

Foreword

This second edition of *Cisco CallManager Fundamentals* introduces several key additions as well as major revisions to one of the most successful books ever published related to IP telephony in general and Cisco CallManager in particular.

Since the first edition was published, the industry has continued to move at Internet speeds in spite of a downturn in the economy. Cisco Systems now generates more than \$1B in revenues from IP telephony and regularly ships 200,000+ phones per month (as of late 2004). Development, test, and support staff has more than doubled.

In July of 1997, the engineering group from Selsius Systems, a small start-up in Dallas, Texas, cofounded by David Tucker and me, connected two normal-appearing phones into a 10-Mbps Ethernet LAN. On one of the phones in the lab, I dialed a four-digit extension in a very ordinary way, which in turn caused the second phone to ring in a very ordinary way on David's desk. He answered the phone with the customary "Hello," and I replied with an uncouth response, "Can you hear me?!" Thus began the third technology evolution in the long history of the telephone. Although the "phone call" appeared ordinary on the outside, everything inside was vastly different from the first generation of analog telephony and substantially different from the second generation of TDM digital telephony. This was the first time that a telephone call had been made entirely with Internet technology consisting of a true IP phone (connected over Ethernet), over an IP network, managed by an IP-connected server appropriately named the CallManager.

There are many components that comprise the Cisco IP Communications solution; nevertheless, Cisco CallManager is the heart of the solution. The content of this book is the first (now the second) public glimpse into the core of CallManager. The authors carefully discuss the fundamental design, its evolution, and the motives behind the current architecture. Over the course of its 11-year life, CallManager has undergone several major transitions. This is perhaps its key to success: the ability to adapt and change at Internet speed. The fundamental philosophy has remained intact; however, much of the underlying architecture has either evolved or been redesigned, resulting in a system that supports tens of thousands of devices and is deployed in thousands of companies all over the world.

Three of the authors of this book, John Alexander, Chris Pearce, and Delon Whetten, are three of the original designers of CallManager. Anne Smith was one of the original writers of the CallManager documentation. Today, John's role is director for Cisco CallManager development. Chris continues as the lead architect. Delon manages the core group of call processing. And Anne leads much of the supporting documentation effort. My association with the authors and the Cisco CallManager product spans more than a decade, but in Internet time, the equivalent is closer to 50 years.

While much has changed since the first edition, the applicability and usability of this book has not changed. The first edition can be found in labs, in data centers, and on engineers' desks with well-worn pages, coffee spills, dog-eared pages, and highlights. It was well used then and this second edition will be well used now as the IP telephony revolution continues its juggernaut march down the telecommunications lane.

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