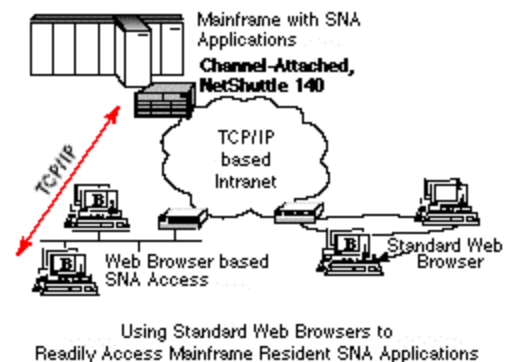


Browser Based Access to SNA Applications

Browser based access enables PC, Apple Macintosh, UNIX workstation, network computer, and Network PC users to effortlessly and risk-freely access mission-critical SNA applications running on mainframes, using the same Web Browser [e.g. Netscape Navigator or Microsoft Internet Explorer] that they use to surf the Internet. Browser based access also supports 3270 based printing and file-transfer. Browser based access, in much the same way as TN3270E, makes SNA applications intranet, as well as Internet, compatible without the need for any modifications to the applications, 'host' software, or the data-center SNA infrastructure. It is a very contemporary and strategic technology for TCP/IP-to-SNA interworking that can be viewed as being the next generation of the TN3270E based SNA access solutions. Browser based access differs from TN3270E in that it uses a dynamically downloaded, Java or Active X Applet, running in conjunction with a standard Web Browser, as its client software. In contrast, TN3270E solutions are contingent on platform-specific, Browser-independent client software that needs to be separately installed and administered on every desktop.



The overriding advantage of Browser based access is that it enables the Web Browser to become the *'Universal Client'* for any and all types of applications and data access, irrespective of whether it is SNA, Web Server, UNIX server, Windows NT, Internet, intranet, or minicomputer based -- thus significantly reducing user training costs while tangibly improving user productivity and satisfaction. Browser based access to SNA is, thus, key to seamlessly and synergistically integrating intranets and data centers. Without this integration, intranets will be of limited use to mid- to large-size enterprises since over 70% of their vital corporate data is likely to reside on mainframes located within centralized data centers. Browser based access to SNA applications is best realized using cost-compelling, channel-attached 'Web-to-SNA' Servers [e.g. a Bus-Tech NetShuttleTM].

Well architected Browser based access solutions, such as that available on the NetShuttle, offer extraordinarily high levels of reliability, security and data integrity through the use of facilities such as persistent, end-to-end connections, automatic data encryption and authorized user authentication. Browser based access is also an efficient and bandwidth economical solution in that it relies on block mode data transfer, which like native 3270s only transmits display fields that have been modified by the user rather than the entire screen.

Advantages of Browser based Access

- Direct and ready access to mission-critical SNA applications and print functions running on mainframes from a standard Web Browser across TCP/IP based intranets or the Internet.
- Low-cost, highly secure [e.g. encryption and authentication] and reliable [e.g. persistent, end-to-end sessions] solution for mission-critical application access.
- Strategic means for seamlessly, securely, and synergistically integrating data centers with intranets.
- Browser based access enables non-traditional IBM clients [i.e. home banking users] to effortlessly and transparently use data that is managed by mainframe or AS/400 resident SNA applications just as if that data was stored on a Web server.
- Enables the Web Browser to become the *'Universal Client'* [or *'Universal Desktop'*] for any and all types of applications and data access irrespective of whether it is Web, SNA, Intranet, Server or Internet based.
- Cost compelling, channel-attached, high-performance, 'Web-to-SNA' Servers [e.g. NetShuttle] can act as the primary network-to-mainframe connection thus eliminating the need for expensive 3745/3746 class FEPs.

Intranet-to-Mainframe Solutions From Bus-Tech

Bus-Tech through its highly acclaimed NetShuttle family of channel-attached 'Intranet-to-Mainframe' controllers provide a compelling set of solutions for Browser based Access, as well as total, Intranet-to-mainframe connectivity. The NetShuttle is a proven and highly scalable, channel-attached "Web-to-SNA" Server. The Browser based Access to SNA provided by the NetShuttle will work with **any** Java [or Active X] applet based 3270 emulation scheme, including IBM's highly popular "Host On-Demand" software.

The NetShuttle is a robust, fully featured, plug-and-play solution. The NetShuttle "Web-to-SNA" Controller can cost-effectively support up to 4,000 concurrent, high-performance 'SNA' sessions. The NetShuttle is widely accepted as the optimum, lowest cost solution for integrating intranets with mainframes. The NetShuttle provides feature-rich and highly economical TN3270E based access solutions.

Frequently Asked Questions about Browser based Access

Q: How does Browser based access differ from TN3270E?

A: Both Browser based access and TN3270E enable SNA applications and print functions to be accessed from TCP/IP clients [e.g. PCs] across TCP/IP networks. Their primary difference is in the nature of the client software. Optimum Browser based access solutions are realized using platform-neutral, dynamically downloaded Java or Active X Applet end-user 'clients' that are invoked from, and run alongside, a standard Web Browser. On the other hand, TN3270E solutions are contingent on platform specific software clients that have to be individually installed, administered and maintained on every desktop. Browser based access, with its superior reliability and security features, is now deemed to be the strategic, next generation alternative to TN3270E.

Q: Can I use Browser based Access to interact with SNA applications that use LU 6.2 [i.e. APPC] or 'LU 0'?

A: No. Browser based access like TN3270E is explicitly targeted toward 3270 data stream based application access and print services. Thus just as with TN3270E, Browser based SNA access is meant for applications that use SNA LU Types 1, 2 and 3 for terminal or printer oriented interactions. Such transaction processing applications represent over 90% of the SNA application base. Access to SNA applications that use programmatic, as opposed to terminal oriented, interfaces such as LU 6.2 and LU 0 can be realized across TCP/IP by using either SNA encapsulation [e.g. Data Link Switching (DLSw)], or middle-ware solutions.

Q: Why should I move to Browser based Access from the SNA/3270 based access [e.g. using 'full-stack' SNA on a PC] scheme, or the TN3270E based access I am successfully using today?

A: With Browser based access a PC or workstation user can access all of their applications and data, irrespective of where they are located, from a single, standard user interface -- i.e. the standard Web Browser. The notion of the Web Browser as the universal desktop is gaining considerable popularity. The user interface of Windows 98 will be based entirely around that of a Web Browser. With the Browser as the Universal Client, users will not have to continually be re-acclimatized to vastly disparate user interfaces. This standardization will enhance user productivity, minimize input and selection errors, as well as reduce the amount of Help-Desk support and training the users require.

Q: Are Browser based Access schemes scalable?

A: Yes, very much so -- especially in the case of channel-attached, high-capacity 'Web-to-SNA' Server solutions à la the NetShuttle 140. Such solutions can typically support 4,000 or so concurrent mainframe sessions without any degradation to the rapid, consistent and predictable response times expected by SNA users.

Q: Are Browser based Access schemes proven and robust?

A: Technology and products for Browser based Access to SNA have been available since 1996. The technology, complete with comprehensive support for printing and file transfer, is now well proven, robust, and widely used in production networks. Browser based access is not an emerging technology. Browser based access is not only strategic, but also a vital component in making intranets a reality for enterprises with mainframes.