



Security and privacy in an e-business world.





The Internet is transforming the marketplace, driving the rate of global economic change at a dizzying speed. Today, businesses everywhere must not only compete with companies around the corner but around the globe. It's no surprise that e-business has become a top priority for businesses of all sizes.

In a service-driven economy, your ability to connect critical business systems directly to suppliers and customers over the Internet can quickly differentiate you as a leader in the marketplace. You can improve your competitive edge by enabling customers to browse your product offerings and place Internet orders 24 hours a day, 7 days a week. Suppliers can access your inventory system with security over an extranet, which can help reduce inventory costs, provide timely deliveries and increase customer loyalty. But implementing e-business solutions places additional demands on your enterprise.

For successful e-business, your critical business processes must be tightly integrated across your enterprise with well-defined, reliable privacy and security measures. IBM has a wide choice of security solutions that provide you with the necessary hardware, software and services to do business efficiently and effectively in today's multivendor environments. We have the experience and expertise to help you develop superior security programs for trusted e-business. IBM delivers comprehensive, end-to-end security solutions— solutions that can be tailored to your business' specific needs.

Build a highly secure foundation of confidence and trust



According to an IBM survey of consumer attitudes toward online privacy, companies that have good privacy policies and procedures gain a competitive advantage over those that have none. The *IBM Multi-National Consumer Privacy Survey*, conducted by Louis Harris & Associates, indicates that successful e-businesses must provide the personalized service online shoppers want while taking proactive steps to address online privacy concerns and establishing policies to strengthen trust and confidence, including:

- Post a privacy statement
- Clearly define how personal information will be used
- Support a privacy statement with sound policies and systems to ensure compliance*

Privacy is everyone's business

e-business security is built on a foundation of confidence and trust. The confidence to run your business in a security-rich environment, knowing all of your critical data is protected. And the trust that allows your customers, suppliers and business partners to know that sensitive information collected during online transactions is private.

Privacy is the right of the individual to determine when, how and to what extent personal information is communicated to others. Most businesses and consumers recognize the intrinsic value of having sales and demographic data collected in the course of doing business. But as anyone in business knows, it can take years to build customer trust and only seconds to lose it.

IBM can help you remove transaction barriers, allowing your e-business to flourish. We have a broad range of integrated, seamless, proven solutions that addresses a spectrum of security issues. Basic security. Reliable network connectivity. And access to data, global sign-on, electronic payment, firewall protection and centralized control of computing resources. With IBM security solutions, your e-business can be very secure yet readily accessible.

*Create a competitive advantage with open standards
and proven Internet technologies*



**Securing corporate assets
and customer privacy**

Effective e-business security requires an integrated approach—one in which the whole security solution is greater than the sum of its parts. The interdependence of security technologies needs to be taken into account as companies move to e-business.

For more than three decades, IBM has implemented custom security systems for leading businesses and governments worldwide. We deliver comprehensive, end-to-end security solutions that can be tailored to grow with your evolving e-business. Our open, flexible solutions are designed to facilitate the interoperability of your existing systems and business applications. And our open, standards-based solutions work efficiently and effectively in today's multivendor environment—substantially reducing the risk of undetected flaws that might otherwise compromise your entire security infrastructure.

IBM has led the industry in cryptography research, from the development of the sophisticated Data Encryption Standard (DES) to the Common Cryptographic Architecture (CCA) that serves as the foundation of many of our security and privacy offerings. CCA helps to assure a consistent implementation of cryptographic services for a broad range of products and solutions across all IBM platforms.

We can help you implement comprehensive security solutions that enable you to shield private and confidential information from prying eyes. With industry-based standards, like SET Secure Electronic Transaction™ Protocol and public key infrastructure (PKI) technology, you can be confident that only authorized parties can view private information sent over public networks.

You can also implement solutions that feature digital certificates—electronic passports which can be used to identify parties involved in electronic transactions—and digital certificate tools, such as IBM Trust Authority and IBM WebSphere™ Application Server.



Scalable servers in a highly secure, reliable environment

Your server can help you to protect your information, as well as to protect the information you send over untrusted networks. Choose from our selection of powerful, scalable servers, including IBM Netfinity®, IBM RS/6000®, IBM AS/400® and IBM S/390® products. All are reliable performers built with security in mind. Since a majority of the world's business data resides on our servers, IBM enables a large amount of the world's business data for e-business.

IBM servers have the capability to create an encrypted virtual private network (VPN) to connect your company with users, other sites or business partners — while providing security and privacy of the information through encryption. Select IBM servers also use specialized hardware cryptography to offload the computing-intensive workload of encryption from the main processor. Hardware cryptography also provides stronger security of the encryption keys to significantly increase the security of encrypted data.

IBM servers have extended security capabilities to map your existing security definitions to the new way of defining identity over the Internet — X509V3 certificates. Your IBM server is ready for security when you are — no complicated steps or expensive add-ons required.



PC security

For a security solution that can start right at the desktop, IBM offers IBM client security solutions to help strengthen your security at the client level. You can take advantage of powerful authentication and encryption features provided by an embedded security chip in all new IBM PC 300PL® and IBM IntelliStation® systems.

The right software solution

Finding the right solution for your business means being able to select from the best security software solutions in the industry. IBM SecureWay® Software is the first solution of its kind to integrate fundamental directory, connectivity and security capabilities. Our SecureWay Software portfolio offers you a wide selection of industry-leading technologies to choose from, including servers with built-in security, antivirus products, Tivoli management tools, and extensive security and privacy service offerings.

The most significant advantage of SecureWay Software is the integrated security software solution, IBM SecureWay FirstSecure. The core of FirstSecure is IBM SecureWay Policy Director, a security officer at the core of your information systems — defining, administering and enforcing security policy related to authentication and access control for both standard and Web-based applications and resources. Policy Director and the other FirstSecure components work together like members of a highly-trained, integrated security team — supervising transaction traffic, managing directory personnel changes, authorizing user access, reviewing network activities, checking for intruders, and managing and enforcing your security policy.

FirstSecure also interacts with higher-level, enterprise-management control points, such as those provided by Tivoli management software. Tivoli® User Administration and Tivoli Security Management software help ensure that security mechanisms are managed efficiently and effectively. They provide a simplified, single point of control and the ability to manage a complex security environment, including security policy, identities, privileges and auditing for both users and programs. Tivoli backup and recovery functions strengthen system availability, help ensure continuous operations for network services and provide the ability to recover lost or compromised systems.

IBM security solutions enable you to establish a controlled e-business environment so you can:

- Quickly and confidently locate people, information and applications within your network
- Connect customers, suppliers, partners and employees to resources across multiple systems with security
- Efficiently provide encrypted communication of data and transactions
- Maintain appropriate levels of privacy for confidential information

Run your e-business with secure, scalable and available solutions



Put our knowledge to work for you

As you enter the new world of e-commerce, you can expose critical business information and applications to anyone on the Internet. Your data needs to be protected and your applications need to be up and running reliably, performing as designed. It's no wonder that many companies require a security risk assessment before embarking on the road to e-business.

IBM Global Services has experienced consultants around the world to help you develop a process to define, deploy and manage an enterprise-wide security and privacy policy. Our security solution and development teams have the expertise and specialized knowledge necessary to recommend a solution using a broad range of IBM and third-party products and services.

IBM Security and Privacy Services use our proven methodology to analyze your business and security needs. Our consultants will help you develop and implement a security architecture that fits your e-business. We'll work with you to assess your current needs and design an effective security infrastructure to provide highly secure access to corporate intranets, extranets and the Internet. Our integrated solutions are based on open standards, which can help reduce the cost and complexity of implementation while assuring the rapid deployment of your e-business applications.

IBM Security and Privacy Services can help you develop a clear plan and policy to address privacy issues affecting your e-business. Through IBM Privacy Workshop, you can learn about:

- Where and how to effectively and securely collect, store and use data
 - Special privacy risks facing multinational companies
 - Necessary steps for developing a sound privacy policy
- To help increase customer satisfaction and generate a competitive advantage, IBM Privacy and Strategy Implementation Service can help you define a strong privacy policy for your company, including:
- Web site privacy statement
 - Evaluation of privacy issues in such areas as e-business, customer relationship management and business intelligence
 - A privacy strategy for implementing privacy practices in business processes and systems



We'll even work with you to manage and run your security plan, offering as little or as much support as you need. The choice is entirely yours.

Over the years, IBM has built an extensive resource of intellectual capital on a solid foundation of experience. We've helped thousands of companies implement custom security and privacy solutions that were just right for them. And we'd be happy to do the same for you.

Bring on the millennium

Whatever security challenges the future may bring, you can rest assured that IBM will be there to help you meet them. IBM is taking a leadership position in consumer privacy and user-rights issues. We're investigating new authorization and access techniques using fingerprints, voice recognition, handwriting, retinal scans and other advanced biometric technologies. We're examining new applications of smart cards and digital certificates. Our researchers are also developing new cryptographic technologies and immune systems for cyberspace.

The business world is rapidly reinventing and transforming itself to take advantage of e-business efficiencies and e-commerce revenue. As you make the move to e-business, IBM can provide the consulting, services and security solutions you'll need to establish your e-business with confidence.

For more information

To learn more about e-business opportunities, call your IBM client representative or IBM Business Partner. Or visit our Web site at www.ibm.com/e-business.

IBM security and privacy offerings:
www.ibm.com/security





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*Louis Harris & Associates. *IBM Multi-National Consumer Privacy Survey*. November 1999.



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