

ORACLE®




Improving Enterprise Security with Inside Out Approach

Kenneth Hee
Identity Management & Security

Oracle Security Solutions





The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.



ORACLE®

\$7B FRAUD

Société
Générale

12M Credit Cards
STOLEN

Sony

6M Passwords
STOLEN

LinkedIn

ORACLE



\$1 TRILLION
total loss from **CYBERCRIME**

\$7B FRAUD

Société
Générale

12M Credit Cards
STOLEN

LinkedIn

son

ORACLE

3. Financial Loss

2. Regulatory Fines

1. Brand Decline

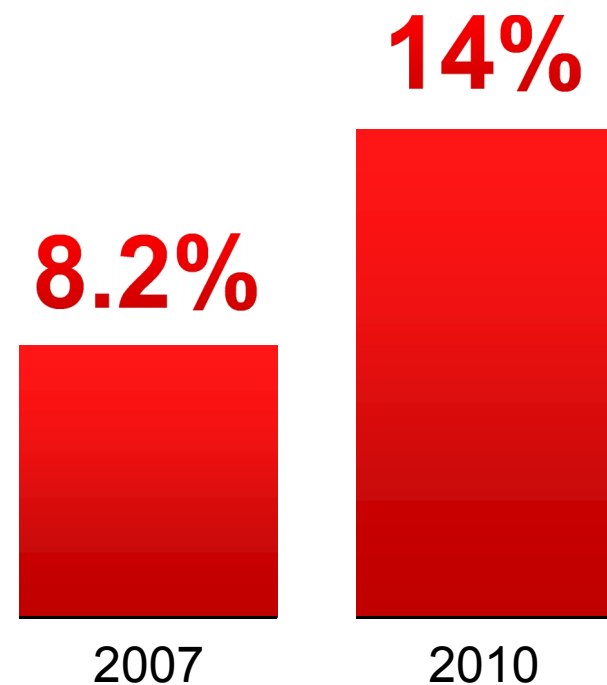
97% PREVENTABLE



ORACLE

IT SECURITY response
has been **reactive**,
shifted attention **away**
from apps and data

IT Budget on Security





\$400 — \$500

average cost of security
PER EMPLOYEE

- Endpoint Security
- Vulnerability Man
- Network Security
- Email Security

88%
breached
hardened
response
web server
credentials

32% hacking involved stolen credentials

80% breached records from web/app servers

96% breached records from db servers

CORE

5% from privilege misuse

94% attacks against servers

3% breaches against off line data

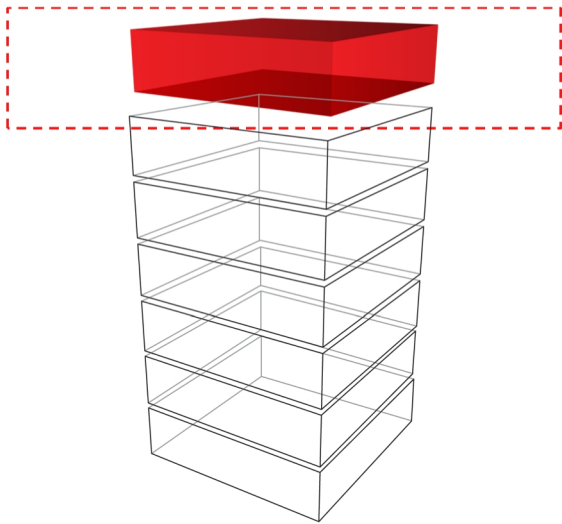
5% breaches against file servers

ORACLE

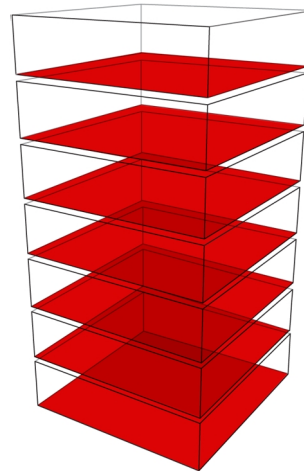
Start Inside

Security at every layer & between systems

Security at Each Layer



Security Between Layers



Security Between Systems



Services & Consulting

ORACLE

Focus On The Core Systems

Focus on four areas

The Experience



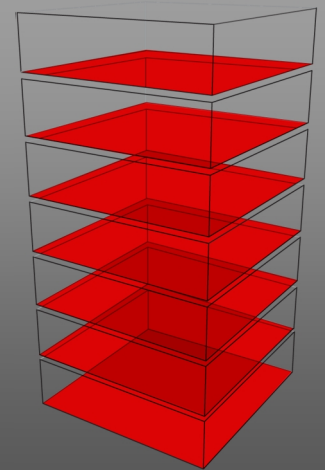
The Applications



The Cloud



The Data Center



ORACLE

- **Secure information
THROUGHOUT
ITS LIFECYCLE**
- **Move controls
CLOSER TO THE
SYSTEMS THEY
PROTECT**



An Inside Out Approach

Protect information where it resides throughout its lifecycle

Unstructured
Data & OS

- Encryption
- VM Isolation
- Encrypted Backup
- Access Control
- Monitoring

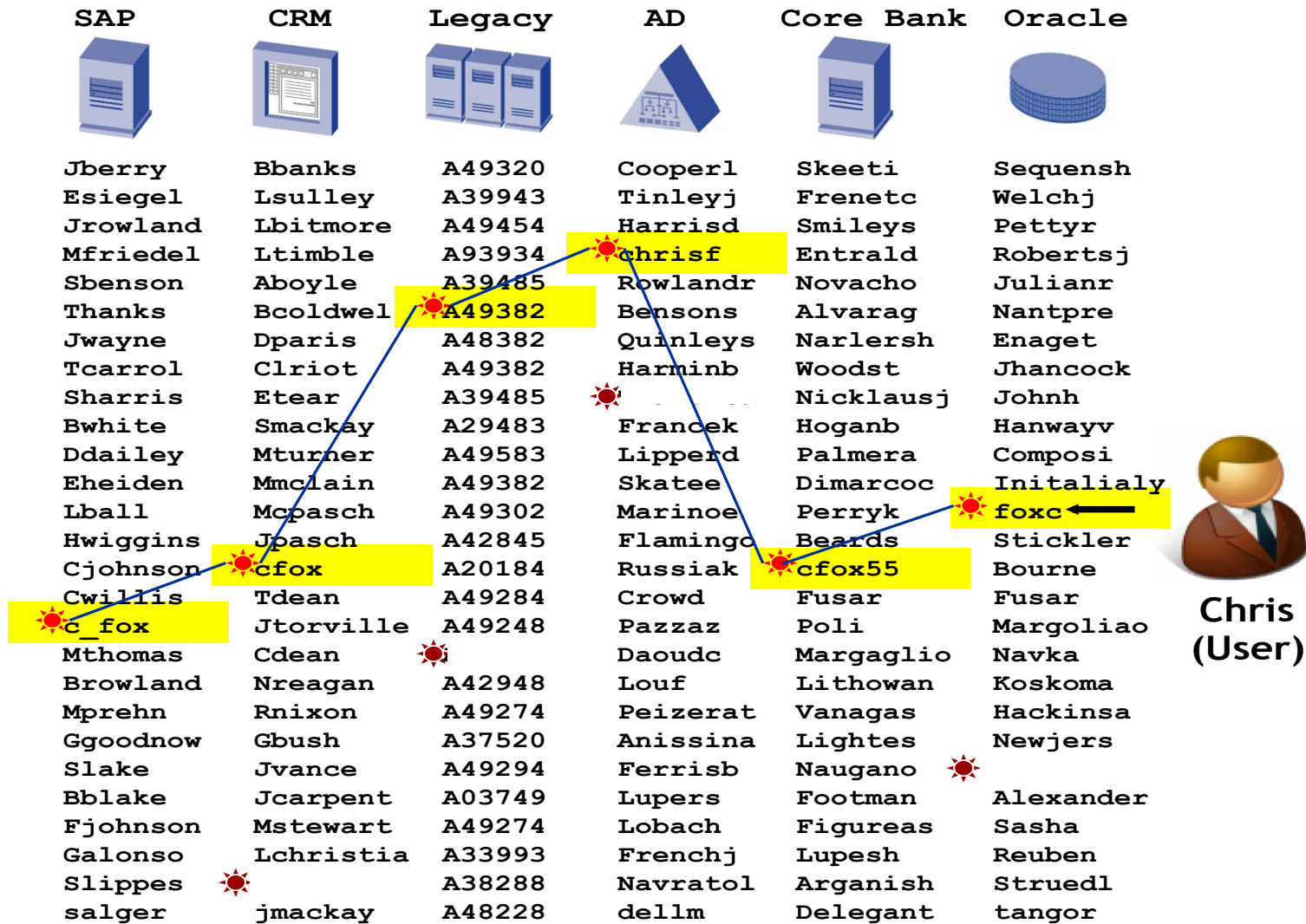
Structured
Data

- Firewall
- Encryption
- Masking
- Audit & Monitor
- Secure Backup
- Access Control

Applications
Portals

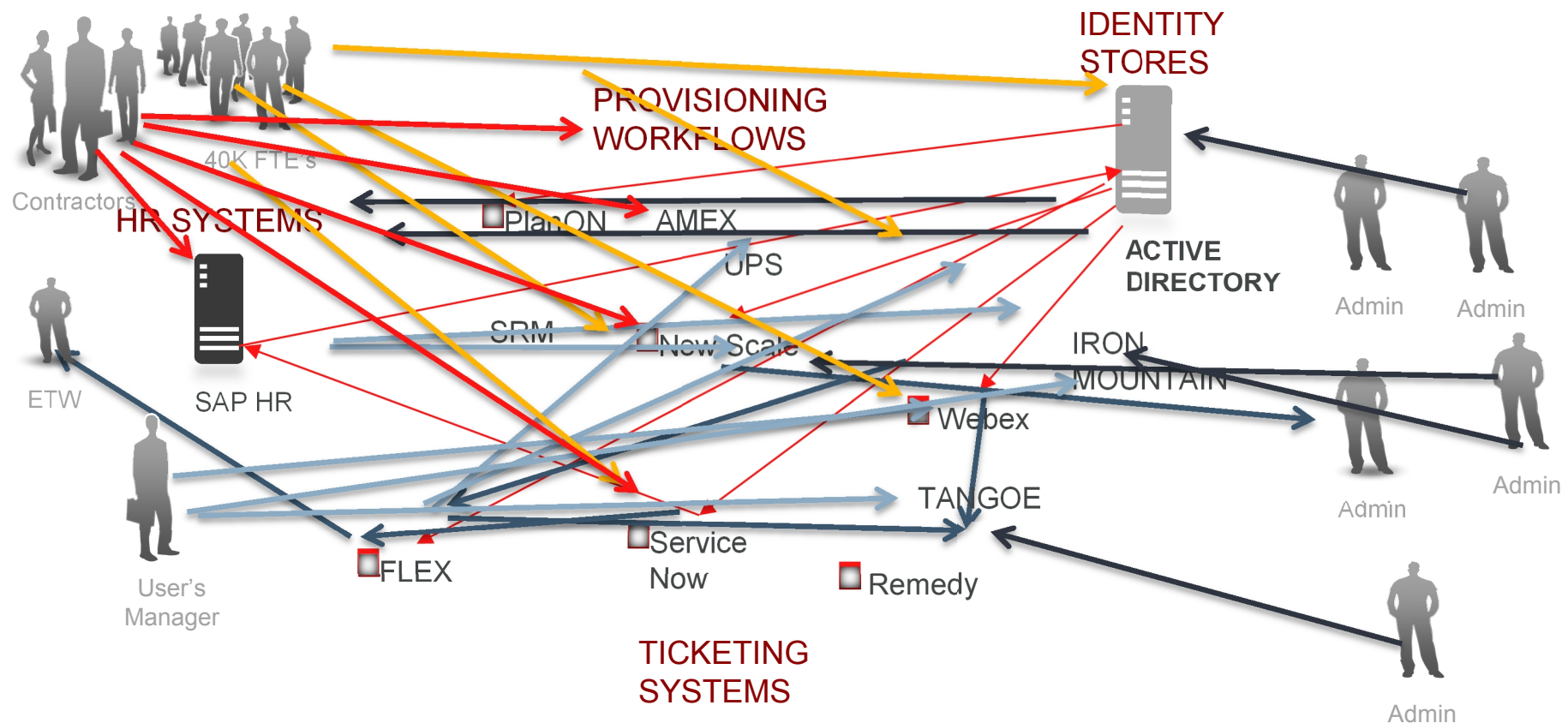
- Application Access Control
- Governance & Compliance
- Fraud Detection
- SOA Security
- Document Security

ORACLE



ON-BOARDING EXAMPLE

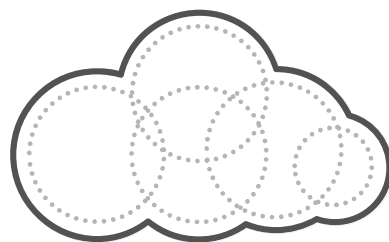
FRAGMENTED, MANUAL, COMPLEX AND UN-AUDITABLE



ORACLE



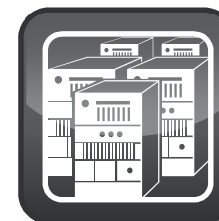
SECURE THE
ACCESS



SECURE THE
CLOUD

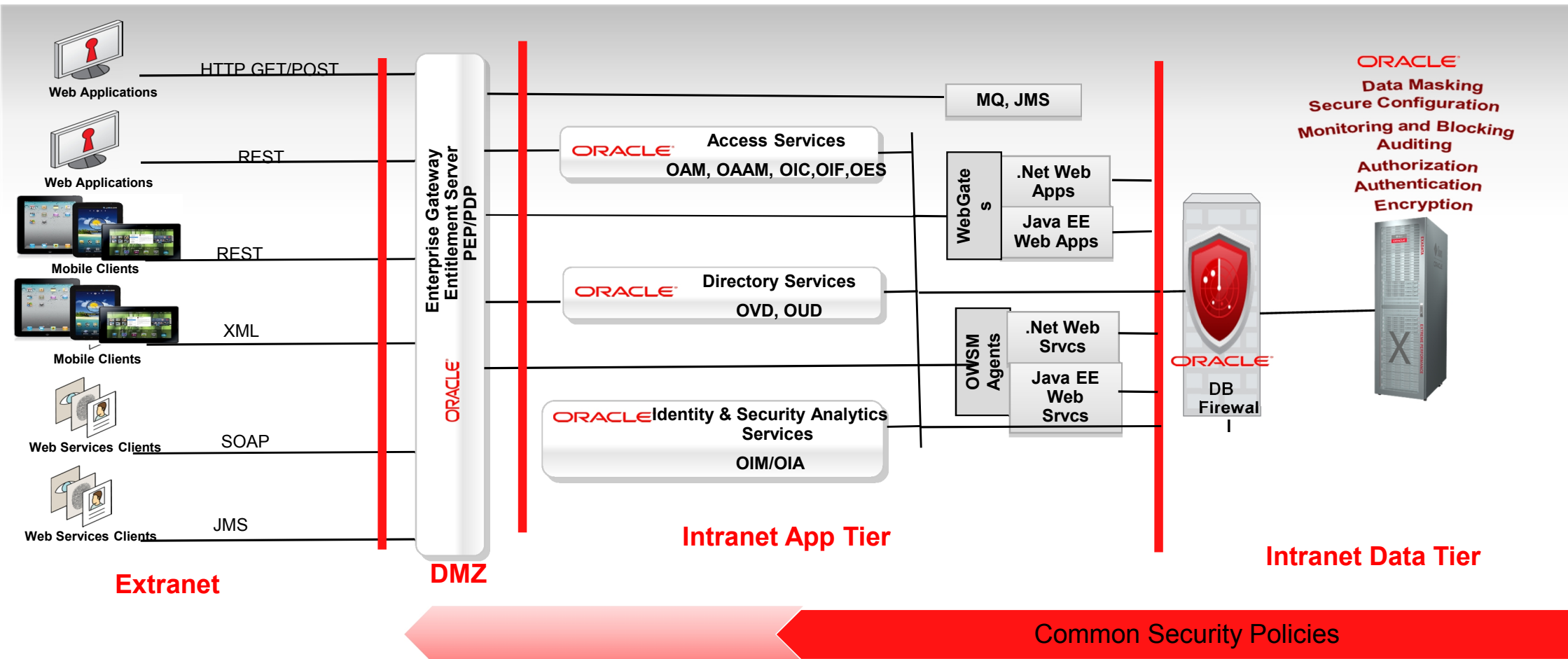


SECURE THE
APPLICATIONS



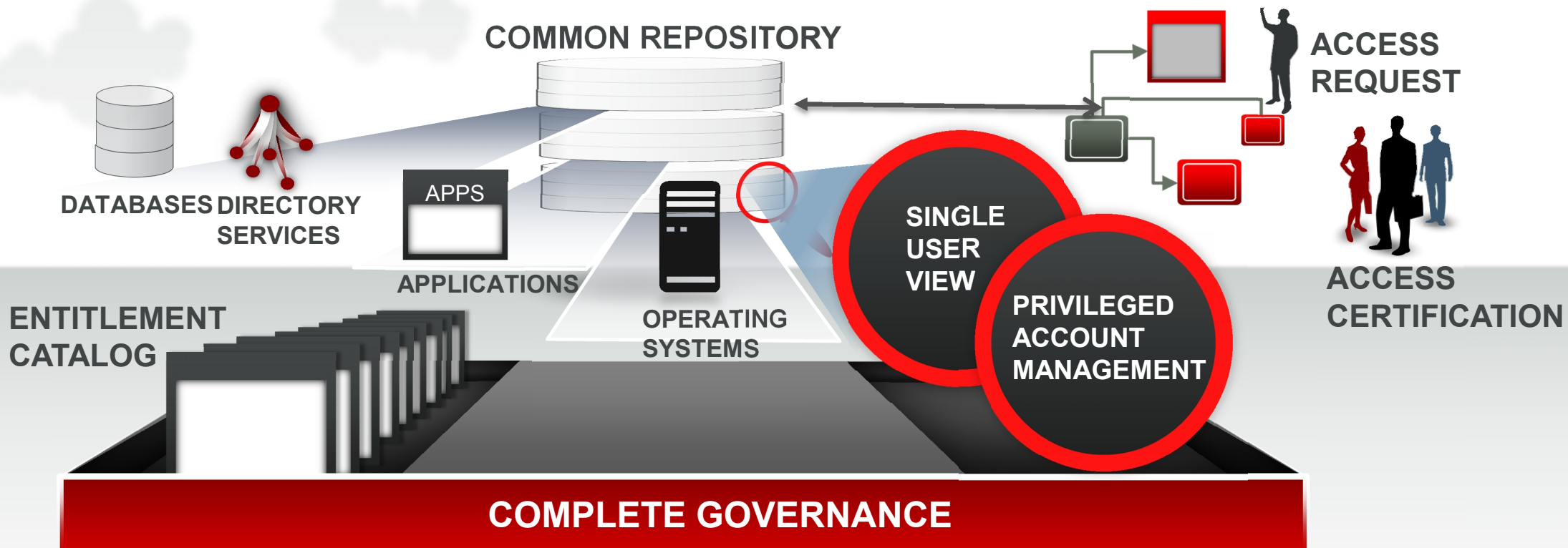
SECURE THE
DATABASE

End to End Security Architecture from Inside Out



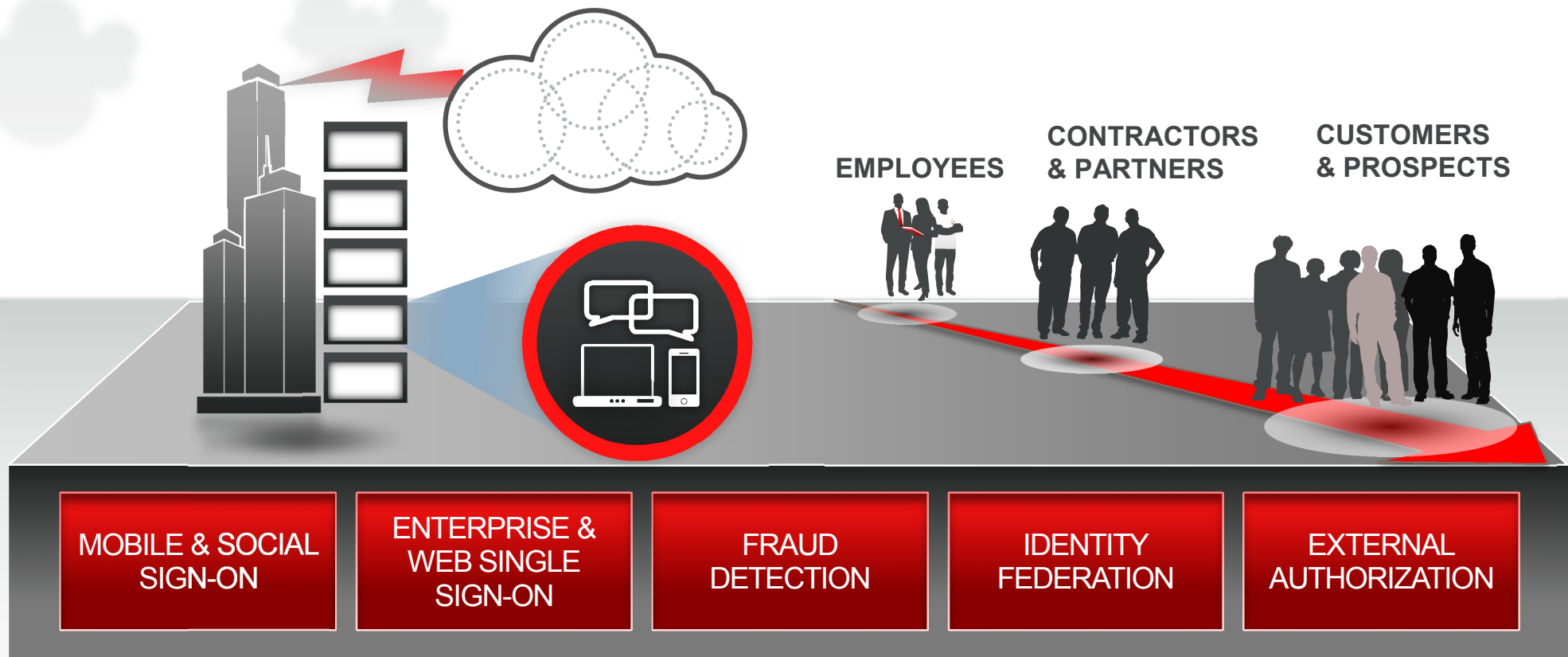
ORACLE

IDENTITY GOVERNANCE



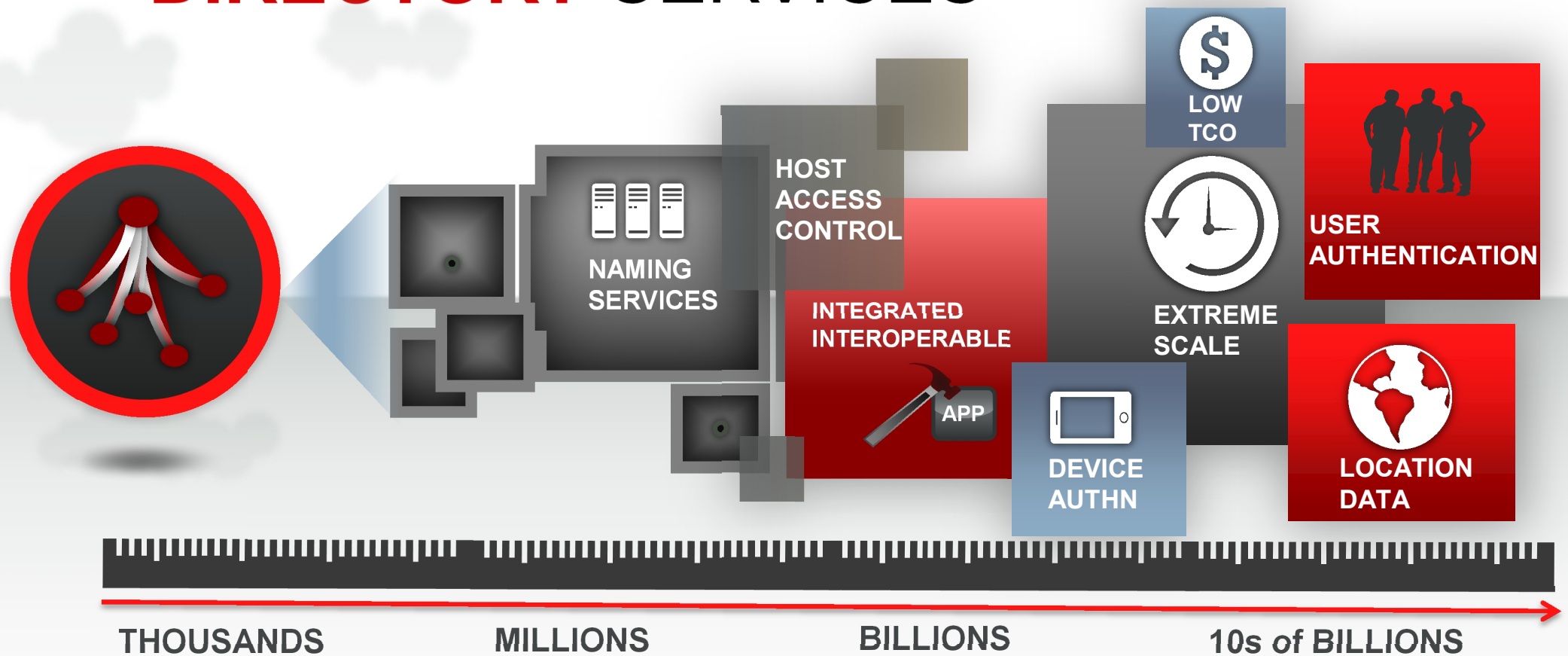
ORACLE

..... ACCESS MANAGEMENT



ORACLE

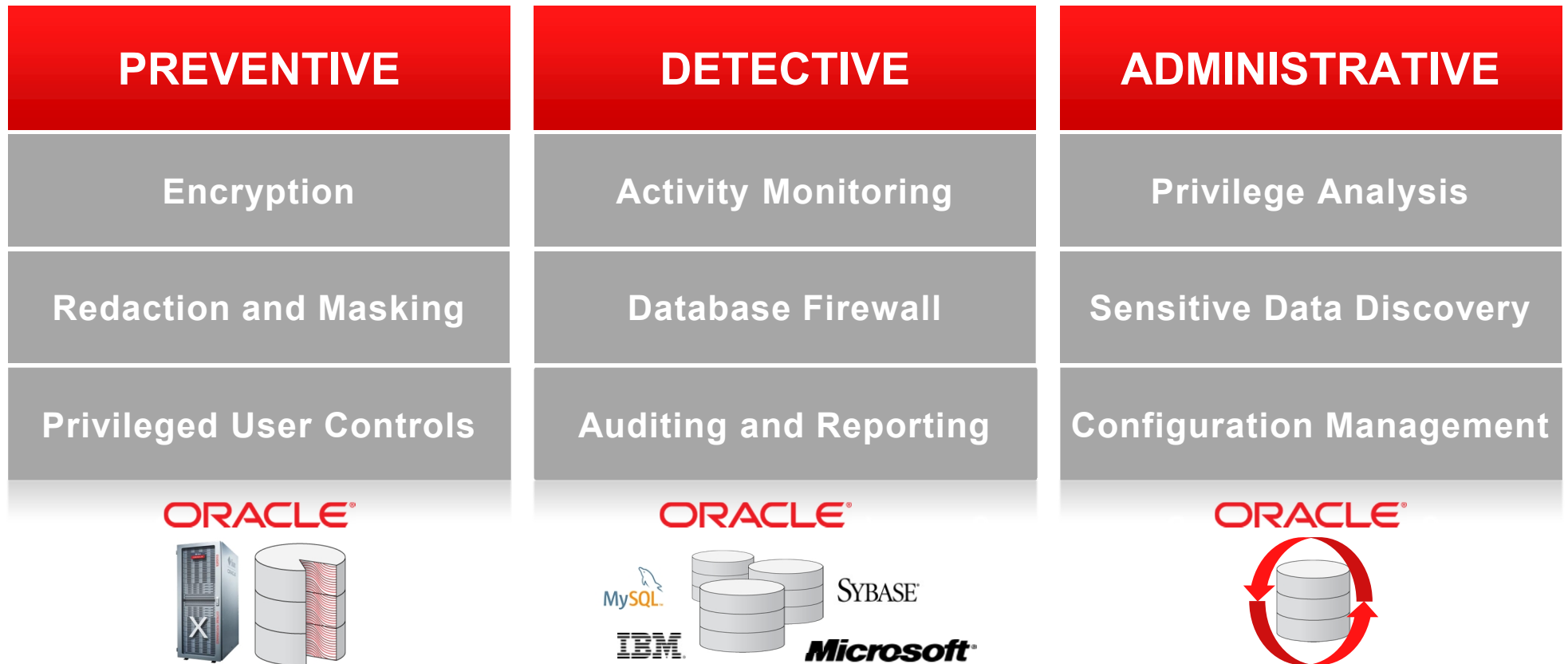
DIRECTORY SERVICES



ORACLE

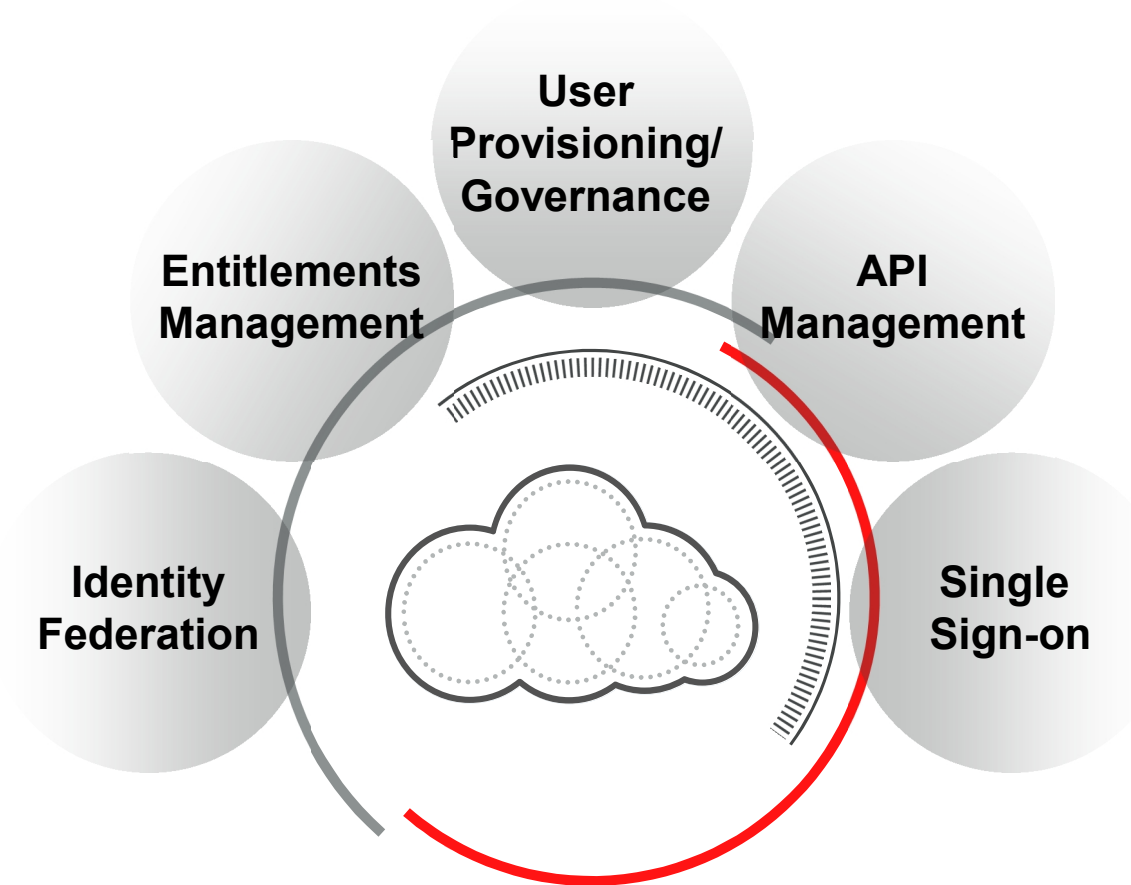
Oracle Database Security Solutions

Defense-in-Depth for Maximum Security



ORACLE®

CLOUD **IDENTITY** MANAGEMENT



SECURE DATABASES IN THE CLOUD

CENTRALIZE DATA AND SECURE AT THE SOURCE



- Multi-Tenancy
- Shared database pool
- Managed in the cloud
- Consistent & efficient
- Eliminates data silo complexity
- Better security & lower cost

ORACLE

Infrastructure Security

Governance & Compliance

Identity Management

Database Security

Services & Consulting

Application

Middleware

Database

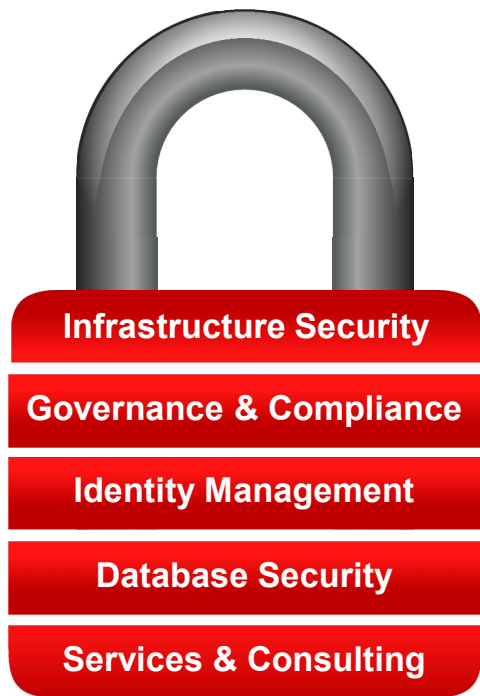
Operating System

Virtual Machine

Servers

Storage

ORACLE



ORACLE[®]

SECURE SOLUTIONS & SECURITY SOLUTIONS

ORACLE[®]

**DEFENSE
IN-DEPTH**

**SECURITY
INSIDE
OUT**

**SECURE
WHAT'S
STRATEGIC**

ORACLE®



SECURE
YOUR FUTURE

ORACLE®

ORACLE®

ORACLE®