

# Foreword

In 1942, Winston Churchill described an early battle of WWII: “this is not the end—it is not even the beginning of the end—but it is, perhaps, the end of the beginning.” I was reminded of these words when I was approached to write this Foreword for the fifth edition of *UNIX and Linux System Administration Handbook*. The loss at sea of Evi Nemeth has been a great sadness for the UNIX community, but I’m pleased to see her legacy endure in the form of this book and in her many contributions to the field of system administration.

The way the world got its Internet was, originally, through UNIX. A remarkable departure from the complex and proprietary operating systems of its day, UNIX was minimalistic, tools-driven, portable, and widely used by people who wanted to share their work with others. What we today call open source software was already pervasive—but nameless—in the early days of UNIX and the Internet. Open source was just how the technical and academic communities did things, because the benefits so obviously outweighed the costs.

Detailed histories of UNIX, Linux, and the Internet have been lovingly presented elsewhere. I bring up these high-level touchpoints only to remind us all that the modern world owes much to open source software and to the Internet, and that the original foundation for this bounty was UNIX.

As early UNIX and Internet companies fought to hire the most brilliant people and to deliver the most innovative features, software portability was often sacrificed. Eventually, system administrators had to know a little bit about a lot of things because no two UNIX-style operating systems (then, or now) were entirely alike. As a working UNIX system administrator in the mid-1980s and later, I had to know not just shell scripting and Sendmail configuration but also kernel device drivers. It was also important to know how to fix a filesystem with an octal debugger. Fun times!

Out of that era came the first edition of this book and all the editions that followed it. In the parlance of the times, we called the authors “Evi and crew” or perhaps “Evi and her kids.” Because of my work on Cron and BIND, Evi spent a week or two with me (and my family, and my workplace) every time an edition of this book was in progress to make sure she was saying enough, saying nothing wrong, and hopefully, saying something unique and useful about each of those programs. Frankly, being around Evi was exhausting, especially when she was curious about something, or on a deadline, or in my case, both. That having been said, I miss Evi terribly and I treasure every memory and every photograph of her.

In the decades of this book’s multiple editions, much has changed. It has been fascinating to watch this book evolve along with UNIX itself. Every new edition omitted some technologies that were no longer interesting or relevant to make room for new topics that were just becoming important to UNIX administrators, or that the authors thought soon would be.

It’s hard to believe that we ever spent dozens of kilowatts of power on truck-sized computers whose capabilities are now dwarfed by an Android smartphone. It’s equally hard to believe that we used to run hundreds or thousands of individual server and desktop computers with now-antiquated technologies like **rdist**. In those years, various editions of this book helped people like me (and like Evi herself) cope with heterogeneous and sometimes proprietary computers that were each *real* rather than virtualized, and which each had to be *maintained* rather than being reinstalled (or in Docker, rebuilt) every time something needed patching or upgrading.

We adapt, or we exit. The “Evi kids” who carry on Evi’s legacy have adapted, and they are back in this fifth edition to tell you what you need to know about how modern UNIX and Linux computers work and how you can make them work the way you want them to. Evi’s loss marks the end of an era, but it’s also sobering to consider how many aspects of system administration have passed into history alongside her. I know dozens of smart and successful technologists who will never dress cables in the back of an equipment rack, hear the tone of a modem, or see an RS-232 cable. This edition is for those whose systems live in the cloud or in virtualized data centers; those whose administrative work largely takes the form of automation and configuration source code; those who collaborate closely with developers, network engineers, compliance officers, and all the other worker bees who inhabit the modern hive.

You hold in your hand the latest, best edition of a book whose birth and evolution have precisely tracked the birth and evolution of the UNIX and Internet community. Evi would be extremely proud of her kids, both because of this book, and because of who they have each turned out to be. I am proud to know them.

Paul Vixie  
La Honda, California  
June 2017