About This Guide

This guide explains how to set up and maintain a network of IRIS® workstations and servers. It includes information on TCP/IP networking, including SLIP and PPP, UUCP networking, and configuring the sendmail mail transfer agent.

The standard network communications software that runs on Silicon Graphics® workstations is derived from the networking software in the 4.3BSD UNIX® releases from the University of California at Berkeley and the Sun® Microsystems RPC® (remote procedure call) system. The IRIX operating system implements the Internet Protocol suite and UNIX domain sockets using the 4.3BSD UNIX socket mechanism. The system also supports access to the underlying network media by means of raw sockets.

What This Guide Contains

IRIX Admin: Networking and Mail contains the following chapters:

- Chapter 1, "Understanding Silicon Graphics' Networking Products," discusses Silicon Graphics standard hardware and software networking products and describes the standard software configuration (files, daemon, processes).
- Chapter 2, "Planning a Network," provides insight into planning a network. It includes internet addressing, the *hosts* database file, when to use certain applications, how to subnet a network, security issues, and heterogeneous network considerations.
- Chapter 3, "Setting Up a Network," describes, through example, the process of configuring a network (homogeneous and heterogeneous), how to set up a router, and basic troubleshooting advice.
- Chapter 4, "Managing a Network," describes the various tools available for managing a network, including backup strategies, performance issues, and fault isolation.
- Chapter 5, "SLIP and PPP," describes the features and functions of SLIP and details how to connect two stations using SLIP.

- Chapter 6, "BIND Name Server," provides an overview of the Berkeley Internet Name Domain (BIND) server, also known as *named*. It also provides an example setup procedure and general information on managing and troubleshooting BIND.
- Chapter 7, "UUCP," compares TCP/IP and UUCP and describes the features and functions of the UUCP networking utilities.
  It also provides a setup example and information about common UUCP error messages.
- Chapter 8, "IRIX sendmail," provides an overview of the mail system, the *sendmail* program, and the *alias* database. It contains a planning checklist and a setup example for various *sendmail* configurations.
- Appendix A, "BIND Standard Resource Record Format," provides detailed information about all standard resource record formats used in BIND configuration files.
- Appendix B, "IRIX sendmail Reference," provides a concise reference to *sendmail* as it is implemented under IRIX.

Conventions Used in This Guide

These type conventions and symbols are used in this guide:

Bold	Keywords and literal command-line arguments (options/flags)
Helvetica Bold	Hardware labels
Italics	executable names, filenames, glossary entries (online, these show up as underlined), IRIX commands, manual/book titles, new terms, tools, utilities, variable command-line arguments, and variables to be supplied by the user in examples, code, and syntax statements
`Fixed-width type`	Error messages, prompts, and onscreen text
`Bold fixed-width type`	User input, including keyboard keys (printing and nonprinting); literals supplied by the user in examples, code, and syntax statements (*see also* **<>**)
ALL CAPS	Environment variables
""	(Double quotation marks) Onscreen menu items and references in text to document section titles

()	(Parentheses) Following IRIX commands—surround reference page (man page) section number
[]	(Brackets) Surrounding optional syntax statement arguments
<>	(Angle brackets) Surrounding nonprinting keyboard keys, for example, **<Esc>**, **<Ctrl-D>**
#	IRIX shell prompt for the superuser (*root*)
%	IRIX shell prompt for users other than superuser

Additional Resources

Internet Request For Comment documents are available from the Internet Network Information Center (InterNIC) at the following address:

Network Solutions
Attn: InterNIC Registration Services
505 Huntmar Park Drive
Herndon, VA 22070
Phone: 1-800-444-4345 or 1-703-742-4777

Internet Request For Comment documents are also available by anonymous *ftp* from various sites, such as ftp.ds.internic.net.

Braden, R. "Requirements for Internet Hosts." *Internet Request For Comment 1112 (*1989).

Costales, B., *sendmail.* (Sebastopol, CA: O'Reilly & Associates, Inc., 1993).

Deering, S. "Host Extensions for IP Multicasting." *Internet Request For Comment 1112 (1989)*.

Everhart, C., Mamakos, L., Ullmann, R., Mockapetris, P. "New DNS RR Definitions." *Internet Request For Comment 1183* (1990)

Hunt, C., *TCP/IP Network Administration*. (Sebastopol, CA: O'Reilly & Associates, Inc., 1992).

Lottor, M. "Domain Administrator's Guide." *Internet Request For Comment 1033 (*1987).

Lottor, M. “TCP Port Service Multiplexer (TCPMUX).” *Internet Request For Comment 1078 (*1988).

Mockapetris, P. “DNS Encoding of Network Names and Other Types.” *Internet Request For Comment 1101 (*1989).

Mockapetris, P. “Domain Names – Concept and Facilities.” *Internet Request For Comment 1034 (*1987).

Mockapetris, P. “Domain Names – Implementation and Specification.” *Internet Request For Comment 1035 (*1987).

Mogul, J., Postel, J. “Internet Standard Subnetting Procedure.” *Internet Request for Comment 950* (1985).

Partridge, C. “Mail Routing and The Domain System.” *Internet Request For Comment 974 (*1986).

Stahl, M. “Domain Administrator’s Guide.” *Internet Request For Comment 1032 (*1987).