[white paper]

eicon

Technology corporation

Aviva Mainframe Edition Rel. 7.00

PC/Server - host connectivity: A glimpse into the future

April 29, 1996



Executive Summary

Reports of the mainframe's demise are premature. Aside from its mission-critical function, PC and workstation users routinely rely on their host as a large-scale data repository. To them, it is just another node on the network. As these users prepare to migrate to 32-bit environments

Windows NT and Windows 95 -- in record numbers, demand is building for easier ways to access host information from their desktops. In effect, they want the same object-oriented, intuitive, easy-to-use interface that comes with their 32-bit operating systems. Soon, they would like to "browse" the mainframe for information much as they browse the World Wide Web. In the not too distant future, they will want to access that mainframe information remotely on the Internet.

At the same time, MIS managers are looking for cost-efficient ways of serving their users. With user-demands on the up-swing, managers can't create new applications quickly enough to keep up with user demand.

What alternative do they have?

The answer lies in a new SNA connectivity product from Eicon Technology called Aviva Mainframe Edition. For users who 'hate to wait', Aviva gives MIS the flexibility to quickly and easily customize end-user access to host information. Without training or programming, it enables users to make the most of corporate mission-critical applications in Windows NT and Windows 95. Aviva hides the complexity of mainframe connectivity from users. It also returns to MIS control of mission-critical applications that MIS once surrendered.

Eicon's long-term vision even includes easy migration to web browser-like connectivity with powerful applets -- enhancements that are sure to have great user appeal in the coming years.

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The rapidly emerging market for 32-bit SNA emulation software

Demand for PC-to-host access is growing, not shrinking. Keep in mind that 63 percent of all data in the world is still stored on mainframes.

"PC-to-host desktop software grew about 20 percent in 1995. PC-to-host server software grew 11 percent." (IDC#10513)

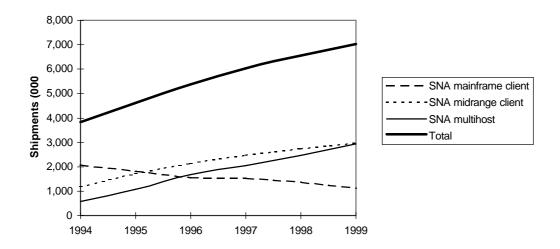
IDC has made some startling near-term projections regarding SNA client software market size:

Through 1999, the worldwide SNA client software market is expected to grow at an annual compounded rate of 12.9 percent. It will double in less than five years.

The overall SNA mainframe client market will decrease at a 11.6 percent CAGR through 1999.

However, the SNA midrange and multihost will show growth rates of 20.4 percent and 37.7 percent respectively during the same period.

Worldwide SNA client software market, 1994-99



Source: IDC#10513

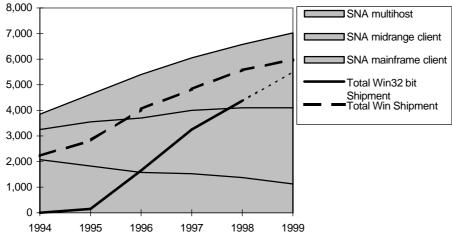
At the same time, we see an exploding market for 32-bit SNA client emulation software as the desktop computing world migrates to Windows 95 and Windows NT operating systems.

Consider these facts about Windows 95:

Windows 3.X installed base currently numbers 100M.

Windows 95 has sold 8M units since its introduction last August
By next August, 27,000,000 units are expected to be in use.

Worlwide SNA Client Market mix, 94-99



Source: IDC#10513

Even with all the WIN95 ballyhoo, large corporations are adopting Windows 95 at a slower rate than the general public. They require more time for testing, planning and purchasing. As a result, industry observers expect that Windows 95 and Windows NT will be adopted at about the same rate.

Key fact: This year, the Windows 32-bit market will explode. The Metagroup forecasts that 85 percent of the corporations will migrate to Windows 32-bit desktop applications within six months. Windows shipments are expected to show strong growth. By the end of 1998, 92 percent of Windows shipments will be 32-bit operating systems.

Against this backdrop, we see another story playing out: MIS is being pushed to shorten mainframe development cycles. Yet, mainframe development remains a slow, arduous task. In order to create mainframe applications that allow 32-bit PC-to-host connectivity, MIS would have

boom.

to modify applications that seven generations of programmers have worked on. As it is, MIS can't keep up

with user demand. There is no Visual C++ for mainframes. The goal of MIS remains protecting the security of mission-critical information. Understandably, MIS is looking for ways to rationalize the demands of users with its own desire to reclaim some control lost in the late '80s departmental-PC

At Eicon Technology, one of our core competencies is SNA emulation. That is why we see the 32-bit desktop migration coupled with the growing need for SNA client software as a promising opportunity. But our goal here is to go well beyond traditional SNA emulation software. We want to turn access to applications into access to information. We want to transform an EiconCard into the gateway and offer remote SNA services. In effect, our goal is to aid MIS by providing ways to accelerate the development of new PC-host connectivity applications with modern development tools that will respect the data integrity of the host, the AS/400 and the enterprise-wide computing network.

With this is mind, Eicon Technology is launching Aviva Mainframe Edition Release 7.00.

Welcome to Aviva Mainframe Edition

Aviva Mainframe Edition Release 7.00 is Eicon Technology's new 32-bit desktop connectivity product. It allows PCs running Microsoft Windows NT and Windows 95 to quickly and easily access mission-critical applications on IBM mainframes.

From the point of view of MIS and network management, the cost of acquiring technology is only a fraction of the cost of ensuring the networked enterprise runs productively. Corporations must lower the costs of network access through ease-of-use, on-demand connectivity, and protection of technology investments -- protection against obsolescence.

We kept these issues in mind while developing Aviva. As a result, it is flexible, so you can customize end-user access to host information. No training or programming is needed to make the most of your mission-critical applications in Windows NT and Windows 95. The product effectively hides the complexity of mainframe connectivity from users.

Aviva is built from the ground up for these Microsoft 32-bit operating systems. It is designed to be Windows 95 and Office 95 logo compliant. Aviva is based on an object-oriented architecture and has all the benefits of a modular design. It is flexible, usable, and robust.

Aviva is the solution to the MIS challenge: It results in ...

- Flexible PC-to-host connectivity options
- Ease-of-use
- Compressed application development cycle times
- Reliability
- Data security
- Ease of maintenance
- Eicon's new offering radically changes the traditional SNA client paradigm.

It transforms access to applications into access to information. It is a powerful solution that supports a wide range of SNA and TCP/IP connections that allow corporations to control cost-of-ownership issues over the long term.



The Eicon Aviva Desktop DLSw[™] connectivity option consolidates all LAN, WAN and SNA traffic in TCP/IP environments without sacrificing the benefits of end-to-end SNA. It is the ideal solution for remote users accessing their local host applications over dial-up TCP/IP connections.

Aviva protects your existing investments in connectivity software and hardware. No need to change your current communications topology. Aviva offers a wide range of connectivity operations to the mainframe, including support for Desktop 802.2, Desktop DLSw™, Eicon SNA Gateways and Microsoft SNA Server.

Easier to operate.

IS and network managers like Aviva because it makes their jobs easier.

Aviva is extremely simple to install. The product supports Microsoft Systems Management Server (SMS) which allows MIS to install Aviva across the network with just a few mouse-clicks.

Aviva supplies IS managers with extremely powerful SNA diagnostic features that minimize downtime. A comprehensive trace and logging utility, available locally, or from a remote site, gives the in-depth analysis needed to streamline problem solving.

LAN administrators will find it relatively easy to optimize Aviva for efficient end-user host access, and to automate the integration of host information with popular desktop applications, like Excel.

Aviva supports Active X making it easier to integrate SNA information with Windows NT and Windows 95 applications.

Easy to configure

It's easy for users to access host applications with Aviva. In developing the product, our aim was to take advantage of every ease-of-use facility offered by the Windows 32-bit architecture.

Aviva Wizards simplify the task of creating and configuring a host session. Session Wizards provide pre-programmed templates that the system administrator can modify for ease-of-use. Wizards make it easier for users to manage their host connections.

The user-friendly OpView line provides dynamic connectivity status information by converting cryptic OIA symbols into plain language -- ToolTips.

The Property Manager provides central management of all session and destination parameters. It gives an intuitive, single point-of-entry for complete off-line configuration and customization of all Aviva sessions. With Property Manager, you can change parameters remotely, even off line. You can build macros that make your job easier. Just open Property Manager, and drag-and-drop the different sessions features into an icon. You can then e-mail that session icon to a user.

With Aviva, users can browse the network for SNA resources, including Eicon Gateways and Microsoft SNA servers, and attach or detach from individual servers and gates.

Aviva also features a highly customizable user interface that includes host color remapping, menu editors, and programmable toolbars.

Easy file transfer

The Portfolio is an integrated drag-and-drop file transfer program that provides the easiest way yet to transfer files between a PC and a host.

The Portfolio serves as a holding area for files in transit. Unsent files remain in the Portfolio, along with error logging. Portfolios of frequently transferred files may be saved or loaded. Aviva also supports the IND\$FILE+ transfer from Proginet, allowing managers to use compression to save file transfer time and costs.

File Transfer Schemes make file transfers more efficient. Instead of having to set every available parameter for each file to be transferred, you only have to select a transfer scheme once. When you add a file to the Portfolio pane, Aviva assigns a default transfer scheme to the file according to the file type. It makes file transfers far simpler.

Powerful automation features

Aviva supports the industry-standard programming interface Active X automation, enabling users to merge host information with Active X-compliant applications. This is what allows users to merge host information.

EiconBasic, Aviva's advanced macro language, supports the same familiar Visual Basic for Applications (VBA) interface used to automate desktops by over a million MS Office developers worldwide. There is no need for LAN administrators to learn another language.

Screen Triggers supercharge user productivity. They execute pre-programmed functions based on the contents of any host screen. Aviva monitors the screen, launching events when certain host information is displayed -- a PROFS menu, for example.

Hotspots let the system administrator rejuvenate character-based host applications with automated point-and-click functionality. They enable end-users to enhance traditional character-based host applications. Mainframe applications often have function keys displayed in certain places on the 3270 screen. With Aviva, the user simply clicks with the mouse on the function key on the host screen, and the function is immediately performed. Visible hotspots appear as 3D raised buttons on the screen.

Hotspots eliminate the need to use keyboard function keys. Default Hotspots are provided for controls such as PF Keys, but new Hotspots can also be added to trigger macros or to send emulation text to the host. Aviva includes both visible and invisible hotspots.

Training advantages

Users can use the playback function as a training tool. Step-by-step, it shows users how to perform tasks.

3D View lets the LAN administrator put a graphical face on legacy applications without writing a single line of code. It lets companies focus their development efforts where they are needed.

Another training advantage: OIA-dynamic help. The user-friendly OpView line provides dynamic connectivity status information by converting cryptic OIA symbols into plain language.

The Tour Guide built-in help agent provides tours of dialog boxes.

Full support

Aviva supplies system administrators with extremely powerful SNA diagnostic features that minimize downtime. A comprehensive trace and logging utility gives the in-depth analysis needed to streamline problem solving.

When configuring Aviva sessions, the administrator can specify several destinations, based on connection types, to access a specific host service. Should the primary connection go down, the user can have pre-configured back-up connections that Aviva will automatically attempt to connect

with until it finds one that works. Aviva is unique in the way hot back-up is implemented. The feature can be implemented across all connection types, and not only for a specific type of gateway.

This feature frees mobile users to configure their sessions each time they travel. If Aviva detects that the primary connection -- a LAN connection through a gateway -- is not available, it automatically attempts to connect to the host via one of the predefined back-up connections without user intervention.

Efficient SNA transmission

Desktop DLSw[™] is a unique feature that enables Eicon Technology to offer the best solution for transmitting SNA information over TCP/IP backbones. With Desktop DLSw, the client PC transmits SNA information encapsulated in TCP/IP frames. It thereby lets the corporation reduce the number of network protocols it must support, thereby simplifying transmission. The client PC transmits the SNA information inside the TCP/IP headers.

Choosing TCP/IP as both a LAN and WAN protocol reduces support costs and greatly simplifies network management. Desktop DLSw support also solves the corporation's remote access challenges by enabling dialup access to router Point-to-Point Protocol (PPP) connections. This allows remote access applications to talk directly to the DLSw router without a remote access server or gateway in the connection.

Aviva release plans

Aviva Mainframe Edition 7.00 will be just the first client SNA emulation connectivity solution launched. As already noted, it was released in March 1996, to take advantage of the massive corporate migration to Windows 95 and Windows NT.

By 1999, the SNA mainframe client market will begin to decline by 11.6 percent per year. At the same time, the SNA midrange client market will grow at a CAGR of 20.4 percent.

To take advantage of the need for midrange host connectivity, Eicon plans to launch its Aviva AS/400 Edition. Then, it will release a new edition, or perhaps a new version of the AS/400 Edition, that includes support for EiconCards and Eicon ISDN card devices (WAN connectivity) over ISDN lines.

This release will include workgroup capabilities that are unique in the marketplace. Most likely, Eicon will be the only provider of this type of solution, leveraging on the installed base of Eicon hardware.

Conclusion

Aviva Mainframe Edition has been designed from the ground up to take full advantage of the 32-bit multitasking architecture of Microsoft Windows NT and Windows 95.

Aviva sets a new level of ease of use for software emulation. Configuration Wizards get you up and running faster than ever, while the 3D View puts a friendly interface on your legacy applications. You will never find a more reliable product to access your host applications.

Aviva features hot backups across all connection types and provides you with diagnostic tools that can even be manipulated remotely. OLE 2.0 automation allows to seamlessly merge host information with desktop applications. Hotspots and Screen Triggers let you revamp your host applications without writing a single line of code, EiconBasic will let you write macros using the same familiar VBA commands employed by over a million MS Office developers worldwide.

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Aviva Mainframe Edition Rel. 7.00

Aviva hides the complexity of SNA connectivity to the user. No training or programming is needed to make the most of your legacy, mission-critical applications in Windows NT and Windows 95.

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