# Secure Value Connection THE IBM NETWORK COMPUTING SOFTWARE NEWSLETTER

## IEM

## **Capitol Federal Trusts IBM Software**

Financial institution trims network costs and improves customer service

### **INSIDE**

#### PAGE 2

MAKING E-BUSINESS EASY AND POWERFUL

#### PAGE 4

IBM SECUREWAY SOFTWARE UPDATE

#### PAGE 6

GEAC AND IBM TEAM UP TO ENHANCE CORPORATE APPLICATIONS

#### PAGE 8

IBM SECUREWAY DIRECTORY VERSION 3.1

#### PAGE 10

INTRODUCING OS/2 WARP SERVER FOR E-BUSINESS

#### **PAGE 16**

SIGN UP FOR NSTC '99

AND MORE...



In 106 years of serving families and individuals in the state of Kansas, Capitol Federal Savings (CapFed) has earned the trust of its customers and of the communities it serves. The institution claims over \$5 billion (U.S.) in assets, mostly in the form of home mortgages and retail savings, or individual savings accounts. It's no surprise that trustworthiness was a key consideration when CapFed recently decided to entrust its data network to IBM WorkSpace On-Demand.

According to Jeff Bogue, Manager of Technical Services, CapFed's employees have enjoyed more reliable network service and fast, easy access to new software since he and his staff began to deploy WorkSpace On-Demand. As a result, customer service—already a major ingredient in

CapFed's success—is even more prompt and more efficient than before.

#### **Simplified Deployment**

CapFed has already rolled out WorkSpace On-Demand to nearly 200 employees. Soon, WorkSpace On-Demand will be deployed on all of the bank's 550 OS/2® Warp workstations in 32 branches, so that loan officers, retail savings agents, and internal departments such as Human Resources can all use a single, standard desktop that has been configured by CapFed's IT staff.

The standard desktop on each user workstation provides host access through the terminal-emulation function in Work-Space On-Demand. Each user also has access to general-purpose applications such

## **Making e-business Easy and Powerful**



few days ago I ordered some sweaters on the Web from an apparel company. The company had done such a good job of designing its Web site that the only difficult part for me was dusting off my monitor display so I could see what color choices were available. From my viewpoint as a customer, e-business on

the Web is *easy*: I get what I want, when I want it—quickly and efficiently.

Today, I used a Lotus Notes database to retrieve some marketing brochures about IBM software products. Using an extranet, our business partners access the same database to get information they need to sell IBM products and services to their customers. From my viewpoint as an end user, e-business is *powerful*: it helps IBM and its partners do business together by sharing information.

But, as many of you know, e-business—while easy and powerful for the end user—can introduce complexity and limitations for the IT staff. Wouldn't it be nice to have e-business solutions that are easy and powerful from *your* point of view? We at IBM think so, and that's why we deliver products and services aimed at making it easy for

you to **locate** resources in your network, **connect** people with the information they need, and provide **secure** access throughout your enterprise.

Like the apparel company from which I ordered my sweaters, you can use IBM hardware and software to easily and inexpensively:

- Design a user interface so that customers can access information about inventory, prices, and other data as they need it—even if the information is stored in different databases on different servers.
- Create security policies to assure that unauthorized users cannot access your company's internal data, and that customers can safely transmit credit card numbers over the Internet.

e-business can be easy and powerful for you. IBM recently brought together its industry-leading security and networking software offerings under the SecureWay<sup>TM</sup> brand—a comprehensive, standards-based suite of offerings designed to extend the reach of your e-business. Read about these offerings throughout this issue, and see how we can help you succeed—easily and powerfully.

Lavry Kunz

Larry Kunz Editor, Secure Way Connection

SecureWay Connection is published four times a year by IBM Network Technology Marketing. Letters to the editor are welcome. Please address any correspondence to:

SecureWay Connection
IBM Network Technology Marketing
Department CLJA/501, P.O. Box 12195
Research Triangle Park, NC 27709 USA

Fax: 919-254-9132

Internet: enetwork@us.ibm.com Managing Editor: Larry Kunz

Contributors: Jeri Dube, James Manon, Dave Morgan

Volume 1, Issue 2

© International Business Machines Corporation 1999

Printed in the United States, May 1999. All rights reserved.

IBM®, AIX®, APPN®, CICS™, DB2®, eNetwork™, FirstSecure™, NetFinity Manager™, Nways™, OS/390™, OS/400®, S/390®, SecureWay™, and VisualAge®—International Business Machines Corporation; CeBIT™—Deutsche Messe AG; Cisco™—Cisco Systems, Inc.; COMDEX®—Interface Group, Inc.; Lotus Notes® and Lotus SmartSuite®—Lotus Development Corporation; Microsoft®, Windows®, and Windows NT®—Microsoft Corporation; Netscape Navigator™—Netscape Communications Corporation; Networld+Interop®—Networld, Inc.; Java™, JavaBeans™, and Solaris®—Sun Microsystems, Inc.; Tivoli®—Tivoli Systems, Inc.; Vinca® and Co-Standby Server®—Vinca Corporation; Ethernet™—Xerox Corporation; UNIX® in the United States and other countries is licensed exclusively through X/Open Company Limited.



Printed on recycled paper



## e-business Takes You There

IBM software is about business—your business. You need software that can harness all of your existing systems and leverage them to transform your core business processes.

Used as a business tool, the Web expands the range and functionality of your existing systems. Did you know that 90 percent of the Global 2000 companies already have three or more back-end servers? Imagine the competitive power of guaranteeing timely delivery by giving suppliers access to your inventory system over a secure extranet, or tying inventory to your order entry system so service representatives can respond *instantly* to customer questions.

In today's service-driven economy, such capabilities can quickly differentiate you as a leader in the marketplace. You can reduce inventory costs, expedite deliveries, and increase customer loyalty—all while still utilizing your valuable IT investments and without rewriting a single application. That's what we at IBM call e-business.

We recently announced some very exciting news: the introduction of Warp Server for e-business—a fast, easy-to-manage application server optimized for Java<sup>TM</sup>. Warp Server for e-business extends the IBM server family, giving you an excellent choice of platforms on which to run your e-business. (See page 10 for more details about Warp Server for e-business.)

All of IBM's software is built on the application framework for e-business—technology that is standards-based, server-centric, scalable, secure, and easy to deploy and manage. A key ingredient is Java—the glue that holds e-business applications together.

For example, General Dynamics' Electric Boat division, a nuclear submarine and ship builder, recently used IBM's optimized Java and services to streamline its enterprise resource planning application. The company's welders, pipe fitters, and mechanics have fast, easy access to reports, work assignments, and 3D drawings and schematics. Shipbuilders tap into the new system from their desktop or thin client right on the manufacturing floor.

Best of all from an IT perspective, the Electric Boat division has unified its disparate servers around a common architecture based on Enterprise JavaBeans<sup>TM</sup> and the common development tools of IBM Visual-Age® for Java.

Using Java, you can access applications on the most popular platforms, including IBM servers—OS/390™, OS/400®, AIX®, and OS/2®—as well as



Windows® and UNIX® platforms from other vendors. Here, e-business means end-to-end business, from the largest servers to smart cards and next-generation pervasive computing devices. Starting where you are, e-business takes you where you want to go—opening up new market opportunities, speeding your products to market, and helping you deliver better customer service.

Regardless of the operating platform you've chosen to run your e-business, look at what IBM can offer. For integrated, multiplatform solutions—solutions that put the power of Java and the Web to work for you—the clear choice is IBM, the leader in global enterprise computing.

M

Patricia Sueltz IBM General Manager, Java and OS/2

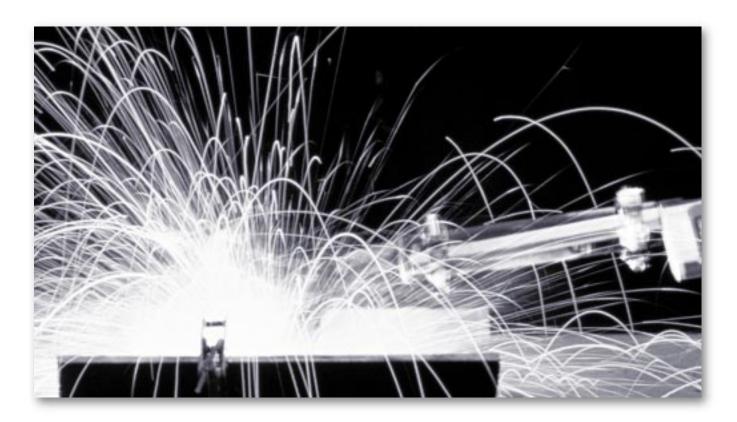
## Go Online for SecureWay Connection

Downloadable PDF and HTML versions of *SecureWay Connection* are now available online for viewing or printing at **www.ibm.com/software/network/connection/**.

Previous issues of SecureWay Connection's predecessor, eNetwork Connection, are also available.

## **Fusing the Fundamental Elements of e-business**

IBM SecureWay Software provides an integrated, comprehensive infrastructure for conducting secure business over the Internet



s a growing number of companies position themselves for the e-business arena, many are quickly realizing that successful e-business requires more than just a variety of support elements and a centralized point of control. Because the various support elements that make up an e-business are so interrelated and interdependent, their ability to integrate can determine just how successful an e-business will be. At the very least, all e-businesses rely on the ability of their elements to:

- Locate people, information, and applications in the network
- Connect customers, partners, and employees to resources located across multiple systems
- Secure communication of data and transactions

Although many different vendors currently offer useful elements for building successful e-business solutions, no single vendor can match the integrated, comprehensive e-business solution provided by IBM SecureWay Software. By integrating the fundamental elements of e-business—directory, connectivity, and security—SecureWay Software helps reduce the cost, complexity, and risk of running an e-business. Within the context of the IBM application framework for e-business, SecureWay Software controls the e-business environment in a way that can help your company reap the rewards of participating in a globally connected economy.

#### **Logically Related e-business Requirements**

As you prepare your host applications for e-business, you need to consider a wide range of issues that affect each other—host integration, access control, authentication, and the directory. Firstly, an e-business must be able to connect customers, suppliers, partners, and employees across a variety of computing systems. Then, because today's Internet technology provides the best way to connect all the different platforms these people use, the next logical step is to transfer existing applications to the Web. Any person

with a Web browser can then access and leverage your company data and services from anywhere. As this happens, however, your company exposes its valuable assets to a much wider audience—at which point network security becomes an increasingly important requirement.

Because ineffective security measures can expose your company to unwanted intrusion, data theft, lost productivity, downtime, and a variety of other problems, network security is paramount. As important as security is, however, implementing an adequate security infrastructure can quickly become expensive and complex.

As a result, this e-business infrastructure—where each necessary element is built upon the prior element—creates a hierarchy of interconnected requirements. If any one of these requirements is not met, the overall infrastructure can become unwieldy or unstable.

#### Simplified e-business with SecureWay Software

The dependent nature of interrelated e-business requirements—such as advanced security, reduced costs, network simplicity, and rapid application deployment—calls for integrated solutions. Satisfying each requirement independent of the others simply creates unnecessary complexity. In turn, such complexity increases workloads and costs while introducing a greater chance for error—all of which affects the affordability and integrity of the overall system. Unfortunately, the failure of any one product within the overall solution can compromise the entire e-business support structure.

Through several points of integration, SecureWay Software provides the capabilities that can greatly simplify the e-business environment, lower costs, and reduce risk.

#### **Open Standards**

Because SecureWay Software is based on open, cross-platform standards (such as Public Key Infrastructure) for locate, connect, and secure, it is designed to support a flexible e-business environment and allow for continued growth.

#### Locate: Centralized Enterprise Directory

Without a single, central repository, administrators need to keep all the network directories synchronized. For example, if a user changes her name when she gets married, an administrator needs to update the directories for each application she uses. An integrated directory scheme eliminates this administrative quagmire and consequently reduces network operating costs.

#### Connect: Host Integration

One of the fastest ways to start benefitting from Internet technology is to integrate host systems with an intranet, extranet, or the Internet. SecureWay Software Host Integration products can protect and extend your investment in existing applications by enabling Web browser access. Secure Way Software moves existing applications to the Web at a justifiable cost and in an aggressive time frame.

#### **Secure: Policy Integration**

Another high leverage point of integration is policy. Through a common administrative console and repository scheme for policy information, SecureWay Software provides both security and network policy integration. As a result, SecureWay Software can help your company define more consistent and secure business practices throughout the enterprise.

For example, consistency combined with intrusion detection makes it easier to detect potential threats by identifying users who repeatedly try to gain access to resources for which they are not authorized. Secure Way Software Virtual Private Network (VPN) policy integration can also protect your company's integrity as an e-business by defining secure tunnels through the unsecured Internet. In general, when policies can be established and managed with relative ease, there is a much greater chance that the entire enterprise will adhere to them. In this way, Secure Way Software facilitates a more secure and efficient e-business environment.

#### Secure: Single Sign-On

Although it is not an actual standard, single sign-on technology greatly simplifies user access. Users can access any secure resource in the network by entering their credentials—in most cases, just a User ID and password—only once. In addition to the productivity gain, implementing single sign-on technology can significantly reduce maintenance and administrative costs.

#### A Whole Greater Than the Sum of Its Parts

In addition to significantly reducing the cost and complexity of developing and maintaining an e-business, Secure-Way Software can help protect it from the elements that can impact your company's ability to locate, connect, and secure your data, people, and enterprise.

By creating an environment where directory, connectivity, and security work in concert, SecureWay Software provides reliable host integration, access control, and authentication. Although many of the individual functions in SecureWay Software are available from other vendors, these vendors tend to focus on only one or two requirements. In contrast, SecureWay Software provides an overarching scheme that reduces complexity, cost, and risk—helping to create an e-business that can flourish.

For more information
Visit www.ibm.com/secureway/

## **Geac and IBM Team Up to Enhance Corporate Applications**

## A new Java-based solution extends the reach of corporate networks while reducing costs

eac EnterpriseServer, a division of Geac Computer Corporation, is the largest provider of financial, procurement, and human resource solutions for the IBM S/390® platform. According to Gerard Frey, vice president of Marketing for Geac EnterpriseServer, the EnterpriseServer suite of applications forms the backbone of many companies' financial, procurement, and human resources operations in such diverse industries as financial services, manufacturing, health care, and several other vertical markets.

Lately, Geac has been working closely with IBM to enhance many of its applications to incorporate Java technology and work with On-Demand Server from IBM. "By extending these back office applications," Frey explains, "we make them available to a much larger audience—people both inside and outside the organization. They also become easier to install, maintain, and update. Our customers will work more effectively and their costs of doing business will actually go down."

In practical terms, this means that a supplier could determine what parts to deliver simply by viewing inventory data on the enterprise network. Departmental managers in multiple locations could easily access and share financial data for making decisions about budgets and resource allocation. And, thanks to the power of Java, accurate and

#### **EXECUTIVE SUMMARY**

#### **PROBLEM**

IBM Business Partner needs to develop enterprise applications that facilitate rapid business growth by being easy to access, customize, and manage

#### **SOLUTION**

IBM eNetwork<sup>™</sup> On-Demand Server, eNetwork Host On-Demand, and Geac EnterpriseServer applications developed with IBM VisualAge for Java, CICS Gateway for Java, and MQSeries

#### **BENEFIT**

Cost-effective applications that help extend the reach of the enterprise while easily scaling up for continued growth



up-to-date data could be readily available to all the people who need it—with fewer phone calls, faxes, and paperwork.

#### **Simplified Use**

In addition to improving information access, Geac EnterpriseServer expects that these new applications will be much easier to use. By incorporating Java technology, Geac's application designers will enhance the way information is formatted and presented by the applications. Using development tools such as IBM VisualAge for Java, CICS<sup>TM</sup> Java gateway, and MQSeries®, Geac can design custom user interfaces according to users' tasks and the types of PCs they are using.

As they re-engineer their mainframe applications, Geac's programmers also employ Host On-Demand—a 100% Pure Java certified application that provides access to host applications through a standard Web browser. Host On-Demand provides the traditional 3270 interface without the requirement of installing emulator software on every desktop.

#### **Easier Installation and Maintenance**

The use of On-Demand Server is based on the concept of server-managed clients: the network server becomes the

#### IBM PRODUCTS USED IN THE GEAC/IBM SOLUTION

#### **IBM eNetwork On-Demand Server**

On-Demand Server is a Java-based software product that manages "smart" Web applications. As a primary component of Web serving environments, On-Demand Server secures access, centralizes administration, extends Tivoli® enterprise systems management, and delivers personalized Web applications. As a result, On-Demand Server provides a very efficient way to develop and deploy e-business solutions.

#### **IBM eNetwork Host On-Demand**

Host On-Demand provides secure browser access to host information, Java-based emulation, and e-business application programming support—while delivering standard desktop utilities, file transfer, host print, and Java programming tools. By supplying Java-based host access, Host On-Demand can extend the reach of enterprise-wide information. It also supports TN3270E, TN5250, VT52/100/220, and CICS Gateway for Java access in a single package.

#### **IBM CICS Gateway for Java**

The CICS Gateway for Java provides state-of-the-art, easy access to CICS from any Java-enabled Web-client, such as Netscape Navigator™ or a network computer. A Java applet in the Web client can directly call CICS programs and data by invoking the small Java class supplied with the gateway. When the applet is invoked, all the necessary code is automatically downloaded to the client platform.

#### IBM VisualAge for Java

VisualAge for Java is an application development environment for building Java applications, applets, servlets, and JavaBean components. VisualAge for Java provides the most up-to-date component-based development and visual programming techniques for maximizing productivity and code reuse. VisualAge for Java Enterprise Edition is especially designed to help enterprise developers who are working in large teams, developing high-performance or heterogeneous applications, or attempting to connect Java programs to existing enterprise systems.

#### **IBM MQSeries**

An enterprise-level messaging solution that provides rapid application integration and unparalleled business flexibility, MQSeries provides an excellent infrastructure for accessing enterprise applications and developing Web applications. MQSeries Client for Java is an MQSeries client written in the Java programming language for communicating via TCP/IP. The MQSeries Client for Java enables application developers to exploit the power of Java to quickly create applets and applications that can run on any platform that supports the Java runtime environment.

single point of access and control for all applications in the network. Rather than installing and updating an application on each user's desktop, an administrator simply updates the application once at the server, where it can then be accessed by users as needed. In fact, existing Java applets can be configured to run on the On-Demand Server desktop with no code modifications at all. They can be updated later as the need arises to exploit specific functions provided by the On-Demand Server APIs.

In addition to the maintenance savings, the use of On-Demand Server is expected to yield security benefits. Because applications are installed on—and managed from—the server, they should be less prone to intentional or inadvertent tampering by users. Service calls should require less time and expense as well, because every user has the same desktop configuration and the same level of software.

#### **Additional Room for Growth**

With On-Demand Server and Java technology, enterprises have much more room to grow. Adding a user to the network is as easy as connecting a PC to the server. With no need to configure, install, and maintain software on every user's desktop, growth can be both easy and economical.

"Java gives us a wonderful opportunity," says Doug Ring, director of Research and Development at Geac. "With it, we will offer our customers greater power and efficiency in their IT networks. Our partnership with IBM, and especially On-Demand Server, will enhance the benefit to our customers and position them for solid growth."

#### For more information

Visit www.ibm.com/software/network/on-demand/ Visit www.enterpriseserver.geac.com

## **Integrate People, Applications, and the Internet**

## IBM SecureWay Directory is a powerful cross-platform enterprise directory

powerful enterprise directory for corporate intranets and the Internet, IBM SecureWay Directory provides a solid foundation for implementing integrated security solutions for e-business. As a key component of IBM SecureWay FirstSecure<sup>TM</sup>, SecureWay Directory is a cross-platform server optimized to support the directory-enabled applications that integrate your enterprise systems. By providing a unified architecture for sharing data with people, applications, and network resources, SecureWay Directory can improve communications, expedite the development and deployment of Web applications, and increase network security.



If you have mission-critical requirements of uninterrupted access and maximum performance, SecureWay Directory is an ideal solution. No single directory server can match its reliability and scalability services. In fact, SecureWay Directory can support millions of entries and thousands of LDAP clients. It also supports replication across platforms—enabling additional copies of the directory to help increase performance and improve the reliability of access.

#### **Universal Repository for Consolidation**

To improve management and administration, Secure Way Directory can:

- Centralize the administration of application-specific side files
- Provide a central repository for public key certificates
- Deliver scalability and performance for extranet, intranet, and Internet applications

#### **SECUREWAY DIRECTORY VERSION 3.1 AT A GLANCE**

- Provides a cross-platform directory on AIX, OS/390, OS/400, Solaris<sup>®</sup>, and Windows NT<sup>®</sup>
- Supports LDAP Directory standards Versions 2 and 3
- Includes the DB2® Universal Database engine to provide a highly scalable directory
- Spans language boundaries by storing multiple languages in the same directory
- Authenticates users with passwords, certificates, or administrator-defined mechanisms
- Provides intelligent network support for configuration and security information
- Meets Year 2000 and euro currency readiness requirements

Administrators can use a Web browser-based interface to perform initial setup, change configuration options, and manage daily operations for SecureWay Directory. In addition, administrators can define user access to information stored in the directory. Authorized users can search for or add to information in the directory through a Webbased interface, with all client access supported through LDAP or HTTP protocols.

The SecureWay Directory Client SDK can be used to develop LDAP client applications for a wide range of software platforms and Web servers. Such applications can provide secure access to SecureWay Directory by using Secure Sockets Layer (SSL) technology, which employs RSA software. SSL support for the directory server and client provides encryption of data and authentication using X.509v3 public key certificates. The directory server runs with or without SSL support.

SecureWay Directory is developed in compliance with key industry-standard initiatives and can be purchased as part of IBM operating systems, middleware applications, and security solutions, such as SecureWay FirstSecure.

For more information

Visit www.ibm.com/software/network/directory



## **Improved Security for VPNs**

## The enhanced IBM 2216 Nways Multiaccess Connector and Nways MAS software provide a wide range of security benefits for VPNs

he IBM 2216 Nways™ Multiaccess Connector can provide WAN access, S/390 host access, and remote site concentration to help you link all types of users and devices across your enterprise. When combined with the Nways Multiprotocol Access Services (MAS) software, the 2216 can significantly reduce the overall cost of computing by increasing network performance and operating efficiency. Now, with MAS Version 3.3 (planned for availability in June 1999), you can take advantage of a wide range of enhancements to implement extremely secure Virtual Private Networks (VPNs) throughout your enterprise.

MAS 3.3 is a scalable software solution that provides enhanced VPN and voice capabilities, Differentiated Services, new LDAP client support for policy management, and expanded Web cache capabilities to facilitate e-business. Key to the new release are security enhancements that include IP Security (IPSec) for authentication, encryption, and IP packet "tunneling" over insecure IP backbones that pose security hazards. Using IPSec over insecure networks can also eliminate the need for leased lines between sites, a significant factor in reducing network expenses.

#### **Additional Network Security and Cost Savings**

With their advanced security functions, the 2216 and MAS 3.3 can help you deploy VPNs to extend your

#### VPN ENHANCEMENTS FOR THE IBM 2216 AT A GLANCE

- IKE support helps ensure that VPN policies can be conveniently and accurately implemented throughout an extended network with automated key distribution.
- Support for Cisco® L2F and Microsoft® PPTP enables the coexistence of these non-standard protocols with the standards-based L2TP—providing a smooth migration path for users of L2F and PPTP.
- An integrated LDAP client can access a user-supplied LDAP directory for QoS and security profile information for subsequent mapping of packets to Differentiated Services queues. Support includes a rapid classification technology that can provide one-pass mapping to minimize the impact on packet throughput.

corporate intranet across a public network—such as the Internet or a service provider network-to create a secure connection through an encrypted tunnel. New VPN IPSec support includes automated key management through Internet Key Exchange (IKE), which enables you to set up security associations and manage cryptographic keys automatically. IKE also helps ensure that you can conveniently and accurately implement VPN policy throughout your extended network with only minimal manual configuration.



IBM 2216 NWays Multiaccess Connector

#### **Configuration Flexibility for Multiprotocol Environments**

MAS 3.3 supports Layer 2 Tunneling Protocol (L2TP) for secure tunneling of multiprotocol data from remote users, which enables the 2216 to initiate an outgoing call from the L2TP Access Concentrator (LAC) when its traffic has been designated for a remote user. MAS also enables the coexistence of L2TP tunnels with Microsoft PPTP and Cisco L2F—protocols for tunneling Layer 2 frames over IP. Enabling non-standard PPTP and L2F tunnels to coexist with L2TP tunnels on the same device with virtually the same configuration and setup provides a smooth migration path if you have already deployed PPTP or L2F in your enterprise but want to move to standard L2TP.

#### **LDAP Client Support for Higher Security**

MAS 3.3 provides standards-based LDAP client support for TCP/IP environments, which can help simplify and strengthen security administration by consolidating many directories into one and working in conjunction with other LDAP offerings, such as the IBM SecureWay Directory (see page 8).

For more information

Visit www.ibm.com/networking/216/216prod.html

## A Strong Foundation for e-business

## The new OS/2 Warp Server for e-business provides a flexible, cost-effective network platform

hether you run a large enterprise or a small business, OS/2 Warp Server is a strategic network platform that can provide a full-function application and systems management server, a highly reliable network operating system, along with backup and recovery services—all in a single, cost-effective solution. Now, with the next-generation OS/2 Warp Server for e-business, you can get an easier way to help your organization make a successful transformation into an e-business.



#### THE RIGHT PLATFORM FOR WORKSPACE ON-DEMAND

OS/2 Warp Server for e-business is the optimum platform for WorkSpace On-Demand Release 2, IBM's thin client offering for rapidly deploying new applications or updates to a wide range of remote clients. WorkSpace On-Demand can reduce client ownership costs and support the transformation to the Java application model while extending the use of existing OS/2 applications. WorkSpace On-Demand is Tivoli-ready to help facilitate end-to-end network management and is also designed to provide remote control of thin clients from the server. With new performance enhancements, OS/2 Warp Server for e-business provides an even better platform for WorkSpace On-Demand and Internet Web serving.

As a key part of IBM's family of software servers, Warp Server for e-business provides state-of-the-art features to meet the rigorous performance and availability requirements of universal access and mission-critical applications. In addition, it facilitates the transition to network computing by supporting existing OS/2 applications and simplifying the administration of Windows platforms.

#### **Improving Access and Availability**

To improve access and availability, Warp Server for e-business:

- Includes a Journaled File System (JFS) that can restore a file system to a functional state in a matter of seconds or minutes and increase the previous file size limitation of 2 GB to 2 TB.
- Works with Vinca® Co-Standby Server®, an IBM Business Partner solution that uses a server-mirroring technique to minimize system downtime.
- Includes Personally Safe n Sound (PSnS), a backup and restore feature that supports automatic file backup to a wide range of storage devices.
- Features sophisticated Tivoli enterprise systems management software capabilities.
- Gives network administrators the capability to initiate and manage services for LAN-connected clients and servers running on different protocols with Netfinity 5.2.



- Provides a cost-effective way to manage information and share intellectual property interdepartmentally, company-wide, or via the Web with Network File System (NFS).
- Provides secure remote access through the IBM Enhanced Remote Access Connection Server for OS/2 Warp Server and uses the integrated Virtual Private Network function of the TCP/IP stack and its Pointto-Point Protocol (PPP) server function.

### Preserving Past Investments while Preparing for the Future

To streamline business transformation, Warp Server for e-business:

- Supports mission-critical applications that run on OS/2 and includes Year 2000 and euro currency readiness support.
- Simplifies the management of ever-increasing disk storage requirements with the Logical Volume Manager (LVM).
- Supports the Intelligent Input/Output Architecture Specification (I2O), an industry-standard architecture that defines a new interface from a processor to I/O adapters.

#### **Responding Quickly to Business Needs**

To address rapidly changing requirements, Warp Server for e-business:

- Facilitates mixed platform enterprises by providing extensive heterogeneous client support and managing non-IBM network operating system platforms.
- Simplifies maintenance with seamless Windows NT 4.0 Server management.
- Includes the OS/2 Warp Developers Kit for Java 1.1.6 to help address future business needs and retrofit existing applications for universal access.
- Provides the IBM OS/2 LDAP Client Toolkit for C and Java 1.0 for C and Java programmers who want to enable new or existing applications to access, search, and update LDAP servers using LDAP 2 or LDAP 3 protocols.

Has Netscape refreshed Communicator 4.04 for OS/2 Warp?

A Yes. Just go to Software Choice (www.ibm.com/software/swchoice/) to get the following refreshes:

- Netscape Communicator 4.04 for OS/2 Warp
- Netscape Communicator 4.04 for OS/2 Warp with Strong Encryption
- OS/2 Plug-In Pack 2.1

The refreshed Netscape Communicator 4.04 includes:

- Support for OS/2 Warp Developer Kit for Java Edition 1.1.7
- 16-color support for OS/2 Warp Servers and older devices
- · Various fixes for known defects

You can differentiate the refresh by selecting "Help" from the action bar, then selecting "About Communicator..." The title bar should display "Netscape - Version 4.04 (language) - 990212." This date indicates that the refresh is installed. (The first release of Netscape Communicator 4.04 was dated "980928.")

Note that Netscape Communicator for OS/2 Warp Plug-in Programmer's Toolkit is not being refreshed (but it is available at <a href="https://www.ibm.com/software/os/warp/netscape">www.ibm.com/software/os/warp/netscape</a>).

Is Lotus SmartSuite for OS/2 Warp 4.1.1 for WorkSpace On-Demand available yet?

A Yes, SmartSuite has been updated and documented to run in a WorkSpace On-Demand environment with this refresh. Current users with maintenance contracts automatically receive this update.

Note that installing in the WorkSpace On-Demand 2.0 environment is different from installing on a file server. Complete instructions for installing SmartSuite for OS/2 Warp 4.1.1 in the WorkSpace On-Demand 2.0 environment are available in the READWSOD.TXT file located in the root directory of the SmartSuite CD-ROM.

If you want to find more technical tips and guidelines from IBM, visit www.ibm.com/support/tcp/.



Visit www.ibm.com/software/os/warp/warp-server



#### **COVER STORY**

#### Continued from 1

as Lotus SmartSuite® and Lotus Notes®, and to specialized applications like a loan-origination program from Argo Data Systems. WorkSpace On-Demand ensures that every employee has the same desktop configuration and the same software upgrade levels.

Future plans call for the addition of new retail-savings and human-relations applications to the standard desktop. With applications like these, CapFed expects to be able to respond faster to customer questions and provide faster turnaround on transactions—keys to staying competitive in today's marketplace.

Workspace On-Demand has made it easier to install these types of vital new applications and upgrade existing software. Administrators install program code on a server and propagate to the desktops with no intervention at the



#### **EXECUTIVE SUMMARY**

#### **PROBLEM**

Provide secure, stable information access for employees, with centralized control over the desktop

#### **SOLUTION**

IBM WorkSpace On-Demand, OS/2 Warp Server for e-business, and NetFinity Manager™

#### **BENEFIT**

Faster, easier application deployment saves time and money while helping improve customer service

workstations by either the IT staff or the end users. CapFed has found that this saves the IT staff a great deal of time on software distribution and results in lower costs.

With WorkSpace On-Demand, Bogue says, "We were able to take a new branch and bring it online in just a short amount of time. Where it would normally take us hours or even days to prepare all the workstations, we can do that now in just a matter of minutes. It's as easy as a few keystrokes, and it's done."

#### Fast, Low-Cost Service

Having a standard desktop—which users cannot change but which gives them access to the data and applications they need—also reduces the time and money required to provide service and technical support for end users. Establishing a single look-and-feel for all users across the enterprise, Bogue believes, is reducing the number of user errors—such as files accidentally being deleted—and has made it easier for the IT staff to troubleshoot and fix problems.

Today, when a support call comes in from a branch office, the single look-and-feel means that the help desk technician knows immediately what software the user has and how the user's desktop is configured. Using IBM NetFinity Manager, which can be accessed from every desktop, the technician can interact directly with the user's desktop and even take control of the workstation when necessary.

Even serious hardware problems no longer mean long periods of downtime. For example, employees no longer have to wait for the IT technician to travel to the branch office, replace or repair hardware components, and reconfigure a workstation. Instead, employees can simply move to a spare workstation that has the same software configuration they are used to, with access to the same data on the server. After the hardware is repaired, there is no need to reconfigure the workstation. A copy of the

system configuration is simply downloaded from server to workstation.

CapFed wants to ensure that its network is free from the Year 2000 problem—a daunting task when users have installed programs on their workstations that might not be Year 2000-ready. Bogue, however, believes that WorkSpace On-Demand has significantly reduced the risk of a Year 2000 problem. Because every desktop's configuration is controlled at a server, the IT staff simply needs to verify that the programs on the server are Year 2000-ready. (The WorkSpace On-Demand product itself is Year 2000-ready.)

Bogue estimates that WorkSpace On-Demand will cut per-seat service costs by half, if not more. "It's much easier to maintain 55 servers than 550 workstations," he says. "WorkSpace On-Demand is going to drastically impact our ability to maintain those workstations."

#### A Valuable Business Relationship

CapFed's success with WorkSpace On-Demand stems directly from its involvement with a systems integrator, Starfire Engineering & Technologies, Inc., of Lawrence, Kansas. Starfire's Richard Spurlock explains that he recommended WorkSpace On-Demand while consulting with CapFed about a network security solution.

The turning point in selecting WorkSpace On-Demand came in late 1997 when CapFed's IT staff needed to set up a training lab with six workstations. Instead of having a technician configure each workstation separately, Starfire's Spurlock offered to set up the lab using Work-Space On-Demand. When the three-day job was completed in just one hour, WorkSpace On-Demand had virtually sold itself.

A key reason for Starfire's successful partnership with CapFed is the working relationship it enjoys with IBM as a Premier IBM Business Partner-Software and a Premium Lotus Business Partner. This relationship gives Starfire advance access to upcoming products and services, in-depth technical training, direct access to IBM technical staff, and insight into IBM's strategic direction. In Spurlock's words, "Our relationship with IBM enables us to deliver the solutions our customers want and need."

#### A High Level of Trust

To CapFed's Bogue, WorkSpace On-Demand combines the best aspects of client/server computing with the advantages of traditional mainframe-based networks. It matches perfectly with CapFed's strategy for client/server computing—a strategy that emphasizes control, security, and stability.

Perhaps best of all, CapFed is finding WorkSpace On-Demand to be a significant cost-saver. Bogue notes that supporting client/server networks often costs much more, on a per-user basis, than supporting host-centered networks. Yet, he states, "We're providing state-of-the art solutions at the client workstation with the same resources required to maintain a 'dumb' terminal."

Both Bogue and Spurlock enthusiastically support the IBM network at CapFed. Because IBM is an "architecture" company rather than a "shrink-wrap" company—providing integrated solutions rather than simply selling products—Bogue feels certain that the WorkSpace On-Demand network will meet CapFed's needs for a long time. He explains, "IBM's got an excellent product. It will provide us the ability to react quickly in a changing environment."

By placing its trust in IBM's WorkSpace On-Demand, Capitol Federal has built a data network that should continue to earn the trust of its employees for many years to come.

#### For more information

Visit www.ibm.com/software/network/workspace Visit www.starfire.net



To help you quickly integrate and deploy a wide range of Java and Web applications throughout your enterprise, IBM has recently enhanced On-Demand Server—now a SecureWay offering—and plans to release On-Demand Server Version 2.0 in mid-1999. On-Demand Server is a profile server that enables you to manage "smart" Web applications more effectively by:

- Securing access to Web applications
- Centralizing administration of Web application servers
- Extending Tivoli management to Web environments
- Delivering personalized Web applications

In addition to the features of Version 1.0, On-Demand Server 2.0 gives you a solution that:

- Enables administrators to control and monitor On-Demand Server resources in large, heterogeneous environments
- Utilizes LDAP technology to centralize data managed by On-Demand Server
- Enables the distribution of On-Demand Server services across multiple servers
- Uses industry-standard data encryption and security methods for user authentication
- Supports Java applets, servlets, and applications to facilitate the deployment of On-Demand Server solutions in a wide range of Web application environments

For more information about On-Demand Server, visit www.ibm.com/software/network/on-demand/

## A Security Boost for OS/390 Communications

## New releases of eNetwork CS/390 can improve security management and TN3270 security

ith the new releases of IBM eNetwork Communications Server for OS/390 (CS/390), you can take advantage of a powerful, secure communications infrastructure to handle your strategic e-business initiatives. (CS/390 2.7 is available now and CS/390 2.8 is planned for availability in 3Q 1999.) By providing end-to-end, universal access to your applications and data, CS/390 builds on the proven enterprise-class dependability, scalability, and performance of OS/390.

The new releases of CS/390 provide the advanced functions to help you securely extend the business reach of your S/390 servers to remote offices, customers, suppliers, and business partners anywhere—whether they are connected over TCP/IP, SNA, intranets, extranets or the Internet, or a mixture of these networks. In particular, CS/390 2.8 includes the following security enhancements:

- Internet Key Exchange (IKE)
- SNA Triple DES Session Level Encryption
- TN3270 Secure Sockets Layer (SSL) Client Authentication



#### **Automated Key Management**

IKE is an IETF-endorsed key and security associations management protocol for IPSec that CS/390 2.8 uses to automatically create and securely distribute encryption keys. This capability substantially reduces the manual effort and time involved in managing and distributing encryption keys for networks secured by IPSec. The IKE enhancement also supports non-disruptive refresh of keys, making it easier to change keys more often to help protect against a forceful attack on the network.

#### **Advanced Encryption Capability**

CS/390 2.8 can help bolster the strength of the network by providing advanced encryption technology. With the inclusion of triple DES—the strongest encryption algorithm

#### **CS/390 VERSION 2.7 HIGHLIGHTS**

CS/390 2.7 includes the following enhancements:

- A fast response cache accelerator to provide industryleading Web serving performance
- Enterprise Extender to streamline the integration of SNA and TCP/IP networks
- Built-in Tivoli management software to simplify network management
- SNMP Version 3 for more secure network management
- OSA Express Gigabit Ethernet<sup>TM</sup> support to relieve network congestion
- Service Policy Agent to improve the management and delivery of Differentiated Services for TCP/IP networking
- Updated standards to increase support for VPNs
- Expanded benefits for TCP/IP in a parallel Sysplex
- New IP services for eNetwork On-Demand Server

available today—SNA users can now leverage this industry-leading standard in order to implement an essentially impenetrable encryption capability.

### SSL Client Authentication for Increased TN3270 Security

By adding SSL client authentication to the TN3270E server and by using Security Server's (RACF's) certificate registration capability, CS/390 2.8 helps prevent unauthorized access to S/390 SNA applications from TCP/IP clients. Before users can even receive a logon screen from TN3270, they must provide an authenticated certificate that is from a trusted certificate authority and, if required, that is registered with RACF as an authorized user of the TN3270E server. This capability can help protect user IDs—and other important started tasks and subsystems—from being used inappropriately. It can also protect user IDs from being revoked, either accidentally or intentionally, with invalid password attempts.

Be sure to watch for more details about the upcoming CS/390 2.8 enhancements in the near future.

For more information
Visit www.ibm.com/software/commserver





## **Upcoming Events**

#### NetWorld + Interop® Tokyo

Tokyo, Japan May 31-June 4, 1999 www.interop.com/Tokyo/

#### **Interactive Enterprise '99**

New Orleans, LA June 8-10, 1999 www.ibm.com/services/learning/ conf/ie/



#### Java0ne

San Francisco, CA June 15-18, 1999 www.java.sun.com/javaone/

#### **PC Expo**

New York, NY June 22-24, 1999 www.pcexpo.com

#### COMDEX®/Canada '99

Toronto July 14-16, 1999 www.comdex.com

#### **Internet World Summer**

Chicago, IL July 19-22, 1999 events.internet.com

#### Solutions '99 The IBM Technical Developer Conference

Las Vegas, NV July 19-22, 1999 www.solutions99.ibm.com/

#### **Networking Solutions Technical Conference**

Orlando, FL August 16-20, 1999 www.ibm.com/services/learning/ conf/nstc/

#### **SHARE Technical Conference**

Chicago, IL August 22-27, 1999 www.share.org



#### NetWorld + Interop

Atlanta, GA September 13-17, 1999 www.interop.com/Atlanta/

#### **NetWorld + Interop Paris**

Paris September 14-17, 1999 www.interop.com/Paris/

#### **COMMON**

San Antonio, TX October 3-8, 1999 www.common.org

#### **Fall Internet World**

New York, NY October 4-8, 1999 events.internet.com

#### GUIDE SHARE Europe 4th Technical Symposium

Porto, Portugal October 11-12, 1999 www.gse.org/confrenc.htm

#### Computer Security Conference & Exhibition

Washington, DC November 15-17, 1999 www.gocsi.com



#### COMDEX/Fall '99

Las Vegas, NV November 15-19, 1999 www.comdex.com

#### NetWorld + Interop Sydney

Sydney November 15-19, 1999 www.interop.com/Sydney/



#### **Internet World Canada**

Toronto February 9-10, 2000 events.internet.com

#### **CeBIT™**

Hannover, Germany February 24-March 1, 2000 www.messe.de/cb99/

#### **SHARE Technical Conference**

Anaheim, CA March 5-10, 2000 www.share.org

#### COMMON

San Diego, CA March 12-17, 2000 www.common.org

#### **SHARE Technical Conference**

Boston, MA July 23-28, 2000 www.share.org

This is a list of selected conferences and trade shows of potential interest to SecureWay Connection readers. The information listed here is subject to change, and IBM makes no claims as to the value of these events. To list an event that is not shown here, send e-mail to enetwork@us.ibm.com.

May 1999

15



## Sign Up for NSTC 1999 Today

Be sure to mark your calendar to attend the upcoming Networking Solutions Technical Conference (NSTC) on August 16 to August 20. This year's conference will be held at Disney's Coronado Springs Resort in Orlando, Florida.

WHAT: NSTC 1999

**WHEN:** August 16 - 20, 1999

WHERE: Coronado Springs Resort

in Orlando, Florida

While attending the conference, you can:

- Learn how new networking solutions such as ATM, Ethernet, Fast Ethernet, and Gigabit Ethernet—can boost bandwidth and throughput throughout your network.
- Examine the latest security topics and products—including IBM SecureWay Software products—that can help increase the security of your systems, applications, and Internet business.
- Get the advice, tips, tactics, and implementation specifics that can simplify your migration from SNA to APPN®-High Performance Routing.
- Explore advanced application technologies for e-business—including

Net.Commerce, Domino.merchant, and IBM eNetwork Firewall—that can extend your market reach.

- Investigate networking management issues, strategies, and techniques that can help your enterprise operate much more efficiently.
- Interact with industry experts, network with peers, and view demonstrations of breakthrough technology at the informative Product Expo.

To enroll in the conference or to get more information, visit www.ibm.com/services/learning/conf/nstc/.

Or call 800-IBM-TEACH (800-426-8322) today.



SecureWay Connection
IBM Network Technology Marketing
Department CLJA/501, P.O. Box 12195
Research Triangle Park, NC 27709 USA