Study Guide

CCNP Enterprise

Certification Study

Guide:

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Implementing and  
Operating Cisco  
Enterprise Network  
Core Technologies  
CSPFA

*Cisco has announced  
big changes to its  
certification program.  
As of February 24,  
2020, all current  
certifications will be  
retired, and Cisco will  
begin offering new  
certification programs.*

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*The good news is if you're working toward any current CCNA certification, keep going. You have until February 24, 2020 to complete your current CCNA. If you already have CCENT/ICND1 certification and would like to earn CCNA, you have until February 23, 2020 to complete your CCNA certification in*

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### Chapter 3

*the current program.*

*Likewise, if you're thinking of completing the current*

*CCENT/ICND1, ICND2, or CCNA Routing and Switching certification, you can still complete them between now and February 23, 2020.*

*Increase the value of your organization's cloud network—and*

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*invest in your education*  
*The Cisco Cloud*  
*certification validates*  
*the skill set of*  
*individuals on industry-*  
*leading cloud solutions*  
*and best practices, as*  
*well as offering job role-*  
*based curricula for all*  
*levels of an IT staff.*  
*CCNA Cloud Complete*  
*Study Guide prepares*  
*you to take two required*  
*exams: 210-451,*

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*Understanding Cisco  
Cloud Fundamentals,  
and 210-455,  
Introducing Cisco  
Cloud Administration. It  
covers everything you  
can expect to encounter  
on the exams and also  
gives you a year of  
FREE access to Sybex's  
superior online  
interactive learning  
environment and test  
bank, including chapter*



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*tests, practice exams, a glossary of key terms, and electronic flashcards. Cisco's CCNA Cloud certification covers cloud characteristics and models, cloud deployment, and basic knowledge of cloud compute, cloud networking, and cloud storage. It also covers cloud infrastructure*

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*administration and reporting, chargeback and billing reports, cloud provisioning, cloud systems management and monitoring, and cloud remediation. With thorough coverage, practical instruction, and expert insight, this book provides an ideal resource for Exam 210-451 and Exam*

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*210-455 preparation. •*

*Includes an opening list  
of exam topics •*

*Provides valuable hands-  
on exercises • Offers*

*practical real-world  
examples • Distills in-*

*depth perspective from  
cloud computing experts*

*This book is the perfect  
resource for anyone*

*seeking to earn the  
challenging, but*

*rewarding CCNA Cloud*

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*certification.*

*The Perfect CCNA  
Preparation and Review  
Tool From the author of  
Sybex's best-selling  
CCNA: Cisco Certified  
Network Associate  
Study Guide comes the  
streamlined tool you  
need to hone in on  
critical CCNA  
information: CCNA  
Fast Pass. The enclosed  
CD lets you practice,*

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*practice, practice so you can approach the exam with confidence.*

*Coverage includes:*

*Designing internetworks using Cisco technology*

*Developing an access*

*List Evaluating TCP/IP communication process*

*Configuring routers and switches Configuring IP*

*addresses, subnet*

*masks, and gateway*

*addresses Performing*

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*LAN, VLAN, and WAN  
troubleshooting*

*Understanding rules for  
packet control Note: CD-  
ROM/DVD and other  
supplementary materials  
are not included as part  
of eBook file.*

*Written by a proven,  
bestselling author and  
developer of technical  
and business training  
for Cisco Systems, this  
is an update to the top-*

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*selling Cisco*

*certification Exam*

*Cram.*

*Deluxe Edition of Best-*

*Selling CCNA Study*

*Guide This*

*comprehensive,*

*enhanced version of the*

*Sybex CCNA Study*

*Guide provides*

*certification candidates*

*with the additional tools*

*they need to prepare for*

*this popular exam. With*

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*additional bonus exams and flashcards, as well as the exclusive CCNA Virtual Lab, Platinum Edition, this comprehensive guide has been completely updated to reflect the latest CCNA 640-802 exam. Written by Cisco Authority Todd Lammle, whose straightforward style provides lively examples, hands-on and*



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*written labs, easy-to-understand analogies, and real-world scenarios that will not only help you prepare for the exam, but also give you a solid foundation as a Cisco networking professional. This Study Guide teaches you how to Describe how a network works Configure, verify and*

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*troubleshoot a switch with VLANs and interswitch communications*  
*Implement an IP addressing scheme and IP Services to meet network requirements in a medium-size Enterprise branch office network. Configure, verify, and troubleshoot basic router operation and routing on Cisco*

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*devices Explain and select the appropriate administrative tasks required for a WLAN Identify security threats to a network and describe general methods to mitigate those threats Implement, verify, and troubleshoot NAT and ACLs in a medium-size Enterprise branch office network. Implement and verify*

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*WAN links On the CD-ROM: Chapter Review Questions Full-Length Practice Exams*

*Electronic Flashcards Exclusive CD-only bonus material, including the CCNA Simulation Exam*

*Practice Guide All new Audio and Video Instruction from Todd Lammle On the Bonus 2nd CD-ROM The*

*Simulation Exam*

*Practice Guide All new Audio and Video Instruction from Todd Lammle On the Bonus 2nd CD-ROM The*

*Simulation Exam*

*Practice Guide All new Audio and Video Instruction from Todd Lammle On the Bonus 2nd CD-ROM The*

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*CCNA Virtual Lab, Platinum Edition. Users can work in a Cisco environment without having to spend the thousands of dollars on the pricy equipment. Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file. For Instructors: Teaching supplements are*

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*available for this title.*

*CCNA Cisco Certified  
Network Associate*

*Deluxe Study Guide*

*CCNA Routing and  
Switching Practice Tests  
4 in 1*

*Exams 100-101,  
200-101, and 200-120*

*CCSP CSI Exam Cram  
2 (Exam Cram 642-541)*

*Understanding Cisco  
Networking*

*Technologies, Volume 1*

*Page 238/382*

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***IT Certification  
Success Exam  
Cram 2 provides  
you with a  
detailed  
explanation of  
the certification  
arena from Ed  
Tittel, one of the  
most respected  
figures in the  
industry. The  
book explains the***

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**various**

**certification**

**programs, their**

**prerequisites,**

**what can be done**

**with them, and**

**where you might**

**want to go next.**

**Readers**

**preparing for a**

**certification**

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**best-selling Exam**



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***Cram 2 series to be the smartest, most efficient way to become certified. This book focuses exactly on what you need to know to get certified now!***

***Cisco has announced big changes to its***

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***certification program. As of February 24, 2020, all current certifications will be retired, and Cisco will begin offering new certification programs. The good news is if you're working toward any***

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***current CCNA certification, keep going. You have until February 24, 2020 to complete your current CCNA. If you already have CCENT/ICND1 certification and would like to earn CCNA, you have***

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Chapter 3

***until February 23,  
2020 to complete  
your CCNA  
certification in  
the current  
program.***

***Likewise, if  
you're thinking of  
completing the  
current***

***CCENT/ICND1,  
ICND2, or CCNA  
Routing and***

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**Switching**

***certification, you  
can still complete  
them between  
now and February  
23, 2020.***

***Complete theory  
and practice for  
the CCNA Data  
Center***

***Technologies  
exam CCNA Data  
Center,***

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***Introducing Cisco***

***Data Center***

***Technologies***

***Study Guide is***

***your***

***comprehensive***

***study guide for***

***exam 640-916.***

***Authors Todd***

***Lammle and Todd***

***Montgomery,***

***authorities on***

***Cisco networking,***

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***guide you  
through 100% of  
all exam  
objectives with  
expanded  
coverage of key  
exam topics, and  
hands-on labs  
that help you  
become confident  
in dealing with  
everyday  
challenges. You'll***

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***get access to the free Nexus switch simulator that allows you to try your hand at what you've learned without expensive software, plus bonus study aids, such as electronic flashcards, a practice exam, and a searchable***



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***PDF glossary of terms. Coverage includes Data Center networking and virtualization, storage networking, unified fabric, Cisco UCS configuration, Data Center services, and***

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***much more, for complete exam preparation. This is your guide to study for the entire second (and final) exam required for certification***  
***Review networking principles, products, and***

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***technologies***

***Understand***

***Nexus 1000V and***

***Data Center***

***virtualization***

***Learn the***

***principles and***

***major***

***configurations of***

***Cisco UCS***

***Practice hands-on***

***solutions you'll***

***employ on the job***

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***Prepare for using  
Cisco's Unified  
Data Center,  
which unifies  
computing,  
storage,  
networking, and  
management  
resources***

***An intensive, one-  
week study guide  
that provides  
students with all***

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***the knowledge  
they need to excel  
on the  
CCNA/CCENT  
exam, this  
certification  
guide is designed  
to make even the  
most difficult  
Internet working  
concepts easy to  
understand.***

***Cisco Press is the***

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***Official publisher  
for the New  
CCENT & CCNA  
Routing and  
Switching  
Certifications.  
The New Edition  
of the Best-  
Selling two-book  
value priced  
CCNA Official  
Cert Guide  
Library includes***

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***Updated Content,  
New Exercises,  
and 150 Minutes  
of Video Training  
-- PLUS the  
CCENT and CCNA  
Network***

***Simulator Lite  
Editions with 26  
Free Network  
Simulator Labs.  
CCNA 200-120  
Official Cert***

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***Guide Library is a comprehensive review and package for the latest CCNA exams. The two books contained in this package, CCENT/CCNA ICND1 100-101 Official Cert Guide and CCNA ICND2 200-101***

*Page 256/382*



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***Official Cert  
Guide, present  
complete reviews  
and a more  
challenging and  
realistic  
preparation  
experience. The  
books have been  
fully updated to  
refresh the  
content for the  
latest CCNA exam***

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***topics and  
enhance certain  
key topics that  
are critical for  
exam success.  
This is the eBook  
version of the  
print title - 2  
book library .  
Note that the  
eBooks do not  
provide access to  
the practice test***

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***software that accompanies the print books. Access to the personal video mentoring and simulator lite software is available through product registration at Cisco Press; or see instructions***

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***in back pages of  
your eBooks. Best-  
selling author  
and expert  
instructor  
Wendell Odom  
shares  
preparation hints  
and test-taking  
tips, helping you  
identify areas of  
weakness and  
improve both***

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***your conceptual knowledge and hands-on skills. This complete study package includes A test-preparation routine proven to help you pass the exams Do I Know This Already? quizzes, which enable you to***

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***decide how much time you need to spend on each section Chapter-ending and part-ending exercises, which help you drill on key concepts you must know thoroughly Troubleshooting sections, which***

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***help you master  
the complex  
scenarios you will  
face on the exam***

***A free copy of the  
CCNA ICND1 and  
ICND2 Network  
Simulator Lite  
software,***

***complete with  
meaningful lab  
exercises that  
help you hone***

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***your hands-on skills with the command-line interface for routers and switches More than 150 minutes of personal video mentoring from the author Final preparation chapters, which guide you***



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***through tools and resources to help you craft your review and test-taking strategies Study plan suggestions and templates to help you organize and optimize your study time These official study guides help you***

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***master all the***

***topics on the***

***CCNA exams,***

***including:***

***Networking***

***fundamentals***

***Ethernet LANs***

***and switches IPv4***

***addressing and***

***subnetting***

***Operating Cisco***

***routers***

***Configuring OSPF***

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***ACLs and NAT***

***IPv6***

***fundamentals,  
implementation,  
and***

***troubleshooting***

***LAN switching***

***IPv4 routing***

***VPNs OSPF and***

***EIGRP***

***configuration and***

***troubleshooting***

***Wide area***

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***networks and***

***Frame Relay***

***Network***

***management Well***

***regarded for its***

***level of detail,***

***study plans,***

***assessment***

***features,***

***challenging***

***review questions***

***and exercises,***

***video instruction,***

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***and hands-on  
labs, these  
official study  
guides help you  
master the  
concepts and  
techniques that  
ensure your exam  
success. Wendell  
Odom, CCIE No.  
1624, is the most  
respected author  
of Cisco***

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***networking books in the world. His past titles include books on the entry-level Cisco certifications (CCENT and CCNA), the more advanced CCNP, and the industry-renowned CCIE. His books are known for their***

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***technical depth  
and accuracy.***

***Wendell has  
worked as a  
network  
engineer,  
consultant,  
instructor, course  
developer, and  
book author, and  
he has produced  
videos, software,  
and blogs related***

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**to Cisco**

**certifications.**

**Includes 26 free**

**CCNA Network**

**Simulator labs:**

**ICND1**

**1. Configuring IP**

**Addresses I 2.**

**Configuring IP**

**Addresses II 3.**

**Connected**

**Routes 4. Static**

**Routes I 5. Static**



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**Routes II 6.**

**Subnet Zero 7.**

**Loopback**

**Interfaces 8.**

**Subnet ID**

**Calculation 9.**

**IPv4 Address**

**Rejection 10.**

**IPv4 Route**

**Selection 11.**

**Subnetting and**

**Addressing**

**Configuration**

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**Scenario 12.**

**Static Routing**

**Configuration**

**Scenario 13.**

**Network**

**Discovery**

**Troubleshooting**

**Scenario ICND2**

**1.EIGRP Serial**

**Configuration I 2.**

**EIGRP Serial**

**Configuration II**

**3. EIGRP Serial**

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**Configuration III**

**4. EIGRP Frame**

**Relay**

**Configuration I 5.**

**EIGRP Frame**

**Relay**

**Configuration II**

**6. EIGRP Route**

**Tuning I 7.**

**EIGRP Route**

**Tuning II 8.**

**EIGRP Neighbors**

**II 9. EIGRP**

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**Neighbors III 10.**

**EIGRP**

**Configuration**

**Scenario I 11.**

**EIGRP**

**Configuration**

**Scenario II 12.**

**EIGRP Metric**

**Manipulation**

**Configuration**

**Scenario 13. Path**

**Troubleshooting**

**Scenario CCENT**

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**and CCNA**

**Network**

**Simulator Lite**

**minimum system**

**requirements:**

**Microsoft**

**Windows XP**

**(SP2/SP3),**

**Windows Vista**

**(32-bit/64-bit)**

**with SP1,**

**Windows 7**

**(32-bit/64-bit) or**

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**Windows 8**

**(32-bit/64-bit),**

**Mac OS X 10.6,**

**10.7, or 10.8**

**Intel® Pentium®**

**III 1GHz or faster**

**processor**

**(Windows) or**

**Intel Core™ Duo**

**1.83GHz or faster**

**processor (Mac)**

**512 MB RAM (1**

**GB**

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***recommended)***

***1.5 GB hard disk  
space 32-bit color  
depth at 1024 x  
768 resolution***

***Adobe Acrobat  
Reader version  
8.0 or higher***

***Other  
applications  
installed during  
installation:***

***Adobe AIR 3.6.0***

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***Captive JRE 6***

***Exams 642-501,***

***642-511,***

***642-521,***

***642-531, 642-541***

***Exam 210-451***

***and Exam***

***210-455***

***CCNA 640-802***

***Official Cert***

***Library, Updated***

***Exam 100-105,***

***Exam 200-105,***



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***Exam 200-125***

***CCNA Voice***

***640-461 Official***

***Cert Guide***

***CCSP CSVPN***

***Exam Cram 2***

***(Exam Cram***

***642-511)***

Cisco has announced big changes to its certification program. As of

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February 24, 2020,  
all current  
certifications will  
be retired, and  
Cisco will begin  
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certification  
programs. The  
good news is if  
you're working  
toward any current  
CCNA certification,  
keep going. You  
have until February

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24, 2020 to complete your current CCNA. If you already have CCENT/ICND1 certification and would like to earn CCNA, you have until February 23, 2020 to complete your CCNA certification in the current program. Likewise, if you're

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thinking of completing the current CCENT/ICND1, ICND2, or CCNA Routing and Switching certification, you can still complete them between now and February 23, 2020. Networking's leading authority joins Sybex for the

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ultimate CCNA  
prep guide CCNA  
Routing and  
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review for the  
CCNA exams.  
Written by the  
leading authority  
on networking  
technology, this

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guide covers 100% of all objectives for the latest ICND1, ICND2, and CCNA Composite exams. Hands-on labs help you gain experience in critical procedures and practices. Gain access to the Sybex online learning environment,

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featuring a robust set of study tools including: practice questions, flashcards, video instruction, and an extensive glossary of terms to help you better prepare for exam day. The pre-assessment test helps you prioritize your study time, and

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bonus practice exams allow you to test your understanding. The CCNA certification is essential to a career in networking, and the exam can be taken in two parts or as a composite. Whichever you choose, this book is your essential



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guide for complete  
review. Master IP  
data network  
operation  
Troubleshoot  
issues and keep  
the network secure  
Understand  
switching and  
routing  
technologies Work  
with IPv4 and IPv6  
addressing Full  
coverage and

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expert insight

makes CCNA

Routing and

Switching

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Cisco Press to help

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and practice for  
exam success.

They are built with  
the objective of  
providing

assessment,  
review, and

practice to help  
ensure you are

fully prepared for  
your certification

exam. Master Cisco  
CCNA Wireless

640-722 exam

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topics Assess your knowledge with chapter-opening quizzes Review key concepts with exam preparation tasks This is the eBook edition of the CCNA Wireless 640-722 Official Certification Guide. This eBook does not include the companion CD-

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ROM with practice exam that comes with the print edition. CCNA Wireless 640-722 Official Certification Guide presents you with an organized test preparation routine through the use of proven series elements and techniques. "Do I Know This

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Already?" quizzes open each chapter and enable you to decide how much time you need to spend on each section. Exam topic lists make referencing easy. Chapter-ending Exam Preparation Tasks help you drill on key concepts you must know

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thoroughly. CCNA  
Wireless 640-722  
Official Certification  
Guide focuses  
specifically on the  
objectives for the  
Cisco CCNA  
Wireless 640-722  
exam. Expert  
network architect  
David Hucaby  
(CCIE No. 4594)  
shares preparation  
hints and test-

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taking tips, helping you identify areas of weakness and improve both your conceptual knowledge and hands-on skills. Material is presented in a concise manner, focusing on increasing your understanding and retention of exam



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topics. Well regarded for its level of detail, assessment features, comprehensive design scenarios, and challenging review questions and exercises, this official study guide helps you master the concepts and techniques that will

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enable you to  
succeed on the  
exam the first time.  
The official study  
guide helps you  
master all the  
topics on the CCNA  
Wireless 640-722  
exam, including  
the following: RF  
signals,  
modulation, and  
standards  
Antennas WLAN

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topologies,  
configuration, and  
troubleshooting  
Wireless APs CUWN  
architecture  
Controller  
configuration,  
discovery, and  
maintenance  
Roaming Client  
configuration RRM  
Wireless security  
Guest networks  
WCS network

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management

Interference CCNA

Wireless 640-722

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Guide is part of a

recommended

learning path from

Cisco that includes

simulation and

hands-on training

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Cisco Learning

Partners and self-

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from Cisco Press. To find out more about instructor-led training, e-learning, and hands-on instruction offered by authorized Cisco Learning Partners worldwide, please visit [www.cisco.com/go/authorizedtraining](http://www.cisco.com/go/authorizedtraining).

A brand new

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edition of the number one book on the CCNA ICND2 exam! \* \*This new edition has been fully updated to refresh the content, add new exercises, and enhance certain essential CCNA exam topics. \*The CD offers a brand new practice exam

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engine, offering a wealth of customization options and reporting features along with several hundred exam-realistic practice questions. \*The CD also contains a free network simulator with new exercises. This new edition has been fully

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updated to refresh the content, add new exercises, and enhance certain essential topics.

The previous single chapter on VLSM and Router

Summarization has been completely rewritten and split into two separate chapters. The chapter on IP



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Access Control Lists has also been completely updated. In addition to these major changes, Wendell Odom has created a series of practice exercises for all three of these topics to help reinforce the concepts and increase

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computation speed for exam preparation, a critical success factor on the CCNA exams. The Numeric Reference Table appendix was also completely revised. In addition to the wealth of updated content, this new edition also

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includes a series of free hands-on exercises to help you master several real-world configuration activities. These exercises can be performed on the CCNA Network Simulator, ICND2 Lite Edition included for free on the CD-ROM. This

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software contains twelve free lab exercises, nine skill-builder labs and three complex configuration scenarios. Finally, the practice test has been fully updated to the new Pearson IT Certification Practice Test software, offering a

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Chapter 3

wealth of customization options and reporting features along with several hundred exam-realistic practice questions.

The official, comprehensive assessment, review, and practice guide for Cisco's latest CCNA

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Voice exam --  
direct from Cisco \*  
\*Contains 80% new  
content, reflecting  
the exam's  
expansion to cover  
Cisco Unified  
Communications  
Manager (CUCM),  
CUCM Express,  
Unity Connection,  
Unified Presence,  
and network  
infrastructure.

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\*Includes realistic exam questions on CD. \*Contains extensive, proven features to help students review efficiently and remember the most important details. This is Cisco's official, comprehensive self-study resource for preparing for the

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new ICOMM exam - the only exam needed to gain CCNA Voice certification, now an essential prerequisite for CCNP Voice certification. Top Cisco instructor Jeremy D. Cioara presents every objective concisely and logically, with



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extensive teaching features that promote retention and understanding.

Readers will find: \*

- \*Pre-chapter quizzes to assess knowledge upfront and focus study more efficiently.

- \*Foundation topics sections that explain concepts and configurations,

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and link theory to actual configuration commands. \*Key topics sections calling attention to every figure, table, and list that candidates must know. \*Exam Preparation sections. \*Exam-realistic questions on CD About 80%

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of this edition's content is brand-new, reflecting the new exam's massive revision, reorganization, and expansion. In addition to Cisco CallManager Express, this book now covers Cisco Unified Communications Manager (CUCM),

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CUCM Express, Unity Connection, Unified Presence, and network infrastructure considerations.

Specific topics added in this edition include: \*

- \*CUCM/CUCM Express administration.

- \*Managing endpoints and end-

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users with CUCM.

\*CUCM dial plan management.

\*CUCM/CUCM Express mobility features.

\*Voicemail integration with Unity Connection.

\*Unified Presence support. \*Network infrastructure management/troubleshooting. \*Unity

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Connection management/troubleshooting

Exam 100-105,

Exam 200-105, and

Exam 200-125

Exam 642-501

(SECUR)

The Complete One-Week Preparation for the Cisco

Ccent/CCNA Icnd1

Exam 640-822 with

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Three Cisco  
Simulated Exams a  
Certification Guide  
with Over 2160  
Sample Questions  
and Answers with  
Comprehensive  
Explanations First  
Edition (Jan 2011)  
CCENT/CCNA  
ICND1 640-822  
Official Cert Guide  
IT Certification  
Success Exam

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#### Cram 2

In this book  
you'll learn how  
to: identify the  
information  
assets in a  
network which  
must be  
protected;  
recognize which  
threats apply to  
which network  
assets; choose  
an appropriate



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### Chapter 3

technology to mitigate a threat; apply network defense in layers; choose the appropriate security product to protect the network ingress from the Internet, DMZ, VPNs, campus servers,

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management network, branches; protect network devices from misuse by hackers; and choose alternative security designs.

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the New CCENT &  
CCNA Routing and  
Switching  
Certifications.

The New Edition  
of the Best-  
Selling two-book  
value priced  
CCNA Official  
Cert Guide

Library includes  
Updated Content,  
New Exercises, 8  
Practice Exams,

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and 150 Minutes  
of Video

Training -- PLUS

the CCENT and

CCNA Network

Simulator Lite

Editions with 26

Free Network

Simulator Labs.

CCNA 200-120

Official Cert

Guide Library is

a comprehensive

review and

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package for the latest CCNA exams. The two books contained in this package, CCENT / CCNA ICND1 100-101 Official Cert Guide and CCNA ICND2 200-101 Official Cert Guide, present complete reviews and a more

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challenging and realistic preparation experience. The books have been fully updated to refresh the content for the latest CCNA exam topics and enhance certain key topics that are critical for exam success.

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Best-selling author and expert instructor Wendell Odom shares preparation hints and test-taking tips, helping you identify areas of weakness and improve both your conceptual

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knowledge and hands-on skills.

This complete study package includes A test-preparation routine proven to help you pass the exams Do I Know This Already?

quizzes, which enable you to decide how much



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time you need to spend on each section Chapter-ending and part-ending exercises, which help you drill on key concepts you must know thoroughly Troubleshooting sections, which help you master the complex

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scenarios you will face on the exam The powerful Pearson IT Certification Practice Test software, complete with hundreds of well-reviewed, exam-realistic questions, customization options, and

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detailed performance reports A free copy of the CCNA ICND1 and ICND2 Network Simulator Lite software, complete with meaningful lab exercises that help you hone your hands-on skills with the

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command-line  
interface for  
routers and  
switches More  
than 150 minutes  
of personal  
video mentoring  
from the author  
Final  
preparation  
chapters, which  
guide you  
through tools  
and resources to

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help you craft your review and test-taking strategies Study plan suggestions and templates to help you organize and optimize your study time These official study guides help you master all the topics on the

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CCNA exams,  
including:

Networking  
fundamentals

Ethernet LANs  
and switches

IPv4 addressing  
and subnetting

Operating Cisco  
routers

Configuring OSPF  
ACLs and NAT

IPv6

fundamentals,

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implementation,  
and  
troubleshooting  
LAN switching  
IPv4 routing  
VPNs OSPF and  
EIGRP  
configuration  
and  
troubleshooting  
Wide area  
networks and  
Frame Relay  
Network

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management Well  
regarded for its  
level of detail,  
study plans,  
assessment  
features,  
challenging  
review questions  
and exercises,  
video  
instruction, and  
hands-on labs,  
these official  
study guides



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help you master the concepts and techniques that ensure your exam success. CCNA 200-120 Official Cert Guide Library is part of a recommended learning path from Cisco that includes simulation and hands-on

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training from  
authorized Cisco  
Learning  
Partners and  
self-study  
products from  
Cisco Press.

Companion DVDs  
The DVDs contain  
two ICND1  
practice exams,  
two ICND2  
practice exams,  
four full CCNA

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practice exams,  
CCENT and CCNA

Network

Simulator Lite

software, and

150 minutes of

video training.

All-in-One for

Beginners

(EBook, 13 Exam

Engines, and

Flash Cards)A

Certification

Guide with 2200

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Sample Questions  
and Answers with  
Comprehensive  
Explanations:

the Complete One-  
Week Preparation  
for the CISCO  
CCENT/CCNAThaar

AL\_Taiey

This intensive,  
one-week study  
guide provides  
students with  
all the

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### Chapter 3

knowledge they need to excel on the CCNA/CCENT exam. This certification guide is designed to make even the most difficult Internet-working concepts easy to understand.

CCNA Data Center  
DCICT 640-916

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Official Cert

Guide

CCNA Routing and

Switching Deluxe

Study Guide

Cisco CCNA Data

Center DCICT

640-916 Official

Certification

Guide

CCSP: Securing

Cisco IOS

Networks Study

Guide

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Chapter 3

CCSP SECUR Exam

Cram 2 (642-501)

Exam 640-916

CCNA Data

Center DCICT

640-916

Official Cert

Guide CCNA

Data Center

DCICT 640-916

Official Cert

Guide from

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Cisco Press enables you to succeed on the exam the first time and is the only self-study resource approved by Cisco. A team of leading Cisco data center experts



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shares  
preparation  
hints and test-  
taking tips,  
helping you  
identify areas  
of weakness  
and improve  
both your  
conceptual  
knowledge and  
hands-on

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skills. This  
complete,  
official study  
package  
includes --A t  
est-  
preparation  
routine proven  
to help you  
pass the exam  
--“Do I Know  
This Already?”

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quizzes, which enable you to decide how much time you need to spend on each section -- Part-ending exercises, which help you drill on key concepts you

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must know

thoroughly

--The powerful

Pearson IT

Certification

Practice Test

software,

complete with

hundreds of

well-reviewed,

exam-realistic

questions,

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customization  
options, and  
detailed  
performance  
reports

--Study plan  
suggestions  
and templates  
to help you  
organize and  
optimize your  
study time --A

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final  
preparation  
chapter that  
guides you  
through tools  
and resources  
to help you  
craft your  
review and  
test-taking  
strategies  
Well regarded

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for its level  
of detail,  
study plans,  
assessment  
features, and  
challenging  
review  
questions and  
exercises,  
this official  
study guide  
helps you

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master the  
concepts and  
techniques  
that ensure  
your exam  
success. The  
official study  
guide helps  
you master  
topics on the  
CCNA Data  
Center DCICT



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640-916 exam,  
including  
--Cisco data  
center  
concepts:  
architectures,  
devices,  
layers,  
modular  
design, vPC,  
FabricPath,  
Cisco Nexus

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### Chapter 3

switches, and  
more --Data  
center unified  
fabric: FCoE,  
multihop,  
VIFs, FEX, and  
setup  
--Storage  
networking:  
concepts,  
targets,  
verification,

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connectivity,  
zoning, setup,  
and

configuration

--Data center  
virtualization

: servers,  
devices, and

Nexus 1000V,

including

setup and

operations

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-- Cisco  
Unified  
Computing:  
concepts,  
discovery,  
connectivity,  
setup, and  
UCSM -- Data  
center network  
services: ACE  
load  
balancing,

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virtual  
context, HA,  
management,  
global/local  
solutions, and  
WAAS The CD-  
ROM contains  
more than 450  
practice  
questions for  
the exam,  
memory table

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exercises and  
answer keys,  
and a study  
planner tool.

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Off Premium

Edition eBook

and Practice

Test Pearson

IT

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Certification  
Practice Test  
minimum system  
requirements:  
Windows XP  
(SP3), Windows  
Vista (SP2),  
Windows 7, or  
Windows 8;  
Microsoft .NET  
Framework 4.0  
Client;

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Pentium class  
1GHz processor  
(or  
equivalent);  
512 MB RAM;  
650 MB disk  
space plus 50  
MB for each  
downloaded  
practice exam;  
access to the  
Internet to



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### Chapter 3

register and  
download exam  
databases  
SECUR is the  
first and most  
important of  
the 5 required  
exams to  
obtain a CCSP.  
SECUR is also  
required for 3  
specialists

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Chapter 3

certifications

- IDS, VPN,

and PIX. Maps

directly to

exam

objectives for

easy review of

the

requirements.

Author holds 8

certifications

, has

Online Library  
Cisco Exam  
Chapter 3

extensive  
experience  
with Cisco  
networks and  
security, and  
is an  
experienced  
trainer of  
Cisco exam  
topics.  
The Complete  
One-Week

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Preparation  
for the CISCO  
CCENT/CCNA

ICND1 Exam

640-822

provides in-  
depth coverage  
of all

official  
CCNA/CCENT

exam

objectives and

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### Chapter 3

uses 2800

router, 1841

router,

catalyst 2960

switch, and

many other

CISCO devices

to clarify the

required

concepts. The

book uses many

highly-

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Chapter 3

professional figures, exhibits, tables, configurations, and real internetw orking scenarios to clarify the required concepts. It also provides

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Chapter 3

up-to-date  
information on  
the newest  
catalyst  
2960-S switch  
and 802.11n  
wireless  
technology.  
Author Thaar  
AL\_Taiey  
highlights  
critical

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Chapter 3

information,  
outlines  
necessary  
procedures,  
and identifies  
exam  
essentials.

This  
preparation  
guide presents  
the concepts  
so that they



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### Chapter 3

can be grasped  
with  
understanding.  
After study,  
there is an  
opportunity to  
test their  
knowledge with  
the two  
thousand  
challenging,  
test-like

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### Chapter 3

questions that resemble the questions found on the exam. Question types include multiple-choice, single-answer, multiple-choice-multiple-answers, fill-in-the-

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## Cisco Exam

### Chapter 3

blank,  
testlet, drag-  
and-drop, and  
simulations.  
The chapters  
are organized  
to offer the  
following  
information:  
description of  
chapter  
topics, main

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Cisco Exam

Chapter 3

exposition of  
topics,  
chapter  
summary,  
commands  
reference, and  
list of the  
suggested  
learning  
questions. The  
Complete One-  
Week

Online Library

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Chapter 3

Preparation  
for the CISCO  
CCENT/CCNA  
ICND1 Exam  
640-822 is an  
intensive, one-  
week study  
guide that  
provides  
students with  
all the  
preparation

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they need to excel on the CCNA/ CCENT exam. This certification guide is designed to make even the most difficult internet-working concepts easy

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Chapter 3

to understand.  
Designed and  
organized for  
absolute  
beginners as  
well as for  
CISCO internet  
working  
professionals.  
The Complete  
One-Week  
Preparation

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Chapter 3

for the CISCO

CCENT/CCNA

ICND1 Exam

640-822 gives

students the

necessary

foundation to

overtake the

CCNA/ CCENT

exam with

extreme

confidence and



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Cisco Exam  
Chapter 3

post high  
scores. The  
following  
CISCO  
CCNA/CCENT  
topics are  
covered  
carefully in  
this book:  
Describing the  
operation of  
computer data

Online Library

Cisco Exam

Chapter 3

networks

Describing the

required CISCO

Devices for

CCENT

Operating

CISCO Switches

and Routers

Implementing

small switched

CISCO networks

Implementing

Online Library

Cisco Exam

Chapter 3

an IP

addressing

scheme and IP

services to

meet the

network

requirements

for small and

large offices

Implementing a

small and a

large routed

Online Library

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Chapter 3

network

Managing and

verifying

CISCO switches

and routers

Explaining and

selecting the

appropriate

administrative

tasks required

for a WLAN

Implementing

Online Library

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Chapter 3

and verifying  
several WAN  
links

Identifying  
security

threats to a  
network and

describing  
general

methods to

mitigate those  
threats

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Cisco Exam  
Chapter 3  
Describing  
Wireless  
technology.