Cisco专业技术丛书

CCNP Support 2.0
学 习 指 南
英文版

CCNP Support Study Guide

(Exam 640-506)

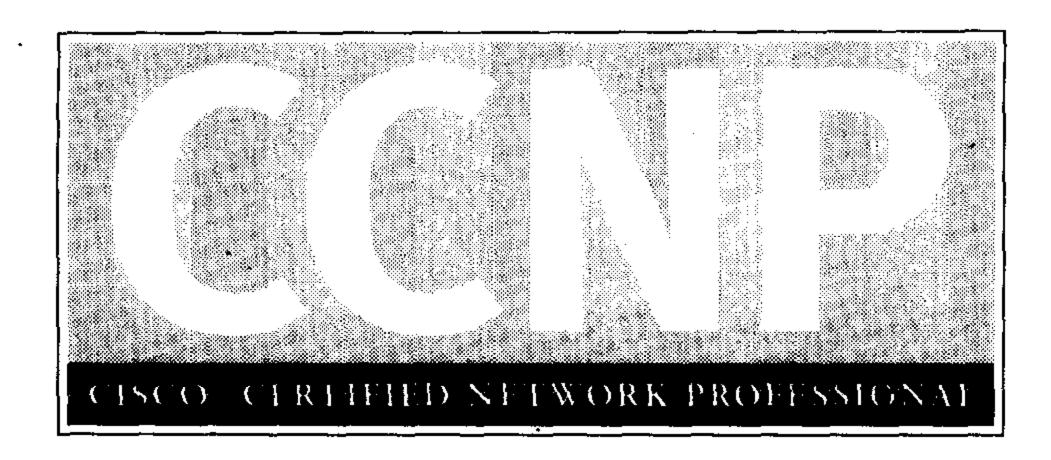（考试号： 640-506）

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附 赠

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CCNP™ Support Study Guide

(Exam 640-506)

Syngress Media, Inc.

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CCNP™ Support Study Guide (Exam 640-506)

This book was published with Corel VENTURA™ Publisher.

About Syngress Media

Syngress Media creates books and software for Information Technology professionals seeking skill enhancement and career advancement. Its products are designed to comply with vendor and industry standard course curricula, and are optimized for certification exam preparation. You can contact Syngress via the Web at www.syngress.com.

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ACKNOWLEDGMENTS

We would like to thank the following people:

- All the incredibly hard-working folks at Osborne/McGraw-Hill: Brandon Nordin, Scott Rogers, Timothy Green, Gareth Hancock, and Jessica Wilson.

- The Black Hole Publishing Services staff for their help in fine tuning the project.

This book's primary objective is to help you prepare for and pass the CCNP Support Exam 640-506. We believe that the only way to do this is to help you increase your knowledge and build your skills. After completing this book, you should feel confident that you have thoroughly reviewed all of the objectives that Cisco has established for the exam.

In This Book

This book is organized around the topics covered within the CCNP Support Exam administered at Sylvan Testing Centers.

In Every Chapter

We've created a set of chapter components that call your attention to important items, reinforce important points, and provide helpful exam-taking hints. Take a look at what you'll find in the chapters:

- Each chapter begins with the **Certification Objectives**—what you need to know in order to pass the section on the exam dealing with the chapter topic. The Certification Objective headings identify the objectives within the chapter, so you'll always know an objective when you see it!

EXERCISE 1-1

- **Certification Exercises** are interspersed throughout the chapters. These are step-by-step exercises. They help you master skills that are likely to be an area of focus on the exam. Don't just read through the exercises; they are hands-on practice that you should be comfortable completing. Learning by doing is an effective way to increase your competency with the language.

- **From the Classroom** sidebars describe the issues that come up most often in the training classroom setting. These sidebars give you a valuable perspective into certification- and product-related topics. They point out common mistakes and address questions that have arisen from classroom discussions.

■ S & S sections lay out specific scenario questions and solutions in a quick-to-read format.

SCENARIO & SOLUTION	
You have just taken over as the network administrator and have no information on the password for one of your 3600 series routers. What is a possible solution?	Perform the password recovery process on the 3600 series router.
You have been informed that a new remote location needs connectivity. It will require ISDN access and a four-port hub. What model of router would provide a solution here?	The 803 and 804 both provide for ISDN with a four-port hub.
An OC-1 connection is being installed at your central location that now employs a 2600 series router. What changes will need to be made at the central site to accommodate this connection?	A 3600 series with the HSSI port will be needed here.

■ The **Certification Summary** is a succinct review of the chapter and a re-statement of salient points regarding the exam.

✓ ■ The **Two-Minute Drill** at the end of every chapter is a checklist of the main points of the chapter. It can be used for last-minute review.

Q&A ■ The **Self Test** offers questions similar to those found on the certification exam. The answers to these questions, as well as explanations of the answers, can be found in Appendix A. By taking the Self Test after completing each chapter, you'll reinforce what you've learned from that chapter, while becoming familiar with the structure of the exam questions.

Some Pointers

Once you've finished reading this book, set aside some time to do a thorough review. You might want to return to the book several times and make use of all the methods it offers for reviewing the material:

1. *Re-read all the Two-Minute Drills*, or have someone quiz you. You also can use the drills as a way to do a quick cram before the exam.

2. *Review all the S & S scenarios* for quick problem solving.

3. *Re-take the Self Tests.* Taking the tests right after you've read the chapter is a good idea, because it helps reinforce what you've just learned. However, it's an even better idea to go back later and do all the questions in the book in one sitting. Pretend you're taking the exam. (For this reason, you should mark your answers on a separate piece of paper when you go through the questions the first time.)

4. *Complete the exercises.* Did you do the exercises when you read through each chapter? If not, do them! These exercises are designed to cover exam topics, and there's no better way to get to know this material than by practicing.

How to Take a Cisco Certification Examination

This introduction covers the importance of your CCNP certification and prepares you for taking the actual examination. It gives you a few pointers on methods of preparing for the exam, including how to study and register, what to expect, and what to do on exam day.

Catch the Wave!

Congratulations on your pursuit of Cisco certification! In this fast-paced world of networking, few certification programs are as valuable as the one offered by Cisco.

The networking industry has virtually exploded in recent years, accelerated by nonstop innovation and the Internet's popularity. Cisco has stayed at the forefront of this tidal wave, maintaining a dominant role in the industry.

The networking industry is highly competitive, and evolving technology only increases in its complexity, so the rapid growth of the networking industry has created a vacuum of qualified people. There simply aren't enough skilled networking people to meet the demand. Even the most experienced professionals must keep current with the latest technology in order to provide the skills that the industry demands. That's where Cisco certification programs can help networking professionals succeed as they pursue their careers.

Cisco started its certification program many years ago, offering only the designation Cisco Certified Internetwork Expert (CCIE). Through the CCIE program, Cisco provided a means to meet the growing demand for experts in the field of networking. However, the CCIE tests are brutal, with a failure rate of over 80 percent. (Fewer than 5 percent of candidates pass on their first attempt.) As you might imagine, very few people ever attain CCIE status.

In early 1998, Cisco recognized the need for intermediate certifications, and several new programs were created. Four intermediate certifications were added: CCNA (Cisco Certified Network Associate), CCNP (Cisco Certified Network Professional), CCDA (Cisco Certified Design Associate), and CCDP (Cisco

Certified Design Professional). In addition, several specialties were added to the CCIE certifications; currently CCIE candidates can receive their CCIE in five areas: Routing and Switching, WAN Switching, ISP-Dial, SNA/IP Integration, and Design.

CCNP
@dvice

I would encourage you to take beta tests when they are available. Not only are the beta exams less expensive than the final exams (some are even free!), but also, if you pass the beta, you will receive credit for passing the exam. If you don't pass the beta, you will have seen every question in the pool of available questions, and can use this information when you prepare to take the exam for the second time. Remember to jot down important information immediately after the exam, if you didn't pass. You will have to do this after leaving the exam area, since materials written during the exam are retained by the testing center. This information can be helpful when you need to determine which areas of the exam were most challenging for you as you study for the subsequent test.

Why Vendor Certification?

Over the years, vendors have created their own certification programs because of industry demand. This demand arises when the marketplace needs skilled professionals and an easy way to identify them. Vendors benefit because it promotes people skilled in their product. Professionals benefit because it boosts their careers. Employers benefit because it helps them identify qualified people.

In the networking industry, technology changes too often and too quickly to rely on traditional means of certification, such as universities and trade associations. Because of the investment and effort required to keep network certification programs current, vendors are the only organizations suited to keep pace with the changes. In general, such vendor certification programs are excellent, with most of them requiring a solid foundation in the essentials, as well as their particular product line.

Corporate America has come to appreciate these vendor certification programs and the value they provide. Employers recognize that certifications, like university degrees, do not guarantee a level of knowledge, experience, or performance; rather, they establish a baseline for comparison. By seeking to hire vendor-certified employees, a company can assure itself that not only has it found a person skilled in networking, but also it has hired a person skilled in the specific products the company uses.

Technical professionals have also begun to recognize the value of certification and the impact it can have on their careers. By completing a certification program, professionals gain an endorsement of their skills from a major industry source. This endorsement can boost their current position, and it makes finding the next job even easier. Often a certification determines whether a first interview is even granted.

Today a certification may place you ahead of the pack. Tomorrow it will be a necessity to keep from being left in the dust.

CCNP @dvice

Signing up for an exam has become easier with the new Web-based test registration system. To sign up for the CCNP exams, access http://www.2test.com, and register for the Cisco Career Certification path. You will need to get an Internet account and password, if you do not already have one for 2test.com. Just select the option for first-time registration, and the Web site will walk you through that process. The registration wizard even provides maps to the testing centers, something that is not available when you call Sylvan Prometric on the telephone.

Cisco's Certification Program

Cisco now has a number of certifications for the Routing and Switching career track, as well as for the WAN Switching career track. While Cisco recommends a series of courses for each of these certifications, they are not required. Ultimately, certification is dependent upon a candidate's passing a series of exams. With the right experience and study materials, you can pass each of these exams without taking the associated class.

Table i-1 shows the Cisco CCNP 2.0 exam track.

The Foundation Routing and Switching exam (640-509) can be taken in place of the Routing, Switching, and Remote Access exams.

As you can see, the CCNA is the foundation of the Routing and Switching track, after which candidates can pursue the Network Support path to CCNP and CCIE, or the Network Design path to CCDA, CCDP, and to CCIE Design.

Please note that if you have taken CCNP exams from the 1.0 track (Exam #'s 640-403, 640-404, 640-405, 640-440) you may take the remainder of your exams from the 2.0 track, but you will be certified as a CCNP 1.0.

TABLE i-I	Exam Name	Exam #
CCNP 2.0 Track	CCNA 2.0	640-507
	Routing	640-503
	Switching	640-504
	Remote Access	640-505
	Support	640-506

CCNP Online

In addition to the technical objectives that are being tested for each exam, you will find much more useful information on Cisco's Web site at http://www.cisco.com/warp/public/10/wwtraining/certprog. You will find information on becoming certified, exam-specific information, sample test questions, and the latest news on Cisco certification. This is the most important site you will find on your journey to becoming Cisco certified.

CCNP Advice

When I find myself stumped answering multiple-choice questions, I use my scratch paper to write down the two or three answers I consider the strongest, and then underline the answer I feel is most likely correct. Here is an example of what my scratch paper looks like when I've gone through the test once:
21. B or C
33. A or C
It is extremely helpful to you mark the question and then continue. You can return to the question and immediately pick up your thought process where you left off. Use this technique to avoid having to reread and rethink questions.

You will also need to use your scratch paper during complex, text-based scenario questions to create visual images to help you understand the question. For example, during the CCNP exam you will need to draw multiple networks and the connections between them or calculate a subnet mask for a given network. By drawing the layout or working the calculation while you are interpreting the question, you may find a hint that you would not have found without your own visual aid. This technique is especially helpful if you are a visual learner.