



TRANSFORMING YOUR BUSINESS WITH COMMUNICATION AND INFORMATION ACCESS

Advocate Health Care

- Challenge: Provide access to key applications and patient information, and comply with regulations
- Solution: Enhanced e-mail and application access through unified portal
- Results: Low TCO; secure, pervasive portal access for 24,500 employees; easy integration and customization for new applications; HIPAA compliance

Athens International Airport

- Challenge: Improve airport communication and information access while cutting data center costs and time to deploy applications.
- Solution: Portal-based access to e-mail, calendaring and instant messaging with single sign-on and user authentication
- Results: 100% ROI expected in three years; 30% lower TCO; 99.999% system availability; 50% projected increase in productivity

No matter what size your business or which markets you serve, chances are you have a need that is common to many businesses today: how to provide efficient access to information and secure, flexible communication.

Sounds simple, but your IT infrastructure may not be quite up to the task. Unless you are a new startup or have a lot of money in the bank, starting with a clean slate isn't an option. And time is of the essence, since markets—and competitors—won't wait while you rework your infrastructure.

Sun has an answer. Sun software has helped thousands of enterprises develop portals and integrated communication systems that link employees, customers, partners and vendors with the information they need. These enterprises are leveraging their existing infrastructures to compete effectively, shorten time to market and improve internal efficiency—without massive infrastructure investments or rip-and-replace overhauls. See how companies are using Sun technologies in proactive ways to solve the problem of information access.



Before we look at how Sun can transform your business, meet two companies who needed help and turned to Sun:

Advocate Health Care

This Chicago-based healthcare provider had problems with its internal communication. Physicians, nurses and other staff were having an increasingly hard time accessing information and communicating with each other. Why? Advocate Health Care's mobile and dispersed workforce was growing, and could only access enterprise applications through an antiquated dial-up system. Setting up access required a multistep installation process that was difficult to navigate and consumed large amounts of help desk resources. In addition, the need to comply with HIPAA and safeguard sensitive patient information demanded higher levels of security. Unless the healthcare giant could find a way to unify and simplify access to key applications while providing a high level of security, its ability to grow would be compromised.

Using Sun portal and communications products, Advocate developed and deployed a Web portal that provides its employees with remote, high-speed Internet access to a wide range of hospital applications.

Athens International Airport

When the 2004 Olympic Games came to Athens, Greece, they affected all aspects of the city's infrastructure, including transportation. Most of the athletes, staff and visitors would arrive by air into Athens International Airport. The huge influx of people meant that airport and airline employees needed reliable access to a range of applications used to manage and coordinate airport activities. With the eyes of the world on Athens and the safety of millions of travelers in their hands, information security had a much higher importance than ever before. Athens International Airport needed a level of communication and performance that demanded a set of powerful new tools.

Different Industries, One Solution: Sun

While these enterprises represent very different industries, they faced similar problems: Changing market conditions require faster time to market; a more dangerous world demands higher levels of security; competitive pressures prevent massive investments and compel the highest possible return on investment.

In other words, these businesses—and thousands of others—must transform themselves. How? By becoming more agile, secure and unified:

- **Agile:** The agile enterprise is flexible. It can respond quickly and opportunistically to changes in market conditions and adapt to any business climate with ease. When the competitive landscape changes, the agile enterprise changes with it, ensuring its survival and growth by evolving and scaling its IT infrastructure as needed with minimal investment.
- **Secure:** The secure enterprise guards sensitive information from outsiders while providing ready access to employees, partners, customers and vendors who need information to do their jobs. It maintains compliance with ever-changing rules and regulations. Even mergers and acquisitions do not compromise the ability of the secure enterprise to control access to its business-critical services.
- **Unified:** The unified business creates a cohesive user experience with open, integrated enterprise software and methodologies. By consolidating its infrastructure, it creates operational efficiencies and frees talented technical staff to work on high-value, strategic projects. The unified enterprise benefits from lower total cost of ownership (TCO) of its computing resources and increased user productivity.

“Sun’s e-mail solution has freed up a substantial amount of time for our IT staff to focus on more forward-looking projects such as adding applications and beefing up network security.”

Gary Horn

Director of Enterprise Architecture and Network Security
Advocate Health Care

To address these important business needs, Advocate Healthcare and Athens International Airport, as well as many others, have turned to Sun. These enterprises created innovative solutions to their problems by deploying Sun’s portal and communication products. Using these powerful components of the Sun Java™ Enterprise System, they were able to leverage their existing infrastructures and achieve enterprise-wide transformations of their businesses. Here’s how they did it.

Advocate Health Care Connects Dispersed Workforce with Sun

Advocate Health Care is the largest, not-for-profit healthcare delivery system in metropolitan Chicago and is recognized as one of the top 10 systems in the country. Advocate has eight hospitals with 3,500 beds and the state’s largest privately held, full-service home healthcare company among its more than 200 locations. More than 24,500 people work at Advocate, including 4,600 affiliated physicians.

Advocate needed a more user-friendly way for its doctors, administrators and associates to have secure, pervasive access to core decision-making applications, patient information, administrative data and communication tools. Previously, the hospital’s IT group functioned as an Internet service provider, offering dial-up access via a modem or VPN. Establishing connectivity with remote and mobile workers often required several calls to the help desk, adding to the administrative costs associated with network access and impeding user access to important information.

Using Sun portal and communication products, Advocate developed and deployed a Web portal that provides its employees with remote, high-speed Internet access to a wide range of hospital applications. The portal also includes a full suite of communication tools including e-mail and calendaring.

Agility: Achieved

Advocate’s portal has consolidated more than 50 applications into a single user interface, greatly unifying the user experience for the hospital’s staff. And the portal keeps growing. Leveraging the inherent flexibility of the Sun Java System Portal Server family, Advocate easily added to the portal Care Connection, Advocate’s private branding of the Cerner Millennium hospital management software. Care Connection gives Advocate’s healthcare providers a powerful, full-featured tool for managing the entire spectrum of patient care, from admitting to discharge, and includes electronic medical records for consolidating and coordinating all aspects of a patient’s treatment. “It used to take us more than two weeks to deploy a new application,” reports Gary Horn, director of enterprise architecture and network security for Advocate. “Thanks to the standard interfaces and uniform coding processes of Sun Java System Portal Server, we added Care Connection in less than three days.”

A growing institution such as Advocate must be able to adapt to new circumstances without having to scrap the entire infrastructure and start over. Advocate found that the number of e-mail users had increased three-fold in the last six years, from 5,300 users in 1999 to over 17,000 in 2005. The scalability of the Sun Java System Messaging Server has allowed Advocate to accommodate this increase without having to purchase additional servers and without compromising e-mail performance.

Security: Achieved

With so much confidential patient information to safeguard, security is of paramount importance to Advocate. The Sun solutions have greatly contributed to the hospital's security, as a recent HIPAA-related audit proved. "The report rated us very high in physical security, citing our Web-based e-mail and calendar services as a key factor," Horn relates. "Since we deployed the Sun Java System Messaging Server, we don't have security issues."

To offer services to its community of more than 9,000 remote users, Advocate relies on Sun Java System Portal Server Secure Remote Access, an open-standards solution that provides authorized access to resources behind the corporate firewall from any Java technology-enabled browser. Sun Java

System Portal Server Secure Remote Access is integrated into Sun Java System Portal Server, not a "black box" bolt-on, so it is simple to deploy and manage.

Unification: Achieved

Sun helped Advocate unify its approach to e-mail. In the past, Advocate relied on a mix of e-mail packages including cc:Mail. The high maintenance burden of supporting this environment required up to seven IT staffers. Standardizing on Sun Java System Messaging Server has paid off for Advocate. "Sun's e-mail solution has given us higher reliability and a single point of maintenance," says Horn. "We've dramatically reduced our e-mail support staff to just one full-time person. That one change has freed up a substantial amount of time for our IT staff to focus on more forward-looking projects such as adding applications and beefing up network security." Sun Java System Messaging Server also saves money for Advocate by eliminating the need for end-user training. "Before they could use cc:Mail effectively, users would need to attend a two-hour training course," Horn explains. "The interface to Sun Java System Messaging Server is so intuitive that users can easily figure out its basic operations with no training at all. That saves an enormous amount of time and energy for both IT staff and users."

Advocate has also been pleased with its ability to customize the messaging services. "We've added some enhancements that our users requested, such as an expanded address book and a spelling checker with a full dictionary of medical terms," explains Horn. "Integrating these new features was easy with Sun Java System Messaging Server."

Benefits

Advocate Health Care's unified portal has given its staff highly secure, pervasive access to core decision-making applications as well as patient information and administrative data. Robust e-mail and calendaring have improved internal communications and boosted productivity. Role-based access policies and secure Web-based e-mail and calendaring services help Advocate comply with HIPAA regulations. Finally, the Sun solution has helped Advocate consolidate its infrastructure and realize a low total cost of ownership.

Athens International Airport Improves Operations with Sun

In just four years of operation, Athens International Airport has established a reputation as one of the most efficiently run airports in the world. Handling around 1.2 million passengers a month, the airport depends on state-of-the-art technology to ensure safe, efficient operations. Athens International Airport and its airlines together employ more than 1,000 people.

With pressure building to modernize its internal operations for the 2004 Olympic Games, the airport identified the need for an advanced communication portal. To provide a reliable, secure platform for it, the airport consolidated its entire infrastructure onto Sun Enterprise and Sun Fire servers running the highly secure Sun Solaris 9 Operating System. After a thorough survey of the available software solutions, Athens International Airport selected components from the Sun Java Enterprise System to enable its portal solution and provide enhanced communication services.

Athens International Airport has achieved its goal of transforming itself into an agile, secure, unified enterprise, thanks in large part to Sun communication and portal products.

“As Athens International Airport grows, we must be able to add capability when we need it. Thanks to Sun, we can choose the applications that give us the best value and know that they will integrate smoothly into our portal.”

Fotis Karonis

Director of IT and Telecommunications
Athens International Airport

Athens International Airport created an enterprise-wide portal that provides single-point access to a range of functions that airport employees need to perform their jobs. For example, they use the portal to access the electronic Airport Development Fund (e-ADF), which electronically processes airline landing fees, traffic statistics and payments due to the airport. Other portal-based applications display flight information and provide accurate, up-to-date weather information. In addition, the portal speeds and simplifies communication with a suite of Sun-powered tools for e-mail, calendar management and instant messaging. The entire airport community, including operations, airlines, service companies, shops and public sector organizations, has secure, scalable access to portal applications, helping the airport offer a high level of customer service that has gained it a reputation as one of the world’s best-run airports. In short, Athens International Airport has achieved its goal of transforming itself into an agile, secure, unified enterprise, thanks in large part to Sun communication and portal products.

Beyond improving customer service, the Sun-based portal has a tangible impact on the bottom line. As an example, Fotis Karonis, director of IT and telecommunications, cites the deployment of the e-ADF application. “By moving from paper-based accounting and invoicing to the e-ADF application, we have accelerated payments of landing fees from the airlines, which improves our cash flow,” he explains. “And the reduction in time filling out paperwork has freed the airport staff to provide a higher level of customer service.”

Agility: Achieved

With its new Sun-powered infrastructure, the airport can now respond to almost any foreseeable future need. “As Athens International Airport grows, we must be able to add capability when we need it,” says Karonis. “We are currently in the procurement cycle for a number of third-party applications to extend our capabilities. Thanks to Sun, we can choose the applications that give us the best value and know that they will integrate smoothly into our portal.”

Security: Achieved

Despite the fears of many in the world community, the 2004 Olympic Games in Athens came off with remarkably few problems. Karonis points to the security of his Sun solution as a contributing factor: “Our Sun portal solution is highly secure, thanks to the inherent security of the Solaris operating system. We’ve also consolidated our authentication and authorization into a single sign-on system, greatly improving security while simplifying user access.” With a workforce that is always on the move and dispersed over a large area, the ability to offer secure, remote access to the portal is a big plus for Athens International Airport.

Unification: Achieved

By unifying its legacy applications along with new communication capabilities provided by the Sun software, the Athens International Airport portal has allowed employees to work smarter and with greater efficiency. Airport personnel who move around the airport can now access the portal using personal digital assistants (PDAs), giving them instant access to the airport’s communication tools as well as current flight and weather information to advise passengers. Because airport employees have better access to information and each other, they can do their jobs in a more coordinated way, increasing operational efficiency and improving customer service.

Benefits

Athens International Airport has achieved its objectives of improving operations and internal communication while positioning itself to scale as the airport grows. System availability is now 99.999 percent and productivity is projected to increase by 50 percent. The Sun solution has slashed data center costs and dramatically reduced the time to deployment for new and modified applications. The airport's bottom line has benefited, too, thanks to a 30 percent reduction in TCO and a projected 100 percent return on investment within three years.

Sun Portal Platform

The Sun Java System Portal Server, a component of the Sun Java Enterprise System and the Sun Java Application Platform Suite, delivers capabilities that enable users to access relevant information and personalize their Web environments. Extensive community, collaboration, content and knowledge management capabilities—combined with security, identity management and mobile access capabilities—deliver the information users may require to any device, anywhere. The Sun portal products include:

- *Sun Java System Portal Server*: Delivers the capabilities and components necessary for today's portal solutions, including powerful aggregation and presentation capabilities, identity management and single sign-on.
- *Sun Java System Portal Server Mobile Access*: Extends portal capabilities to mobile users by enabling scalable, reliable and highly available solutions. Sun Java System Mobile Access makes secure, near-universal access to critical content, applications and services not only possible but cost-effective. Sun Java System Mobile Access recognizes and supports hundreds

of devices, multiple mark-up languages, protocols and standards, and has the ability to securely deliver user-specific applications, content and services via the Sun Java System Portal Server.

- *Sun Java System Portal Server Secure Remote Access*: An open standards-based, Internet or extranet solution, providing authorized access to resources behind the corporate firewall from any Java technology-enabled browser—easily and inexpensively. By delivering secure access to personalized portal information over any Internet or extranet connection, Sun Java System Portal Server Secure Remote Access eliminates the administration and maintenance of client-side remote access software while enhancing user productivity.
- *FatWire Spark™ Portal Content Management (pCM)*
Current, accurate and relevant content is key to ensuring that your target audiences adopt your enterprise portal. Content owners need the tools and processes to easily create, edit, review and publish information to the portal without IT involvement. Sun and FatWire have partnered to provide Sun Java System Portal Server customers with unlimited-use licenses of FatWire Spark™ Portal Content Management (pCM) software at no cost. Content creation, administration and system development functions are all provided with a business-user-friendly interface within the prebuilt Spark portlets, including:
 - Active list, checkouts, assignments and history
 - Workflow with approve/reject
 - Check in/check out
 - Rollback
 - Search

Sun Communication Products

The communication products in the Sun Java Enterprise System and Sun Java Communications Suite provide a robust and flexible platform for securely and cost-effectively deploying e-mail, calendaring, instant messaging and other advanced collaboration services. With rich collaboration capabilities, multiple access options and a modular architecture, the software is ideally suited for service providers (see sidebar “In a Deregulated World, Service Providers Look to Sun for Competitive Edge”), enterprises, government agencies and educational institutions. Sun communication products include:

- *Sun Java System Messaging Server*: Provides scalable and secure messaging for enterprises and service providers interested in consolidating e-mail servers and reducing total cost of ownership of a communication infrastructure. The Sun Java System Messaging Server is a high-performance, highly secure messaging platform. The Sun Java System Messaging Server also provides extensive security features that help ensure the integrity of communication through user authentication, session encryption and the appropriate content filtering to help prevent spam and viruses.
- *Sun Java System Calendar Server*: Facilitates team collaboration by enabling users to manage and coordinate appointments, events, tasks and resources. The Sun Java System Calendar Server is a valuable tool for time and resource management. With its intuitive, Web-based interface and support for multiple client solutions, end users can access their personal, public or group calendars anytime, anywhere from any Web-enabled device.

- *Sun Java System Instant Messaging*: Offers a standards-based, real-time communication and collaboration application as well as a platform for presence-based application development. It delivers presence information and extended, real-time messaging capabilities, including instant messaging, conferences, alerts, news, polls and file transfers. As both an application and a platform, Sun Java System Instant Messaging provides the reliability and availability expected by end users, and the security necessary to protect privacy and information as well as meet regulatory requirements.
- *Sun Java System Connector for Microsoft Outlook*: Enables the use of Outlook as a desktop client on Windows with Sun Java System Messaging and Calendar Servers. As an Outlook plug-in, the connector provides real-time access to email, calendar and directory services via Microsoft Outlook, and can be remotely deployed and configured by a site administrator.

Summary

In a world where access to information is a requirement for business success, enterprises are looking to Sun for solutions. The portal and communication products in the Sun Java Enterprise System can be the cornerstones of an agile, secure, unified infrastructure that can solve today's problems and provide a platform for tomorrow's growth and change.

In a Deregulated World, Service Providers Look to Sun for Competitive Edge

Deregulation has changed the landscape for telecommunication companies in a big way. The typical telco once had the marketplace essentially to itself. Now there are literally hundreds of competitors. To survive, telcos must offer new services to boost revenues from existing customers as well as attract new ones.

However, many telcos are at a disadvantage because they have outdated and inefficient infrastructures. In the past, regulating bodies set rates that guaranteed a profit, thus masking operational inefficiencies. A deregulated world offers no such refuge.

With competitors closing in on its core business, a major North American telco—we'll call it Smart Telecommunication Services (STS)—plotted a course for growth and diversification. Instead of passively watching its local and long-distance revenues dwindle, STS focused on the next wave of value-added services, including wireless, Voice over IP, Internet access and managed business services. In other words, STS wanted to transform itself from a traditional telco to a diversified provider of business and consumer communication. However, adding new services was difficult due to an outdated and diverse infrastructure. The projected development costs were prohibitive; the projected time to market would put the company at a disadvantage competitively. To succeed, perhaps even to survive, STS had to rethink its IT strategy.

By reworking its infrastructure based on Sun Java Communications Suite and Sun Java Application Platform Suite, STS both simplified its development process and created the foundation for a complete spectrum of new communication-based services.

Faster Time to Market

Moving to the Sun Java Enterprise System and Suites allowed STS to rationalize its development environment and simplify the process of integrating software into its infrastructure. Now the STS infrastructure is aligned with the company's business priorities, supporting the rapid development of new services. STS rolled out its first offering, an e-mail and file sharing service for small and medium-sized enterprises (SMEs), a full year earlier than originally planned. How? Instead of developing the service from scratch, STS built its Web-based offering using components of the Sun Java Communications Suite and Sun Java Application Platform Suite.

In the service provider world, time to market is money: An independent analysis by E-Business Strategies found that STS gained additional revenues of over US\$4 million based on the accelerated product introduction.

Reduced Cost of Ownership

SMEs have many alternatives for e-mail service, so STS must offer a low price point even to be considered as a viable alternative. In its marketing pitch, STS explains the high costs of software licensing, maintenance and hardware, and contrasts those costs with its own lower monthly fee per employee.

In a Deregulated World, Service Providers Look to Sun for Competitive Edge (Cont.)

How is STS able to offer a lower total cost of ownership (TCO) for e-mail service? Sun Java Communications Suite is the answer. A study by the Radicati Group shows that using Sun Java Communications Suite offers a TCO that is 75 percent lower than Microsoft Exchange 2003. The reasons are better scalability, higher performance, greater reliability, and easier administration and maintenance. That figure has a direct impact on STS's pricing—and its ability to compete.

SMEs Demand Secure Communication

SMEs have trouble staying ahead of the ever-increasing volume of spam, viruses, worms and other threats. STS is capitalizing on that fact by offering its customers safe, reliable e-mail, calendar and file sharing services. It does so by leveraging out-of-the-box security features of Sun Java Communications Suite such as its support for Transport Layer Security (TLS) and Secure/MIME. The suite also integrates tightly with popular antispam and antivirus products, so service providers can upgrade their security offerings with off-the-shelf products such as Symantec Brightmail and Symantec Antivirus or open-source software such as SpamAssassin.

Flexibility and Customizability

The ability to customize product offerings to the needs of individual SMEs is as important as time to market, competitive pricing and security. STS offers its e-mail, calendar and file sharing services through a portal. The portal combines the STS services with links to other customer-specific programs, so users can access all of their applications and frequently used Web pages from a single screen. Branded with the customer's logo, this customized portal adds significant perceived value and enhances STS's ability to compete for new accounts.

The functionality of the Sun Java System components is key to STS's ability to provide such a comprehensive Web offering. Sun Java System Portal Server makes it easy for end users to customize their portal and offers integrated identity management capabilities for access control, centralized user management, policy enforcement and single sign-on. The STS offering is designed so that SMEs can manage their own environment, for example, adding or deleting e-mail accounts. This level of adaptability saves time and makes the service easier to sell.

Learn More

To learn more about Athens International Airport, visit aia.gr. To learn more about Advocate Health Care, visit advocatehealth.com. For more information about Sun, visit sun.com