ALL-IN-ONE

CCSP 认证考试指南

（英文版）

完整覆盖CCSP 5门考试。

■

既是理想的学习工具，又是工作中理想的IT安全参考资料。

■

给出了数百个练习题以及深入的解答与解释。

[美] Robert E. Larson
Lance Cockcroft 著

Mc Graw Hill Education

人民邮电出版社
POSTS & TELECOM PRESS

CCSP 认证考试指南

（英 文 版）

[美]Robert E. Larson　Lance Cockcroft 著

人 民 邮 电 出 版 社

图书在版编目（CIP）数据

CCSP 认证考试指南 /（美）拉森（Larson, R, E. ），（美）科克罗夫特（Cockcroft, L. ）著. —北京：人民邮电出版社，2003. 10
ISBN 7-115-11682-2

Ⅰ. C… Ⅱ. ①拉… ②科… Ⅲ. 计算机网络－安全技术－工程技术人员－资格考核－自学参考资料－英文 Ⅳ. TP393.08

中国版本图书馆 CIP 数据核字（2003）第 083651 号

内 容 提 要

本书以 Cisco CCSP 认证考试为目标，内容涵盖了 CCSP 5 门核心考试：642-501 SECUR，642-521 CSPFA，642-511 CSVPN，642-531 CSIDS，and 642-541 CSI 的所有考试要点，尽可能详细地介绍了参加 CCSP 认证考试的应试者应该掌握的所有技能。

本书在介绍考试要点时针对每个考试目标，使用了大量的插图、表格、试验、测试等，使读者在牢固掌握知识点的同时，轻松地获得丰富的实践经验。

本书由具有CCSP安全经验的专家编写，是参加CCSP的考试人员的必备考试教材。本书也是一本学习 CCSP 安全知识的很好的参考书，还可以作为一些疑难问题的速查手册。

About the Authors

Robert E. Larson lives in the Seattle, Washington area with his wife Jerri and four adult children. Bob has worked full-time as a computer trainer and course developer since 1985, including network training since 1995. Bob got involved with the Cisco Networking Academy program in 1998. He is currently the Cisco Regional Academy contact at Bates Technical College in Tacoma, plus teaches evening and weekend CCNP, Security, and CCIE prep classes at Green River Community College. Bob is currently a member of the Cisco Networking Academy Advisory Council. This is Bob's third Cisco certification book, having also written a CCNA and CCNP book. Bob taught the first Academy CCNA series in Africa in 1999 in Cape Town, South Africa. He has also taught CCNP-level courses in Birmingham, England; Dillingen, Germany; and Vienna, Austria.

Lance Cockcroft, Net+, CCA, MCSE, MCT, CCNP, CCDP, has been a Senior Engineer for many ISP and telecommunications companies, including Bellsouth, Atlanta Broadband, and Southeastern Networks. Lance is currently the Cisco Product Manager for Self Test Software, Cisco's only authorized test prep vendor. Lance writes and oversees the production of all Cisco practice tests for Self Test Software. Lance attended and continues to teach for Kennesaw State University and Southern Polytechnic University located in his hometown of Marietta, Georgia.

About the Technical Reviewers

Ole Drews Jensen began working with computers 21 years ago, and five years later made it his profession. He started out as a programmer in a wide variety of languages, but soon got involved with administering servers and networks. Today Ole is the Systems Network Manager for an enterprise company with several subsidiaries in the recruiting industry, where one of the largest is Carlton Staffing. Ole holds the following certifications: CCNP, MCSE, and MCP+I, and is currently pursuing the new CCSP.

Setotolwane Johannes "Joe" Phago, CCIE # 7105, CCNP, Cisco Firewall Specialist, Cisco VPN Specialist, B.Sc. Computer Science (University of the North, S.A.). He was the first Black South African CCIE and is a graduate of the first Cisco Networking Academy in Africa. Joe is currently Senior Network Analyst at Standard Bank of South Africa, a leading banking and financial services company in S.A. and Africa with a presence on virtually all continents.

INTRODUCTION

Before You Get Started

Welcome to the *CCSP™: Cisco® Certified Security Professional Certification All-in-One Exam Guide*. This book is here to help you prepare to take–and pass–the following Cisco security certification exams. Even more importantly, it is here to share a pool of knowledge that should help you become more employable in the field. If you strive for knowledge and experience, the certification will come. The CCSP exams are:

- Securing Cisco IOS Networks
- Cisco Secure PIX Firewall Exam
- Cisco Secure Virtual Private Networks
- Cisco Secure Intrusion Detection Systems Exam
- Cisco SAFE Implementation Exam

In this section, we discuss skill building and exam preparation alternatives, the certification exam situation itself, the Cisco certification programs in general, and how this book can help you prepare for Cisco certification exams. We will look at the following:

- Things to do to prepare
- CCNA exam insights
- Cisco Certification Information

CCSP Certification Program

The Cisco Certified Security Professional is a brand-new CCNP-level certification track being driven by the rapidly changing and growing world concern about security. For that reason there have been and will continue to be a great number of changes and additions to the program. There have been three major changes in the program in its first year. At the same time, some of the security products have gone through major upgrades, adding many new and useful features.

What this means to you is that it is very important to keep on top of the current exam numbers and exam objectives. Use the Cisco web site at www.cisco.com and the Learning and Events link to get to the latest certification information. The direct link is: http://www.cisco.com/en/US/learning/le3/learning_career_certifications_and_learning_paths_home.html.

In developing this book, we tried to include the information that is required to pass the various certification exams while at the same time anticipating any new topics that might become exam objectives in the near future.

Because the book covers all five exams, much of the security overview information that appears at the beginning of every book has been consolidated into Chapter 1. Other exam sections may use topics covered in the SECUR exam as foundation. The following table shows the relationships between the exams and chapters. The X indicates the material should be included, while an R is recommended.

CCSP All-In-One	SECUR	CSVPN	CSPFA	CSIDS	CSI
Chapter					
Introduction to Network Security					
1. Understanding Network Security Threats	X				X
2. Securing the Network	X				X
Securing the Network Perimeter					
3. Cisco AAA Security Technology	X				X
4. CiscoSecure ACS and TACACS+ Technologies	X				X
5. Securing Cisco Perimeter Routers	X				X
6. IOS Firewall Feature Set - CBAC	X		R		X
7. IOS Firewall Feature Set - Intrusion Detection System	X			R	X
8. IOS Firewall Feature Set - Proxy Authentication	X				X
Virtual Private Networks (VPNs)					
9. Cisco IOS IPSec Introduction	X	X	R		X
10. Cisco IOS IPSec for Pre-Shared Keys	X	R	R		X
11. Cisco IOS IPSec Certificate Authority Support	X	R	R		X
12. Cisco IOS Remote Access Using Cisco Easy VPN	X	X			X
13. Cisco VPN Hardware Overview		X			X
14. Cisco VPN 3000 Remote Access Networks		X			X
15. Configuring Cisco VPN 3002 Remote Clients		X			X
16. Cisco VPN 3000 LAN-to-LAN Networks		X			X
PIX Firewalls					
17. Cisco PIX Firewall Technology and Features			X		X

CCSP All-In-One	SECUR	CSVPN	CSPFA	CSIDS	CSI
PIX Firewalls					
18. Getting Started with the Cisco PIX Firewall			X		X
19. Access Through the PIX Firewall			X		X
20. Advanced PIX Firewall Features			X		X
21. Firewalls and VPN Features			X		X
22. Managing and Maintaining the PIX Firewall			X		X
Intrusion Detection Systems (IDS)					
23. IDS Overview and CSIDS Installation				X	X
24. Alarms and Signatures				X	X
25. CIDS Installation and Configuration				X	X
26. Signature and Alarm Management				X	X
Cisco SAFE Strategy					
27. Cisco SAFE Strategy					X
Appendix A - Access Control Lists	R		R		

How to Protect Yourself Against Exam Changes

Become very familiar with the Cisco web site and how to perform searches for documents. Use the site to stay current on any exam changes. Be sure to look at both the exam description and the *Recommended Training* descriptions. Both will have objectives and topics covered usually as bulleted lists. Consider printing these out and using them as check-off guides to monitor your learning progress. It will also help you to spot new technologies or features introduced in later descriptions.

Release Notes

As you are preparing for a particular topic, perform searches for release notes on that topic, for example *VPN 3000 Concentrator release notes*. Look over the results looking for the latest version; they are not always sorted with the latest at the top. Look particularly at the System Requirements, Upgrading, and New Features sections. Pay particular attention to and feature that was recently added to either the exam or course description on the certifications pages.

Technical Documentation

On the Cisco site, go to the products section for the technology that you are studying and use the links on the left side to find *Technical Documentation* section where you will often find User Guides, Command Reference, Configuration Guides, etc. Each of these documents is available in HTML format and many are available as PDFs.

Find the User Guide or Configuration Guide for the technology (PIX, VPN Concentrator, etc.) and look up the features that are new to you. This is also an excellent way to

get a different perspective than the one presented in this or any other book. If you do not have access to some of the technologies (some are very expensive to acquire just for study purposes) look for the Getting Started Guide. Spend some time studying the parts of these documents that are new or unclear for you.

Finally, search for any configuration examples. These documents are often listed under the *Technical Documentation* heading of the product information, or use the search feature. These are typically very specific and usually include diagrams, instructions, configuration output, and useful links. For technologies with web-based interfaces, many include step-by-step instructions with web captures of the entire process.

NOTE Many documents do not require a CCO account, but if asked to login you will be given an opportunity to apply for a CCO account. The process will only require answering some questions. Even the most limited level may make additional documents available to you.

Remember Your Goal

You are, after all, attempting to become recognized as an expert in these technologies. Don't sell yourself short. Look over the most recent (latest version) documents so that you are not surprised by look-and-feel changes or the addition of a key feature on a menu or screen.

Things to Do to Prepare

I cannot emphasize enough how important it is to get some hands-on experience with Cisco devices whenever possible. The exams ask many questions involving the command syntax or web interface page feature options. Experience configuring devices is the best way to become comfortable with any Cisco technology. I have tried to include enough screen captures to assist you if hands-on experience is not possible. The last section covered using Cisco documentation to checkout new features, but it is equally as valuable for building familiarity with devices you do not have access to. In this section we will look at some other options.

Unlike some other certification, memorizing a long list of facts is not necessarily the best approach for Cisco exams. You must be able to apply the information and see it from other perspectives. The following list of resources that can help you study and prepare:

This Book and Related Materials

Preparing for any Cisco certification exam (including the CCSP) requires you to obtain and study materials designed to provide comprehensive information about the subject matter that will appear on your specific exam. This book contains the framework to prepare to pass the exam. The task now is to apply and absorb that information and become

comfortable with it. This will present different levels of challenge based on your experience with networking. Obviously, someone who has been working in the field for a period of time will and possibly has another advanced certification, such as CCNP, will have a solid base of knowledge and skills that they can build on. I think this book can be a good tool for that person.

The other type of CCSP student I find is the recent CCNA who is interested in getting into the IT field but has little or no real networking experience. I have tried to write this book for that person, as well. The latter student may need some background material, and may need to look at things from two or more perspectives; the Cisco web site and online articles can help with this.

Labs and Exercises

On the CD-ROM you will find labs and exercises for most of the technologies covered. Even if you do not have access to the required equipment, look over the labs. They have a methodology that will be useful as well as many screen captures or sample output to augment the materials in the related chapter.

SAFE and AVVID Documents

The fifth and final exam for CCSP is the *Cisco SAFE Implementation Exam (CSI 642-541 CSI)*. While based on the series of SAFE documents, such as the *SAFE Blueprint for Small, Midsize, and Remote-User Networks*, every technology, topic, or configuration process covered on the other four exams is fair game. Do yourself a favor and start by downloading the SAFE documents in PDF form. Read them at least the *SAFE Blueprint for Small, Midsize, and Remote-User Networks* before getting too far into the book. Then as you learn about each technology review how it fits into the SAFE strategy. Make sure that you can configure the main connections, such as router VPN to PIX VPN. The SAFE documents have additional configuration examples that should help broaden your knowledge.

Classroom Training

Whether you use this book or not, classroom training for many people is the preferred way to learn complex technologies. In this field that classroom training should be combined with hands-on experience with real routers and switches. There are several possible courses to follow:

Cisco Networking Academies

I believe in this program for the average person. Since 1987, Cisco Systems has set up Networking Academies in more than 10,500 locations around the world. Many are in high schools and the rest are in community colleges, technical colleges, trade schools, universities, and at some service organizations. This highly developed multimedia curriculum, combined with abundant hands-on experience offered part-time, can create a

solid foundation. The academies offer CCNA, CCNP, and Fundamentals of Security (SECUR and CSPFA) training and are now branching out to include non-Cisco technologies like UNIX and web design. To learn more about the Academy Program or to locate one in your area, check the following web site: http://www.cisco.com/warp/public/779/edu/academy/.

Cisco Training Partners

In larger cities, for the working administrator with solid foundation skills who truly meets the course prerequisites, these short, often five-day courses can be a quick way to fill in the gaps, gain limited hands-on experience, and move on to certification. I really like these programs for working professionals with a lot of experience. For them, this type of training can be an excellent value. On the other hand, if a person really doesn't fit the target audience and can't keep up with the class, this can be a very expensive reality check. For more information, go to http://www.cisco.com/ and click on the Learning link.

Buying Equipment

Many students do purchase equipment, particularly if their long-term goal is CCNP, CCSP, or CCIE. Cisco vendors like Blackbox and www.cdw.com offer catalogs and knowledgeable support people. I have always had very good luck with eBay (www.ebay.com). Do a search on "Cisco" at the eBay site and there will be thousands of items. The key is that you can't be in a hurry. Watch for the deal that you want, and be ready to walk away. If you are worried about fraud, deal only with sellers who have made many transactions (a number after their ID) and have an easily viewable performance record.

There are two ways to use eBay. First, look at the people offering items. Many have web sites linked to their auctions. See what kind of businesses they are and what other "deals" they have going. Second, if I'm buying a bigger item, I only buy from an auction that will take a credit card. I then use a card that guarantees my purchases. I've bought hundreds of items and I don't feel that I've ever been hurt. I've never had an item fail to be delivered pretty much as advertised.

Virtual Labs and Simulators

While I think simulators do not replace hands-on experience, they are significantly better than nothing at all. It is my understanding that www.boson.com is working on a simulator for these exams.

Practice Exams

I really hate the thought of a person taking a test repeatedly until they know enough of the questions to pass. This leads to what the industry refers to as "paper certifications" or worse "vapor certifications." It's bad for the industry and can't be all that great for the individual. What value is the certification if you get fired from the job because you can't do the work?

Having said that; I do believe in taking practice tests once you have trained and prepared yourself. This serves two purposes. First, it may point out gaps or weaknesses in your training plan. Second, and more importantly, it helps to prepare you for the exam itself. If you have taken the CCNA or CCNP exams, you already know that Cisco exams are like none you've taken before. While they are fair and valid, they are not designed to pass a lot of students. They are designed to see if you know the exam material forwards and backwards. My students have found that the exams at www.boson.com are both challenging and helpful.

Cram Sessions and Brain Dumps

There are web sites called brain dumps, where test-takers try to list as many test questions as they can remember. First, my personal opinion is that these are a waste of time and energy. Second, they violate the non-disclosure agreement that every test-taker agrees to when they take the exam. In the end, you compromise your integrity for a bit of short-term-memory fodder.

What time I've spent at the sites that I'm aware of, I've found a mix of good and bad questions, questions from old exams, questions from the wrong exams, and a small amount of mischief. There are better ways.

One site I like is http://studyguides.cramsession.com/. They have a series of study guides, usually 12-20 pages, for many exams that I recommend to all of my students. While they do not give you questions, they give you lists of things to know. I really do not believe they replace studying. The practice that I follow, and recommend to my students, is that each night for the week before a scheduled exam, read the Cramsession just before bed. Typically, it will lead me to question some points, and after researching I put the results on the margins of the study guide. Their study guide is the only thing that I ever take to a test site. I try to review it once before going into the test site.

Do you need all of the things covered in this section? Probably not. But I've tried to offer a mix to helpful tools and suggestions.

CCSP Exam Insights

Once you have prepared for your exam, you need to register with a testing center. Each computer-based CCSP exam costs $125 (North America), and if you don't pass, you may retest for an additional $125 for each try. In the United States and Canada, tests are administered by Prometric Testing Centers.

You can sign up for a test through Prometric's web site at http://www.2test.com, or you can register by phone at 800-204-EXAM (within the United States or Canada). The web site will not allow you to schedule exams within 48 hours, so use the phone registration for shorter scheduling intervals. It is possible in some markets to take tests on the same day. Be prepared to wait through voice messages.

To sign up for a test, you will need a valid credit card.

To schedule an exam, call the toll-free number or visit the web page at least one day in advance. Before booking the exam make sure that you understand the cancellation process

and deadlines, currently before 7 P.M. Central Standard Time the day before the scheduled test time (or you will be charged, even if you don't appear to take the test).

When you want to schedule a test, have the following information ready:

- Exam number and title
- Your name–Exactly the way that you want it to appear on your certificate.
- Your social security, social insurance, or Prometric number (SP)
- A method of payment–Credit card
- Contact telephone numbers–In case of a problem so they can reach you.
- Mailing address–Where you want your certificate mailed.
- Email address–For contact purposes. You will get a confirmation via e-mail.

Once you sign up for a test, you will be informed as to when and where the test is scheduled. Try to arrive at least 15 minutes early–personally, due to traffic congestion, I tell students to show up an hour early. You can always relax and review your notes. I've sat in exams next to students who have showed up late for whatever reason. They seem miserable and I suspect the stress and tension will be reflected in their score.

Photo ID

You will need to bring two forms of identification to the testing site. One form *must* be a photo ID such as a driver's license or a valid passport. The other must have a signature. The test cannot be taken without the proper identification.

Gum, Candy, and Cough Drops

Do yourself a favor and bring something with you. It can always just sit there ignored. But the last thing you want is a dry throat or coughing to disrupt your testing and the silence for your peers.

The Exam Process

When you show up at the testing center, you will need to sign in with an exam coordinator. He or she will ask you to show the two forms of signature identification. After you have signed in and your time slot arrives, you will be asked to deposit any items with you such as books, bags, pagers, or calculators. Make sure that you know where the restrooms and drinking fountain are located. You don't want to plan to need them, but even worse is to have to search for them. You will be escorted into a closed room.

All exams are closed book. You will be furnished with one or two blank sheets of paper and a pen or, in some cases, an erasable plastic sheet and an erasable pen. Before the exam–take a few minutes and write out any important material on the blank sheet. This is particularly important for any formulas or detailed data that you might forget under the

stress of the exam. You can refer to this piece of paper any time you like during the test, but you will have to turn it in when you leave.

You will have some time to compose yourself, to record this information, and to take a sample orientation exam before you begin the real test. You will also be required to complete a computer-based survey to track demographics of the test candidates. Typically, if an exam has a 75-minute time limit, you will have 90 minutes to take the sample exam, complete the survey, and take the actual exam. Once you start the actual exam you now have only the exam time limit.

Typically, the room will have up to a dozen computers. Each workstation will be separated from the others by dividers designed to keep you from seeing your neighbor's computer. Keep in mind that the people next to you could be taking a certification exam from an industry totally unrelated to yours, so don't be concerned if someone starts after you or finishes before you. Most test rooms use closed circuit cameras. This permits the exam coordinator to monitor the room.

The exam coordinator will have preloaded the appropriate Cisco certification exam. If there is a problem with the exam, such as version number, screen doesn't display all data, the screen or desk area is dirty, etc., let the coordinator know right away. Do not put yourself at a disadvantage. You can start as soon as you are seated in front of the computer. I suggest that you sit back for a minute and relax. Take a deep breath. If the chair is adjustable, adjust it. Move your arms and legs to release any tension. You are going to be sitting there almost 90 minutes.

All Cisco certification exams allow a certain maximum amount of time in which to complete the work (this time is indicated on the exam by an on-screen counter/clock, so you can check the time remaining whenever you like). All Cisco certification exams are computer generated and most use a multiple-choice format, often with six to eight choices. It is possible, if not likely, that several questions will refer to an exhibit containing dozens of commands from which you will be expected to select one as the answer to a specific question.

Most Cisco exams use some form of simulator in a few questions to test your configuration skills. Typically these are fundamental activities not obscure activities, so make sure that you know how to configure the basics.

While this may sound quite simple, the questions not only are constructed to check your mastery of basic facts and skills about the subject material, but they also require you to evaluate one or more sets of circumstances or requirements. Often, you are asked to give more than one answer to a question, although you will always be told how many to choose. *You get only one pass through the questions*—you cannot mark a question and return to it later.

When you complete a Cisco certification exam, the exam will tell you whether you have passed or failed. All test objectives are broken into several topic areas and each area is scored on a basis of 100 percent. Particularly if you do not pass the exam, select the option on the screen that asks if you want to print the report. The test administrator will print it for you. You can use this report to help you prepare for a second effort, if needed. Once you see your score, you have the option of printing additional copies of the score report. It is a good idea to print it twice.

Remember, if you need to retake an exam, you will have to schedule a new test with Prometric and pay another $125.

Exam Design

All Cisco tests use one of following basic question types:

- Multiple-choice with a single answer
- Multiple-choice with two or more answers (the question will indicate how many answers)
- Multipart with one or more answers (the question will indicate how many answers)
- CLI-based questions (many times, an exhibit will present a sample IOS configuration in which you are asked to choose the correct command or interpret the configuration's output, per the question's directions)
- Drag and drop where steps need to be arranged in order, technologies need to be labeled, or you need to fill in the blanks. Expect a couple of these.
- Simulations to test configuration skills. This will typically be a step in an overall device configuration, such as configuring an interface. Expect no more than a couple of these.

Take the time to read a question at least twice before selecting an answer, and pay special attention to words such as "not" that can radically change the question. If a question seems very simple, great—but read it over once more to make sure that you aren't missing something.

Always look for an Exhibit button as you examine each question. The Exhibit button brings up graphics used to help explain a question, provide additional data, or illustrate network design or program behavior. My perception is that there are fewer exhibits than in the past, with drawings and images included on the screen with the question.

Cisco exams do not allow you to return to questions, so you must make sure to answer the question as best you can before proceeding to the next one. The exam will clearly state before you start whether you can mark answers and return.

Cisco's Testing Format

All Cisco exams are fixed-length with a fixed number of questions. Each candidate will get the same number of questions; the order of the questions can vary, as can the specific questions. If you retake an exam assume there will be different questions. From time to time, questions are replaced and others may not be scored.

Cisco provides a counter in the upper-right corner (near the remaining time) showing the number of questions completed and the number outstanding. Monitor your time to make sure that you have completed at least one-quarter of the questions one-quarter of the way through the exam period and three-quarters of the questions three-quarters of the way through. Have the calculations done in advance, such as 16 questions by 18 minutes.

If you are not finished with 10 minutes remaining, try to pick up the pace. At five minutes remaining, use the remaining time to guess your way through any remaining questions. Guessing is better than not answering because blank answers are always wrong, but a guess may turn out to be right. The important thing is to answer every question.

Some Basic Question-Handling Strategies

For those questions that take only a single answer, usually two or three of the answers will be obviously incorrect, and a couple of the answers will be plausible. Of course, only one can be correct. Unless the answer leaps out at you, begin the process of eliminating those answers that are most obviously wrong.

Many questions assume that the default behavior of a particular command or option is in effect. If you know the defaults and understand what they mean, this will help you with your choice.

Cisco exams are generally pretty straightforward and not intended to beat you out of your certification, but then again they are not designed to be easy. Pay attention, particularly with syntax. Knowing the difference between *access-list 1 deny any* and *access list 1 deny any* should be assumed (note the hyphen).

If the answer seems immediately obvious, reread the question to look for a trap; sometimes those are the ones you are most likely to get wrong.

Typically, at least one answer out of the possible choices for a question can be eliminated immediately because the answer does not apply to the situation or the answer describes a nonexistent issue or option.

If faced with guessing among two or more potentially correct answers, reread the question. Try to picture how each of the possible remaining answers would alter the situation. Be especially sensitive to terminology; sometimes the choice of words (e.g., "remove" instead of "disable") can make the difference between a right answer and a wrong one.

Cisco Certification Program

The Cisco Certification Program currently includes the following separate certificates with various specialty tracks. You should become familiar with and visit regularly Cisco's website at www.cisco.com/go/certifications/.

Cisco reserves the right to change the number of questions and time limits for the exams as it sees fit. Cisco tries to keep this information confidential, although you can check either figure when you register for an exam. The http://studyguides.cramsession.com/ site usually has pretty reliable information about number of questions and time limits.

Receiving Your Certificate

After passing the necessary certification exam(s) and agreeing to Cisco's nondisclosure terms, you will be certified. Official certification normally takes from four to six weeks. The package includes a welcome kit that contains a number of elements:

- Official certificate (suitable for framing)
- A laminated wallet card

- A graduation letter
- A license to use the Cisco certification logo, in advertisements, promotions, documents, resumes, letterhead, business cards, and so on.
- Access to the online Tracking System

Tracking Cisco Certification Status

As soon as you pass any Cisco exam, you must complete a certification agreement. To do this, go to Cisco's Web site www.cisco.com/go/certifications/ and select the Tracking System link. You can also mail a hard copy of the agreement to Cisco's certification authority. You will not be certified until you complete a certification agreement and Cisco receives it in one of these forms.

The Certification Tracking Web site also allows you to view your certification information. Cisco will contact you via email and explain your certification and its use.

Recertification

Cisco requires three-year recertification for the non-CCIE programs. The best place to keep tabs on the Cisco Career Certifications program and its related requirements is on the Web. The URL for the program is www.cisco.com/go/certifications/.