

# CA SiteMinder SSO Agents for ERP Systems

CA SiteMinder SSO Agents for ERP Systems help organizations minimize sign-on requirements and increase security for these key applications by extending the SiteMinder enabled Web access management infrastructure to include these Web-enabled enterprise systems.

## Business Value

ERP applications are an important part of the IT infrastructure at many large organizations. Over the years these applications have become Web enabled and represent key business applications for employees, and in some cases, for partners and customers. Integrating these applications with the organization's Web access management solution saves time and money while increasing security. A comprehensive approach to single sign-on should include all Web applications, including ERP solutions.

## Product Overview

CA SiteMinder SSO Agents extend the access management and single sign-on functionality to cover ERP systems, driving the following benefits:

- Improved user experience and efficiency across the entire set of enterprise Web applications
- Higher security by enabling a variety of authentication methods
- Efficient access log collection and reporting
- Reduced risk of session hijacking due to session synchronization

## The CA Advantage

CA SiteMinder and its SSO Agents deliver unparalleled reliability, availability, scalability and manageability. The de facto gold standard for enterprise-class web access management, CA SiteMinder is also a key part of the CA Secure Web Business Enablement solution, which automates the administration of Web user identities and ensures that only properly authorized users can access critical Web applications, portals, and services.

## The Increasing Need for a Comprehensive Web Access Management Solution

ERP solutions were originally deployed as client/server-based, applications, but in recent years ERP vendors have developed Web-based front ends to ease the delivery of these applications to users. Like any other standalone application, these systems came with their own security systems requiring a separate log-on process. While most ERP systems do provide single sign-on (SSO) capabilities between the individual ERP components, they do not integrate access security with other Web-based applications throughout the organization. As organizations have moved to a Web-based delivery approach for the majority of their applications, the need to extend SSO across the entire enterprise has become increasingly important. In addition, organizations are also seeking to standardize and centralize specific aspects of their IT infrastructure, including security management. These factors result in a strong desire to have a single Web access management system that can provide a centralized authentication, authorization, auditing, and SSO experience across all Web enabled applications.

### CA SiteMinder SSO Agents

To meet these challenges CA offers SiteMinder agents that provide the required integration between CA SiteMinder and each of the following ERP solutions:

- SAP
- Siebel
- Oracle
- PeopleSoft

These agents provide an access management connection between CA SiteMinder and the ERP solutions, enabling centrally administered single sign-on between your organization's Web applications and your Web-enabled ERP applications. Additionally, CA SiteMinder allows you to use a variety of authentication methods to further protect your sensitive applications and data. It also provides session synchronization and detailed auditing/reporting. CA Federation Manager and SOA Security Manager are available to further extend the secure single sign-on experience to trusted partners and services as necessary. This combined solution removes technical hurdles to provide a secure and efficient Web access management solution that scales to cover the most complex environments, including ERP systems.

### Key Capabilities

CA SiteMinder Single Sign-On Agents for ERP Solutions provide customers the following capabilities:

**SINGLE SIGN-ON** Extends SiteMinder single sign-on from protected Web applications and portals to ERP systems

**AUTHENTICATION MANAGEMENT** Supports a multitude of authentication methods including passwords, digital certificates, smart cards, one-time-passwords, biometrics and more, thus enabling the matching of stronger authentication to application and data sensitivity

**ENHANCED SECURITY** Advanced Tier 2 integration moves the point of trust from the web server which is typically in the DMZ, to the enterprise application server

**SESSION SYNCHRONIZATION** SiteMinder and enterprise application sessions are linked. When the SiteMinder session ends, the corresponding enterprise application session is no longer available thus reducing the risk of "session hijacking."

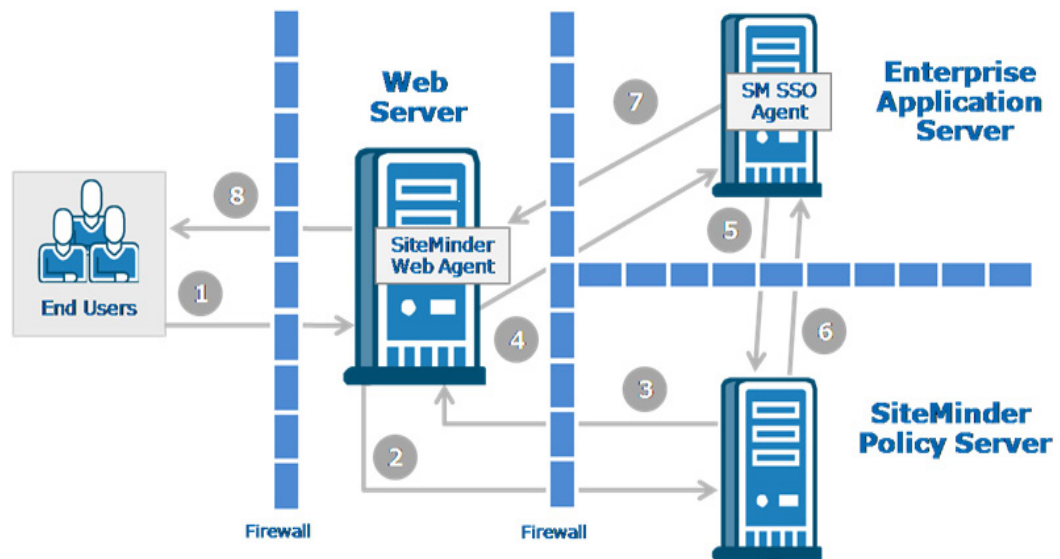


Figure A: CA SiteMinder SSO Agents extend access management and single sign-on coverage to include ERP systems ARCHITECTURAL DIAGRAM.

**TYPICAL PROCESS FLOW:\***

1. A user attempts to access an ERP application
2. The SiteMinder Agent on the Web Server forwards the request to the SiteMinder Policy Server
3. The Policy Server verifies access and returns the ERP Username to the Web Agent
4. The Web Agent passes the user security (SiteMinder session) information to ERP Server
5. The SiteMinder SSO Agent passes the SiteMinder session information to the Policy Server for verification
6. The Policy Server returns the result to the SSO Agent and ERP Security Interface
7. The ERP Security Interface returns the results to the SiteMinder Web Agent
8. The SiteMinder Web Agent allows the appropriate access to the application

\*This is a general overview, there are unique elements in each ERP access management scenario.

## Benefits of CA SiteMinder SSO Agents

**INCREASED SECURITY** Although many security products can integrate with ERP systems, most of them only have Tier 1 integration which is not fully secure. Tier 1 integration refers to the case where the security product passes on the authentication information sent by the user directly to the enterprise application to log in the user and create a session. Tier 1 integration is the minimum requirement to provide SSO. In this case the ERP application fully trusts the information sent from the web server and does no further verification. Therefore the point of trust is the web server, which can reside in the DMZ and is more susceptible to attack. This approach is weak and can thus have significant security and/or auditing consequences.

The SiteMinder Single Sign-On Agents for ERP Solutions provide Tier 2 integration allowing The ERP system to verify that the session information passed to it was in fact sent by SiteMinder rather than an attacker. This capability is critical to ensure that internal users are not attempting to compromise the application. With Tier 2 integration, the point of trust is the ERP server and the SiteMinder Policy Server, neither of which reside in the DMZ. With SiteMinder, users can be authenticated at the main application site when they first login and then move seamlessly to any ERP application without being prompted for credentials. The ERP application can provide the presentation mechanism for the users, but SiteMinder assumes the responsibility for authenticating the users. Because SiteMinder can natively integrate with most user directories and/or databases, there is no need to store user credentials in multiple locations.

**SESSION PROTECTION** When a user authenticates, SiteMinder assigns a unique session identifier to that user's session. This session identifier remains constant for that user for the life of the session. Logging off does not actually release this session identifier; instead, it deletes the session cookie that SiteMinder uses to track the session identifier. ERP systems maintain session identifiers using cookies in a similar way to SiteMinder. Cookies used in this manner are typically safe but there is one case where they can present a security hole. This hole is called a replay attack and occurs when a cookie is stolen from one machine and presented by another for nefarious purposes. This allows another user to "take over" the original user's authenticated session. The SiteMinder Single Sign-On Agents for ERP Solutions address this problem by taking the ERP session ticket and associating it with a SiteMinder session cookie. Once associated, the ERP session ticket can only be used by that particular SiteMinder session. Attempts to use the same ERP session cookie will be denied as the associated SiteMinder cookie will no longer be valid.

**REDUCED INTEGRATION COSTS** CA created the SiteMinder SSO Agents for ERP solutions to eliminate the need for customers to build custom integrations with the leading ERP solutions.

**LOWER COST THROUGH SINGLE SIGN-ON** With SiteMinder and a SSO agent, users sign-on to a website or portal once and gain access to all relevant applications and data as defined by their user privileges. Single sign-on provides access to content residing on multiple applications which run on multiple servers, multiple platforms, and across multiple Internet domains. This benefits end-users by providing them with a high-quality user experience that is personalized to their needs and entitlements. The centralized security approach also minimizes the likelihood of a security breach by limiting the number of authentication points.

**SAVINGS REALIZED BY LEVERAGING EXISTING INFRASTRUCTURE** SiteMinder SSO Agents work with several versions of each ERP solution and support a large number of platforms currently used by IT organizations, as well as new, emerging technologies. They support a wide range of operating systems including multiple versions of Windows, AIX, HP-UX, Solaris, Red Hat and SUSE Linux. Common versions of web servers are also supported including IIS, Sun ONE and Apache. This simplifies the adoption and deployment of agents into existing IT environments.

## Conclusion

SiteMinder and SSO agents enable ERP customers to extend SSO to more of their critical Web applications. SiteMinder SSO is delivered across multiple platforms, applications and Internet domains while providing enhanced security, a richer user experience, and more cost-effective user support. The integration between SiteMinder and these enterprise applications provides a second level of trust behind the DMZ on the corporate internal network. CA SiteMinder two-tier authentication is critical for such sensitive enterprise applications. This ability to provide a two-tier authentication model differentiates the SiteMinder authentication and authorization management solution from alternative solutions.

## Why CA?

CA SiteMinder SSO Agents are part of the complete and proven SiteMinder product family, which is the core of the larger Secure Web Business Enablement solution area. CA's comprehensive, integrated, and modular solutions for Secure Web Business Enablement also include CA Federation Manager and CA SOA Security Manager. Deployed separately, the individual CA products can address specific problems or help organizations achieve specific goals related to security management. But deployed together, they provide a comprehensive, unified solution that creates a new level of security and flexibility.

These products are all part of a larger Identity and Access Management (IAM) solution from CA that helps you protect your IT assets across all platforms and environments. As such, it contributes to the goal of lean IT by enhancing your ability to optimize the performance, reliability and efficiency of your overall IT infrastructure. CA's comprehensive portfolio of modular IT management solutions helps the enterprise unify, simplify and secure IT to better manage risk, costs and service, and ensure that IT meets the business needs of the enterprise.

To learn more, and see how CA software solutions enable organizations to unify and simplify IT management for better business results, visit <http://www.ca.com/us/web-access-management.aspx>.

