Preface

Welcome to the frustration, tedium, and hard work that is configuration management. If you've picked up this book, you probably have some notion of what it means to manage Information Technology (IT) configurations—and you are probably hoping I'll tell you that it can be easy to set up and manage a configuration management service.

Unfortunately, I can't say it will be easy, but I can at least report that it is possible to have an effective process that results in an accurate Configuration Management Database (CMDB) and useful information that produces real benefit for your total IT services. This book is born from the crucible of real-world experience. You won't find sugar coating and you won't find magic formulas. Instead you'll find hard-won lessons and danger signs posted by a fellow traveler.

You know I would be lying if I told you that I have implemented a perfect configuration management service. Each implementation I've done has its own particular blemishes and shortcomings. Some have been called successful, and hoping for anything beyond that seems unreasonable.

Organization of the Book

We begin in Chapter 1, "Overview of Configuration Management," with a general overview of the landscape. There is an introduction to the IT Infrastructure Library (ITIL) along with a more in-depth look at configuration management. You look at both the business value you can gain from a well-implemented program and the challenges you're likely to encounter in putting the program in place. Also in Chapter 1 is a maturity scale you can use to understand how well your organization has done thus far. This material serves as a background before you dive into the depths.

Like every good IT project, putting a configuration management service in place happens in three stages. After Chapter 1, this book is organized into three parts representing the planning stage, the implementation stage, and the operational stage.

First you sit in a quiet spot and think deeply about what you want to accomplish. You tell three or four others and together you brainstorm about what is possible. You talk to some managers and get a dose of what is realistic. You bring in some experts who help you flesh out the details of how to go about the work. You make estimates, start to lay out a schedule, and ultimately figure out the details. Out of all this activity, a plan is formed. The many pieces of assembling a plan are documented in the first section of this book.

I've personally been involved in a variety of IT projects that started off with good intentions but poor requirements, and those projects never ended in success. Based on this experience, Chapter 2, "Gathering and Analyzing Requirements," focuses on defining the requirements for configuration management. Although you may already have a handle on requirements definition and management, you should still browse through Chapter 2 for a few tips on gathering and analyzing configuration management requirements.

We get specific in Chapter 3, "Determining Scope, Span, and Granularity," where we tackle the hardest part of configuration management. This chapter introduces a three-dimensional way of thinking about the structure of your CMDB. You find very practical advice on how to set up the scope, granularity, and span of the database. While I can't tell you exactly what should and should not be in your particular database, the rules of thumb in Chapter 3 should help you get to a workable definition that is custom tailored to your situation.

People often are eager to start putting configuration items into a database, and they have no idea of how those configuration items (CIs) will stay accurate as changes happen in the real world. To help you avoid this rookie mistake, Chapter 4, "Customizing the Configuration Management Process," describes how to plan for your very own configuration management process. You learn how to tailor the process to meet your specific requirements and how to build out an effective process without getting carried away with too much detail.

Although the process work is certainly important, you eventually will need to gather data and store it in a database. You'll need to know what kind of database is right for you, where to look for existing data, and how to merge data into a cohesive set of information. Chapter 5, "Planning for Data Population," describes exactly those steps.

By the end of Chapter 5, you will have lots of good planning information but still won't have a plan. You need to assemble all the information from the previous chapters, and that is exactly what Chapter 6, "Putting Together a Useful Project Plan," helps you to do. You find information on work breakdown structure, schedule, scope, communications, and all the rest of the pieces of a full project plan. Chapter 6 also serves to recap the first section of the book.

After the plan has been committed using whatever governance mechanisms your organization uses, you start the real work of executing the plan. You pull together a team with the best intention of doing everything right, but the real world intrudes and you progress with wild rushes of progress interspersed with missteps and rework. During this second stage, the going is hard, but you have a specific goal and end date in mind, thanks to your careful planning work. Part II of the book provides information on the actual implementation work.

It would be impossible to implement configuration management without solid tools to implement the CMDB. There are many good tools in the marketplace, and I'm not going to advocate any single tool over the rest. Instead, Chapter 7, "Choosing the Right Tools," provides you with some common characteristics to think about in selecting a configuration management tool set. As an added bonus, I provide you with a very simple way to document your tool decision without emotion or undue vendor influence.

As important as the tools are, they must automate the process that you've decided to use. If you let the tools dictate the process, you'll inevitably find a disjointed and incomplete process. Chapter 8, "Implementing the Process," focuses again on the process—this time from the standpoint of how to actually implement what you planned in Chapter 4. You learn how to communicate with the organization, how to build training materials, and what level of detail is sufficient for your overall process work.

If your implementation is like all those I've been associated with, the actual population of the CMDB is the longest and most visible step in the implementation. That's the topic of Chapter 9, "Populating the Configuration Management Database." Here you learn about two different population approaches and how to make sure that the data you put in is clean and useful from the start. Of course, I'll continue my theme that putting data into a database is useless without a way to maintain its accuracy. So, you'll find some discussion in Chapter 9 about integrating the incident, change, and release management processes with configuration management data.

One of the best ways to improve your chances of success in almost any IT project is to perform some kind of pilot program. In Chapter 10, "Choosing and Running a Pilot Program," you look at how to shape, advertise, and execute a configuration management pilot. I describe how to evaluate the success of a pilot and make an educated decision on whether or not to push forward to a full production roll out.

Assuming your pilot is successful, you'll want to expand out to the rest of the organization. You need to think about a broad range of issues, including communications, training, and some obstacles you might face that weren't resolved from the pilot. Those topics are discussed in Chapter 11, "Communication and Enterprise Roll Out," where I describe the move from a small, isolated pilot to a broad enterprise configuration management service. This chapter touches on most of the key themes from the second part of the book and serves as a summary to Part II.

You might think that you've earned a rest after a successful configuration management implementation, and you're probably right. But we all know that the real work comes after implementation, when you've settled into day-by-day operations. It isn't glamorous, but somebody has to keep the lights on and the database clean. That's why there is a third part to this book. In this final part, you learn how to mature your configuration management service and exploit its full value.

We start with a peek at the configuration management organization. Rather than simply focus on the operational roles, I've summarized all of the roles from implementation through operations in Chapter 12, "Building a Configuration Management Team." I present the standard

responsibilities and the skills needed to make the program successful. If your job is to hire a group of people to make configuration management real for your organization, I give you permission to skip ahead to Chapter 12.

Next we think about some good uses for all of the data you've been so careful to gather, cleanse, and store. Chapter 13, "The Many Uses for Configuration Information," describes not only some reports you may want to create, but also some real-world ways in which you can use configuration information to help your overall IT effectiveness. If you're interested in how configuration management can help with IT charge back or software license compliance, you'll find great information in this chapter.

Chapter 14, "Measuring and Improving CMDB Accuracy," tackles the critical question of database accuracy. There is no more certain path to failure than the one that starts with incorrect data. I describe various methods for defining and tracking accuracy, and give you concrete ways to improve the accuracy of the CMDB.

Finally, this book concludes with a chapter on some of the things you'll be able to tackle after you have good configuration management data. In Chapter 15, "Improving the Business Value of Configuration Management," you find extended discussions of an IT services catalog and using configuration management to help in your corporate compliance programs. Although these aren't strictly configuration management discussions, they are intended to give you added motivation to get configuration management completely under control.

Throughout the book, I include examples of situations where our teams made the right decisions and some where we made the wrong decisions. My hope is that you'll view this book as a set of lessons others have learned so that you won't have to repeat my mistakes.

Let me repeat one more time that configuration management is possible. It isn't easy, and doesn't happen without hard work, but you can have an accurate, reliable source of IT information that will dramatically help in many of the decisions you need to make as a technical or business leader in the IT community.