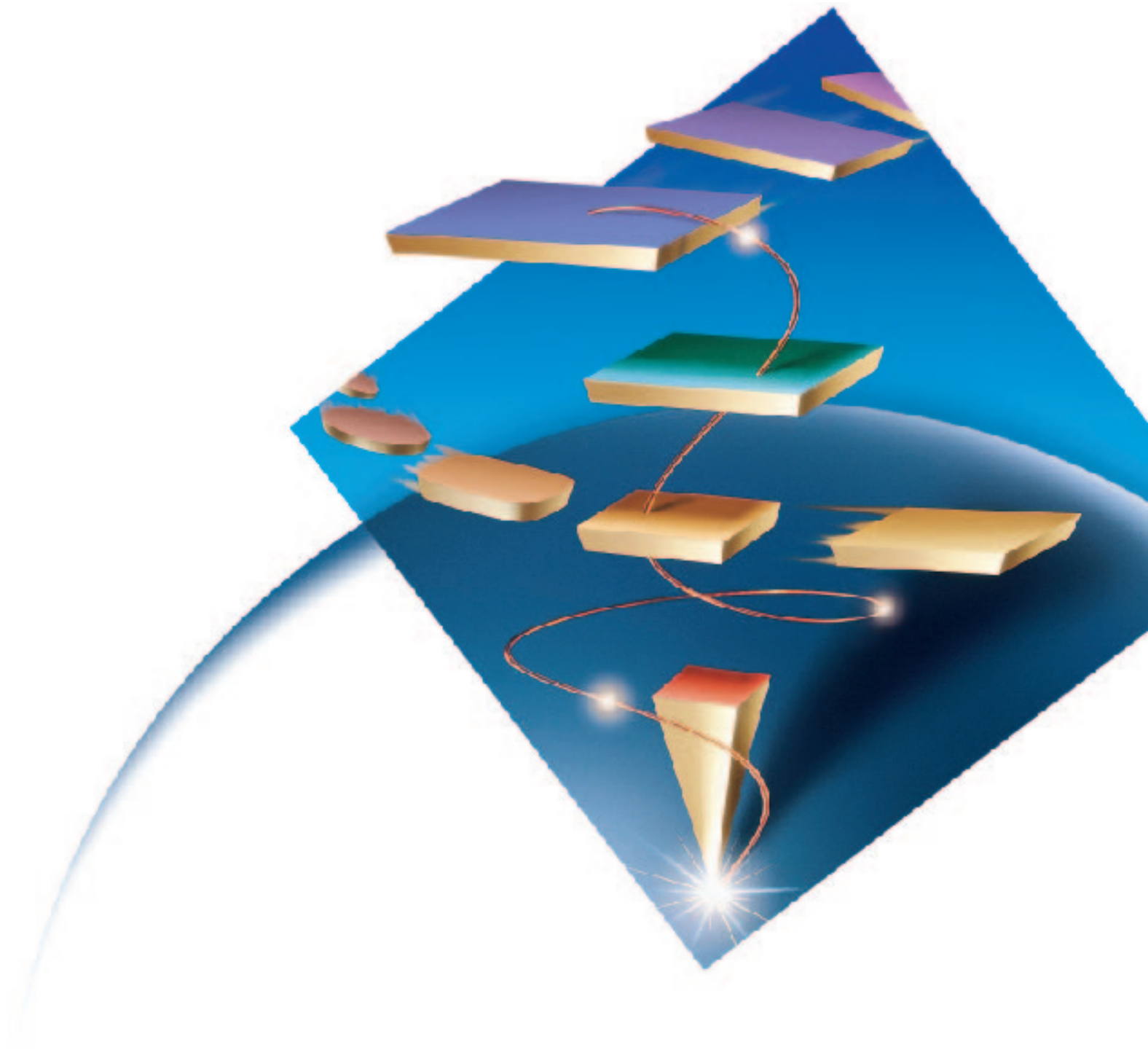IBM

eNetwork Communications Suite
Road Map

About this road map

This road map is designed to help you evaluate
IBM® eNetwork™ Communications Suite.
It provides you with an overview of the features
and functions of the products included in the
Communications Suite.

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IBM eNetwork Software

The emphasis on IBM eNetwork Software lies with the "e." IBM is focused on delivering solutions for the enterprise—enterprise-class solutions, end-to-end connectivity, ease of use and installation. IBM's push to extend the reach of enterprise networking has produced a next-generation solution for network computing and e-business, including host access, secure Internet and intranet access, multiprotocol and multiplatform network integration, and increased services for interconnected LANs.

For enterprise-class, universal connectivity, and information access for network computing, nothing does it better than IBM eNetwork Software. Providing dependability and any-to-any access, IBM eNetwork Software is easy to set up and user friendly.

How easy? With IBM eNetwork Software, you don't need to add a lot of extras to your existing system. You leverage the investment you've already made. The IBM eNetwork Software line of products includes multiprotocol support that lets you communicate through any LAN or WAN network, opening up a wealth of connectivity options for you.

IBM eNetwork Communications Suite

One of the most valuable members of the IBM eNetwork Software family is Communications Suite. Communications Suite is the premier solution for connecting your workstation users to business information. Communications Suite offers advanced Internet and intranet infrastructure support to position your business for future technology, a wide range of secure connectivity options for protecting your business-critical data, and user-friendly access to information no matter where it resides.

Stop shopping for miscellaneous client software in hopes of sufficiently populating your desktop with applications you think might solve your enterprise communication needs. The end result will be an overcrowded system, a stack of support phone numbers, integration and compatibility headaches, and a pile of bills from various vendors.

Instead, use eNetwork Communications Suite to open your network infrastructure to future technology, establish state-of-the-art information access points, and streamline the look and feel of your desktop across all three Windows® platforms. When you put the IBM "e" values to work for you, the end result is truly integrated and open information access from a single-source solution, in one package, with one installation interface, and one technical support resource.

eNetwork Communications Suite

The combination of market-leading products like IBM Personal Communications, Lotus® Notes Mail™, FTP Software, and Netscape Navigator, makes IBM eNetwork Communications Suite an unparalleled information access tool.

One-stop shopping

The highlights of eNetwork Communications Suite include:

• Industry-leading terminal emulation for accessing System/390®, AS/400®, DEC, and UNIX® mainframe applications

• Superior client/server messaging and workgroup applications

• Next-generation IP infrastructure technology, including 32-bit TCP/IP protocol stacks and applications

• Multiprotocol technology for running SNA applications over your TCP/IP network

• Leading-edge SNA technology, including High-Performance Routing (HPR)

• Secure connectivity to corporate networks over the Internet

• A full-function Java™-enabled Web browser

• One-click desktop automation techniques, including macro recording, connectivity process icons, and Web browser launch facilities

• Powerful Netscape compatible plug-ins

• An extensive set of APIs that are cross-compatible on all three Windows platforms

With the leading terminal emulation program, superior client/server messaging, advanced TCP/IP technology, and secure Internet access, one product is all you need— IBM eNetwork Communications Suite.

A foundation for emerging technology

As companies reach out to the Internet to conduct e-business and to deploy a network computing architecture across enterprises, the rapid development of new technology forces many businesses to spend their entire IT budget simply trying to keep up with the latest advances. All too quickly, today's state-of-the-art technology is tomorrow's garage-sale bargain. Imagine the competitive advantage your business could gain if you could get *ahead* of the technology? Is it possible?

The answer is Yes. IBM eNetwork Communications Suite offers the most comprehensive communication infrastructure and information access technology available today, in one product. With Communications Suite, you can build the infrastructure required for seamless connectivity and information access, position your enterprise architecture for emerging technology, and poise your business for unfettered growth.

Communication infrastructure technology

When you construct your communication network from building blocks that support emerging technology, you position your business for success. Communications Suite provides those building blocks for Internet, multiprotocol, SNA, security, and mobile technology.

Internet infrastructure technology

Communications Suite includes the FTP Software 32-bit TCP/IP protocol stack, the first client desktop implementation of the next-generation IPv6 technology. The TCP/IP stack also includes WinSock Version 2.0 support, multihomed protocol stack support, and multicast support.

Next-generation IPv6 technology
IPv6 positions your enterprise to take advantage of the emerging developments in Internet infrastructure technology. The benefits of IPv6 include:

• Security. New IP extensions provide greater support for authentication and privacy. Network administrators can provide transparent protection to all levels of applications.

IPv6 support is not included in Attachmate EXTRA! Personal Client or any Microsoft® Windows operating systems.[1]

• Mobility. Dynamic Host Configuration Protocol (DHCP) enables users to move from LAN to LAN without needing to reconfigure their IP addresses. This eliminates the need for administrators to manage multiple IP addresses for a single user.

[1]Comparision of Attachmate EXTRA! Personal Client Version 6.2

- Investment protection. Expanded addressing support solves the problem of address space becoming scarce with the growth of the Internet. Over the upcoming years, IPv6 addressing will become essential for enterprise connectivity and for accommodating growth of cellular, cable TV, and intelligent households.

- Lower configuration costs. Auto configuration provides easier address configuration and management.

WinSock 2.0 support
The Windows Sockets Version 2.0 Interface guarantees that network applications, such as Netscape Navigator and even Microsoft® PowerPoint will work with the FTP Software protocol stack.

WinSock 2.0 support is not included in Attachmate EXTRA! Personal Client or Microsoft Windows 95 operating system.

Multihomed Protocol Stack
The multihomed protocol stack allows the PC to have up to 16 simultaneous LAN and serial network connections. The benefits of the multihomed protocol stack include:

- Load balancing and performance. Your LAN administrator can configure a PC with one LAN connection for large file transfers to a corporate database and a second local LAN connection for workgroup printing and collaboration.

- Static routing and multiprocessing. You can connect your PC cash registers to the LAN for business transactions and simultaneously use another connection to download hourly sales activities to headquarters.

- Fault tolerance. You can support PC network card redundancy, where two Ethernet cards are running simultaneously as backup for each other, minimizing lost data problems.

Multimedia support
Multicast is an important feature that provides support for multimedia and real-time applications, such as video and audio conferencing, to run over the Internet. Multicast allows packets and data to broadcast all at one time, rather than one at a time. This provides *real-time* communication.

Multicast is not supported by Attachmate EXTRA! Personal Client.

Multiprotocol infrastructure technology

Whatever the primary protocol used on your network, Communications Suite gives you a range of connectivity solutions. You get leading TCP/IP support with FTP Software IP protocol stacks and PCOMM multiprotocol SNA-over-IP support, so you combine SNA and TCP/IP networks without losing application support. With SNA-over-IP technology, you can run SNA applications over your TCP/IP network.

For networks that require communication between processes running on different systems, the application program-to-program communication (APPC) protocol can be used. Communications Suite uses APPC, a streamlined protocol that allows hosts, high-end workstations, and PCs to communicate and exchange data on a peer level. This enables you to distribute program execution and data storage across multiple computers and platforms, providing a greater combined processing power for these networked resources.

Using APPC, you not only have the power to connect to peer resources, but you can also connect to mainframes or AS/400 machines through APPC 3270 or APPC 5250 sessions. These sessions are emulation programs built on top of an APPC transport.

SNA infrastructure technology

Communications Suite supports the latest SNA technology, including High-Performance Routing (HPR). HPR significantly changes the traditional view of SNA networking. It improves the performance and availability of your business applications. HPR reroutes traffic around network failures, enhancing applications availability and providing support for high-speed distributed networks, such as ATM. Your staff remains productive even when there is a network failure within your enterprise. HPR combines the best features of both the connection-oriented SNA and Advanced Peer-to-Peer Networking® (APPN®) architecture and the connectionless IP technology.

HPR and its many substantial benefits are not supported by Attachmate EXTRA! Personal Client or Wall Data RUMBA.[2]

Security infrastructure technology

Everyone is concerned with the level of security inherent in Internet transactions and the privacy of corporate intranets. Internet access software must provide a secure communication channel between the client and server, provide a reliable means of authenticating clients and servers, and protect the user from viruses and other malicious software programs. Through FTP Software and Netscape Navigator, Communications Suite addresses these issues by providing a robust security infrastructure to protect your business assets and confidently conduct financial transactions and other business on the Internet.

[2]Comparision of Wall Data RUMBA 95/NT for the Mainframe Version 5.1 A

FTP Software provides IP Security to create secure networks, ensuring that your data is confidential (protected against snooping) and reliable (protected against tampering). IP Security lets you build private networks between two PCs, or between a PC and firewall, by building an encrypted tunnel from your client, through the Internet, to either an IP Security-enabled Firewall or to an IP Security-enabled server. This means that when you launch your Netscape Navigator browser, IP Security ensures that all your Internet transactions are private. In addition, FTP Software can navigate through socks servers and firewalls, so you can have secure access to the Internet and control access to the intranet.

IP Security support is not included in Attachmate EXTRA! Personal Client or any of the Microsoft Windows operating systems.

Netscape Navigator supports new security advances including Secure Sockets Layer (SSL) 3.0 and 128-bit encryption, both of which represent dramatic improvements over SSL 2.0 and 40-bit security. Communication is encrypted using an encryption algorithm negotiated with the server during the SSL handshake. Message integrity checks are performed on communication delivered from the server and verification is made of the server's identity on the basis of the public-key certificate presented by the server during the SSL handshake.

Mobile connectivity
Communications Suite provides comprehensive support for mobile connectivity using FTP Software. Now you can get access to your corporate resources from anywhere. The features of mobile connectivity include:

• Dialer that helps you easily configure the new wireless modems just like regular serial modems

• DHCP that enables users to move from LAN to LAN without having to reconfigure their IP addresses

• Built-in modem scripts that enable you to easily select your modem name from a list

• Multilink PPP that enables higher bandwidth capability for large file transfers and multimedia

• OLE scripting that lets you easily write object-based scripts to customize dial-up for purposes such as login and security

Extensive API support

Cross-platform compatibility has other clear advantages. When your programmers use Communications Suite application programming interfaces (APIs), their programs work across multiple operating systems without requiring any changes. This saves time and reduces errors because programmers don't have to rework their programs to run on different platforms.

> If your programmers use Attachmate EXTRA! Personal Client APIs, their programs may need to be reworked to run on different operating systems.

Communications Suite features a rich set of APIs to develop powerful applications. Supported APIs include:

- WinSock 2.0
- Added Common-ISDN-API (CAPI)
- OPEN Object
- OPEN Script
- Advanced program-to-program communication (APPC)
- Emulator High-Level Language Application Programming Interface (EHLLAPI)
- Common Programming Interface for Communications™ (CPI-C)
- NetBIOS (over TCP/IP) RFC 1001, 1002
- WinSNMP API
- NetWare/IP 2.1 (over TCP/IP)

Physical media support

Information access products need to meet the demands of the physical medium used for communication on a network. Many different technologies are used in host environments.

Communications Suite offers support for all common physical mediums found in today's corporate networks. LAN connections can be made for token-ring or Ethernet Fiber Distributed Data Interface (FDDI) networks. Serial connections are available for asynchronous communication. SDLC connections are supported and both coaxial and twinaxial adapters are supported for System/390 and AS/400 connections respectively.

Enterprise-wide information access points

Industry-leading terminal emulation

Major network design elements, such as hardware, operating systems, network operating systems, and protocols, are chosen to meet the demands of the business. And it isn't always to transparently interconnect disparate networks and systems. SNA access software must be designed to adapt to the network in which it is used. When evaluating a product, one aspect that IT managers consider is how seamlessly the product can integrate with their existing systems. IBM recognizes this and developed Communications Suite to provide you with the infrastructure and applications required to achieve seamless, global information access.

Communications Suite provides unparalleled terminal emulation using IBM Personal Communications (PCOMM). In System/390 environments, you can use the 3270 terminal emulation protocol to access host data and applications. In AS/400 networks, you can use the 5250 emulation protocol to access your host applications. Communications Suite leverages the processing power of the PC platform to offer additional connectivity services and productivity enhancements, which are not found in dedicated display terminals, such as a 3270 terminal.

You can also customize and run multiple, concurrent emulator sessions accessing a single host or a number of different hosts. Each emulator session is contained within a separate window. Toggle between sessions simply by selecting the appropriate windows from the desktop. Additionally, multiple sessions can be defined as part of a group. A group of sessions can be simultaneously and dynamically started, stopped, added to, or changed.

Communications Suite also offers enhanced DEC and UNIX host access using FTP Software terminal emulation support for VT52-VT420, WYSE 50/60, and SCO ANSI. The FTP Software terminal emulation includes full OLE drag-and-drop support. You can drag and drop fields, lines, or blocks of information. You can even drag and drop entire sessions. For example, you can drop a session onto Lotus Notes Mail and send it to someone who needs the same connection parameters.

Standard with Communications Suite is an extensive database of context-sensitive help, available to you with a click of a mouse. The database includes help on how to use PCOMM features, definitions for 3270 error messages, and troubleshooting tips. Communications Suite also includes full mainframe graphics support, including support for symbol and vector graphics.

Cross-platform compatibility

Communications Suite has a standard interface across all Windows platforms. That means you'll benefit from a consistent look and feel, whether you're logging on to your Windows 95 system at home or your Windows NT™ operating system at work. You won't be confused by different interfaces and capabilities. You can save time and money by simplifying the migration process from one Windows platform to another, minimizing time and expenses for training, and increasing user productivity.

Attachmate EXTRA! Personal Client and Wall Data RUMBA don't have a standard interface across all Windows platforms.

Client/server messaging and collaboration

You can contact anyone around the world when you use Communications Suite, featuring the world-renowned Lotus Notes Mail client and your Lotus Domino™ Server. Lotus Notes Mail coaches you through navigating, finding, and viewing e-mail messages and attached documents. With its three-pane interface, cc:Mail navigates you through volumes of information quickly and easily. See views, folders, document relationships, and preview documents all on the same screen. Notes Mail includes OLE 2.0 support, platform-independent file viewers, enterprise calendaring and scheduling, a personal Web navigator, task management, document libraries, personal journal, phone messages, and mobile user support. Notes Mail also allows access to OfficeVision® mail and calendars through OfficeVision to Lotus Notes® clients support (OVSLNC). Communications Suite encompasses all the functions you need from a messaging standpoint.

In Communications Suite, Lotus Notes acts as your central access point for finding and sharing the information you need, whether it's located in a Lotus Notes e-mail message, a DB2® relational database, a host-based system, in a desktop application, or on the World Wide Web. Notes employs a client and server messaging system that keeps the lines of communication flowing within your organization, and among customers, suppliers, and business partners. The best part is Lotus does this regardless of the mail system your recipient uses. You don't have to worry about compatibility or add-ons. Lotus Notes Mail supports all of the most popular networks, operating systems, and desktop applications, including Lotus SmartSuite®, Microsoft Office, relational databases, mail systems, and APIs. Lotus Notes Mail also protects you against unauthorized access to your servers, databases, documents, and mail messages.

Intranet and Internet access

Communications Suite includes Netscape Navigator for reliable and secure access to the Internet and your corporate intranet. Netscape Navigator supports HyperText Markup Language (HTML) 3.0. It also includes Java and framing for designing and programming on the Web, and Secure Sockets Layer (SSL) 3.0 and 128-bit encryption for secure Internet transactions.

You can use the newsreader to send e-mail and share information with online newsgroups. With Netscape Navigator, your messages become more than text on a screen. You can integrate audio, video images, animation, plug-ins, and Java applets to bring your messages to life.

Because it's an industry standard with support for the latest Web development technology, you can view more graphics and high-end animations while surfing the Web. And when you add Netscape-compatible plug-ins to the browser, you have a truly comprehensive Internet access facility.

Netscape-compatible plug-ins

Another asset to Communications Suite is the Netscape-compatible plug-ins included with the Netscape Navigator feature. FirstFloor Smart Bookmarks and Adobe Acrobat Reader add versatility to your browser.

FirstFloor Smart Bookmarks

FirstFloor Smart Bookmarks lets you search the Internet and retrieve information, manage Web sites, and set up bookmarks or pointers to other Web sites. Smart Bookmarks is the complete Web utility for individual, Internet-based information management, anytime and anywhere. Using Smart Bookmarks, you'll spend less time backtracking to sites looking for new or changed links, while still finding all the information you need to make your online time productive. Smart Bookmarks automatically checks Web sites you designate and notifies you of any changes that have occurred, either to the site content or links to other sites.

> Attachmate EXTRA! Personal Client doesn't include FirstFloor Smart Bookmarks.

Adobe Acrobat Reader

Communications Suite also includes Adobe Acrobat Reader. Acrobat lets you view, search, and download portable document format (PDF) files without leaving Netscape Navigator, an important feature because it makes extracting the many .PDF files on Web sites easier and faster than ever before. With these Netscape-compatible plug-ins as part of the Communications Suite package, you have all the tools you need to access the Internet.

Attachmate EXTRA! Personal Client doesn't include Adobe Acrobat Reader.

File transfer features

Communications Suite provides a File Transfer Protocol (FTP) feature that lets you transfer multiple files from a single list and drag and drop files between the host and the PC. Access to corporate host information is provided through PCOMM 3270 and 5250 terminal emulation, one of the best in the marketplace. The effortless interface is simple to use, and your desktop can act as both a client and server in file transfer. You can share files between the host and your PC, or from your PC to a coworker's PC running Communications Suite. Repetitive tasks can be automated with macros, while sessions can be dynamically added or changed. You can even drag and drop files from the host directly to PC applications, such as Lotus Word Pro® and Microsoft Word. The Communications Suite FTP server capability means you can share your files with others—business partners and colleagues—across the hall or across the globe.

Attachmate EXTRA! Personal Client does not include FTP file server capability.

Move data between 3270 emulator sessions and a mainframe. PCOMM uses IND$FILE—an industry standard—for binary or text data file transfers. If you've got an AS/400, you can utilize APVAFILE, an application available through the Communications Suite PCOMM Tools feature. APVAFILE allows for file transfers between an AS/400 and PCOMM emulator sessions. Data transfer is also supported from PCOMM sessions.

Communications Suite also includes APPC File Transfer Protocol (AFTP). This program takes advantage of the speed and power of APPC to deliver high-performance file transfer between PCOMM and any APPC partner. Most emulator packages offer only IND$FILE, 3270-based file transfer. APVAFILE and data transfer from AS/400 resources are additional features not always offered by emulator packages. AFTP offers a high-performance alternative to terminal-based methods.

The FTP Server and FTP client support included with FTP Software provide secure access to information on a desktop PC and enable you to easily move files (or an entire directory tree) when and where you need them, even from the FTP client into other applications (with OLE support), onto printers, and more.

> **Attachmate EXTRA! Personal Client and Microsoft Windows operating systems don't include a file transfer feature that lets you transfer multiple files or transfer files using the drag-and-drop capability.**

Integrated file sharing

With the Network File System (NFS) client in FTP Software, Communications Suite seamlessly integrates file sharing into your Windows environment. NFS enables a computer on a network to use the files and peripherals of another networked computer as though they were local. With the click of a mouse button, you can map remote file systems to your PC drive and even identify mount points, with intuitive names, that you want to connect to each time you reboot your PC.

Advanced print features

Communications Suite offers advanced print features, which enable you to access remote printers easily and to configure your workstation printer to act as a mainframe printer.

With the FTP Software technology in Communications Suite, you get print client and server support. You can print to a network printer as easily as though it were connected to a workstation. Remote users with the print client can print to any PC printer running the print server. And because printing is integrated with the operating system printer wizard interface, you can drag and drop files onto the print queue icon.

With the PCOMM feature of Communications Suite, you can configure your workstation printer to act as a mainframe printer, either through standard SNA print commands or through Telnet (TN) 3270E. By allowing the user workstation to serve as a logical mainframe printer, real terminal printers can be eliminated. Your printer acts as a personal printer for PC-based applications and as a network printer for host applications. Mainframe applications reap the benefits of high-quality, PC-based printing.

In addition, 3270 users can print PROFs® and OfficeVision notes, documents, and calendars; CMS files; XEDIT workspaces; and 3270 session screens to local printers using the ZipPrint utility. ZipPrint is a feature that provides a one-click capability for printing.

One-click automation

Working smarter, streamlining processes, and automating repetitive tasks are techniques that many businesses are implementing to save time and money. To help you achieve those benefits, Communications Suite includes extensive automation tools, such as one-click toolbar icons, macros, hotspots, advanced mouse functions, and open object technology.

Imagine this. When you get a Lotus Notes e-mail that includes a Web site address (URL), simply double-click on the URL and your Netscape Navigator browser is automatically launched and opened to that Web site. It doesn't get any easier than that. From your PCOMM emulator session, you can launch your browser from the icon toolbar. When you click on the browser icon, you automatically connect to the URL on the host-session screen.

Attachmate EXTRA! Personal Client doesn't provide the breadth of automation that Communications Suite does.

Communications Suite includes a PCOMM macro recording facility. You can record a sequence of keystrokes or host commands that can then be assigned to a single keystroke or mouse button. This allows you to turn repetitive or complicated tasks into one-click shortcuts.

CMMouse is a Communications Suite feature that provides intelligent and programmable mouse support to use with your 3270 and 5250 terminal-emulation sessions. CMMouse hotspots allow users to perform host functions by simply pointing and clicking with the mouse. With its unique screen-recognition technology, CMMouse hotspots change instantly to give true context-sensitive function to the host-application screen.

Attachmate EXTRA! Personal Client and Wall Data RUMBA don't include advanced mouse functions like CMMouse.

FTP Software employs a new modular networking design that lets administrators automate connectivity tasks. OPEN Object Technology lets administrators integrate their networking connectivity tools with users' business applications, such as Lotus SmartSuite. Simply clicking an icon can perform multistep network tasks, such as getting a stock quote from the Web, sending an automatic mail reply, opening a Lotus 1-2-3 spreadsheet and pulling sales data from an application on a server into the spreadsheet, or opening a Microsoft Word document and running FTP to retrieve files to the desktop.

Administrative tools

With any networking product, administrative and diagnostic tools are essential. The Communications Suite PCOMM feature offers solutions aimed at making your job easier by providing the tools you need to monitor and troubleshoot your systems.

SNA sense data. With a mouse click, SNA sense data and related information is displayed. This data is vital for debugging network problems.

Log viewer. You can access the PCOMM message log, which records error and information messages during initialization and operation.

Trace facility. When enabled, the trace facility captures communication-protocol information that passes between a workstation and other host systems. These traces can be used to resolve communication problems. The trace facility also captures API calls to and from PCOMM, allowing for easier client application troubleshooting.

APING. Used with APPC communication, APING is a CPI-C program that verifies network connections. APING can be used to establish network connections, diagnose problems, and take simple performance measurements. APING exchanges data packets with a partner computer and measures how long the data transfer takes. APING takes its name from the TCP/IP PING utility after which it is modeled.

FTP Software includes IP Trace, Retriever, Query, and Statistics to monitor and tune performance, troubleshoot network activity, trace packet activity, retrieve user names or machine addresses on the network, graphically monitor client network activities, and utilize PING functions. In addition, FTP Software employs a new modular networking design that lets administrators automate connectivity tasks. Processes that once took end users fifteen steps to complete can become a single desktop icon. Administrators can even create toolbar icons that transparently plug connectivity into leading desktop business applications, such as Lotus 1-2-3 spreadsheets, databases like DB2, word processors, CAD systems, and more. No other 32-bit TCP/IP suite offers such extensive administrator customization tools.

Attachmate EXTRA! Personal Client and Wall Data RUMBA don't offer the breadth of administrative tools included in Communications Suite.

Hardware and software requirements

Hardware requirements for Windows 3.1

• 486/33 MHz, or higher, processor

• Minimum 8 MB of memory

• Available hard disk space for each component you choose to install:
   – 15 MB for FTP Software 16-bit, TCP/IP applications and stack (express installation)
   – 44 MB for Lotus Notes Mail (standard installation)
   – 8 MB for Personal Communications 3270 or 5250 installation
   – 8 MB for Netscape Navigator
   – 7 MB for Netscape Plug-ins (FirstFloor Smart Bookmarks, Adobe Acrobat Reader)

• For a LAN connection, a LAN adapter with a device driver supporting NDIS or ODI

• For a dial-up connection, any Hayes-compatible modem supporting 9600 bits per second, or higher, and a standard switched telephone line

• For audio playback, any audio card, speakers or headphones, and supporting drivers

Software requirements for Windows 3.1

• PC DOS, Version 5.0, or MS DOS, Version 5.0, or higher

• Windows 3.1 or Windows for Workgroups 3.11

• Lotus Notes Server, Version 3.0, or higher, to run Lotus Notes Mail Client, Version 4.5

• OV® Support for Lotus Notes Clients (OVSLNC) requires OV/VM 1.2 with APAR PN20188, or higher, and VM/ESA® for TCP/IP, Release 2.1

Hardware requirements for Windows 95

• 486/33 MHz, or higher, processor

• Minimum of 8 MB of memory; 16 MB standard

• Available hard disk space for each component you choose to install:

   – 20 MB for FTP Software 32-bit, TCP/IP applications (full installation)
   – 8 MB for FTP Software 32-bit, TCP/IP stack (full installation)
   – 47 MB for Lotus Notes Mail (standard installation)
   – 10 MB for Personal Communications 3270 or 5250 installation
   – 7 MB for Netscape Navigator
   – 8 MB for Netscape Plug-ins (FirstFloor Smart Bookmarks, Adobe Acrobat reader)

- For a LAN connection, a LAN adapter with a device driver supporting NDIS or ODI

- For a dial-up connection, any Hayes-compatible modem supporting 9600 bits per second, or higher, and a standard switched telephone line

Software requirements for Windows 95
- Windows 95

- Lotus Notes Server, Version 3.0, or higher, to run Lotus Notes Mail Client, Version 4.5

- OV support for Lotus Notes Clients (OVSLNC), requiring OV/VM 1.2 with APAR PN20188, or higher, and VM/ESA for TCP/IP, Release 2.1

Hardware requirements for Windows NT
- 486/33 MHz, or higher, processor, or Pentium® or Pentium PRO processor

- 16 MB of memory

- Available hard disk space for each component you choose to install:
  - 21 MB for FTP Software 32-bit, TCP/IP applications (full installation)
  - 14 MB for Personal Communications 3270 or 5250 installation
  - 10 MB for Netscape Navigator
  - 8 MB for Netscape Plug-ins (FirstFloor Smart Bookmarks, Adobe Acrobat Reader)

- For a LAN connection, a LAN adapter with a device driver supporting NDIS or ODI

- For a dial-up connection, any Hayes-compatible modem supporting 9600 bits per second, or higher, and a standard switched telephone line

- For audio playback, any audio card, speakers or headphones, and supporting drivers

Software requirements for Windows NT
- Windows NT 4.0

- Lotus Notes Server, Version 3.0, or higher, to run Lotus Notes Mail Client, Version 4.5

- OV Support for Lotus Notes Client (OVSLNC) requires OV/VM 1.2 with APAR PN20188, or higher, and VM/ESA for TCP/IP, Release 2.1

Building your e-business—eNetwork Communications Suite

For unparalleled information access and advanced infrastructure technology, IBM eNetwork Communications Suite eliminates the competition. Communications Suite has the applications and the infrastructure support you need to reach corporate intranets, the Internet, host data, and e-mail. Communicate through any LAN or WAN network using Communications Suite and PCOMM multiprotocol support. When on the road, use Communications Suite dial-up support for secure remote access to your corporate intranet or the Internet. With PCOMM, Lotus Notes Mail client, FTP Software, and Netscape Navigator as part of the package, you've got the best product backed by a long-respected name—IBM. Fast and reliable, enterprise-wide to department-level, IBM eNetwork Communications Suite is the one solution to all your information access and communication needs.

If you'd like to see Communications Suite in action, read the following scenarios. You'll be convinced that IBM eNetwork Communications Suite is a cut above the competition.

Scenario 1: Automation technology with CMMouse hotspots

Scenario 1: Automation technology with CMMouse hotspots

In this scenario, the fun begins. The Personal Communications feature of Communications Suite includes an advanced mouse feature called CMMouse. CMMouse enables host application users to quickly and easily initiate commands with the click of a mouse button. Your host application screen becomes a field of hotspots for easy access to your host tools.

For this scenario, a standard VM/CMS host session with OfficeVision is used to demonstrate how to use CMMouse to schedule a meeting with a coworker. Before you begin this scenario, ensure that Personal Communications and CMMouse are installed on your workstation from the Communications Suite installation interface.

To begin the scenario, follow these steps:

1. Start CMMouse from the IBM Personal Communications folder. The CMMouse window is displayed. The CMMouse window contains a **Disable CMMouse** field and check box. By default, the check box is selected. To enable CMMouse, deselect the check box.

2. Log on to your VM/CMS account and click the left mouse button anywhere on the screen. The VM/CMS Commands list box is displayed.

3. Select **Office main menu** from the list box.
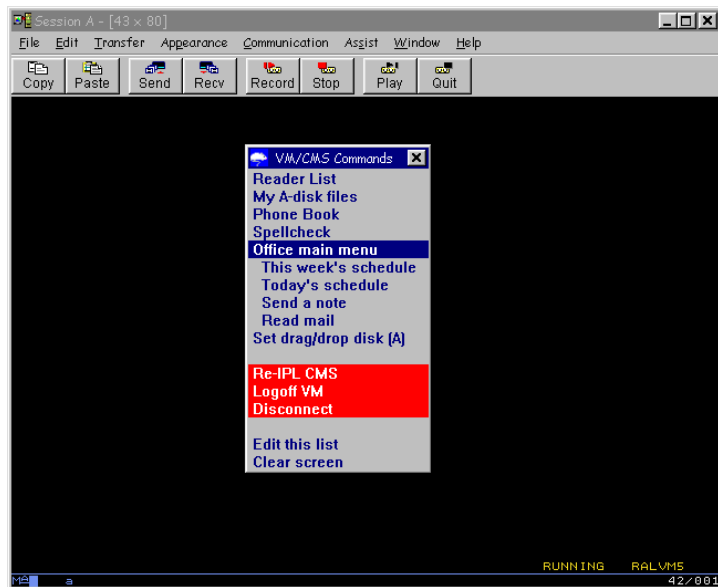
Your OfficeVision main menu is displayed. This menu provides PF key access to calendars, mail, telephone directories, and more. Normally, you would have to enter a command at the prompt or select a PF key to initiate a command. With CMMouse you can access these functions with a simple mouse click. CMMouse turns each field in the OfficeVision

menu into an interactive hotspot. You can experiment by clicking any of the areas on your VM screen and viewing the resulting menu or list box. In this scenario, we'll demonstrate how to quickly schedule a meeting.

4. Click the left mouse button on a blank area of the screen below the OfficeVision menu. The Office menu list box is displayed. This list box provides one-click access to your host commands. You can change or add new commands to the list using the **Edit this list** option at the bottom of each list box.

5. Select **Show today's schedule** from the list box.
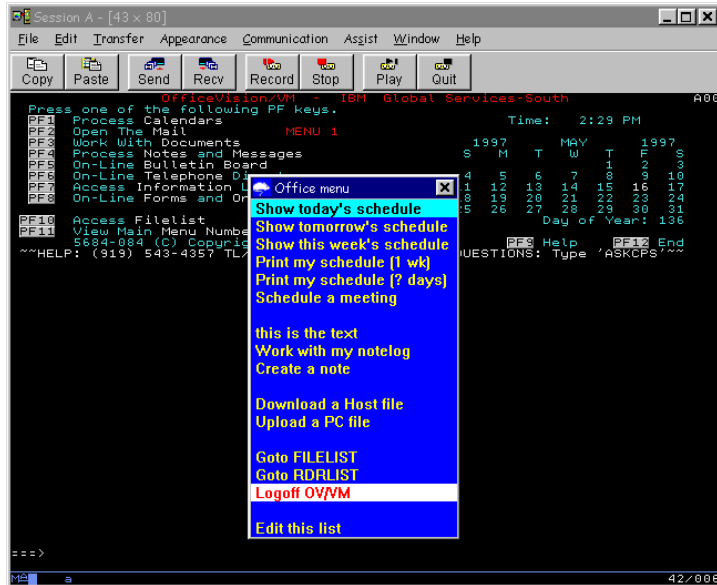
The Work With The Schedule screen is displayed with your calendar events for the day. You can verify that you have an opening in which to schedule your meeting.

6. Click your name in the **Calendar for:** field. The People list box is displayed. You can add the names and user IDs of anyone whose calendar you need access to by selecting the **Edit this list** option at the bottom of the list box.
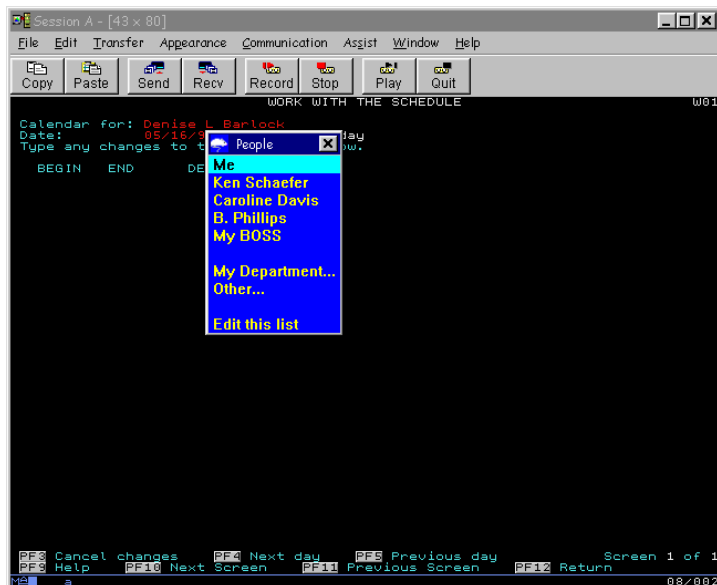
Select the person with whom you want to schedule the meeting from the list, in this scenario Ken Schaefer. Ken's OfficeVision calendar is displayed. You can check Ken's schedule to ensure that he has an opening available for the meeting. Click Ken's name in the **Calendar for:** field to redisplay the People list box. Return to your calendar by selecting **Me** from the list.

7. Click the left mouse button on the screen below the **Begin** field. The Schedule Time list box is displayed.
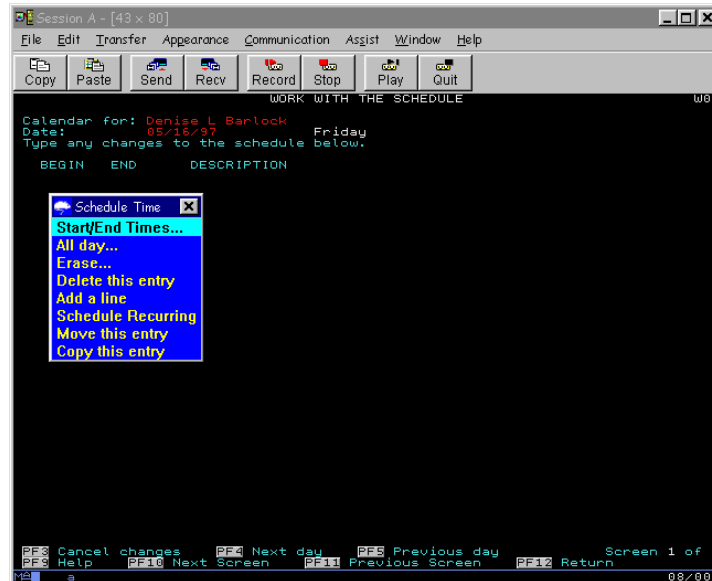
8. Select **Start/End Times…** from the list. The Start Times list box is displayed. The list box contains a list of times in half-hour increments.
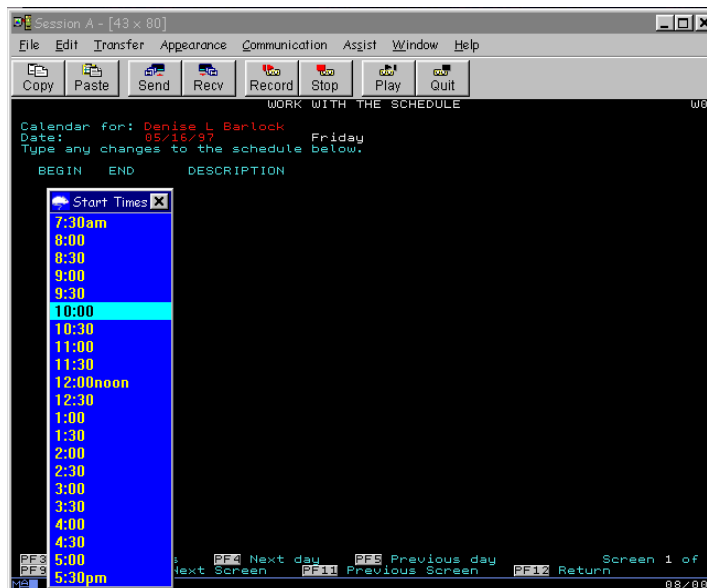
9. Select **10:00** for the start of the meeting. Once you select a start time, CMMouse anticipates your next request by automatically displaying the End Times list box.

10. Select **11:00** for the end time of your meeting.
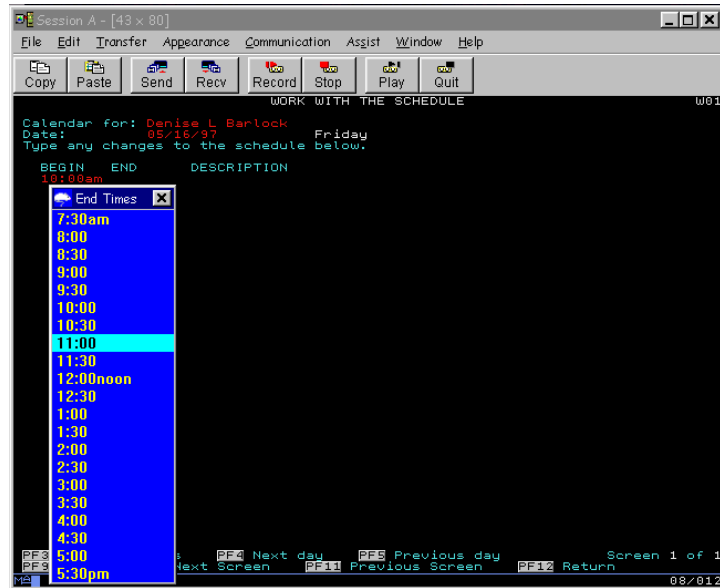
The description list box is displayed.

11. Select **Meeting with…** from the list.
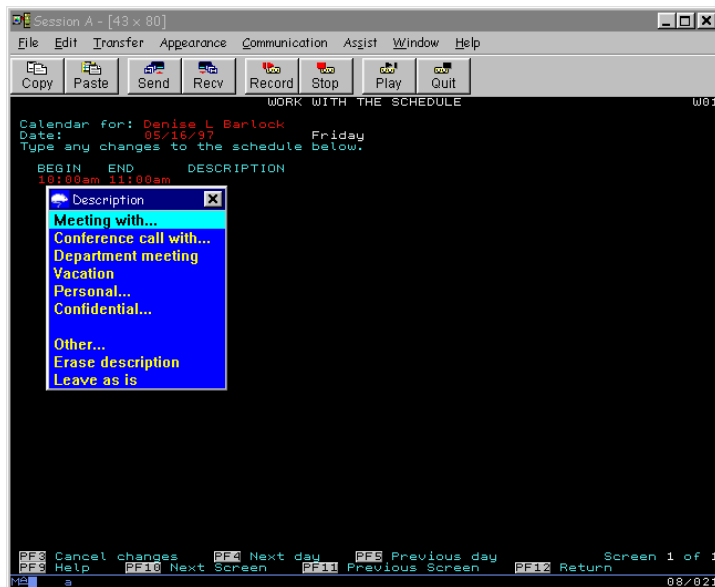
The Meeting With dialog box is displayed.

12. Enter **K. Schaefer** in the field and click the OK button.
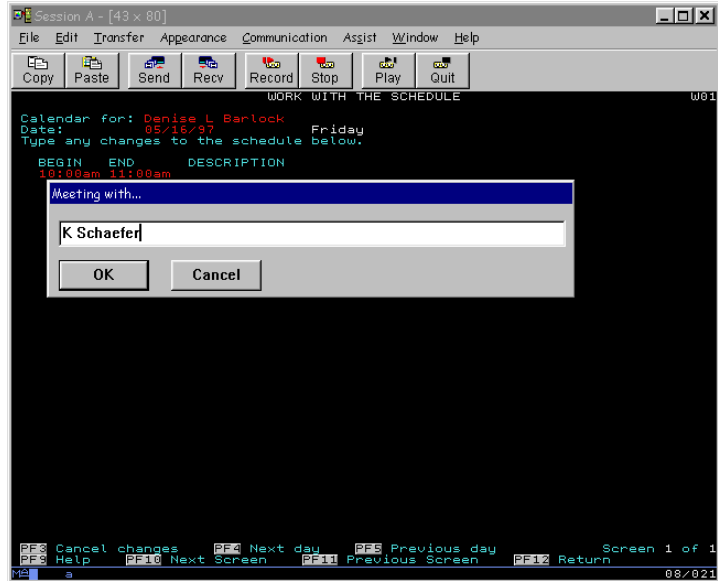
You can now view the meeting you've scheduled in your OfficeVision calendar, including the time and the person with whom you're meeting.
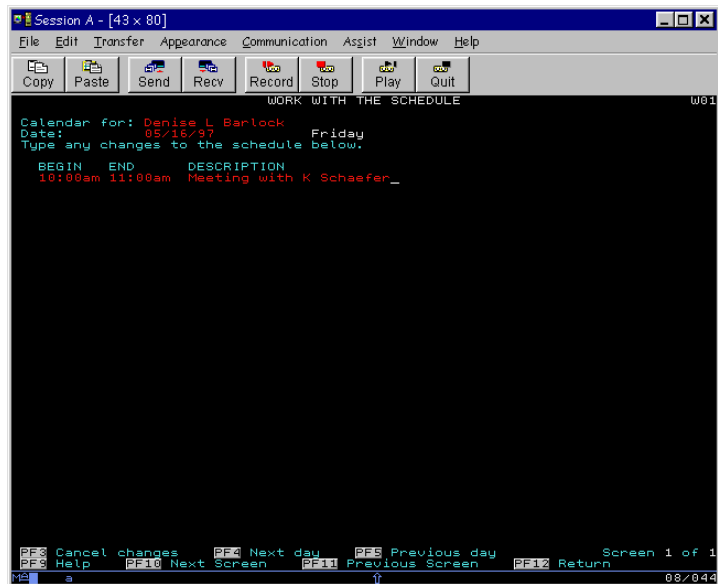
There are no commands to memorize or complicated paths to traverse; CMMouse provides the one-click automation that can make your routine tasks so simple, they're fun.

Scenario 2: File transfer using FTP Software IP applications

Scenario 2: File transfer using FTP Software
IP applications

In this scenario, imagine yourself at a remote site. Microsoft Windows 95 is your operating system. You want to download an Adobe Acrobat (.PDF) file located on a file server a thousand miles away. Because you are running Communications Suite which provides Adobe Acrobat Reader, you can open the .PDF file once it's downloaded.

To complete this scenario, you must first perform the following steps:

Check 1: Install Communications Suite on your PC.

Check 2: Ensure your FTP Software TCP/IP protocol stack is up and running.

Check 3: Ensure your network is up and running, including your access to the Internet or your intranet.

The steps:

1. Using the mouse, click the **Start** button. A list box containing various choices for you to select appears.
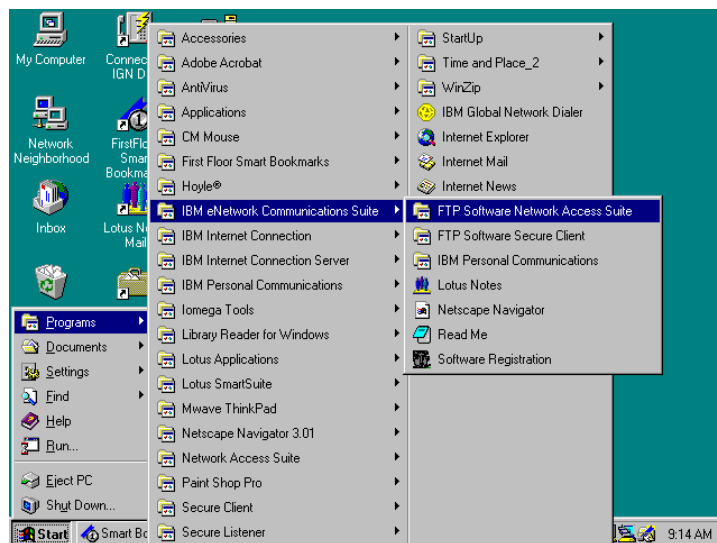
2. Click to choose **Programs**. A list box containing your programs and applications appears.

3. Click to choose **IBM Communications Suite** from this list. A list box containing the applications and features of Communications Suite appears. Click to choose **FTP Software Network Access Suite**.

4. After choosing FTP Software Network Access Suite, a folder containing all TCP/IP applications appears. Click to choose **File Transfer**.
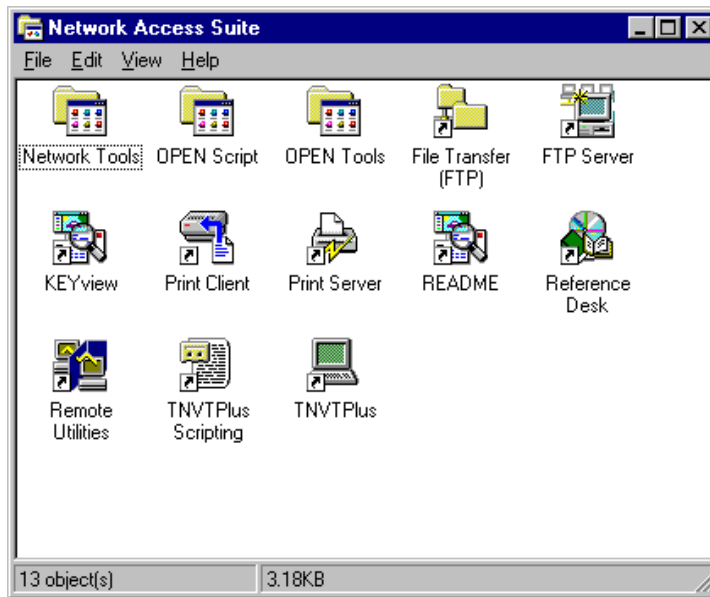
5. A new window labeled File Transfer - FTP Sessions appears. The window contains two panes of information. Applications that reside on your local drive are on the left. The previous file servers you accessed in the FTP Sessions folder are in the right window pane. Previous FTP Sessions that have been saved appear as resources. For example, in this scenario Communications Suite Pub Directory and Office File Server are sites previously accessed.

6. To create a new FTP session, double-click to choose **Make New Session**. A window titled New Session appears.
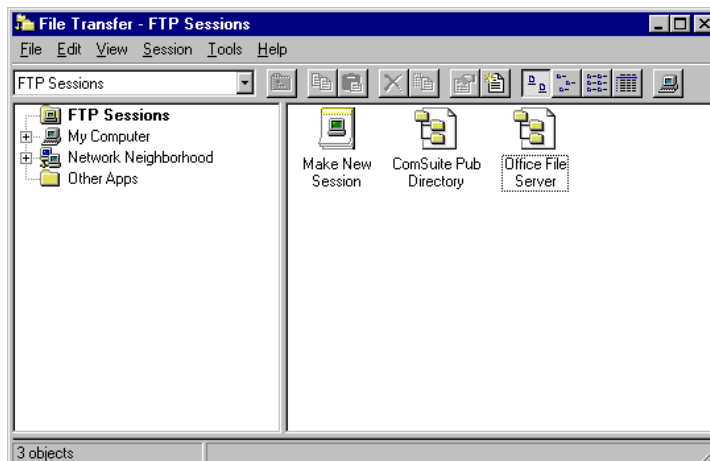
7. Enter the host name of the FTP server you wish to access. In this scenario, the FTP site allows public read access. Therefore, for username, login as **anonymous**. For the password, type **guest**. Flag both the **Anonymous FTP** and the **Save password** checkboxes. Click **Connect**.
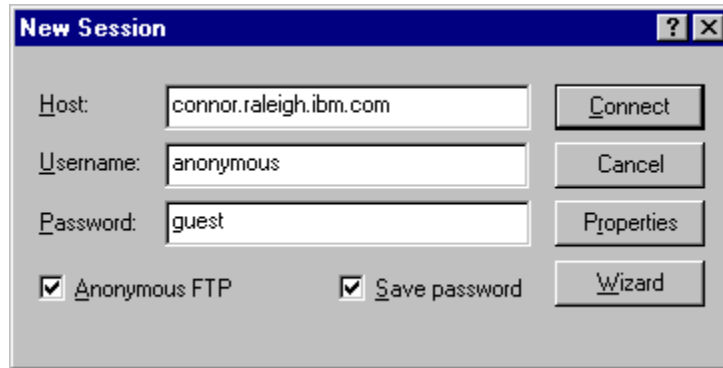
8. The right window pane displays the files located on the host server. In this scenario, the file you want to download is tenreasn.pdf.
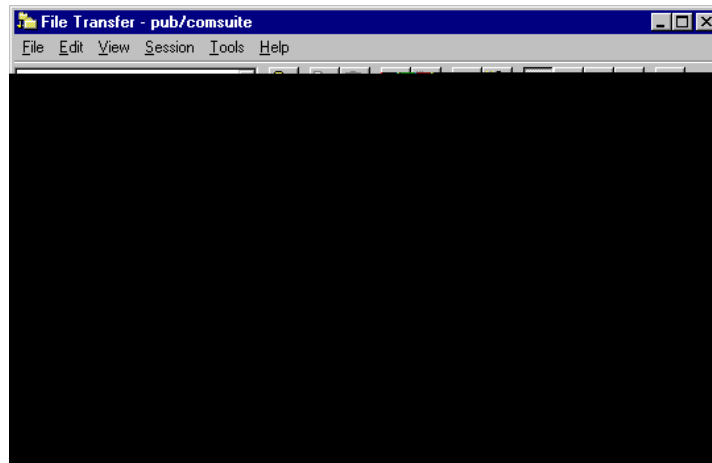
9. You have two options for transferring this file to your hard drive. You can either click the file and drag and drop it to your local disk. Or, you can double-click the file to open it, and click **File** and then **Save As** to save it to your machine. In this scenario, use the drag-and-drop method.

Determine a location to put the file. In this example, put the file on a floppy disk. Click the file and, holding down the left mouse button, drag the file to the floppy disk icon.
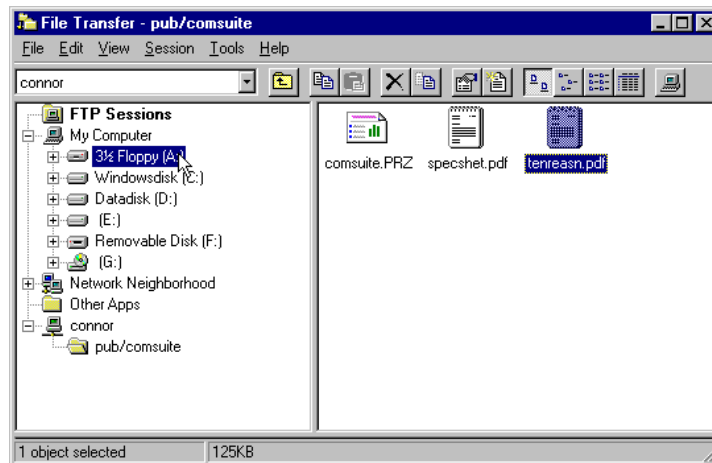
10. Once the file transfer is complete, you choose to save this session so you can transfer other files with this server at a later time without having to reconfigure the session. To save this session, click **File** and **Save As**. A Save Session window appears. Enter a file name and click save.
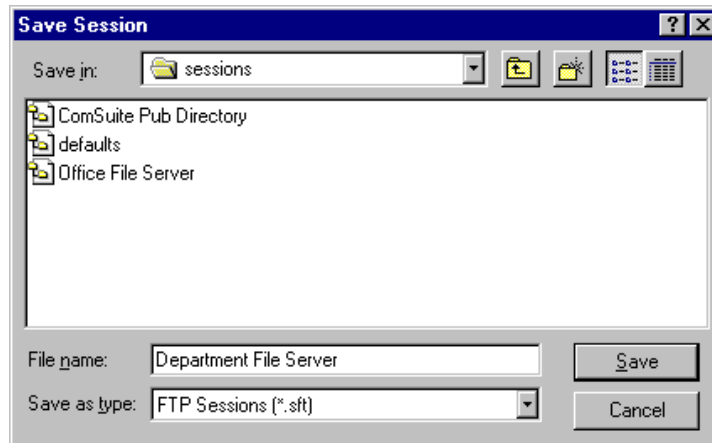
11. Click **Session** and then **Disconnect** to end your FTP session.
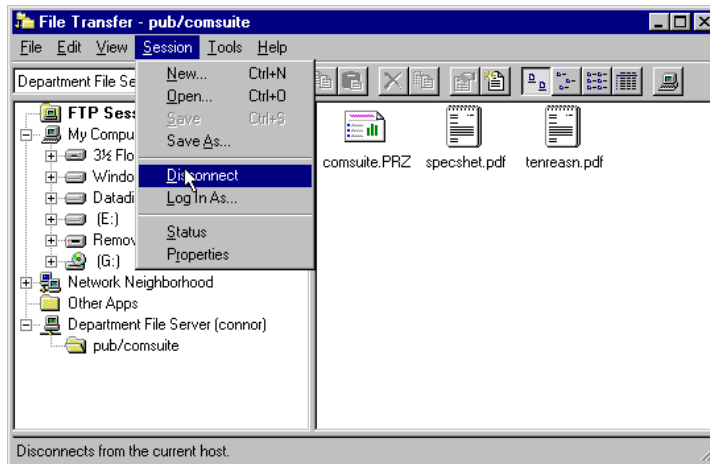
12. Once you exit, your new FTP session icon appears as a file in your folder. Next time you wish to use this session, just double-click the icon to establish the connection.
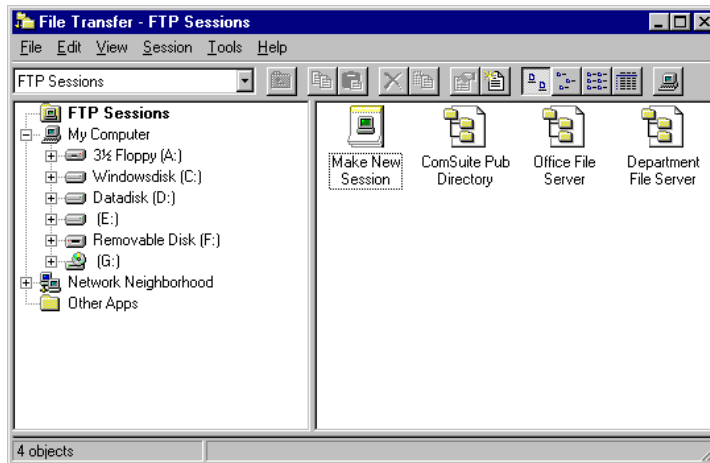
You've successfully obtained the file and information you need now even though you are miles and hours away.

Scenario 3: Dynamically managing Internet access

Scenario 3: Dynamically managing Internet access

In this scenario, you want to customize your desktop Web browser, Netscape Navigator, by using the FirstFloor Smart Bookmarks, a Netscape Navigator-compatible plug-in and part of Communications Suite. You want to be able to quickly locate different Web sites, you also need to closely monitor the information contained on those sites. You want to set up Smart Bookmarks to notify you when information on the bookmarked Web sites changes since the last time you looked at the sites.

To complete this scenario, you must first perform the following steps. Windows 95 is your operating system.

Check 1: Install Communications Suite on your PC.

Check 2: Ensure your FTP Software TCP/IP protocol stack is up and running.

Check 3: Ensure your network is up and running, including your access to the Internet or your intranet.

Check 4: Ensure Netscape Navigator and FirstFloor Smart Bookmarks are installed properly.

The steps:

1. Using the mouse, click the **Start** button. A list box containing various choices for you to select and display appears.
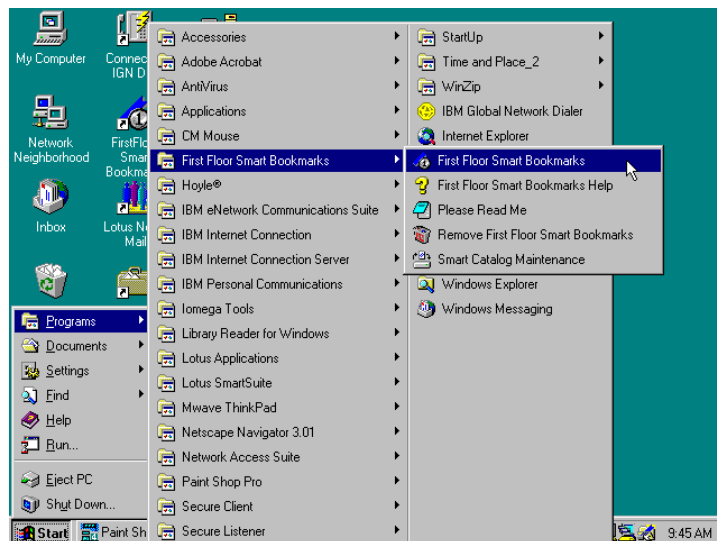
2. Double-click **Office main menu**. A list of function choices appears on your screen, including the telephone directory, mail, calendars, and more. A list box appears.

3. Click to choose **FirstFloor Smart Bookmarks** from this list. A list box containing the features of Smart Bookmarks appears. Click to choose the **FirstFloor Smart Bookmarks** application.

4. The Smart Bookmarks application opens. A two-paned window titled Smart Bookmarks - Bookmark Menu appears. Category folders, such as Agents and Agent Results, are in the left pane. When you click a category folder, all URLs in that category are displayed in the right pane.
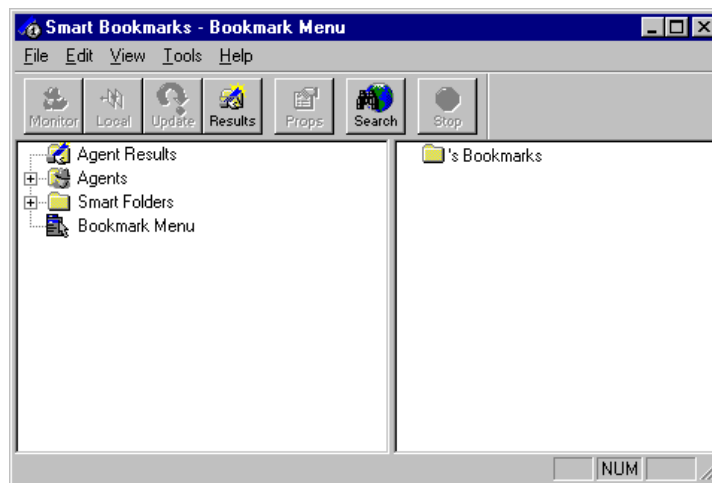
5. To create a new Smart Bookmarks folder, click **File**, **New**, and **Folder**.
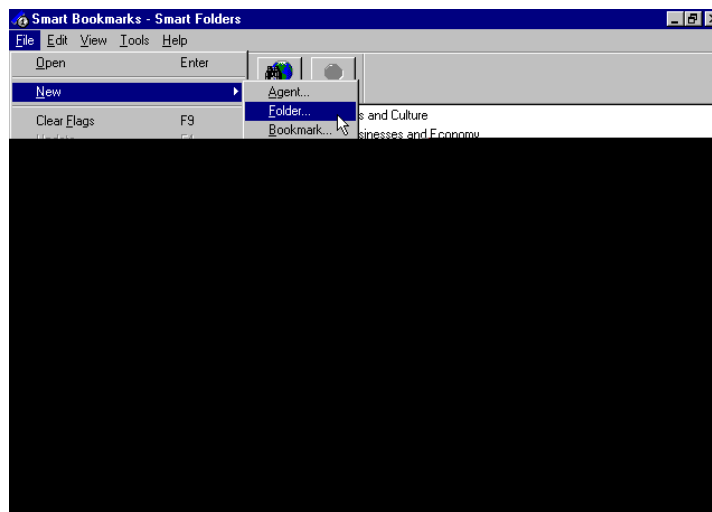
6. A window titled New Folder appears. Type the name you wish to give your bookmarks folder. If you choose, you can also enter a description and keywords. Click **OK** when you are finished.
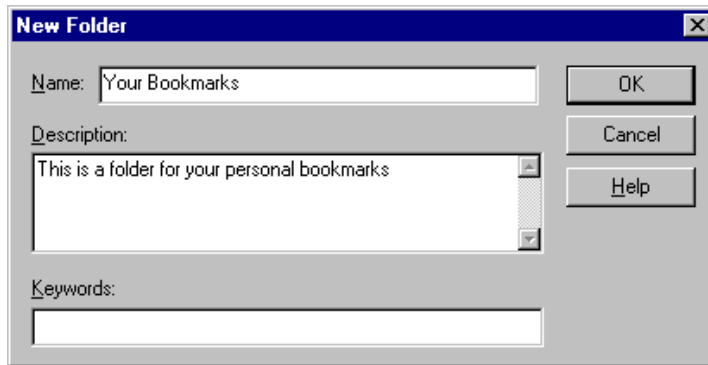
7. To enter a Smart Bookmark in your folder, click **File**, **New**, and then **Bookmark**.
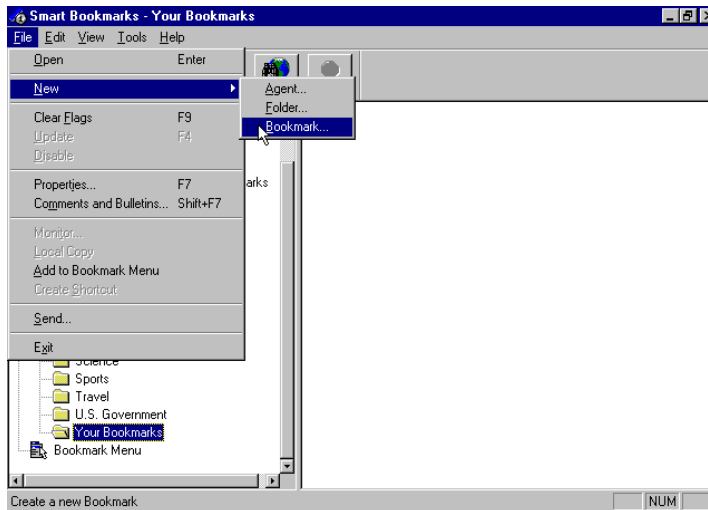
8. A window titled New Bookmark - Your Bookmarks appears. Enter the name of the Web site. In this scenario, the Web site to be added as a Smart Bookmark is **IBM eNetwork Software Home Page**. Enter the Web site's URL in the location field of the window. You can also enter a description of the page, but it's optional. Click **OK** when you are finished.
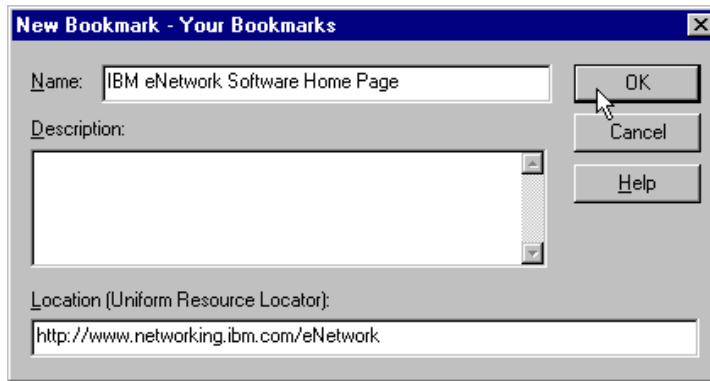
9. A two-paned window appears. The left pane contains your newly-created bookmarks folder. Click to highlight this folder and your newly-created bookmark appears in the right window pane.
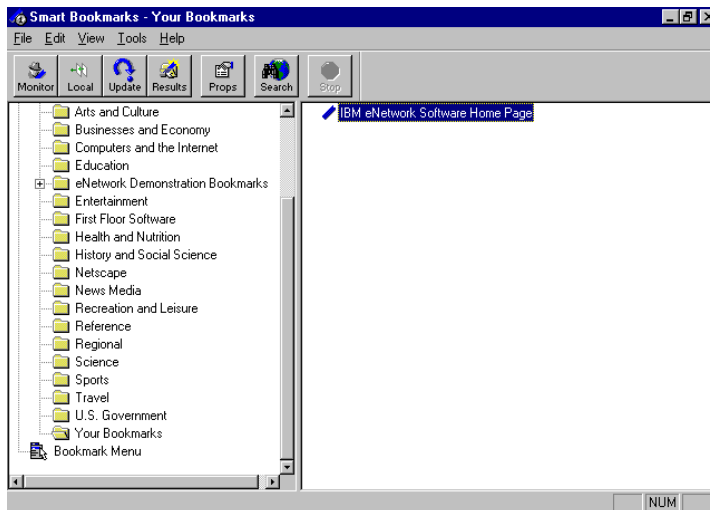
10. Now you want to set up Smart Bookmarks to monitor this Web site. Click the bookmark to select it. Click the Monitor button located on the toolbar. A window titled Select an Agent appears.
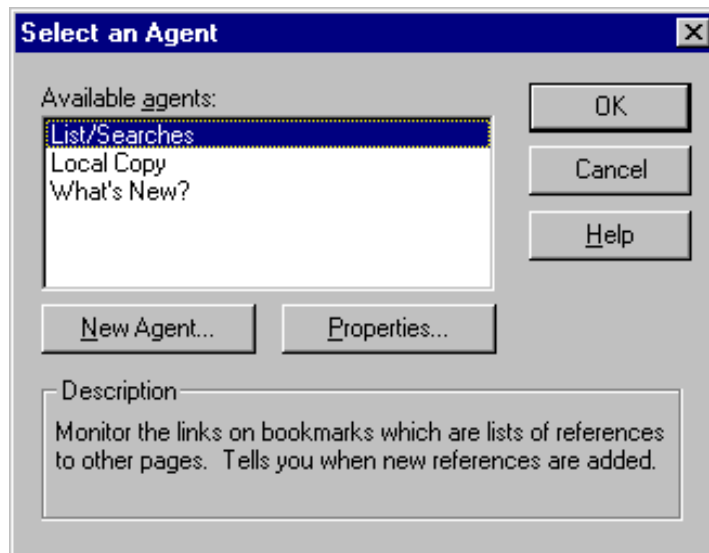
11. Click to choose **What's New?** and click **OK**.
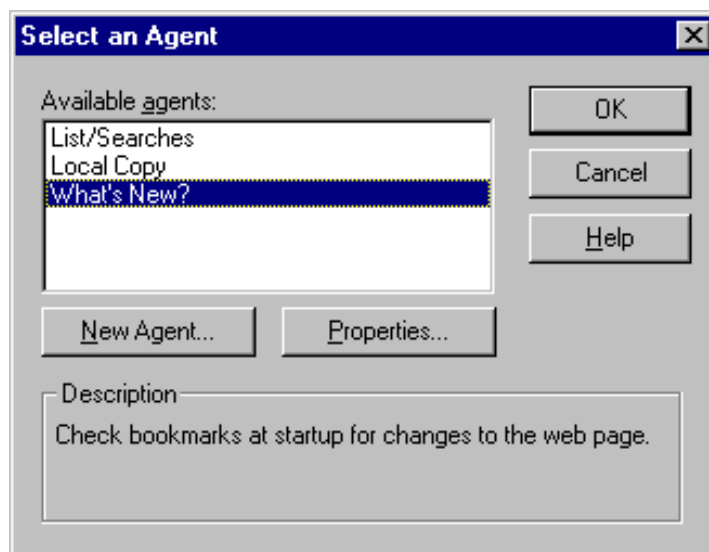
12. The two-paned window containing your folders reappears on the left and files reappear on the right. The bookmark you set up now has a "secret agent" icon in front of it. The icon indicates that this Web page is monitored.
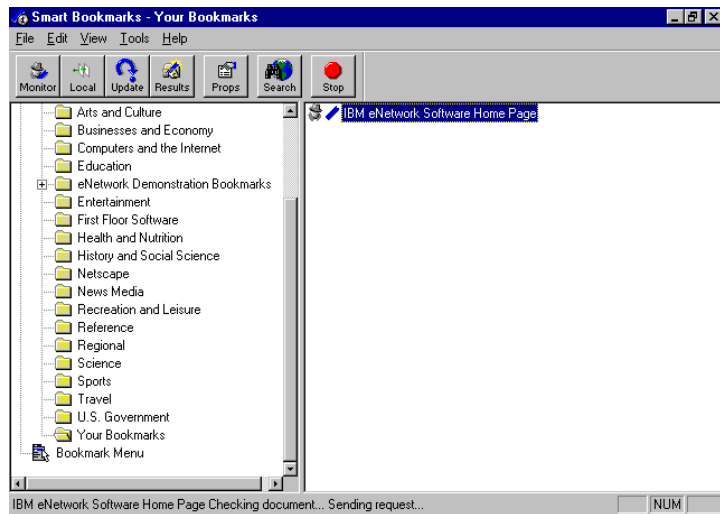
13. When changes are made to a monitored bookmark, a sunburst appears behind the bookmark icon. The sunburst disappears after you visit that Web site.
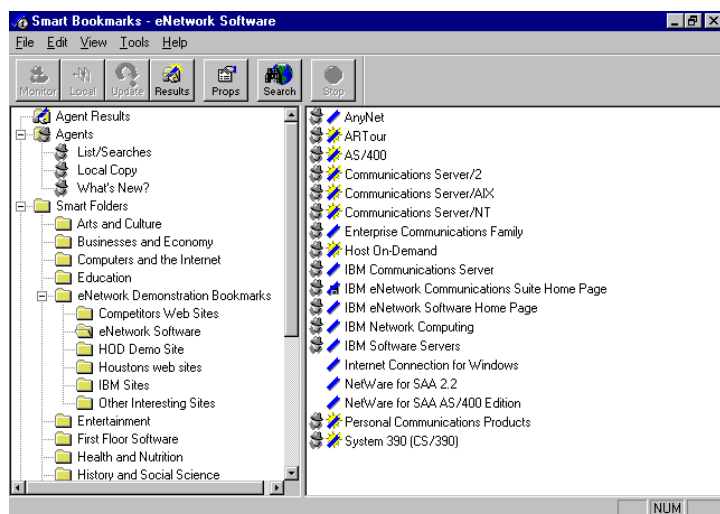
14. When your bookmarks are established, you can open your Web browser and access the Web site simply by double-clicking the bookmarks. Your browser is launched and opens on the site represented by the bookmark.
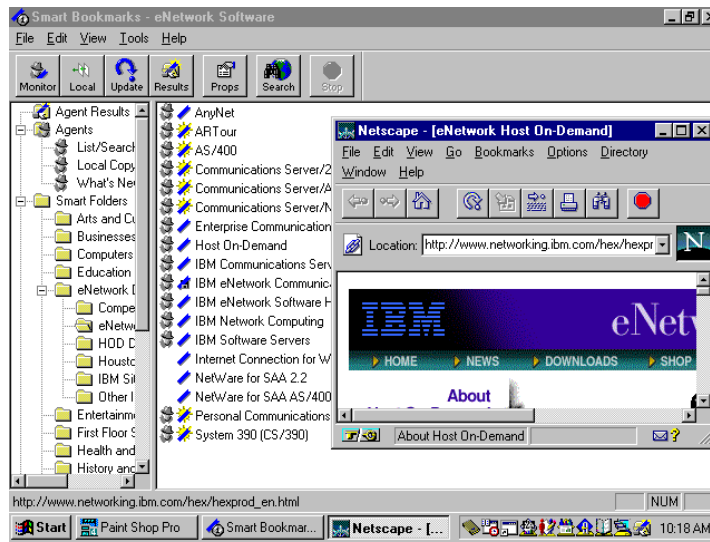
In less time than it takes to enjoy your morning coffee, you can check out your regular Web sites from wherever you are.

IBM eNetwork Communications Suite.
A building block for your communication network.

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