Welcome to OS X Server

If you bought this book, then either you already have a system running Mac OS X Server or you are looking to purchase one. We agree that you’ve made a great choice! Mac OS X Server is a mature product that is easier to configure than most Linux systems but more cost effective than many other server solutions.

Mac OS X Server uses a healthy mixture of open source software and customized Apple versions of those open source solutions. Many open source–based servers are difficult to use, but Mac OS X Server has proven that it is fairly straightforward to configure and manage, while equally as powerful as the traditional Linux counterparts.

NOTE: This book assumes that you’re running Mac OS X Server 10.6. Despite some similarities between 10.6 and previous versions of Apple’s server software, you should apply the lessons and examples of this book only if you are using Mac OS X Server 10.6.

Mac OS X Server 10.6 is the latest version in a long line of the Mac OS X Server operating systems developed by Apple, dating back to 1999. The foundations of most components and services of Mac OS X Server have their origins in open source technology, which is why Apple uses the marketing phrase “Open Source Made Easy.” Both the server and workstation versions of Mac OS X 10.6 include the Apache web server, Samba file server, CUPS print server, and a number of other popular open source technologies. But Mac OS X Server goes a step further than its workstation counterpart when it comes to finely grained graphical controls for the open source products underneath the hood. Mac OS X Server also comes with a number of additional open source products that are not included in the client version of Mac OS X, such as Lightweight Directory Access Protocol (LDAP) directory services, Jabber/XMPP instant messenger server, and the MySQL database server.

The server team at Apple didn’t limit their product solely to integrating open source technologies. In addition to open source technologies, Apple has included a number of proprietary technologies such as Apple Filing Protocol (AFP) file sharing, Podcast Producer, Push Notification, and Xgrid. These services are likely new to recent converts to the Mac OS X platform, but the back-end concepts are probably not.
This book is for anyone not experienced with Mac OS X Server 10.6. Whether you are an enterprise administrator looking to add Mac OS X Server to your infrastructure, an experienced Mac OS X system administrator looking for an update from previous versions of Mac OS X Server, an educator in a school district who manages labs running Mac OS X Server, or a creative professional looking for new and better ways to collaborate with colleagues and clients, this book should appeal to you.

What Is a Server Anyway?

A server is a computer that hosts data for other computers. Any computer can act as a server if it’s providing some form of service over the network. For example, a Mac OS X client that is sharing a printer is considered a print server. However, that same computer will have limitations, both in terms of granularity of the configuration of the resources that are shared and in regard to the operating system itself.

Each server is going to share at least one resource, if it is indeed a server. Each protocol used for sharing can then be considered as a service. In the case of a file server, different types of sharing are available. Multiple protocols, or services, can then share the same resource.

To provide shared services to other computers, a server must be placed on a network. A network is a collection of interconnected hosts. Notice that hosts here is plural. Just as you need to host a service in order to have a server, you need to have multiple hosts in order to have a network. A router interconnects two networks. A host is going to be any device connected to a network, including a firewall, router, server, or client computer. Typical modern networks are interconnected via Ethernet or 802.11 wireless networking using Transmission Control Protocol/Internet Protocol (TCP/IP).

What This Book Is

This book is a guide to help you get started with building and managing Mac OS X Server. Getting started with a server means first setting up the server, then setting up the services that will run on the server, and finally setting up client systems to connect to the server. In some cases, a fully effective setup is going to require using the command line; however, in other scenarios, this will not be necessary. Therefore, it is important to understand that although the book is predominantly going to cover the graphical user interface (GUI) tools for Mac OS X Server, the command line is not considered an advanced operation but rather an integral part of administering Mac OS X Server. So, for those of you whose experience and comfort level with systems administration ends when a Terminal window opens, welcome! As you will see in this book, command-line administration gives you a new level of control and effectiveness and can actually be quite enjoyable as well!

Although the book is going to look at the basic setup and administration of services, granular fine-tuning of each configuration will not be covered in great detail. There are a number of common scenarios for Mac OS X Server integration. But as the title suggests, this book is a beginning book. We will cover as many applicable options as possible, but