



Your CCIE Lab Success Strategy

The Non-Technical Guide Book

By

Dean Bahizad
CCIE 18887 (R&S, SP)

Vivek Tiwari
CCIE 18616 (R&S, SP)

contact@2doubleccies.com

Copyright

Your CCIE Lab Success Strategy The Non-Technical Guidebook, Copyright of M.M.D.D. Multimedia LLC.

Cover copyright M.M.D.D. Multimedia LLC.

© 2012 M.M. D.D. Multimedia LLC. Donna Menna and Vivek Tiwari, Northville, MI

contact@2doubleccies.com

All rights reserved. This book contains material protected under International and Federal Copyright Laws and Treaties. Any unauthorized reprint or use of this material is prohibited. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system without express written permission from the author / publisher. The only exception is by a reviewer, who may quote short excerpts or brief quotations in a review.

Warranty and Disclaimer

This book "YOUR CCIE LAB SUCCESS STRATEGY THE NON-TECHNICAL GUIDEBOOK" and information herein are provided "as is," without any warranties or representations, express, implied or statutory, including, without limitation, warranties of non-infringement, merchantability or fitness for a particular purpose." A sincere and comprehensive effort has been made to make this book as complete and as accurate as possible. MMDD Multimedia LLC. and the authors shall have neither liability nor responsibility to any person or entity with respect to any loss or damages arising from the information contained in this book.

Trademark Acknowledgments

All trademarks are the property of their respective owners. MMDD Multimedia LLC., is not associated with any product or vendor mentioned in this book. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark. All terms mentioned in this book that are known to be trademarks or service marks have been appropriately capitalized. MMDD Multimedia LLC. cannot attest to the accuracy of this information.

Cisco, CCIE, CCNP, CCNA, Cisco IOS and IOS, NX-OS, and IOS-XR are trademarks or registered trademarks of Cisco and/or its affiliates in the United States and certain other countries. The authors do not represent Cisco in anyway. This book and its contents have not been reviewed, approved, or endorsed by Cisco.

Praise for “Your CCIE Lab Success Strategy”

Kenya Thomas, CCSI #34027

“A behind the scenes guide on how to obtain your Cisco CCIE from two double CCIE’s. No bull. No hype. Just the absolute truth about what it takes to become a CCIE. An absolute must have for anyone serious about pursuing their CCIE certification. Unlike anything else in the market! (Their preparation timelines alone are worth the price of the book). Get it now!”

Benjamin T. Parrish, CCIE# 11435

“There are business resources and practices that make the act of preparing for the CCIE easier, or even possible. The thought process that this book outlines, assists with those aspects which we, as technical folks, often don’t consider.”

Glenn Sharpnack, CCIE Candidate

"This amazingly easy to read book provides the non-technical insight needed to pass the CCIE lab exam. I recommend anyone pursuing a CCIE to read it before beginning lab exam preparation and closely follow the do’s, don’ts, and the timeline."

Tahir Awan, CCIE#12680

“The book flows perfectly. A great behind the scenes look at the CCIE experience! Dean and Vivek have put forth the CCIE mind-set in an eloquent way. A master piece.”

Sun-Ly Du, CCIE Candidate

“This book leads you straight to the point, and the powerful strategies make the difference between a pass or fail in the CCIE lab. This book really gave me a clear timeline to prepare for my CCIE.”

What other reviewers have said:

- ✓ *The advice that is found in this book is not found in any CCIE book!*
- ✓ *After reading this book I feel that CCIE is within my reach.*
- ✓ *This unique book covers the much needed non-technical aspects of CCIE lab exam preparation.*
- ✓ *This type of mentorship from two CCIEs is priceless.*
- ✓ *This book lets me know when I am ready for the Lab exam.*
- ✓ *I will most certainly use this book for my second CCIE!*

About The Authors

Vivek Tiwari CCIE # 18616

(Routing and Switching and Service Provider)

Vivek Tiwari holds a Bachelor's degree in Physics, MBA and many certifications from multiple vendors including Cisco's CCIE. With double CCIE on R&S and SP track under his belt he mentors and coaches other engineers. Vivek has been working in Inter-networking industry for more than fifteen years, consulting for many Fortune 100 organizations. These include service providers, as well as multinational conglomerate corporations. His five plus years of service with Cisco's Advanced Services has gained him, the respect and admiration of colleagues and customers alike. His experience includes and not limited to network architecture, training, operations, management and customer relations; which made him a sought after coach & mentor, as well as a recognized leader. Vivek is currently engaged in consulting work for public sector.

Bayan Dean Bahizad CCIE # 18887
(Routing and Switching and Service Provider)

Dean Bahizad has a Bachelor of Applied Science (Engineering Honors) degree, and has been working with networks for more than fifteen years. His experience includes working on complex global networks as a Network Consulting Engineer for many fortune 100 companies. Dean has worked on financial institutions, automotive, manufacturing, and Service Provider segment. Dean has been with Cisco for the five plus years as a Consulting Engineer and Educational Specialist for both segments 1 Accounts and Service Providers. As an Educational Specialist, Dean has travelled around the globe in five continents and has worked closely with many Tier 1 Service Providers on training and deploying high-end equipment, such as CRS1/CRS3, CRS Multi-Chassis and ASR platform. Dean's talent is evident in his customer engagement, as the ability to deliver complex technologies in a simple, clear, and precise manner. If you have been in one of his classes you will know why people say you can laugh and learn at the same time.

Acknowledgements

We would like to thank Donna Menna, our editor for converting our engineer-speak into an understandable and printable language.

We would also like to give a special thank you to Neeka Karimian, Daria Karimian and Avantika Tiwari for their help with the final editing.

We thankfully acknowledge the helpful review and suggestions from:

Kenya Thomas

Tahir Awan

Sun-Ly Du

Glenn Sharpnack

Charlie Ball

Benjamin Parrish

We also want to extend our gratitude to Daria, Bahi, Neeka, Nadia, Mateen and Ben Karimian for their hospitality and endless supply of tea, coffee, food and friendship for all those long days and nights we were working on this book.

Lastly, we would like to thank everyone else who assisted and encouraged us with this work.

Dedication:

Vivek Tiwari: I would like to dedicate this book to my parents and my in-laws. Your inspiration, teachings and blessings have been the invisible hand guiding me forward all my life.

Dean Bahizad: I would like to dedicate this to my entire family who has supported me through all of the ups and downs of life. You offer great encouragement and I would not be where I am without all of the blessings that the Almighty has bestowed upon my family and me. A special thanks to my best friend and soulmate who has been there throughout this entire journey. To Anisa and Ariana who bring joy and love into my life each and every day.

Table of Contents

Copyright	ii
Acknowledgements	vii
Dedication:	viii
Table of Contents	ix
Introduction	1
Chapter 1: Do You REALLY Want To Be A CCIE?	8
Chapter 2: A Tale of Two Engineers	11
Chapter 3: Why This Book	16
Chapter 4: CCIE Is Difficult but Not Impossible	19
Chapter 5: Investing in CCIE Certification	23
Chapter 6: What Happens When You Get Your CCIE?	28
Chapter 7: The Circle of Trust	32
Chapter 8: Managing External Influences	36
Chapter 9: Set a Clear Prize for Success	42
Chapter 10: The First Key	45
Chapter 11: The Second Key	49
Chapter 12: The Third Key	56
Chapter 13: Unlock the Box	60
Chapter 14: Let the games begin!	62
Chapter 15: Your partner in success	65
Chapter 16: Practice hard and play even harder	69
Chapter 17: Make a schedule, and work the schedule	73
Chapter 18: The ticking clock	76
Chapter 19: Books/Videos/LAB resources	80
Chapter 20: VoD	84
Chapter 21: Learn the strokes	88
Chapter 22: Maintain your form	90
Chapter 23: Do more to get more	94

Chapter 24: Core should be up 100%	97
Chapter 25: Jumping into the Pool	100
Chapter 26: Expect loose ends	105
Chapter 27: What to do in the last three Months, Weeks & Days	108
Chapter 28: Rapid fire	111
Chapter 29: The Spacewalk	113
Chapter 30: The hour after landing	117
Chapter 31: The second attempt is usual	120
Chapter 32: Self alignment	122
Chapter 33: The Next round	126
Chapter 34: Do's	129
Chapter 35: Don'ts	134
Chapter 36: From ordinary to extraordinary	138
Chapter 37: Suggested Timelines for CCIE Preparation	143
Private (First timers) Timeline	144
Sergeant's (One Lab Attempted) Timeline	151
Veterans Timeline	158
SEAL (Subsequent CCIE) Timeline	165
Super Hero (Subsequent CCIE) Timeline	172
Conclusion	179

INTRODUCTION

A Wiseman once said, "Regard man as a mine rich in gems of inestimable value. Education can, alone, cause it to reveal its treasures, and enable mankind to benefit therefrom." This book was written in order for you to become empowered and to understand what lies ahead in your CCIE journey.

To start off let us explain what is CCIE? The Cisco Certified Internetworking Expert (CCIE) is an elite certification and is recognized worldwide as the top certification in networking. Some say this is the doctoral of networking and for many of us who have attempted or have gone through this journey can testify to this fact. This certification not only proves your technical prowess but also adds prestige to your résumé. It may increase your salary, and provide job security in today's environment. It has been stated that over the past ten years, more than half of the engineers who passed the written exam did not pass the lab exam; and for the ones who attempted the lab it took at least three attempts to pass the CCIE lab.

After we completed two different CCIE lab certification tracks, we realized an important element (the non-technical aspects) was missing in all of the training material. This element has not been taught anywhere; until

now. We have created this unique book to discuss the non-technical aspects of the CCIE lab. This book is for anyone, who is either considering taking on the CCIE challenge, or has passed the written portion of the exam. It is for those who have failed the lab and it is for those who already have a CCIE and are considering pursuing another CCIE track.

We want to tell you at the outset that we are engineers just like you, and because of that, this book is short and to the point. In our experience, we have seen CCIE candidates approach the lab exam just like any other exam. Due to the enormity of this exam, some get sidetracked or discouraged. In many instances, this is due to the non-technical aspects. Here are a few common scenarios that we have seen.

Scenario 1:

You plan and set a target date for scheduling your CCIE lab and start studying very hard. As you approach your target date, you realize that you are not fully prepared and so you postpone scheduling the CCIE lab. After doing this a couple of times you stop trying.

The problem in this scenario is that your target date is not planned well. Either the date is too aggressive or you are not able to devote as much time for studying. Both of these are non-technical reasons that we will tackle in this book.

Scenario 2:

You start preparing after reading the Lab blueprint. The sheer number of books you have to read tells you that this is difficult. After reading three or four books you realize that you have already started to forget things from the first book. When this happens, you may get overwhelmed and stop studying altogether.

The problem in this scenario is that you need to change the way you prepare and study for the CCIE Lab. You need to be very specific about what training resources to use, and how to use them. This is another non-technical aspect. We will give you guidelines on how to maximize your studying efficiency later on in this book.

Scenario 3:

For your specific CCIE track you may purchase training lab books which may have 20, 30 or even 40 labs to choose from. You setup the lab using simulators; for example DYNAMIPS or GNS3 to practice with. You soon realize that although you know the answers, you still do not understand why a particular task was completed in a specific manner. As you complete more and more of these labs you recognize there are many gaps in your knowledge and you have to start fresh by reading up on technologies. This may cause you to postpone or give up on your CCIE quest.

The problem in this scenario is that the candidate has many gaps in his or her knowledge. By jumping into the labs without proper planning and preparation, the labs become more daunting. This book addresses the gradual step-by-step processes you should follow in order to succeed and understand the lab.

Scenario 4:

You are a great engineer and are on top of your game. Because of this, you are always busy and have many responsibilities. This leaves you with very little time for studying. You can spare two or three weeks max so you decide to take a one week CCIE boot camp from a leading training provider and schedule your lab two weeks after that. After completing the course, you realize that you need much more time to study, a luxury you don't find yourself having.

In this scenario, scheduling and planning study time while having a full time job is the roadblock, and we tell you how to get around that, and share our own stories.

We can keep on going with many more scenarios; these and many other pitfalls are addressed in this book.

This guidebook gives you the strategies that have been successfully used by us for both our CCIEs, along with real life examples. We tell you:

- The three essential keys to unlock your success.
- How to effectively utilize your training provider's resources.
- The four step process that will help when using Video on Demand.
- The necessary preparation to start your hands-on labs.
- How to speed up learning using a partner.
- The Do's and Don'ts for your CCIE lab preparation.
- Five sample timelines for preparing for your CCIE.
- How you can do all of this, and work full time.

This book is easy to follow. What we have written is advice that we gave to others about our CCIE experience. It contains short concise chapters that will not take away your study time.

All of the chapters in this book are suggestions based on our successful personal experiences. Use these suggestions to suit your specific needs. Remember these are suggestions, and not hard set rules to help you succeed in your CCIE lab.

If you have a huge task which is outside of your comfort zone, you need to break it down into smaller manageable chunks. At times, you may feel overwhelmed, but you need to be in control and rationalize the purpose behind this undertaking. This reminds me ^(Dean) of a story that my Italian father in-law told me on our occasional long walks. He lived in the

mountainous region of Roccamorice, Italy, and had to climb the mountain for his daily chores. His little legs ached and he complained to his grandmother and asked her to carry him up the mountain. His grandmother lovingly encouraged him to not look at how much further he had to go, but to just keep climbing. Put your head down, watch where you are going and before you know it, you are at the summit. Once you follow our guidelines and decide on what path to take, your sole job is to be persistent and aggressively pursue a plan, without looking at the distance that you have traveled or the long road ahead.

We recognize that CCIE is usually a twelve month project that you need to break down into daily activities and goals. Thus the question that you should be asking yourself is, “What can I do in the next fifteen minutes to help with my daily goal?” This question changes the way you look at things, namely chopping down CCIE into fifteen minute intervals. The goal is to get a CCIE but what you need to realize is that every fifteen minutes counts and can bring you one step closer.

This guidebook will give you an inside view of CCIE Lab preparation. We will be mentoring you through a step by step process and provide answers to the questions you will have on your journey to this demanding certification. Some ideas in this book may sound deceptively simple, yet

Introduction

they will make a huge difference once you implement them rather than just attempting the lab exam. For example, it is important before heading to bed, you spend five to ten minutes of your time reflecting on what you did for that day and write down your plan for the next day. This simple gesture will prepare you for the next day and get you started on the right foot.

We are here to give you the straightforward, no-nonsense picture of what it will take to get your CCIE. These strategies have worked for us twice, and we are confident that they will help you in your endeavor too.

Visit our website at **2doubleccies.com** for additional information.

CHAPTER 1: DO YOU REALLY WANT TO BE A CCIE?

Since you are reading this, you are obviously considering the CCIE lab exam. In writing this book, we wanted to inform you on what to expect in the simplest terms. No sugarcoating. No exaggeration. Just a **frank conversation from one engineer to another.**

When talking to other engineers about CCIE—whether it is those who have obtained it, those who have failed to obtain it, or even those who have just considered obtaining it—you invariably hear some or all of the following comments:

1. It is a lot of work.
2. CCIE certification is not worth the time and money it takes to earn it. (Not true)
3. When studying for the CCIE exam, 24 hours a day doesn't seem like nearly enough time.
4. You must focus on CCIE and nothing else.
5. You must be rich to take the CCIE exam because it is ridiculously expensive.
6. The CCIE exam is very difficult and designed for you to fail.
7. Only a small percentage of candidates even pass the CCIE lab exam.

8. I failed my exam because of a bug in the IOS.
9. I failed my exam because the hardware was faulty.
10. I failed my exam because the test evaluation is flawed.

Are all of these comments true? Of course not; some of the above statements are made by individuals to justify why they are not CCIE's. Obtaining a CCIE number is definitely a formidable task, requiring untold hours of study and sacrifice over an extended period of time (usually eight to twelve months). In spite of that, do you still want to be a CCIE? If your answer is "yes", why? Ask yourself that, then list at least the top five reasons in the space we have provided on the next page. If you can think of more, list them as well. Take out a piece of paper, if you need to. This list will help you isolate your reasons, and even solidify them in your own mind. More importantly, it will give you something to refer to in the future, especially if you do seriously decide to go for your CCIE number. Because there will be times where you feel discouraged, or lose focus, or wonder why you are working so hard. In those instances, you can return to this **list to remind yourself** of the benefits.

Your Top-Five Reasons for Becoming a CCIE

1. _____
2. _____
3. _____
4. _____
5. _____

Those who have become CCIEs agree that the exam takes a lot of work and a serious commitment, but they also agree that the results are worth it. When talking to them, they may describe some of the difficulties they encountered, but they will also explain how they were able to work around them. They are proud of their achievement, and if you were to ask them “what are the most important qualities a successful candidate must possess?” they will almost invariably say a positive attitude and an unwavering commitment.

CHAPTER 2: A TALE OF TWO ENGINEERS

Before we delve any deeper into this book, I ^(Vivek) want to tell you a true story about two engineers I know. To protect their identities, I have changed a few personal references and altered events slightly.

Charlie (Engineer 1) is a young guy in his 30s in the desktop support group. I met him only because I broke my laptop keyboard and he came to my desk with a replacement. While repairing it, he asked me about my role in the company. I told him about LAN and WAN technologies, routers, and switches. I thought this would be a short, five-minute conversation, but he was very curious, and it went on for over half an hour. He listened to me as intently as he could while dismantling my laptop and replacing the broken keyboard. He was intelligent, curious, and inquisitive. I pointed him towards CCNA, and even scrounged up an old book on the subject that I had lying around.

He went home and read the book, and came back asking questions. I answered him as well as I could, but his thirst for knowledge was unquenchable. He went on to buy other books, and began peppering the other engineers in my group with questions. He became a CCNA in about four months—a real CCNA, not the kind who simply absorbs brain dumps in

order to pass the exam.

As he progressed toward his CCNP, he was most interested to find out what issues and challenges we had faced in our own CCIE-level labs. We let him loose in our lab in the evenings, and, to our surprise, he would often stay overnight working on whatever problems we had posed to him.

I moved on from the company, but met Charlie again about two years later. Was he a CCIE? I'll let you guess.

Andy (Engineer 2) was also a young guy in his 30s, and an experienced engineer. He impressed all of us during his job interview, and joined our team. He had a great attitude towards learning, and possessed a great depth of knowledge. He was also never afraid to ask questions.

When he joined our team, he was working toward his CCNP, but he was certainly CCIE material. He achieved his CCNP within months, and our boss was so impressed with his performance and dedication, that he asked him to try for his CCIE. He started studying for it immediately. Two weeks before his scheduled CCIE written exam date, he was given paid time off to prepare for it. He worked hard, and passed it easily.

Satisfied by his success, we encouraged him to attend a CCIE lab boot camp, which he did. When he was finished, he leapt right into the CCIE practice labs. He believed he was doing so well with them, that he decided

to take the actual CCIE lab exam the following month. He worked really hard, sticking around every day after office hours to study and practice his labs. Even on his days off, he VPN'd into the lab.

As the date of his lab exam approached, he requested two weeks off in order to prepare for it. He failed, and felt discouraged. He confided in me that the exam opened his eyes and made him realize just how much harder he had to work for it, how much more he had to study. We all assured him that failing a first attempt at the exam is not at all unusual, that, in fact, it usually takes two or three attempts. We encouraged him to continue his study, and even offered any guidance or assistance that he needed, but the failure had taken its toll on his confidence. He continued to study, but, more and more often, other obligations—familial, financial, and occupational—began to compete for his time, and even take precedence.

Looking at these two examples, which engineer do you think has become a CCIE?

Hint: Charlie does not need to and will not read this book unless I ask him to.

As you may have guessed, Charlie went on to pass his exam, while Andy, a year and a half later, has not. Andy, in other words, will in all likelihood read this book because it will help him overcome some of the obstacles to

getting his CCIE.

Charlie got his CCIE within three years, which was a remarkable feat, and a big blow to my ego because I had more experience and it had taken me much longer. After learning of his success, I sought out some of my old colleagues and inquired about Charlie. What I heard was an astonishing story of dedication, perseverance, and continuous improvement. It was like something out of a book or a movie. Charlie had spent so much time studying, he had learned as much in three years as I had in seven or eight. One of the biggest factors to his success, besides a nearly all-consuming commitment, was an ideal environment. He had unfettered access to lab equipment and actual CCIE engineers who were eager to assist him and answer his questions anytime he asked.

Andy, on the other hand, also had access to equipment and engineers, but he let other factors get in the way. Some of these factors were external—obligations to family, friends, and work—but some of them were internal. Failing his first lab exam had taken a serious toll on his confidence. Perhaps his goal had even begun to seem unattainable. He continued to study, but not as often. Something else always seemed to come up. In the meantime, he suffered another major setback—the blue-print of the lab exam changed. He had to buy a whole new set of updated training

materials, and learn an entirely new set of topics. End result: he is still not a CCIE!

Both of these engineers were intelligent and decided that they wanted to become CCIEs. Andy even had the benefit of a company-sponsored boot camp and paid time-off to study. But Charlie had **perseverance and an unwavering commitment**. He had not let anything get in his way, not even failure.

Perhaps you are thinking that Andy will be able to identify himself by our description. Unfortunately, this could not be farther from the truth. Stories like his are all too common. We have seen it, and many variations of it, many times over the years. That is why we wanted to write this book. We wanted to help you avoid some of these common obstacles to achieving your CCIE. This book is the distillation of many years of experience, ours and our colleagues—men and women with many different skill sets, study habits, and from many different countries—and we hope that you will learn as much from it as you will from any technical book that you may have purchased.