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IT Architecture

FOR

DUMMIES®

Learn to:

- Create an Enterprise IT strategy that meets business objectives
- Work with each layer of the technology stack
- Support organizational structure and processes
- Develop an action plan for implementation

Kalani Kirk Hausman
Susan L. Cook



IT Architecture For Dummies®

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Implement Virtualization

Reduce Cost from Consumables by Implementing Green IT Practices

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**by Kalani Kirk
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Dedication

This book is dedicated to the many talented IT professionals faced with supporting enterprises in which the only constant is change.

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Introduction

The enterprise begins when you carefully put the first two computers together, and complexity grows with every step thereafter. Haphazard IT building practices can easily lead to an enterprise network that is poorly planned or composed of random, one-off projects undertaken as standalone goals. An e-mail consolidation project can unexpectedly derail concurrent licensing projects intended to vastly reduce expensive software licensing costs by carving the authentication domain into separate silos unable to share resources. A server virtualization project may run into difficulties if not coordinated properly with server consolidation projects to make sure that sufficient bandwidth and host resources are available when systems are transferred from physical to virtual states.

Obviously, these scenarios are simply examples of potential conflicts that may occur when enterprise realignment and cost-saving strategies drive independent projects without coordination and guidance at the strategic level. Many other conflicts are much more subtle and not apparent until well along a new path, such as an incompatibility between communications protocols that support new equipment or a lack of executive support that leaves adoption of enterprise practices in a loose “opt in by choice” state.

After reading this book, you’ll have a better grasp of the interconnected nature of enterprise architecture realignment. We hope the information we provide encourages you to look around your own enterprise and find some low-hanging fruit opportunities for quick savings or other proof of value to help develop executive

support for additional changes. Few enterprises lack such opportunities because technology and its uses tend to fall into stable practices users describe as “the way we’ve always done it” rather than changing to adopt the best or most efficient ways.

About This Book

This book is not a checklist for efficiency, although it does present some strategies that may improve cost and operational efficiencies. It is not a step-by-step guide that will lead to a secure and risk-free network, although it provides some examples of projects that may help to reduce risk. Instead, this book introduces you to enterprise architectural planning from the theoretical viewpoint and then drills down to the meat and bones of enterprise technologies and functions.

You should recognize elements of your own environment reflected here and take advantage of my past experience in dealing with challenges faced during realignment, consolidation, and other re-engineering practices within an extended enterprise network. Although the content of this book is suitable for globally distributed enterprises of significant scale, the topics covered are useful for resource and availability planning in networks of any size.

Conventions Used in This Book

This book is, after all, a reference book, and we expect that using conventions will make it easier for you to find exactly what you're looking for by quickly scanning through chapters. The conventions for this book are as follows:

Italics emphasize important terms the first time they're defined.

Web site addresses, or *Uniform Resource Locators* (URLs), are provided for Web sites referenced in this book and appear in a special typeface, such as www.dummies.com.

Because the Web is such a dynamic environment, provided URLs may change at any time.

What You're Not to Read

In order to make a technical topic more interesting, we include interesting tidbits of information and anecdotes based on our professional experiences. You can find this information in sidebars throughout the book. You don't have to read the sidebars to understand IT architecture, but if you do, we hope you find them as interesting as we do.

Occasionally, we're guilty of outright techno-babble, but fortunately we mark those discussions with Technical Stuff icons so that you can skip right over them if that sort of thing makes your eyes glaze over.

Foolish Assumptions

We assume this book is going to be read by CIOs, chief architects, network planners, IT operation managers, and front-line technical implementers. We don't delve deeply into specific technologies, but instead present considerations for integration of whatever technologies are already in place.

We also assume that you're not looking for someone to tell you exactly what hardware and software to buy. We won't tell you that open-source is the best solution for every problem, any more than we'll suggest that a particular vendor's commercial off-the-shelf line of products is best. In general, the best choices for technology are based on those already in place and familiar to users and support staff alike.

Finally, we assume that you need help identifying areas of focus and strategies for sustaining your enterprise year to year in the face of constant technological evolution. We trust this will spark many ideas you can leverage toward management of your extended enterprise. By starting at the theoretical level and progressing through the book into ever-more-direct technology approaches and strategies, you can develop a better framework for evaluation of your own enterprise setting.

How This Book Is Organized

We divide this book into several parts based on topic. The following sections describe what you can expect to find in each part.

Part I: Developing the Architecture

Part I establishes the fundamental concepts of what defines an enterprise and then examines the value provided by this definition.

Part II: Defining the Role of IT Architecture

Part II addresses the identification of challenges and advantages in enterprise reconfiguration. It further examines the need to prove value to the organization as a result of change.

Part III: Creating an Enterprise Culture

Part III discusses the fundamental aspects of identity management, developing an enterprise culture, and specific collaborative options that can be used to reinforce this cultural evolution.

Part IV: Developing an Extended Network Enterprise

Part IV covers elements of a distributed network and its resources, identifying areas of planning that must play a

part in enterprise reorganization and long-term operational strategies.

Part V: Obtaining Value beyond the Basic Enterprise

Part V examines technical considerations and projects that may or may not apply to some enterprises, although many of the strategies listed can be applied at any level.

Part VI: Protecting the Enterprise

Part VI defines strategies for protecting resources and services within the enterprise network environment.

Part VII: The Part of Tens

Part VII offers lists of ten useful items in enterprise architectural planning, together with references to areas of the book focusing on each.

Icons Used in This Book

The familiar *For Dummies* icons offer visual clues about the material contained within this book. Look for the following icons throughout the chapters:



Whenever you see a Tip icon, take note and pay particular attention. Tips address special-case items or strategies that come up often.



The Remember icon points out key concepts that will be helpful in understanding later topics in this book. And here's your first thing to remember: There is an online cheat sheet for this book that you can find at www.dummies.com.



Warning icons draw your attention to potential pitfalls and particularly difficult challenges. Pay attention to these factors in your enterprise because they have a habit of coming back to bite you.



Although this book attempts to avoid advocating specific technologies or alternatives in favor of a more generally useful examination of architectural strategies appropriate to any enterprise, technical details are indicated with a Technical Stuff icon. These items may prove of greater use to implementers than to pure strategists, but you will likely wear many hats over the course of enterprise realignment. It can't hurt to review a few technical details!

Where to Go from Here

The goal of this book is to get you thinking about your own enterprise and the opportunities it presents to the