Global construction and engineering firm saves big on implementation costs and takes on more US Federal Government contracts with Pythian's custom Single Sign-On for Oracle E-Business Suite

Industry
Engineering & Construction

Location(s)
Boston, Massachusetts

Technologies
- Oracle E-Business Suite
- Oracle E-Business Suite AccessGate
- Oracle Cloud Infrastructure
- Apache HTTP Server
- Azure Active Directory
- Azure Active Directory Federation Services
- Azure Single Sign-On
- Security Assertion Markup Language
- Multi-Factor Authentication

Overview
A global engineering company that works extensively with the US Federal Government contracts needed its Oracle E-Business Suite applications to comply with NIST SP 800-171 Cybersecurity Guidelines. This regulation required the firm to implement multi-factor authentication (MFA) and single sign-on (SSO) for its existing Oracle E-Business Suite (EBS) systems.

When off-the-shelf solutions exceeded the firm's budget, Pythian designed an affordable Oracle EBS SSO solution fully compliant with government regulations. It was integrated into the firm's existing EBS system in three months, customized to its unique needs, and saved the client 20x to 200x more than alternative solutions. As a result, the organization can now take on more US Federal Government contracts and has experienced increased employee satisfaction with an elegant solution for SSO and MFA.

Designed and deployed in three months, Pythian's custom Single Sign-On and Multi-Factor Authentication solution for E-Business Suite saved six to seven figures

Single sign-on (SSO), multi-factor authentication (MFA), and identity access management tools are essential in an era of remote work and rapidly increasing security threats. But for organizations using Oracle E-Business Suite (EBS), implementing SSO can be an expensive proposition outside their budget.

That was the case for a global construction and engineering company that has conducted tens of thousands of customer projects in more than 150 countries. The firm's 5,000-strong user base relies on EBS integrated with Oracle iProcurement for many business applications, including employee time sheets and procurement processing. The client's Oracle EBS 12.2 system included a 12cR1 database hosted on Oracle Cloud Infrastructure (OCI), a single node database, a multi-node internal app, and a demilitarized zone (DMZ) node service for Oracle Time and Labor and iProcurement. iProcurement enables streamlined employee ordering and compliance with purchasing policies associated with procurement.

To be legally eligible for U.S. Federal Government contracts, the firm needed to demonstrate its adherence to NIST SP 800-171 Cybersecurity Guidelines for controlled unclassified information (CUI), which require both SSO and MFA. Although CUI isn't classified, it is sensitive data that must still be secured—especially when distributed workforces and remote contractors are involved.

The company researched several solutions for SSO and MFA that formed a bridge with Azure Active Directory Federation Services (ADFS), but each was too cost-prohibitive. Vendors quoted packages upwards of $1M per year, including Oracle's official SSO solution for EBS.

Pythian

The company needed to introduce SSO and MFA into its Oracle EBS platform to remain compliant and secure its data, especially related to employee timesheets and Oracle iProcurement. However, it required an affordable option to stay competitive in the market.

Integrating SSO with Azure Active Directory Federation Services using SAML

After reviewing off-the-shelf options supported by Oracle—including the Oracle Identity and Access Management Suite and Oracle Identity Cloud Service—the firm saw a live demo of Pythian's custom SSO solution for EBS. It decided to pursue this custom solution that met its needs and included an aggressive timeline—at an affordable cost.

In three months, Pythian's Oracle experts could implement SSO with Azure ADFS using Security Assertion Markup Language (SAML) authentication and an MFA sign-on page. This included:

- Reverse proxy implementation with a SAML integration with Azure ADFS.

- Deployment of Oracle E-Business Suite AccessGate and enablement of SSO for DMZ node service for Oracle Time and Labor and iProcurement.

- Documentation and optimization of the delivered solution.

- Review of the current cloning and disaster recovery (DR) documentation and process, with suggestions to support the new SSO component.

- Knowledge transfer sessions with the client to ensure efficient support for new integrations.

- 24-7, on-demand post-implementation support during stabilization (1-2 weeks).

Helping our client to get compliant and win government business

Working with an aggressive deadline and modest budget, Pythian's experts designed and deployed this custom SSO and MFA solution in three months. Pythian implemented the solution **for 20x less than the most affordable alternative solution—and 200x less than the most expensive**—with minimal disruption and limited technology investment.

As a result, the client achieved fully compliant SSO and MFA for E-Business Suite for less cost than the alternatives in a low-friction implementation.

Pythian's custom SSO solution for EBS can be implemented on-premises or in the cloud, with a raw operational cost of less than $3,000 per year. There are no additional licensing costs, and it supports federation services, so it can easily be integrated with Azure SSO.

The client is now:

- Compliant with NIST SP 800-171 Cybersecurity Guidelines for controlled unclassified information (CUI) when using internal or external resources to service US Federal Government contracts. The customer can now pursue and accept more work with the US Federal Government.

- Enforcing strong identity controls for all employees and contractors within a single, united, and secure solution (as opposed to three separate solutions).

- Improving employee and contractor productivity with an easy-to-use and low-friction solution, leading to higher employee satisfaction and better business performance. Employees can easily log in thanks to a well-integrated SSO and MFA sign-in process.

The client has now engaged Pythian on additional Oracle projects thanks to the success of our custom SSO and MFA solution for EBS.

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