

Enterprise Security Framework

Client

One of the world's leading financial services providers. The company's areas in focus: investment management, investment research and exchange trading, custodial services.

Challenges

Client has Security Project Services (SPS) which is a legacy system to manage the provisioning or de-provisioning of users accounts to various platforms and business applications of the corporate infrastructure. To achieve the purpose of provisioning or de-provisioning, SPS contains the business applications like Security Administration Manager(SAM).Tivoli Identity Manager(TIM), Client Identification Manager (CID) and Central Data Repository (CDR).End user raises the user account request using SAM or CID,Administrator uses TIM or respective platform to provision or de-provision the user account. These transactions are recorded in CDR. Client has come up with a new initiative of replacing this legacy system with improvised architecture of Identity Access Management called Enterprise Security Framework (eSF).
Main organisational challenges were to jump in to the project

along with a few other teams all over the world and organize good working process of continuous integration of our work results and arrange communications with other distributed teams.

Solution

Together with other distributed teams, we developed centralized authorization system that controls the behavior of multiple applications including integration with cloud-based and local applications. Team participated in building and deployment re-certification and bulk provisioning processes based on business requirements.

We've been using the following technologies to provide customer with required functionality:

- Oracle 10g/11g databases are our primary databases.
- PL/SQL is for business logic implementation in stored procedures and data validation via scripts.
- B-tree, bitmap, function-based indexes creation depending on execution plan analysis, etc.
- JavaScript/Ext JS (2-4) technology for GUI front-end. React JS at the latest release.
- Custom multi-threaded Java engines for eSF business tables data load.
- Custom LDAP integration engine for replication data from external system.
- The system provides users with Jasper-based reports generating on demand.

Result

Our team has been developing and supporting Enterprise Security Framework for corporate data access since 2008. Multiple, independent systems and processes were streamlined into a single, one-stop, self-service tool that can be used by employees and management to both facilitate the request process and to generate more timely, consistent and auditable results. Currently, we are in the third major release.

Tools and environment:

Java SE/EE, JSP/Servlets, Spring Security, Spring/MVC, Hibernate/JPA, Junit, JavaScript, React JS, Ext JS, XML/XSLT /XPath, Web/REST Services, Oracle PL/SQL, Oracle 10g/11g, Eclipse, Tortoise SVN