Preface

The Federated Naming Service (FNS) is new to the Solaris™ product family. FNS is a set of application programming interfaces and policies that allow applications to use a common set of names and policies over different name services.

FNS is not a replacement for NIS+, the network name service included in the Solaris software environment. Rather, FNS is implemented on top of NIS+ and allows you to use a set of common names with desktop applications. SunSoft Inc.'s implementation of FNS conforms to the X/Open™ federated naming (XFN) specification.

Who Should Use This Book

The primary audience of *Federated Naming Service Guide* is software developers who write distributed applications. Use of this guide assumes basic competence in programming, a working familiarity with the C programming language, and a working familiarity with the UNIX® operating system. Developers should read all four parts of this manual.

The secondary audiences are system and network administrators and application users. All should read Part 1 to get an overview of FNS. Administrators should also read Part 2 and, especially, Part 3 to set up and administer FNS. This manual does not cover NIS+ or the Domain Name System (DNS) except as they relate to FNS.

How This Book Is Organized

Part 1—Introduction

Chapter 1, "Introduction to the Federated Naming Service (FNS)," is a high-level overview of what FNS is and the problems it addresses.

Chapter 2, "The XFN Model," depicts the architectural model of federated naming from the application, API, and end-user's views.

Part 2—FNS Policies

Chapter 3, "Introduction to FNS Policies," introduces FNS enterprise and global policies.

Chapter 4, "Policies for the Enterprise Namespace," explains the policies for naming objects within an enterprise and how applications can use these policies.

Chapter 5, "Policies for the Global Namespace," describes naming objects in global namespaces.

Part 3—Administration

Chapter 6, "Administering FNS on NIS+," is a reference for system administrators who need to administer FNS in an NIS+ environment.

Chapter 7, "Federating NIS+ With Global Naming Systems,"describes the procedures for federating NIS+ with DNS and X.500.

Chapter 8, "Administering the File System Namespace," describes the setup and administration of the file system namespace.

Chapter 9, "Administering the Printer Namespace," describes the setup and administration of the printer namespace**.**

Part 4—Application Programming

Chapter 10, "Interfaces for Writing XFN Applications," defines the client programming interfaces.

Chapter 11, "XFN Composite Names," describes the XFN composite name string syntax and the resolution techniques for composite names.

Chapter 12, "XFN Programming Examples," presents self-contained executable programs for a namespace browser and a printer client and server.

Appendixes

Appendix A, "XFN Composite Names Syntax," gives supplemental information about composite name syntax.

Appendix B, "DNS Text Record Format for XFN References," gives supplemental information about FNS in a DNS environment.

Appendix C, "X.500 Attribute Syntax for XFN References," gives supplemental information about FNS in a X.500 environment.

Related Books

With the exception of the XFN specification, these books do not specifically cover FNS but they provide a good background on how name services work in client-server computing:

- *Distributed Computing—Implementation and Strategy* by Raman Khanna (Prentice Hall, 1993)
- *Distributed Systems* edited by Sape J. Mullender (ACM Press, 1990)
- *DNS and BIND* by P. Albitz and C. Liu (O'Reilly, 1992)
- *Managing the X.500 Client Toolkit* (SunSoft Inc., 1995)
- *X/Open Preliminary Specifications, Federated Naming: The XFN Specifications*, X/Open Document #P403, ISBN: 1-85912-045-8 (X/Open, July 1994)

You may also want to reference the following AnswerBook® on-line documentation:

- *Solaris 2.5 Reference Manual AnswerBook*
- *Solaris 2.5 Software Developer AnswerBook*
- *Solaris 2.5 System Administrator AnswerBook*

What Typographic Changes and Symbols Mean

The following table describes the typographic changes used in this book.

Table P-1 Typographic Conventions

Typeface or Symbol	Meaning	Example
`AaBbCc123`	The names of commands, files, and directories; on-screen computer output	Edit your `.login` file. Use `ls -a` to list all files. `machine_name% You have mail.`
`AaBbCc123`	What you type, contrasted with on-screen computer output	`machine_name%` **`su`** `Password:`
AaBbCc123	Command-line placeholder: replace with a real name or value	To delete a file, type `rm` *filename*.
AaBbCc123	Book titles, new words or terms, or words to be emphasized	Read Chapter 6 in *User's Guide*. These are called *class* options. You *must* be root to do this.

Shell Prompts in Command Examples

The following table shows the default system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

Table P-2 Shell Prompts

Shell	Prompt
C shell prompt	`machine_name%`
C shell superuser prompt	`machine_name#`
Bourne shell and Korn shell prompt	`$`
Bourne shell and Korn shell superuser prompt	`#`