Common Internet File System (CIFS)

The Common Internet File System (CIFS) is the standard way that computer users share files across corporate intranets and the Internet. An enhanced version of the Microsoft open, cross-platform Server Message Block (SMB) protocol, CIFS is a native file-sharing protocol in Windows 2000.

CIFS defines a series of commands used to pass information between networked computers. The redirector packages requests meant for remote computers in a CIFS structure. CIFS can be sent over a network to remote devices. The redirector also uses CIFS to make requests to the protocol stack of the local computer. The CIFS messages can be broadly classified as follows:

- Connection establishment messages consist of commands that start and end a redirector connection to a shared resource at the server.
- Namespace and File Manipulation messages are used by the redirector to gain access to files at the server and to read and write them.
- Printer messages are used by the redirector to send data to a print queue at a server and to get status information about the print queue.
- Miscellaneous messages are used by the redirector to write to mailslots and named pipes.

Some of the platforms that CIFS supports are:

- Microsoft Windows 2000, Microsoft® Windows NT®, Microsoft® Windows® 98, Microsoft® Windows® 95
- Microsoft® OS/2 LAN Manager
- Microsoft® Windows® for Workgroups
- UNIX
- VMS
- Macintosh
- IBM LAN Server
- DEC PATHWORKS
- Microsoft® LAN Manager for UNIX
- 3Com 3+Open
- MS-Net

CIFS complements Hypertext Transfer Protocol (HTTP) while providing more sophisticated file sharing and file transfer than older protocols, such as FTP. CIFS is shown servicing a user request for data from a networked server in Figure B.17.