C H A P T E R

1

Communications Access Methods

Communications Access Method: Definition

A communications access method is the interface between SAS and the network protocol that you use to connect two operating environments.

You must use a communications access method with both SAS/CONNECT and SAS/SHARE.

The communications access method that you choose is determined by the network protocols that you have available at your site and the operating environments that you are connecting.

Communications Access Methods Supported by SAS/CONNECT and SAS/SHARE

SAS/CONNECT and SAS/SHARE support the following communications access methods:

TCP/IP (Transmission Control Protocol/Internet Protocol)
is a program-to-program interface that is supported on hardware from multiple vendors. TCP/IP is supported under the UNIX, Windows, and z/OS operating environments.

XMS (Cross-Memory Services)
is an interface that is part of the z/OS operating environment and is used by programs that run within a single z/OS environment.

About TCP/IP Internet Protocol (IP) Addressing

TCP/IP applications refer to networked computers via their fully qualified domain names (FQDN) and their IP addresses. Because IP addresses can change easily, SAS

applications that contain hard-coded IP addresses are prone to maintenance problems. To avoid such problems, use of an FQDN is preferred over an IP address. The name-resolution system that is part of the TCP/IP protocol is responsible for locating the IP address that is associated with the FQDN.

SAS 9.2 introduces support for the next generation of Internet Protocol, IPv6, which is the successor to the current Internet Protocol, IPv4. Rather than replacing IPv4 with IPv6, SAS 9.2 supports both protocols. There will be a lengthy transition period during which the two protocols will coexist. A primary reason for the new protocol is that the limited supply of 32-bit IPv4 address spaces was being depleted. IPv6 will use a 128-bit address scheme, which provides more IP addresses than did IPv4.

Here are examples of an FQDN, an IPv6 address, and an IPv4 address:

```
d6292.us.company.com
db8::01
10.23.2.3
```

For details, see Internet Protocols in *SAS Language Reference: Concepts*.

Operating Environments Supported in SAS 9.2

Your SAS/CONNECT or SAS/SHARE sessions must run a supported SAS release under a supported operating environment. For information about supported SAS releases and operating environments, see **http://support.sas.com/resources/ sysreq/hosts**.

Finding Information in This Documentation

To find the information that you need to perform tasks at the client:

1 Find the part in this document for the client operating environment that you will use.

2 In that part, find the chapter for the communications access method that you will use.

3 In that chapter, find the section for the SAS product (SAS/CONNECT or SAS/SHARE) that you will use.

To find the information that you need to perform tasks at the server:

1 Find the part in this document for the server operating environment.

2 In that Part, find the chapter for the communications access method that you will use.

3 In that chapter, find the section for the SAS product (SAS/CONNECT or SAS/SHARE) that you will use.

Table 1.1 Finding Information for the Server

Question	Answer
What is the server operating environment?	z/OS, Part 5
What communications access method am I using?	TCP/IP, Part 5, Chapter 5,
What SAS product am I using?	SAS/CONNECT

Accessibility Features in SAS Products

For information about accessibility for any of the products mentioned in this book, see the documentation for that product. If you have questions or concerns about the accessibility of SAS products, send e-mail to accessibility@sas.com.