Foreword

IPv6 is an important technology because the Internet cannot continue to function without it. The "killer app" for IPv6 is...we get to keep using the Internet!

The biggest criticism of IPv6 is that the designers ignored certain important operational aspects. That's a fancy way of saying that converting to IPv6 requires a lot of work, and we can't remove IPv4 from our networks until after the entire world is dual-stack IPv4/IPv6. This will take years. Other possible designs might have permitted IPv4 to be decommissioned in parallel or after a small amount of IPv6 had been deployed. Alas, that is not how it turned out. It is backwards-compatible in ways that benefit users at the application level but not in ways that would have made it easy for network engineers and architects.

There are two ways to convert your enterprise network to dual-stack IPv4/IPv6.

The first method, described in this book, requires a lot of planning, negotiating, designing, testing, testing, testing, installation, and testing. It is a long voyage but worth the trip. This book will prepare you for the realities of doing this important project. Benefit from Google's experiences.

The second method is to sit back, relax, and let other people do all the work. This is the technique I used. I had no involvement in the Google IPv6 effort other than cheerleading from the sidelines. I joined an internal IPv6 mailing list. I spent months watching email fly back and forth as people debated, discussed, designed, and planned. Then came a flood of announcement after announcement: NYC will be converted tomorrow. NYC is done! Dublin will be converted tomorrow. Dublin is done! Cambridge will be converted tomorrow. Cambridge is done! This continued for months. Now IPv6 is just part of the standard way networks are deployed at Google. It seems like only yesterday the whole thing was just getting started.

My friends at other companies describe their IPv6 projects in phrases like "not yet" or "next year" or "didn't get funding." It makes me very proud that I work at a company with people like Haythum, Irena, and Kiran. I was delighted to learn that they were sharing their experience with the world so others could benefit.

Don't use the second method. Don't be like me. Be like Haythum, Irena, and Kiran. This book will show you how.

I hope you enjoy reading it as much as I did.

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