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## Highlights

- Implement centralized user authentication and authorization management for online portal and business initiatives
  - Deliver consistent Web single sign-on (SSO) to users across heterogeneous Web applications and services, including IBM WebSphere, Microsoft, SAP and many other application environments
  - Manage and enforce policy-based access control and Web security to your enterprise-wide applications, with the ability to scale to tens of millions of users
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# IBM Tivoli Access Manager for e-business

*Implement a highly scalable and security-rich user authentication, authorization and Web SSO solution*

## Achieve robust security for online business and legacy applications

Business leaders face some critical questions about the security of their applications and transactions:

- “How can I deploy secure access to diverse Web applications that are easily maintained with a unified access control policy?”
- “How can I provide a consistent and automated user experience—with features such as Web SSO, strong authentication and session management—when the number of applications, servers and users I’m responsible for is growing exponentially?”
- “Why is the security of my proprietary Web applications so inadequate, even though I have committed large amounts of money to it?”
- “How can I address the Web security risk, compliance regulations and audits, when my internal policies require controlling unintended access to business sensitive applications and services from internal users, external users, and administrative users?”
- “If I invest in an access management solution for my organization today, will I need to rip and replace when I need to address secure collaboration with partners (B2B) and/or consumers (B2C) in the future?”
- “Does my organization have the ability to effectively expand access control to Internet applications, cloud and SaaS deployments, as well as adopt Web 2.0 and Web services?”

IBM Tivoli® Access Manager for e-business provides a centralized approach to authenticating and authorizing user access to Web and other applications that you host and helps address the key Web security and compliance needs. The single point of flexible authentication and



session management also makes it easy to enable policy-driven, advanced access controls for your applications, including smart cards, certificates, and multi-factor, risk- or step-up authentication.

Together, these capabilities can help organizations manage growth and complexity, control escalating application security management costs, and address the difficulties of implementing security policies across a wide range of Web and application resources.

Tivoli Access Manager for e-business integrates with online business applications out of the box to help you deliver highly secure, unified and personalized online business experiences.

The software's scalable reverse proxy acts as an identity firewall and the authentication, authorization and administration interfaces simplifies integration with common application platforms such as Microsoft® .NET, Java™ Platform, Enterprise Edition and C/C++ to help you secure access to business-critical applications and data spread across the extended enterprise.

Within an organization, you can use Tivoli Access Manager for e-business to provide Web-based SSO for your portal and other application environments. Your Tivoli Access Manager for e-business environment can also be the foundation for cross-domain authentication and secure collaboration with business partners when you incorporate Tivoli Federated Identity Manager, which uses Security Assurance Markup Language (SAML), OpenID, Liberty Alliance and Web Services Federation Language (WS-Federation) identity protocols to support consumer and B2C online portal initiatives.

### **Enjoy significant ease of use in a massively scalable solution**

To manage users and groups as well as the policies for their access to resources, Tivoli Access Manager for e-business offers a Web-based administration tool. Administrators can leverage the easy-to-use tool to delegate application management and security administration, where appropriate.

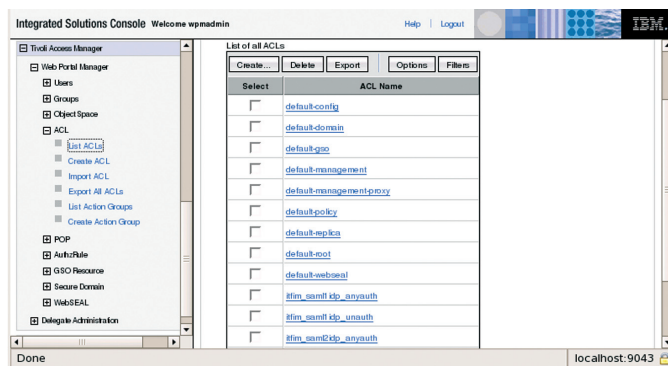
The centralized reverse-proxy based architecture and authentication services of Tivoli Access Manager for e-business can be provided to Java applications, ASP.NET applications and C/C++ applications to keep the programming model simple for enterprise-wide deployment. In addition to its Java services, The Open Group authorization APIs and .NET support, Tivoli Access Manager for e-business supports many open industry standards and common IT operational deployment requirements, including:

- Lightweight Directory Access Protocol (LDAP) for storing user and group information plus supported user directories such as IBM Tivoli Directory Server (included in the product license), Sun Java System Directory Server, Novell eDirectory, Microsoft Active Directory and IBM Lotus® Domino® Server. Added features include extended support for multi-domains and dynamic groups.
- Meta-directory implementations, including IBM Tivoli Directory Integrator, which is provided in the product license. Tivoli Directory Integrator helps synchronize user information across numerous registries, directories, databases and other repositories without adding yet another repository to your IT environment.
- X.509 V3 client certificates for strong authentication to Web-based resources. Many certificate providers, including VeriSign and Entrust are supported.
- Mutually authenticated and confidential component interactions through Secure Sockets Layer (SSL).
- Integration with existing identity management systems, such as Tivoli Identity Manager lets you import users and roles, synchronize passwords between the two products and enable cost savings through integrated user provisioning, with Web access management to enable IAM governance across all your security systems.
- Integration with Tivoli Security Information and Event Manager helps deliver a closed-loop access control, audit and compliance reporting solution.
- Integration with IBM WebSphere® DataPower SOA Appliances enables seamless SSO and user session management for Web 2.0 and Web Services environments.
- Upgrade to Tivoli Federated Identity Manager delivers federated SSO and B2C self care to expand user access to on- and off-premise applications, SaaS and cloud-based services.

## Implement policy-driven Web access management and enforcement

Tivoli Access Manager for e-business allows you to define a comprehensive Web access control policy and enforce security controls based on access control lists (ACLs)—giving your employees, partners, suppliers and end customers role-based access that's appropriate to each user's responsibilities. You can group users and assign permissions to groups, thereby simplifying administration of access control across multiple applications and resources.

Tivoli Access Manager for e-business provides both HTTP reverse proxy and Web server plug-in mechanisms to suit a broad variety of Web security infrastructures. The latest iteration of the reverse proxy provides unparalleled levels of transparency, performance and standard identity format-based junction support to help you achieve rapid deployment, simplify backend application integration and resulting time to value. Compared to the Web server plug-in approach, this highly secure, advanced reverse proxy model helps minimize overall hardware requirements, and reduce application development and maintenance costs.



*Tivoli Access Manager for e-business provides default access control policies to enable Web security and SSO across heterogeneous applications and enterprise-wide IT environments.*

## Improve Web security at the application level

In addition to providing robust security at the user level, Tivoli Access Manager for e-business addresses issues that are related specifically to securing applications against common threats and vulnerabilities. As organizations open their environments for user access to corporate and Internet applications, the need to secure access and improve Web security becomes paramount. The advanced Web security functionality can be critical as Web applications increasingly become high-value targets for security threats. The Tivoli Access Manager for e-business reverse proxy acts as an identity firewall to support secure deployments of Web applications and works with IBM Rational® AppScan to address your key application vulnerabilities. Rational AppScan assesses applications for common vulnerabilities such as cross-site scripting, cross-site forgery requests, broken authentication and session management, and failure to restrict URL access in which unauthorized commands are transmitted from Web sites that users trust. Such common Web vulnerabilities attempt to bypass user access controls. Tivoli Access Manager for e-business can help remediate these vulnerabilities once they are detected by creating a secure, persistent user-to-application tunnel and providing stronger authentication and session management support for suspected applications.

## Increase scalability and performance

To help you achieve highly scalable deployments, Tivoli Access Manager for e-business supports modular proxy-based implementation, integrates with commercial load balancers and performs intelligent load balancing over replicated servers. This solution is already deployed in many implementations that exceed tens of millions users and has been proven to scale to hundreds of millions of users. It also takes advantage of SSL accelerator card technology by securing hardware key-stores, and provides a failover capability that allows automatic switchover to backup Web servers. To further enhance scalability, configurable administrative domains make

it possible to support multiple instances of the reverse proxy components (WebSEAL) on a single directory/LDAP server. It also provides ease of replication across deployment lifecycle and configuring clustering support across multiple WebSEAL instances. The latest release improves performance with combined TCP and SSL junctions and maintains a persistent application connection for enhanced Web protection.

Furthermore, the software helps you deliver enhanced session management to keep track of what a user is doing—even across multiple concurrent sessions. When users log out once, the software can log them out everywhere to avoid concurrent logons. The software can also enforce your policies about inactivity timeouts, three-strikes rules and other options across multiple enforcement points.

Tivoli Access Manager for e-business includes a centralized session management service that can improve performance in several ways:

- The number of sessions users create can be limited on a policy basis, so that new login requests will be blocked once the maximum number has been reached.
- A dynamic configuration feature eliminates session management server restarts.
- High availability is built in by allowing multiple session management server instances via WebSphere Application Server Network Deployment.

### **Deliver highly secure, unified user experiences**

IBM works with leading application providers through its “Ready for Tivoli” program to offer and maintain out-of-the-box integration with third-party software solutions. With authentication and access control services for online business and enterprise applications and resources, you can secure customer, supplier, employee and partner connectivity across:

- Web servers.
- Directory services.
- J2EE-based application servers, such as IBM WebSphere Application Server, Oracle WebLogic Server, JBoss and Oracle Application Server.

- XML firewalls and gateways.
- A growing list of industry-leading Web applications:
  - Apache Tomcat
  - IBM Cognos® Business Intelligence
  - IBM Content Manager
  - IBM FileNet® P8 Platform
  - IBM Lotus Domino
  - CA eTrust Directory
  - EMC Documentum eRoom
  - IBM Lotus Sametime®
  - Microsoft .NET
  - Microsoft Exchange
  - Microsoft Internet Information Server
  - Microsoft Office Communications Server
  - Microsoft SharePoint
  - Oracle Database
  - Oracle eBusiness Suite
  - Oracle Internet Directory
  - Oracle PeopleSoft
  - SAP Netweaver ABAP
  - SAP Netweaver Java
  - SAP Internet Transaction Server (ITS)
  - Siebel

Tivoli Access Manager for e-business accommodates a broad range of possible user authentication mechanisms, including user IDs and passwords, client-side certificates, risk-based authentication with soft certificates, all-in-one tokens, biometrics, mobile and wireless identities, PKI-USB tokens and smart cards for physical and network access.

The software can also designate the authentication levels required for access to protected resources and enforce a “step-up” policy when users must provide the next level of authentication.

The authentication mechanism is completely configurable. It can also be extended internally through “C” shared libraries. Plus, an external authentication interface (EAI) allows strong authentication requests to be offloaded to an external server

through an easy-to-use HTTP interface, thereby accommodating Web applications written in any language. You can use this feature to enable:

- Interaction with the user during multi-factor authentication request.
- Authentication checking against multiple user repositories (directory chaining).
- Separation of policy and user repositories.
- Many other types of external, third-party strong authentication integration, including risk and adaptive solutions.

Through the Ready for Tivoli program, IBM offers flexible, strong authentication integration with numerous vendors.

For more details, visit [ibm.com/tivoli/features/opal](http://ibm.com/tivoli/features/opal)

Tivoli Access Manager for e-business helps you deliver a consistent and secure user experience by having end users use a single identity to gain access to resources—according to your authorization rules. With support for Simple and Protected GSSAPI Negotiation Mechanism (SPNEGO) protocol, users need to log on only once to the desktop and access multiple Web resources.

To accommodate seamless, single sign-on between Microsoft Windows® desktops and back-end applications, this capability also extends to .NET applications such as Microsoft SharePoint and Exchange servers. To further simplify user login, Tivoli Access Manager for e-business scales seamlessly to expand Web access control to Business to Consumer (B2C) deployments and securely enable access to your online portal and business initiatives.

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### Tivoli Access Manager for e-business at a glance

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The Tivoli Access Manager for e-business is a highly scalable reverse proxy-based solution that delivers an enterprise-wide, application security management offering for Web SSO, user authentication and authorization to support any HTTP-compliant application regardless of the platform on which it runs. The access management software also provides plug-ins for the most popular Web server platforms.

The Tivoli Access Manager for e-business reverse proxy component (WebSEAL) and infrastructure can run on the following platforms:<sup>1</sup>

- IBM AIX® 5.2, 5.3, and 6.1
- Sun Solaris 9, 10 on Sun SPARC and Sun Solaris 10 on Opteron
- Microsoft Windows 2003, 2008, and 2008 R2 Standard Server and Enterprise Server
- HP-UX 11i V2 and V3 on PA-RISC and Integrity
- SUSE Linux® Enterprise Server 9, 10, and 11 for x86, IBM System i®, IBM System p® and IBM System z®
- Red Hat Enterprise Linux Advanced Server and Enterprise Server 4.0 and 5.0 for x86, System i, System p and System z

Tivoli Access Manager for e-business works with Mozilla Firefox and Microsoft Internet Explorer browsers, as well as pervasive devices that support the Wireless Application Protocol or i-mode protocol.

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<sup>1</sup> The product documentation and release notes can be found in the IBM Tivoli Product Information Center: <http://publib.boulder.ibm.com/infocenter/tivihelp/v2r1/index.jsp?toc=/com.ibm.itame.doc/toc.xml>  
IBM customers can view the latest platform support matrix at [ibm.com/software/sysmgmt/products/support/Tivoli\\_Supported\\_Platforms.html](http://ibm.com/software/sysmgmt/products/support/Tivoli_Supported_Platforms.html)

## For more information

To learn more about IBM Tivoli Access Manager for e-business, please contact your IBM marketing representative or IBM Business Partner, or visit the following Web site:

[ibm.com/tivoli/security](http://ibm.com/tivoli/security)

## About Tivoli software from IBM

Tivoli software from IBM helps organizations efficiently and effectively manage IT resources, tasks and processes to meet ever-shifting business requirements and deliver flexible and responsive IT service management, while helping to reduce costs. The Tivoli portfolio spans software for security, compliance, storage, performance, availability, configuration, operations and IT lifecycle management, and is backed by world-class IBM services, support and research.



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