ORACLE DATA SHEET

Oracle Database Vault

Oracle Database 18c

18c ORACLE Database

Oracle Database Vault provides powerful security controls to help protect application data from unauthorized access, and implement separation of duties between database administrators and data owners to comply with privacy and regulatory requirements. Controls can be deployed to block privileged account access to application data and control sensitive operations inside the database using authorized trusted path. Security of existing applications can be increased with automated analysis of privileges and roles used. Oracle Database Vault secures existing database environments transparently, eliminating costly and time consuming application changes.

KEY FEATURES AND BENEFITS

- Implement preventive controls to block privileged users and DBAs from accessing sensitive data in the databases
- Enforce operational controls inside the database to lock down the configuration from potential threats and prevent audit findings
- Seal off highly sensitive application objects during maintenance periods and in response to cyber threats
- Identify used and unused privileges and roles with Privilege Analysis to reduce the attack surface
- Quickly verify security controls using simulation mode to test custom and packaged applications.
- Save time and secure environments with application-specific protection policies for enterprise applications including Fusion Applications, E-Business Suite, PeopleSoft, Siebel, and SAP

Controls for Privileged Accounts

Privileged database accounts are one of the most commonly used pathways for gaining access to sensitive data. While their broad and unrestricted access facilitates database maintenance, the same access also creates a point of attack for gaining access to large amounts of data. Oracle Database Vault Realms defined around application schemas, tables and stored procedures provide controls to prevent privileged accounts from being exploited by malicious users to access sensitive data. Various out-of-the-box factors such as IP address, authentication method, and program name help implement trusted path authorization to deter attacks leveraging stolen passwords.

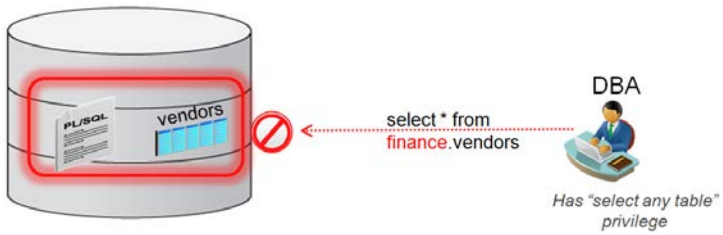

Figure 1. Oracle Database Vault Realms block access from privileged accounts

Controls for Database Configuration

Among the most common audit findings are unauthorized changes to database entitlements, including grants of the DBA role, as well as new accounts and database objects. Preventing unauthorized changes to production environments is important not only for security, but also for compliance as these changes can weaken security and open doors to hackers, violating privacy and compliance regulations. Oracle Database Vault Command Rules allow customers to control operations inside the database, including commands such as create table, truncate table, and create user. These controls prevent accidental configuration changes and also prevent hackers and malicious insiders from tampering with and making application changes.

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RELATED PRODUCTS

Oracle Database 18c Defense-in-Depth Security Solutions:

- Oracle Advanced Security
- Oracle Key Vault
- Oracle Data Masking and Subsetting
- Oracle Label Security
- Oracle Audit Vault and Database Firewall

Separation of Duty

Oracle Database Vault provides three distinct separation of duty controls out-of-the-box for security administration, account management, and day-to-day database administration activities. Oracle Database Vault separation of duty controls can be customized and organizations with limited resources can assign multiple Oracle Database Vault responsibilities to the same administrator.

Run-time Privilege Analysis for Users and Applications

Privilege Analysis helps increase the security of applications by identifying the actual privileges and roles used at run-time. The additional unused roles and privileges can then be audited or revoked by the administrators to reduce the attack surface and implement a least privilege model for shared application accounts and database users. Privilege analysis can also be applied to administrators to help limit the roles and privileges they are granted in order to fulfill their responsibilities.

Enterprise Applications Protection Policies

Application-specific Oracle Database Vault protection policies are available for major enterprise applications including Oracle Fusion Applications, Oracle E-Business Suit, Oracle PeopleSoft, Oracle Siebel, Oracle Financial Services (i-Flex), Oracle Primavera, SAP, and Finacle from Infosys.

Customer applications can be swiftly validated with Database Vault security controls using simulation mode. Simulation mode captures security violations instead of enforcing them, allowing a single regression test to capture the required security changes. Simulation mode allows customers to quickly deploy new controls into production without compromising existing security.

Manageability

Oracle Database Vault is built into Oracle Database 18c and can be enabled easily. Oracle Database Vault administration is fully integrated with Oracle Enterprise Manager Cloud Control, providing Security Administrators with a streamlined and centralized interface to manage Oracle Database Vault. Security responsibility can be delegated to domain security experts.

Controls for Consolidation and Cloud Environments

Consolidation and cloud environments reduce cost but potentially expose large amounts of sensitive application data to those without a true need-to-know. Data from one country may be hosted in an entirely different country, but access to that data must be restricted based on regulations of the country to which the data belongs. Oracle Database Vault controls provide increased security for these environments by preventing database administrators from accessing the applications data. In addition, controls can be used to help block application bypass and enforce a trusted-path from the application tier to the application data.

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