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OCI Identity & Access Management

Introduction and Overview

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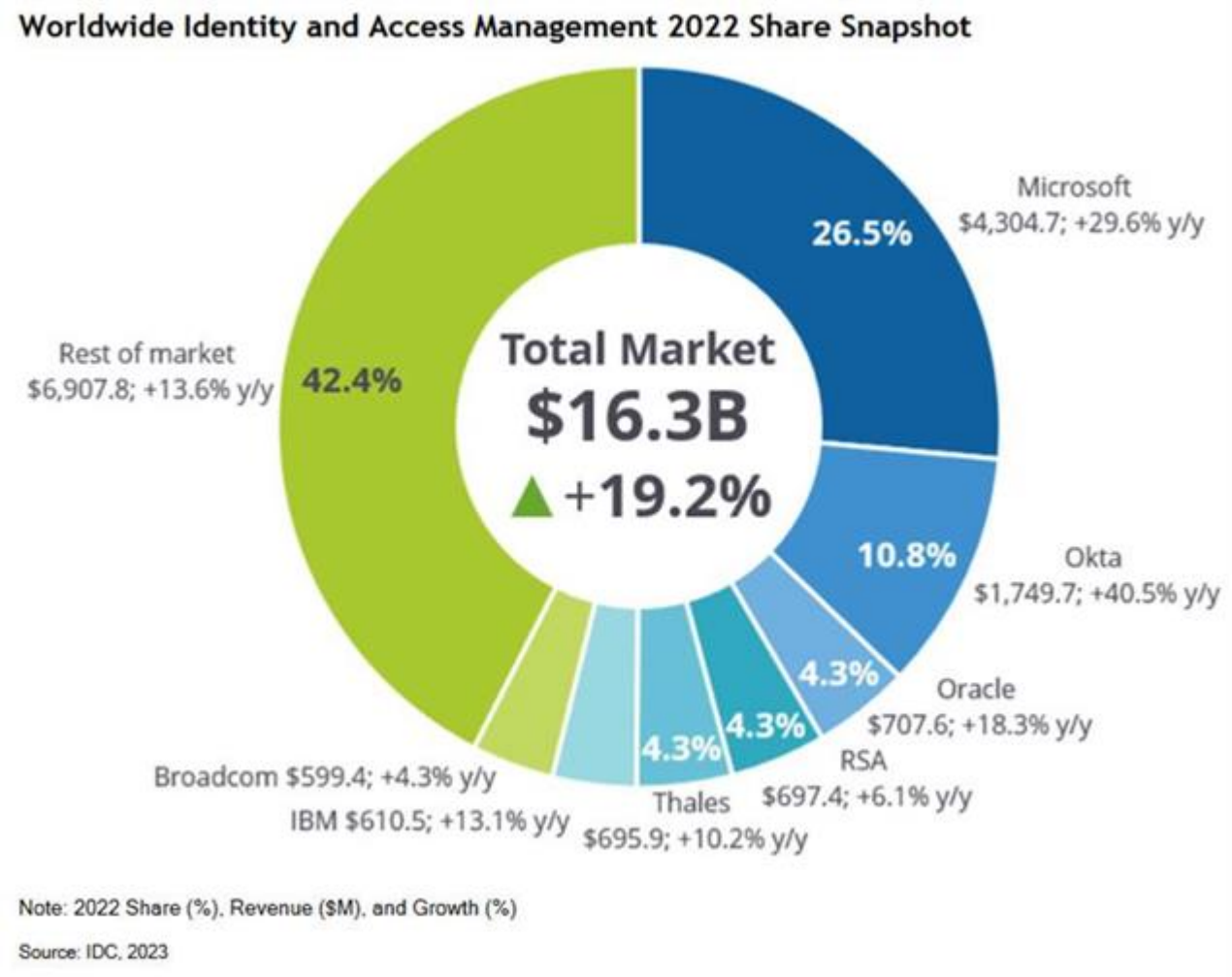
IDC Worldwide IAM Market Shares, 2022 (June 2023)



IDC Worldwide Identity and Access Management Forecast

Key Advice for Technology Suppliers

- Half the total market will be placing long-term bets in the next two to three years as they migrate away from clunky on-premises systems and replace inadequate homegrown solutions.
- Add AI/ML technology everywhere it makes sense, driving value from risk-based analytics… Pinpoint where people are involved and strive to replace them with supervised logic.

(full section text in slide notes)

20+ years of leadership in IAM

There’s a high-pressure system developing…

Zero Trust

Distributed IT across on-prem, SaaS, and multiple clouds.

Distributed stakeholders with limited control over devices, networks, etc.

Assume Breach

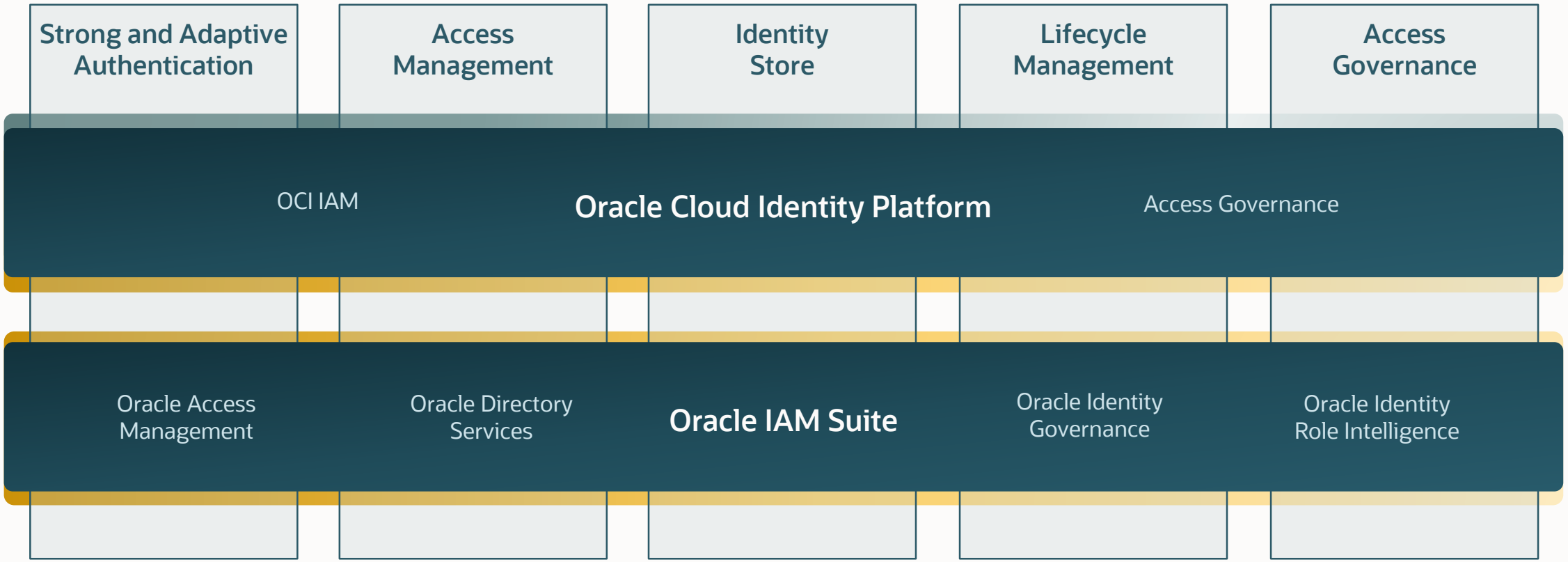
User credentials among top targets for hackers.

IAM is too complex to manage; there are multiple IAM silos.

Lack of visibility across 100’s of apps that may include shadow IT

IAM is the New Perimeter

Oracle Identity & Access Management Portfolio



OCI
Identity and Access Management

Oracle Cloud Applications

Complete suite of integrated applications

+

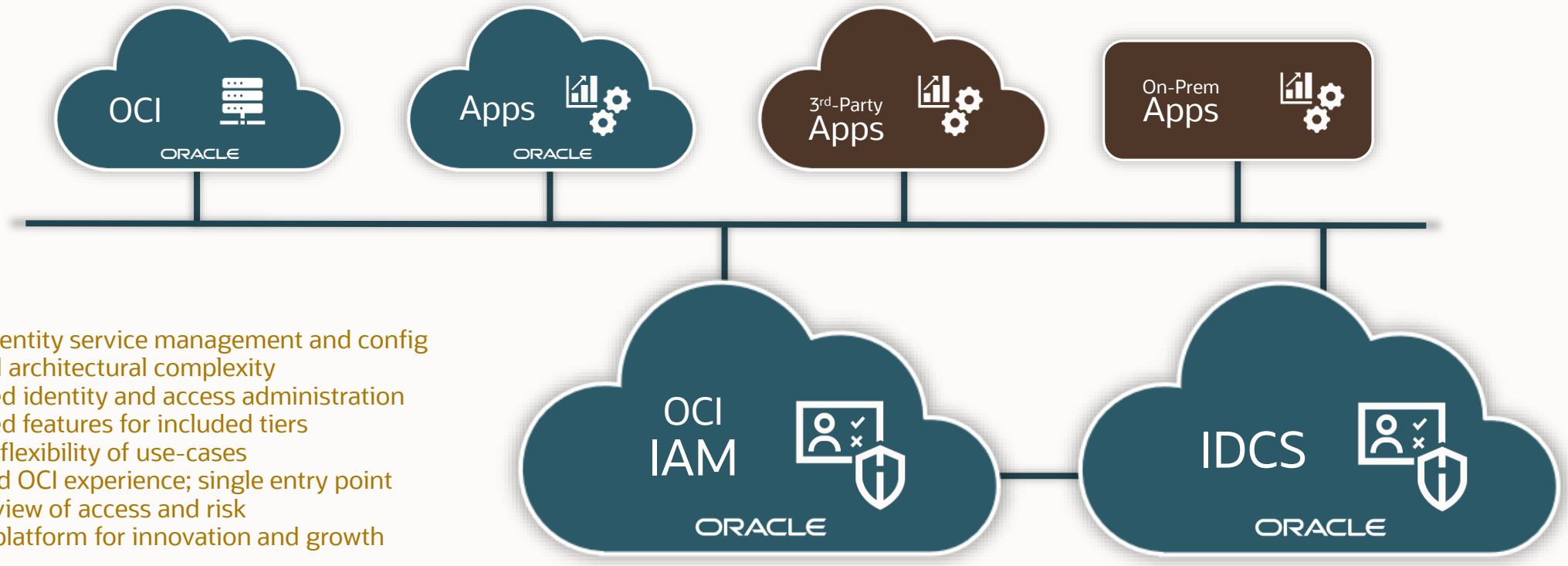
Oracle Cloud Infrastructure

Secure, high-performance platform for all your workloads

OCI IAM Identity Domains

Oracle is merging IDCS and OCI IAM services under the OCI IAM brand

OCI IAM will provide a single, unified IDaaS for Oracle and non-Oracle apps across hybrid cloud environments with robust MFA options, Adaptive Access, and Lifecycle Management



- ✓ Easier identity service management and config
- ✓ Reduced architectural complexity
- ✓ Simplified identity and access administration
- ✓ Enhanced features for included tiers
- ✓ Broader flexibility of use-cases
- ✓ Improved OCI experience; single entry point
- ✓ Unified view of access and risk
- ✓ Unified platform for innovation and growth

Built for Scale and Performance

102K
Customer Accounts

450M
Identities

30+
Commercial regions globally

Oracle's Internal Deployment

140K
Employees

4500
Applications

OCI IAM Functional Overview

OCI Identity & Access Management (OCI IAM)

Key Functional Pillars

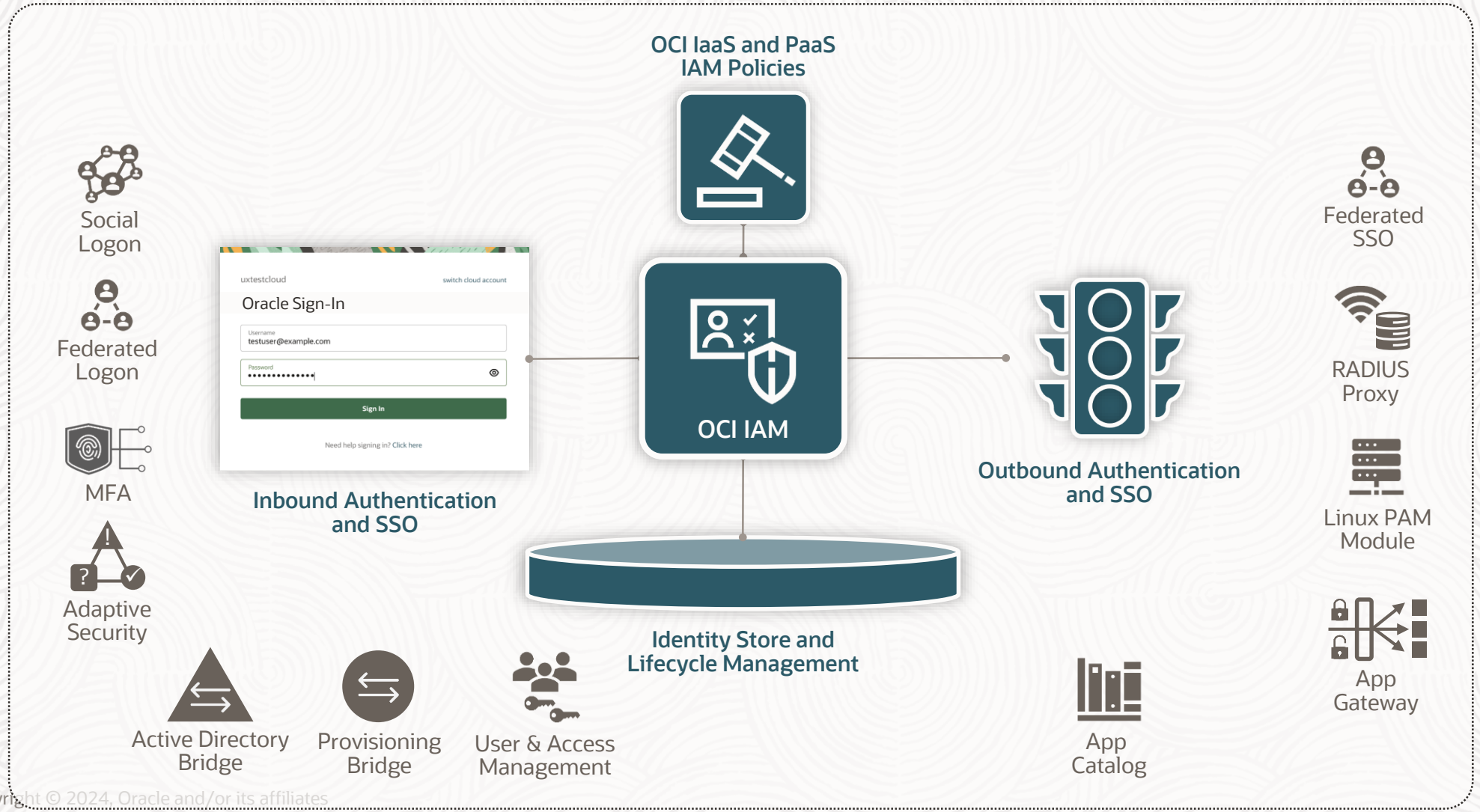
Enterprise Identity & Access Management
for complex, hybrid IT environments

Access Control Plane
for Oracle Cloud and SaaS applications

Developer-friendly IAM engine
for custom and consumer applications

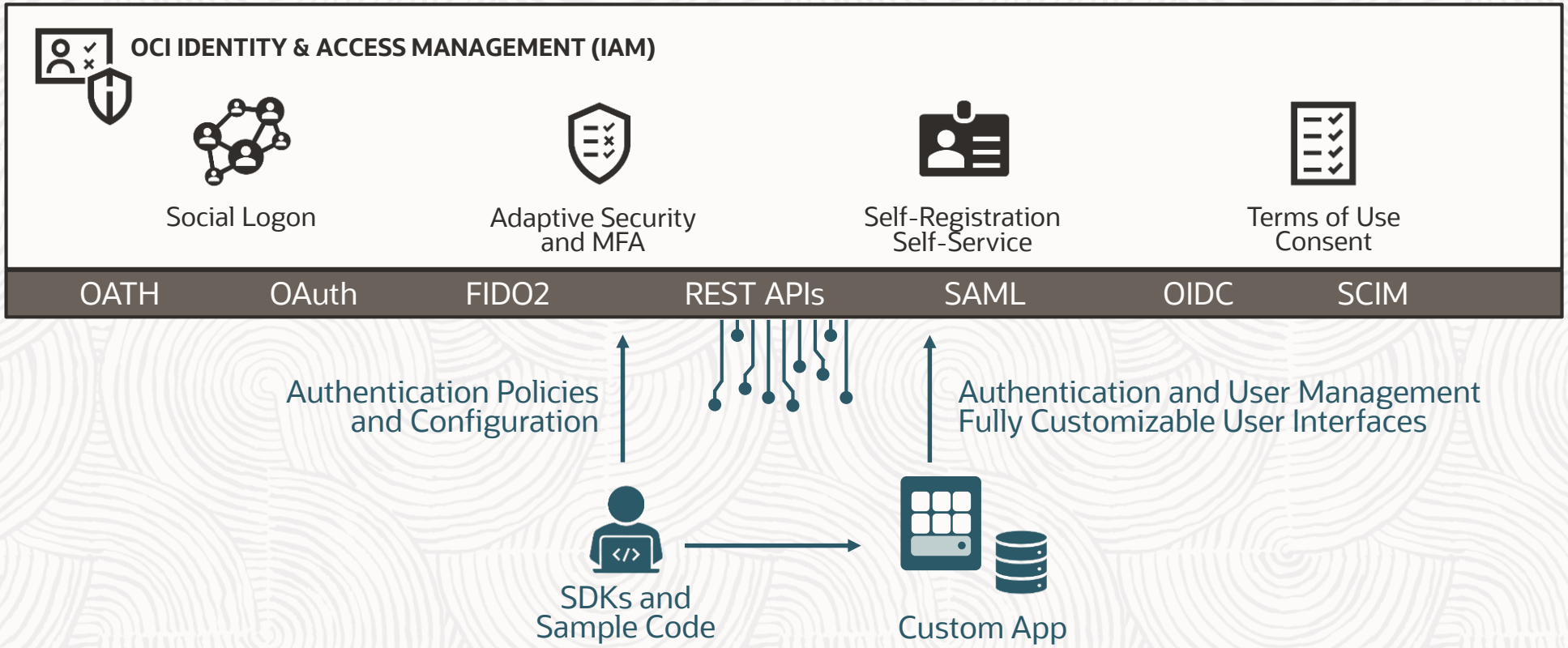
OCI Identity & Access Management (OCI IAM)

Enterprise Identity & Access Management

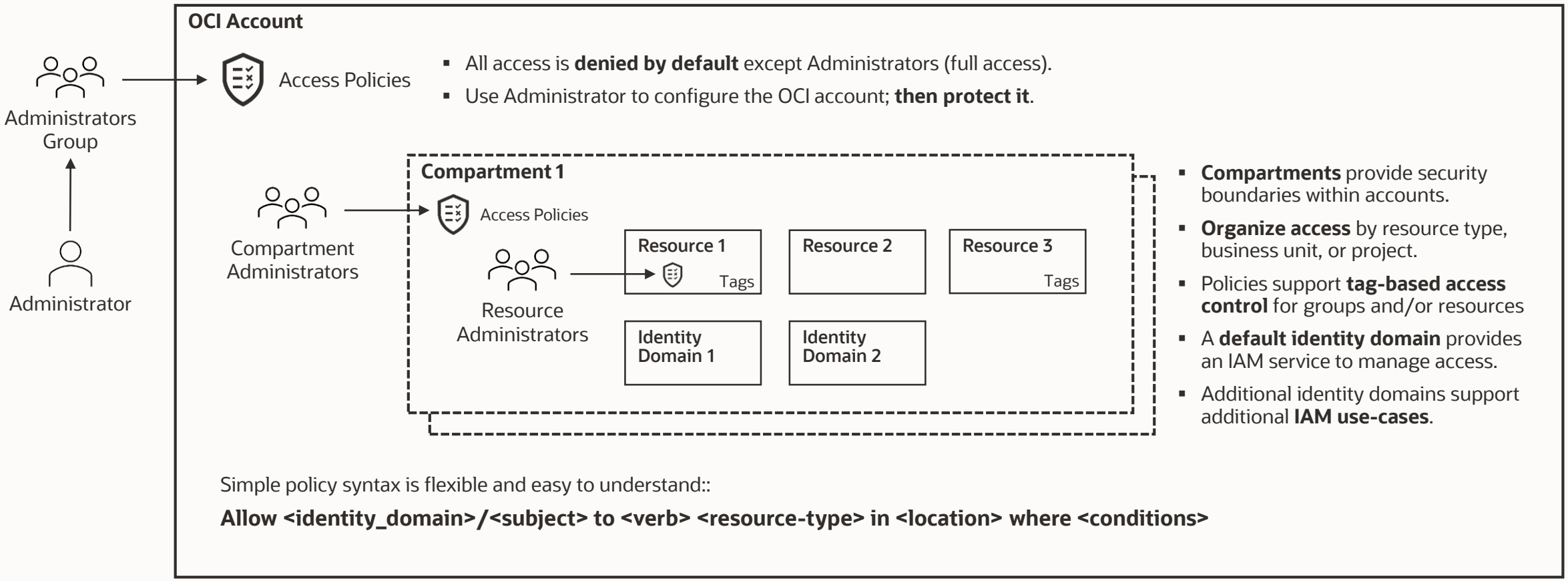


OCI Identity & Access Management (OCI IAM)

For Application Developers



Getting Started with OCI IAM



OCI IAM Features and Functionality

Oracle Cloud Infrastructure Identity & Access Management

Inbound Authentication and SSO

Strong, flexible authentication options

- Supports basic authentication via username and password
- Supports common federation protocols and social logon with multiple identity providers
  SAML, OpenID Connect, OAuth
- Numerous options for Multi-Factor Authentication (MFA)
  Included mobile app supports passwordless logon
- Adaptive security evaluates risk in real-time based on context and session awareness
- Delegated Authentication to Active Directory

Federated SSO

Leverage open standards for easy configuration of inbound SSO.

Social Logon

Native support for popular social Identity Providers.

MFA

Numerous options for MFA including a mobile app, Email, SMS, KBA, third-party and FIDO2 authenticators.

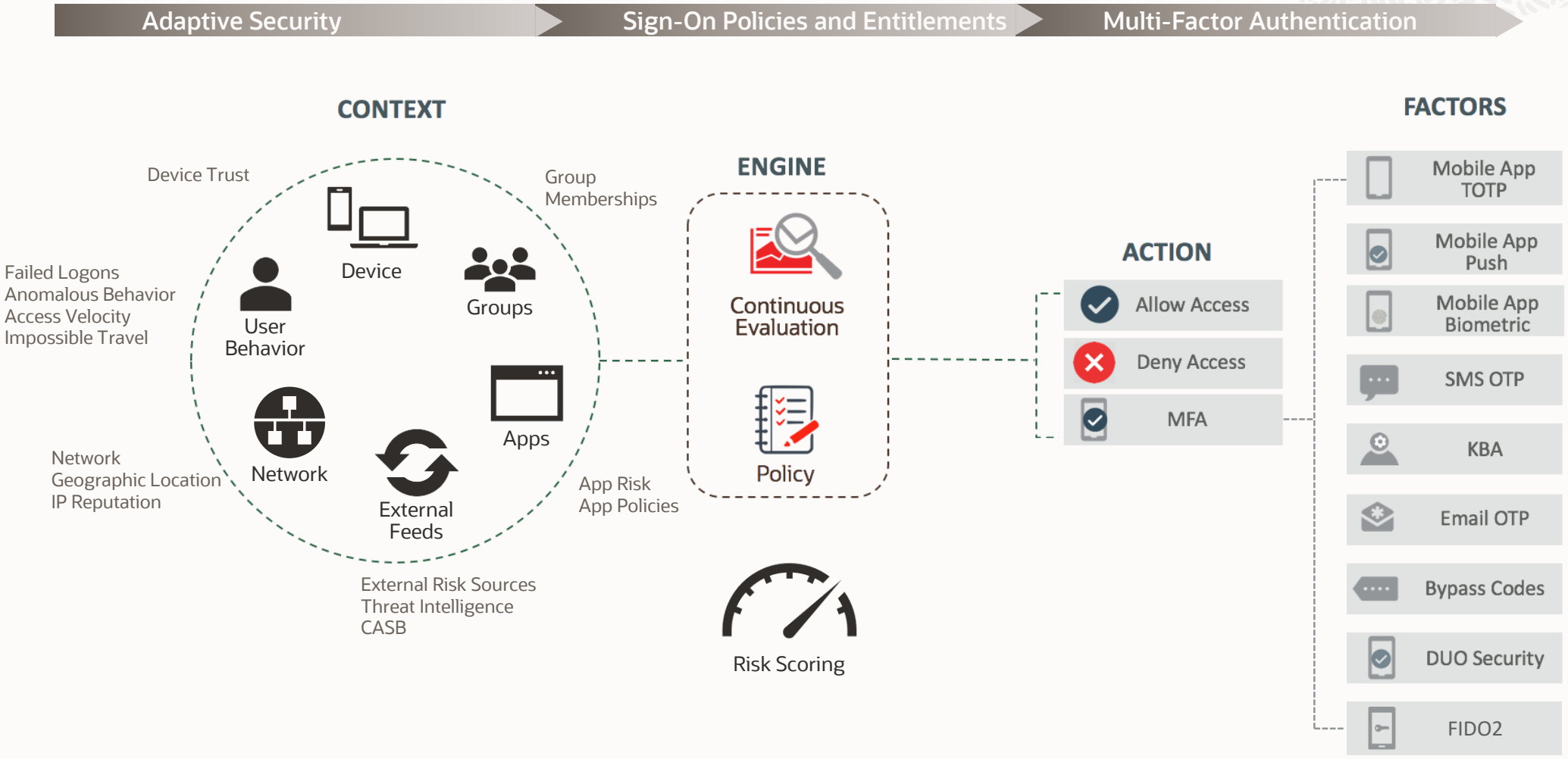
Adaptive Security

Evaluates risk based on several factors including device, network, location, and user behavior.

Active Directory Bridge

Enables delegated authentication to Active Directory (leverage AD credentials).

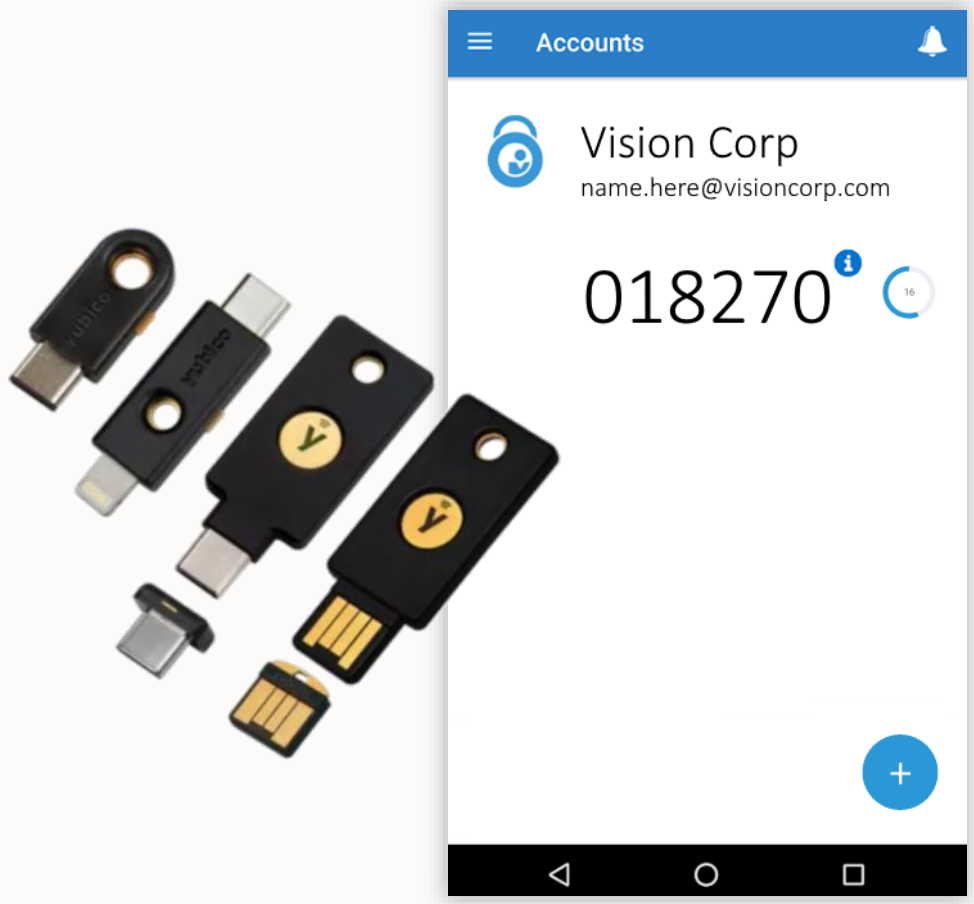
Inbound Authentication and SSO



Inbound Authentication and SSO

Multi-Factor Authentication (MFA) Factors

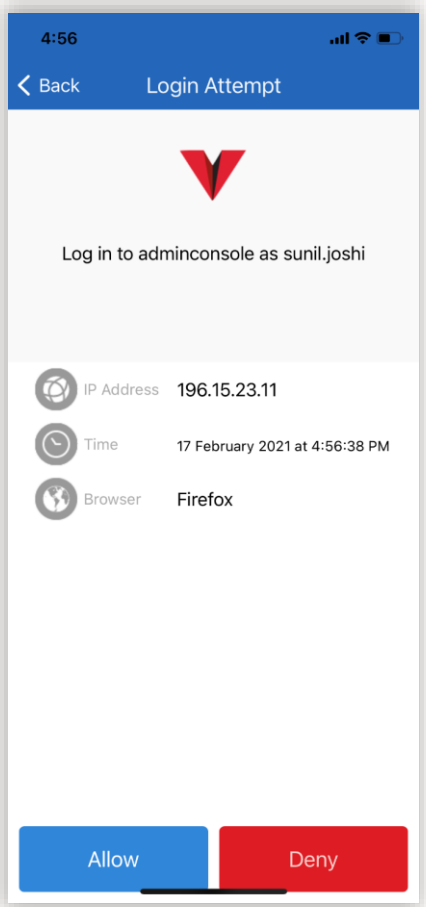
- FIDO2 Authenticators
- Voice Phone Call
- Mobile App Passcode or Notification
- SMS Text
- Security Questions
- Email
- Bypass Code
- Third-Party Authenticators
  Duo, Yubico, etc.
- Trusted Devices

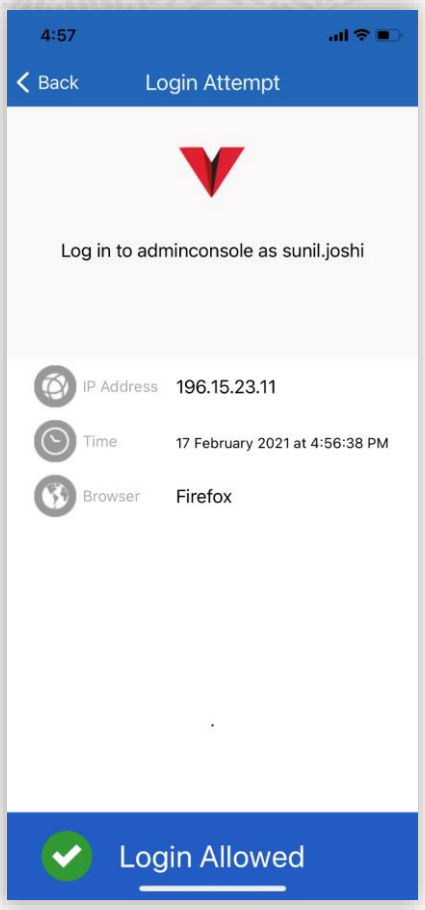


Inbound Authentication and SSO

Passwordless Authentication

1. User creates profile at first logon
2. User enrolls device and MFA app
3. When user attempts to authenticate, they can logon via a push notification in the MFA app – no password required!





Identity Store and User Lifecycle Management

Automate user lifecycle management

- Manage via console, CLI, APIs, or automation
- Custom schema support
- Auto- and Just-in-Time (JIT) provisioning
- Auto-manage entitlements for Oracle apps and databases
- User self-service enrollment and management of profile, password, and terms-of-use consent
- Support for virtually any SaaS, cloud-hosted, or on-prem apps
  - Generic SCIM support enables integration with most apps
  - 400+ SaaS apps natively supported via partner gateways

User & Access Management

Manage users manually via console, CLI, or APIs. Bulk imports available with full or incremental updates.

App Catalog

Pre-configured automation of onboarding, offboarding, and synchronization flows for numerous apps. Generic templates support virtually any other apps.

Provisioning Bridge

Provisioning to/from virtually unlimited apps hosted on-prem or in the cloud using ICF connectors. Supports heavy customization as-needed. Supports High Availability.

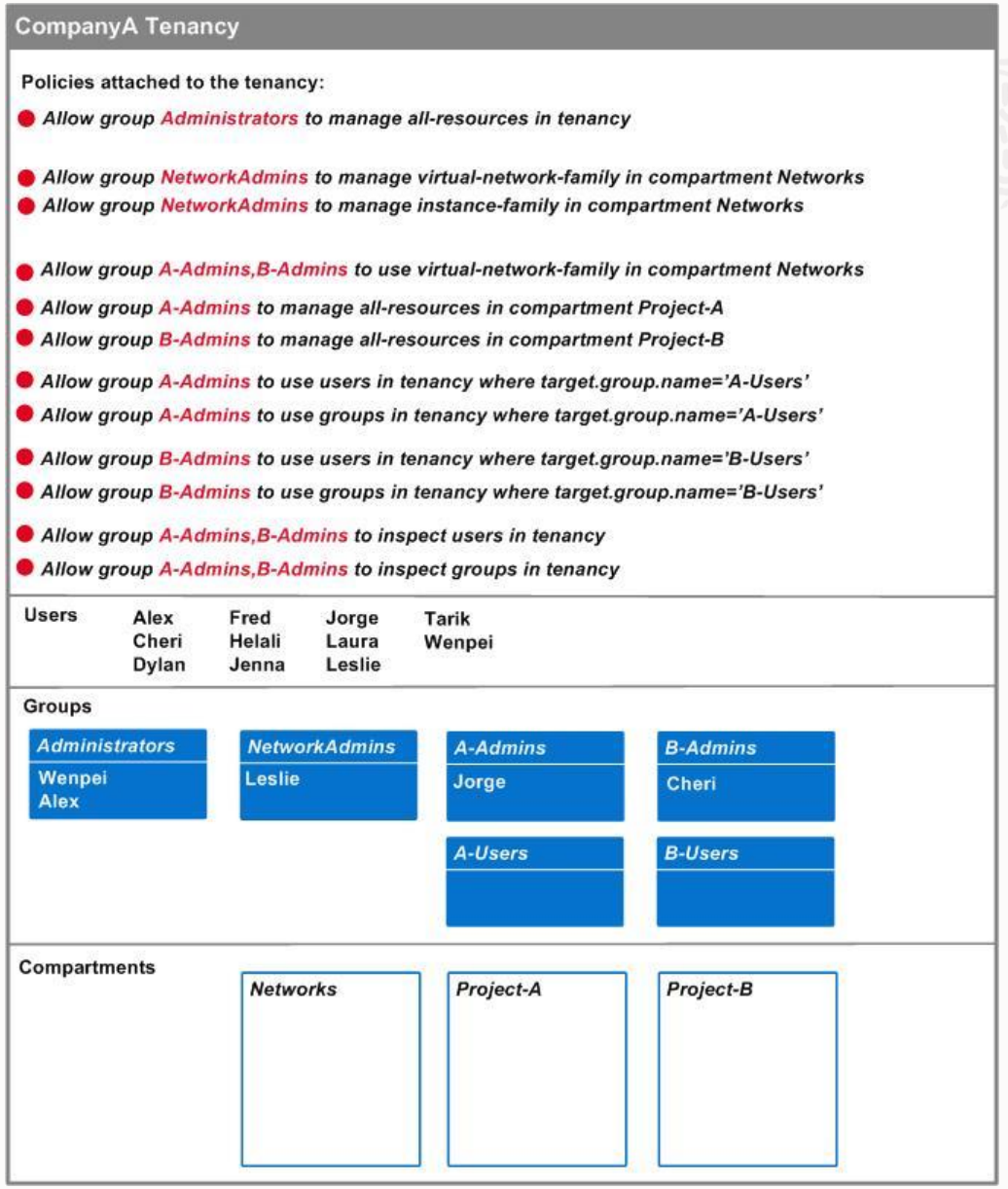
Active Directory Bridge

Synchronize AD Users and leverage AD Security Groups to manage IAM permissions.

OCI IaaS and PaaS IAM Policies

Control who has access to OCI cloud resources

- Easy to understand policy syntax
- Authentication policy can restrict by IP address
- Group-based entitlement management
- Compartments provide security boundaries inside of OCI tenancies
- Time- and Location-based restrictions
- IAM auto-replication to subscribed regions
- Supports Tagging for groups and/or resources



Outbound Authentication and SSO

Easy Single Sign On (SSO) experience across extended, hybrid enterprises

- Support common federation protocols
  SAML, OpenID Connect, OAuth
- App catalog provides out-of-the-box integrations with 1000+ apps
- Generic and custom templates support any other apps that support federation protocols
- Password vaulting (form-fill) for apps that don't support federation protocols
- Just-in-Time provisioning to target applications
- Gateways and Proxies support SSO to hybrid environments.

Federated SSO

Leverage open standards for easy configuration.

App Catalog

Pre-configured SSO and Just-in-Time provisioning for numerous apps.

App Gateway

SSO to virtually unlimited apps hosted on-prem or in the cloud that may not support open standards.

RADIUS Proxy

Support SSO to VPN clients and Oracle Databases.

Linux PAM Module

Support SSO to Linux hosts running on OCI

OCI IAM Best Practices

- Create a security model (tenancy, compartments, tagging) before adding users, resources.
- Enforce Least Privilege; gradually add permissions as needed.
- Do not use OCI default Administrator or Administrators group after initial account setup.
- Leverage situational permissions (time- or location-based) where possible.
- Leverage compartments and tagging to simplify access management. Align your OCI compartment design with your department or project structures.
- Use instance principals and dynamic groups to manage machine access to APIs.
- Enforce multi-factor authentication and leverage adaptive security whenever possible.
- Use different identity domains for each user population.
- Whitepaper: Best practices for identities and authorization.

OCI IAM High Availability (HA) and Disaster Recovery (DR)

OCI Identity and Access Management

OCI Identity & Access Management (OCI IAM)

High Availability Architecture

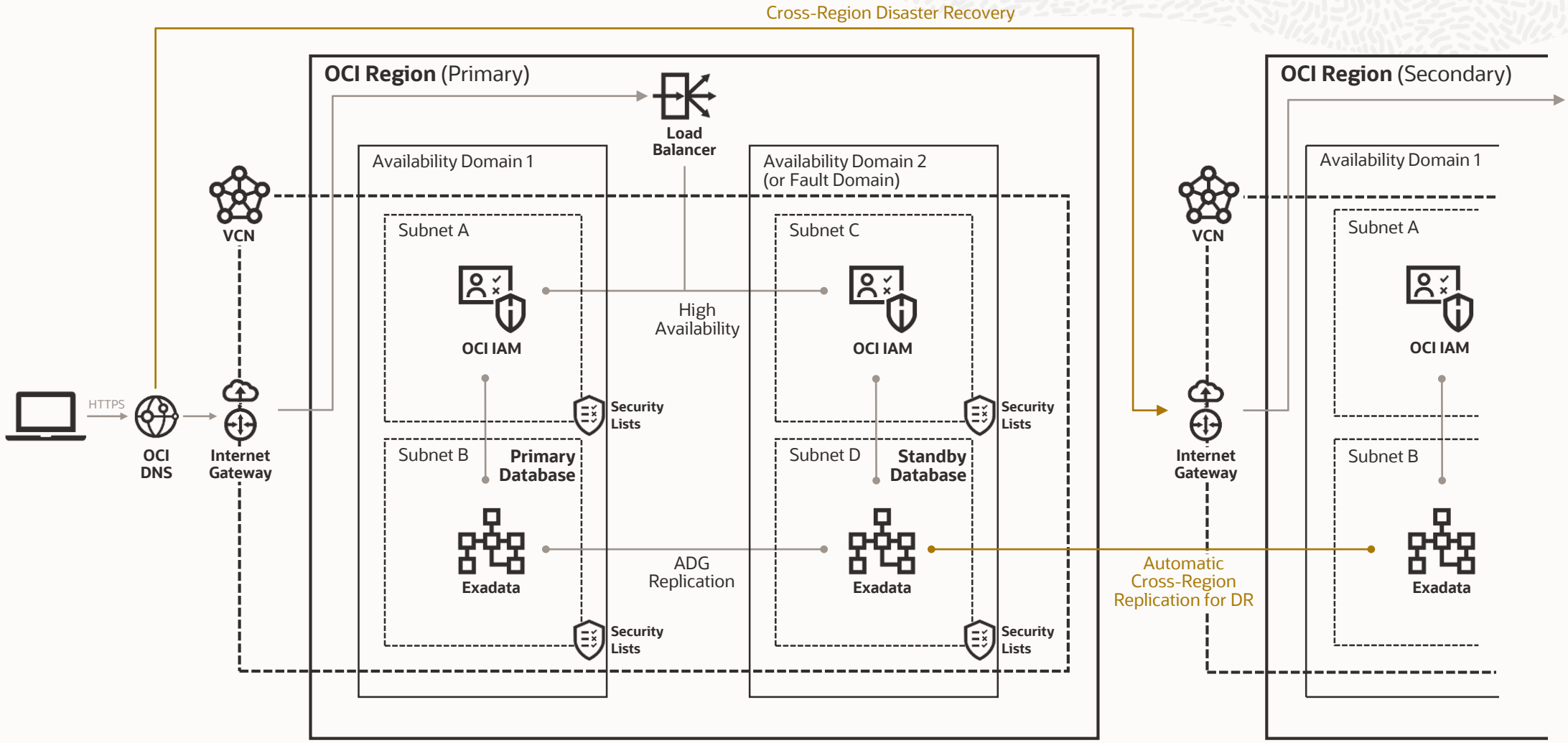
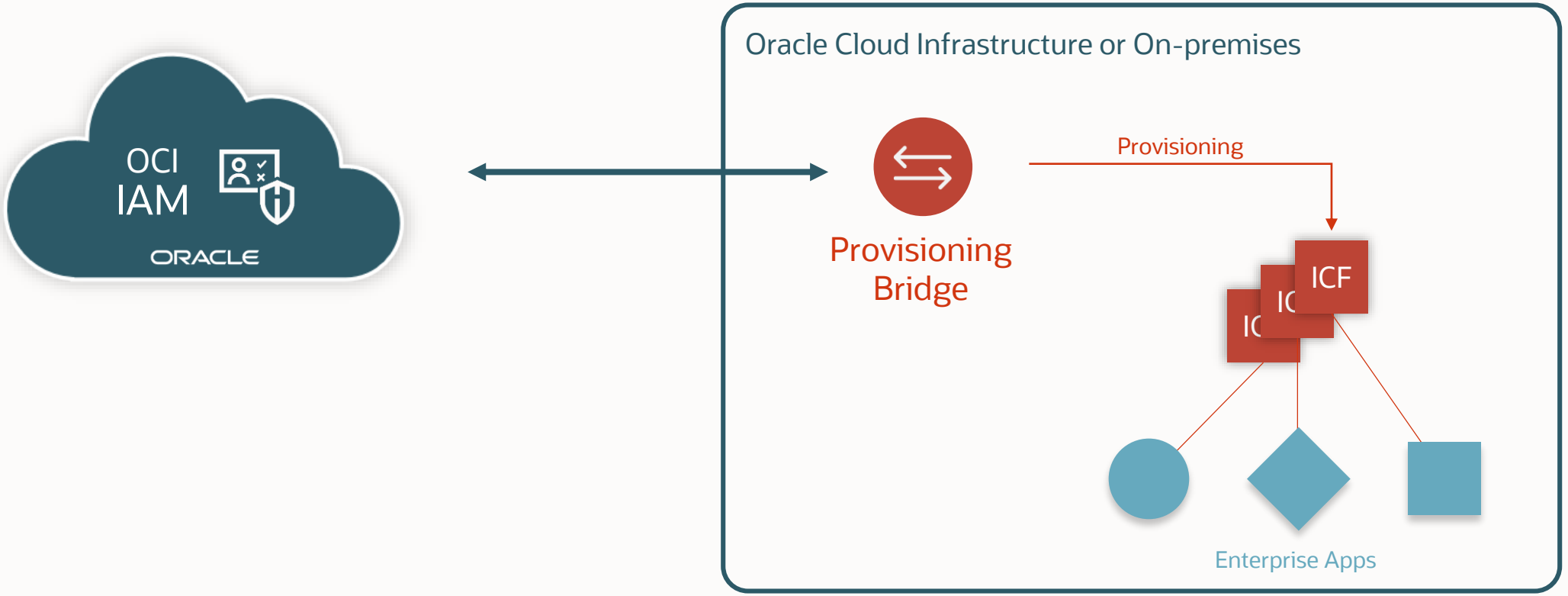


Diagram is representative and for discussion only.

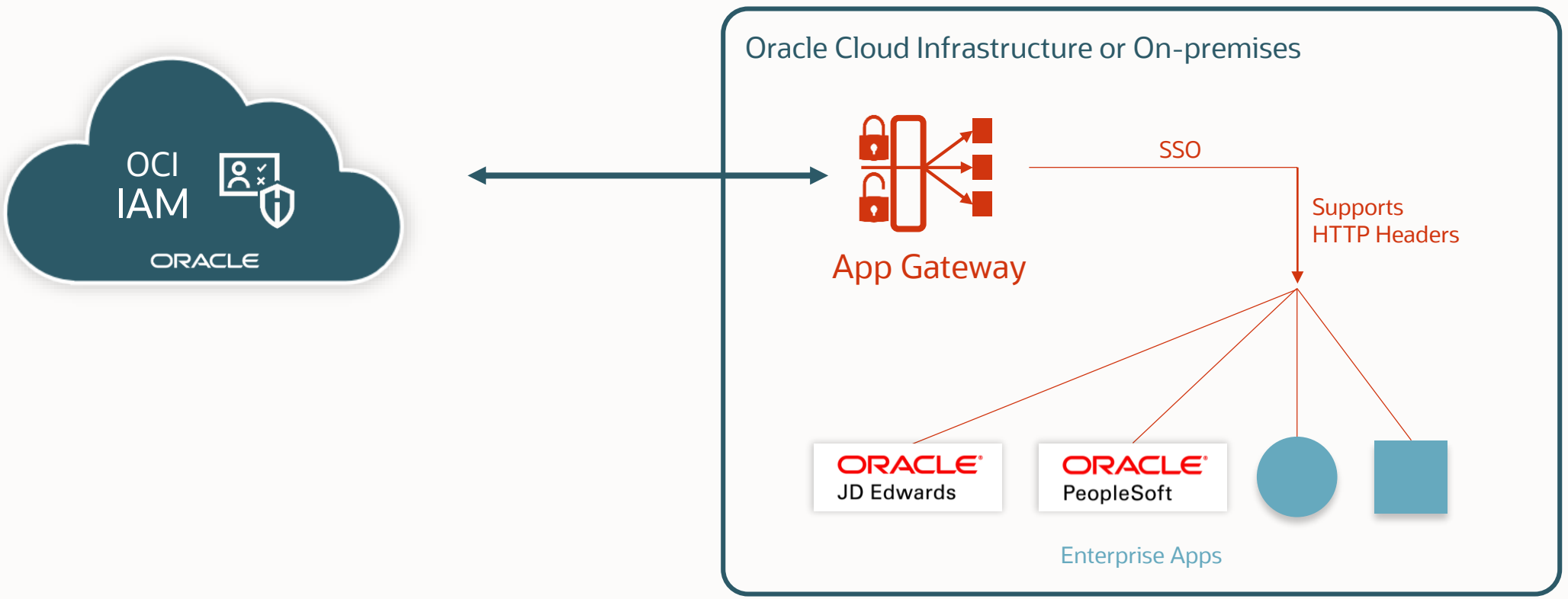
Common Hybrid IAM Use-Cases

OCI Identity and Access Management

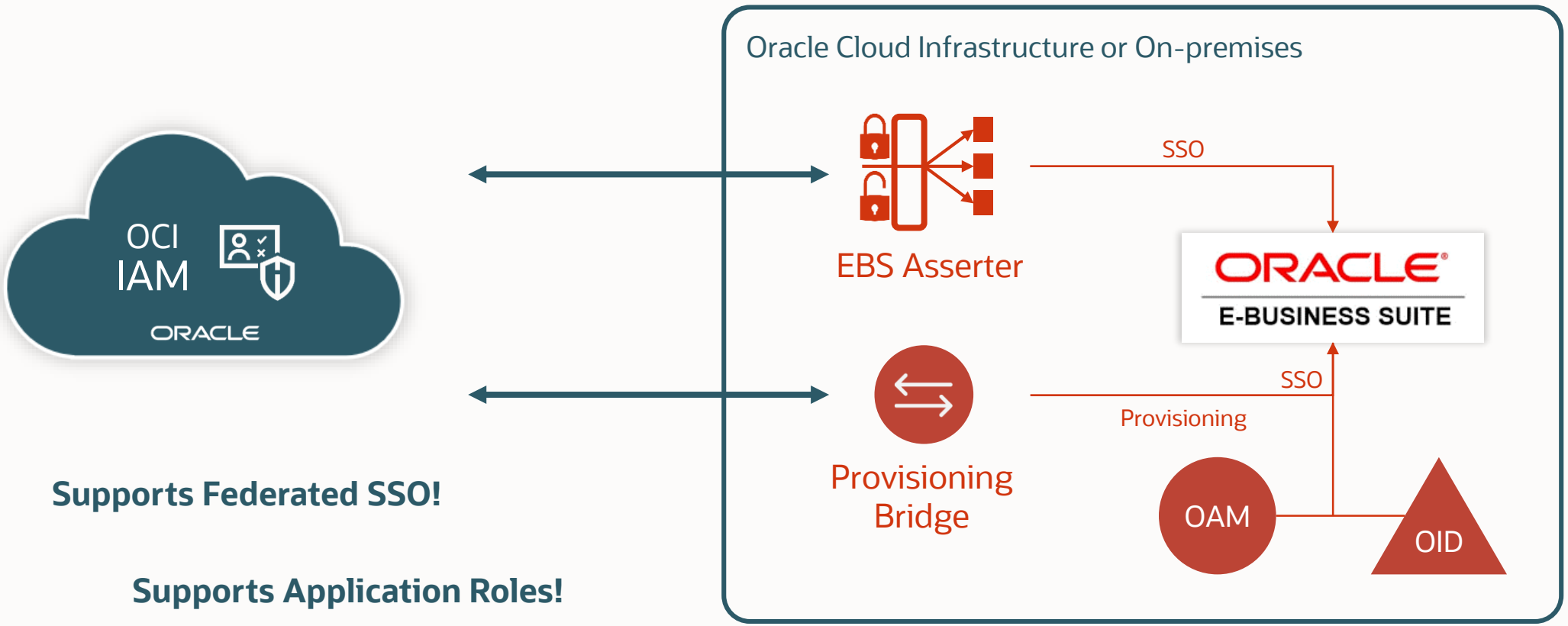
OCI IAM Provisioning Bridge



OCI IAM App Gateway



OCI IAM Support for E-Business Suite (EBS)



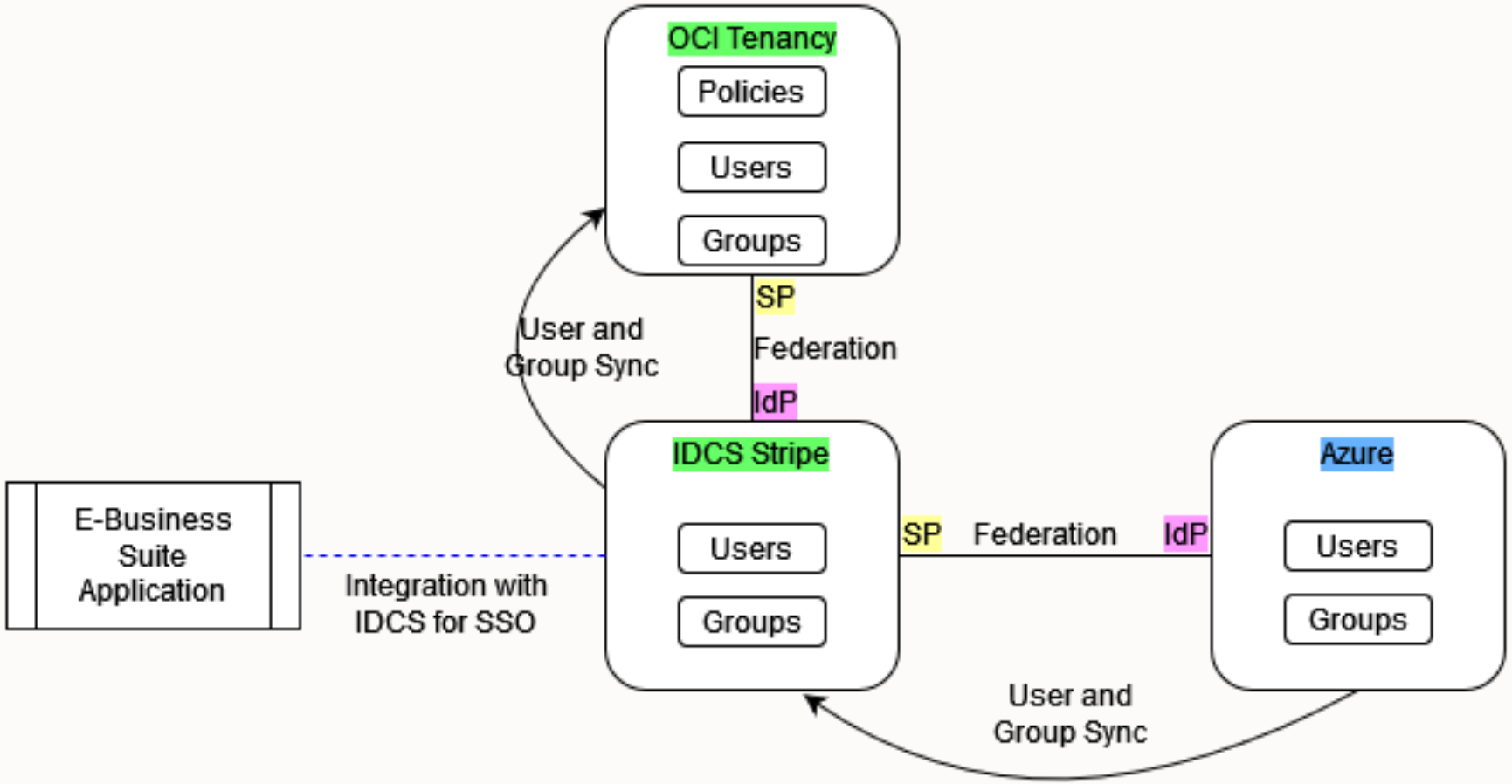
Supports Federated SSO!

Supports Application Roles!

Federation from Azure AD

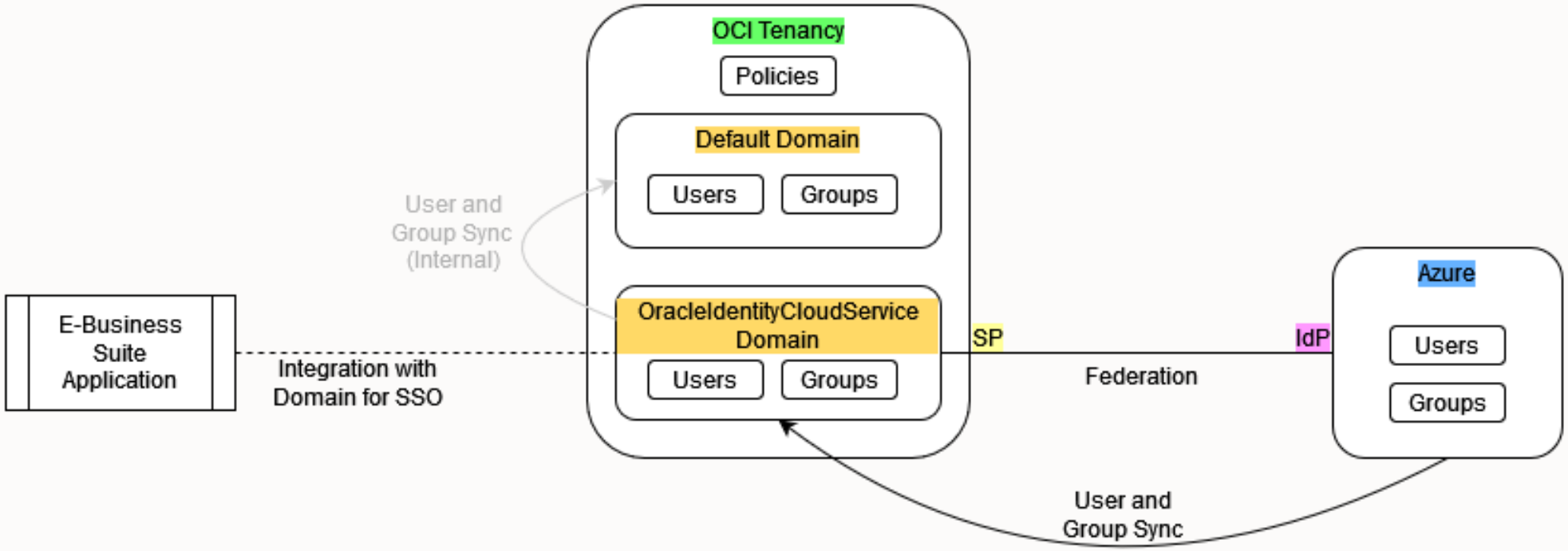
OCI Identity and Access Management

Azure AD Federation
via IDCS (Before)

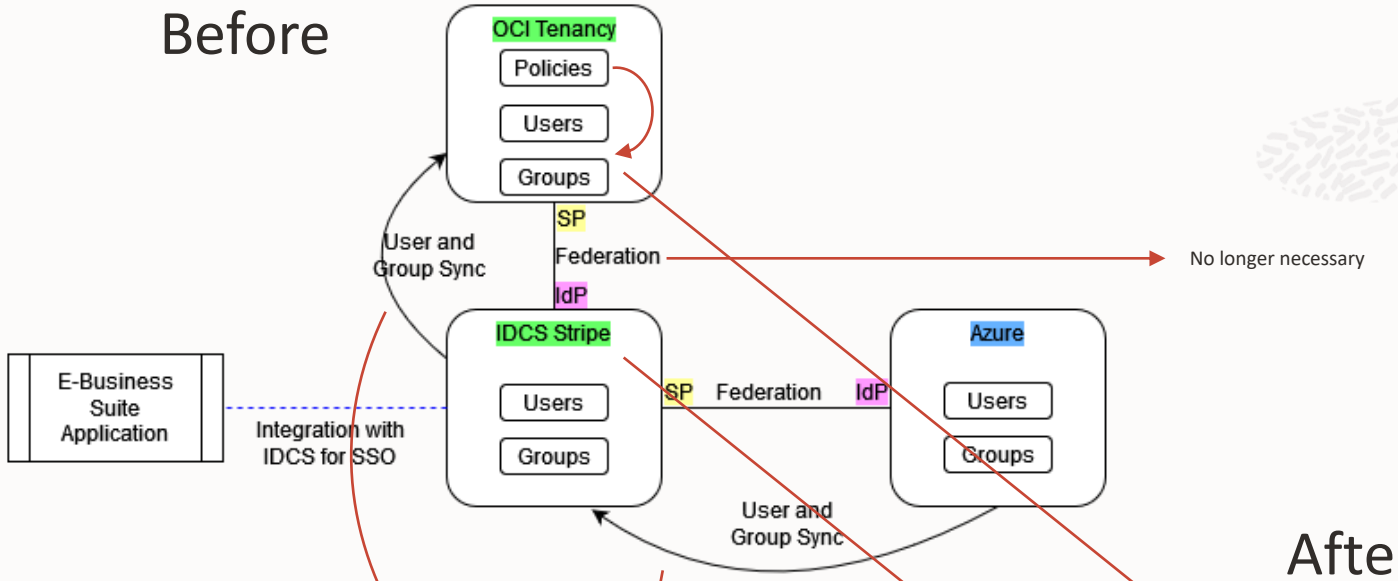


Azure AD Federation

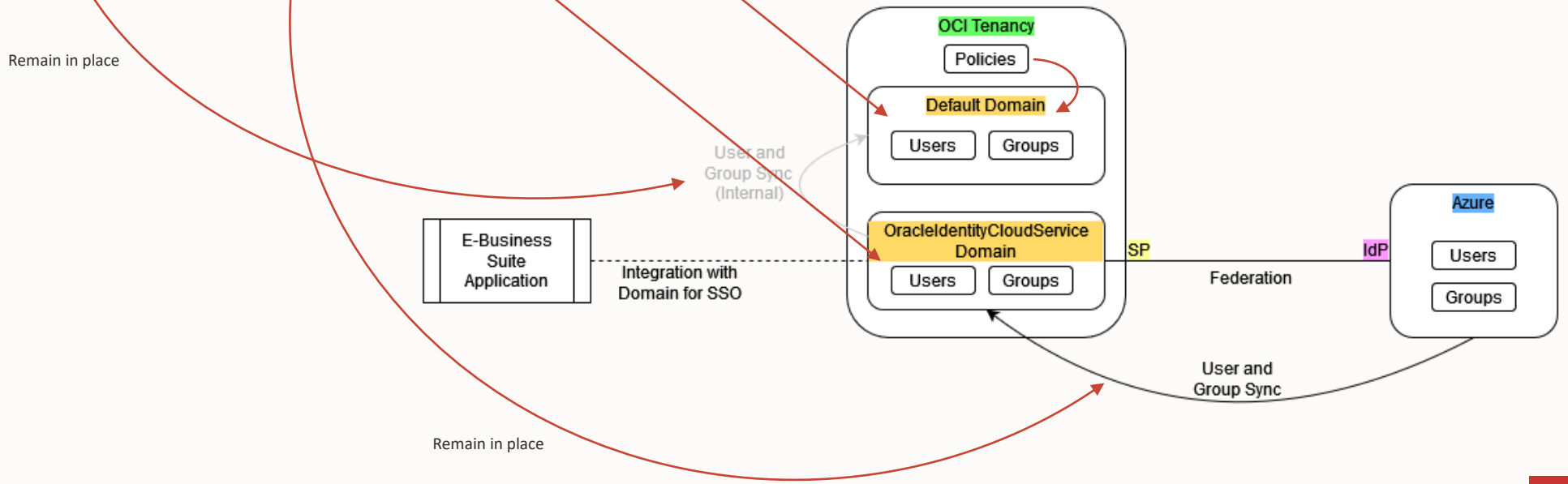
Via OCI IAM identity domains (After)



Before



After



OCI IAM Vision and Roadmap

OCI Identity and Access Management

OCI
Identity and Access Management

Oracle Cloud Applications

Complete suite of integrated applications

+

Oracle Cloud Infrastructure

Secure, high-performance platform for all your workloads

OCI IAM Vision

Simplicity, Visibility, and Automation

Enterprise Identity & Access Mgmt. for complex, hybrid IT environments

- High value proposition with more included features
- Unified IDaaS for access management, governance, and privileged access
- Robust set of risk indicators and analytics
- Far reach of control across hybrid, heterogeneous IT
- Enhanced ML and analytics via OCI service integrations

Developer-focused IAM engine for custom and consumer-facing applications

- Integrated experience via APEX and Visual Builder
- Shared fabric via APIs with hooks across OCI, security services and apps exposing user, session, app, platform, and access pattern data
- Leverage automation for easier integrations
- Enhanced risk analytics for CIAM use-cases

Access control plane for Oracle Cloud and SaaS applications

- Zero-touch IAM integrations with Oracle apps for access, roles, and lifecycle mgmt.
- Deep security and risk visibility, insights for OCI and Oracle apps
- Improved automation for service operations
- Auto-tuning security policies based on risk
- Shared security models

Why choose Oracle for IDaaS?

Strong Value

- Strong value for cost
- Improved user experience via better performance and scale as a native OCI service
- Peace of mind that OCI IAM will continue to incorporate latest and best approaches
- Presence across 30+ cloud regions; meets data residency requirements
- World-class, global support

Depth for Oracle Targets

- Reduced effort and easier integrations for EBS, Fusion Apps, Oracle Databases, etc.
- Simplified entitlement management via App Roles
- Reduced management overhead via strong hybrid support for apps running on-premises, hosted on OCI, or SaaS
- Migration expertise, support, and discounts moving from OAM

IAM Experience

- Oracle has led in IAM for past two decades; working with the world's largest, most complex organizations
- Strong hybrid IT support supporting on-prem apps, App Gateway, Provisioning Bridge, AD Bridge, RADIUS, Linux, etc.
- Powerful provisioning to on-prem via ICF connectors.
- Easier to get support from strong SI partner ecosystem.

Customers Across Verticals and Geographies

TIAA

CenterPoint Energy

T.J.maxx

UBI Banca

エネルギー・フロンティア
TOKYO GAS

Loblaw
COMPANIES LIMITED

COX
ENTERPRISES

DIRECTV

Stanford
University

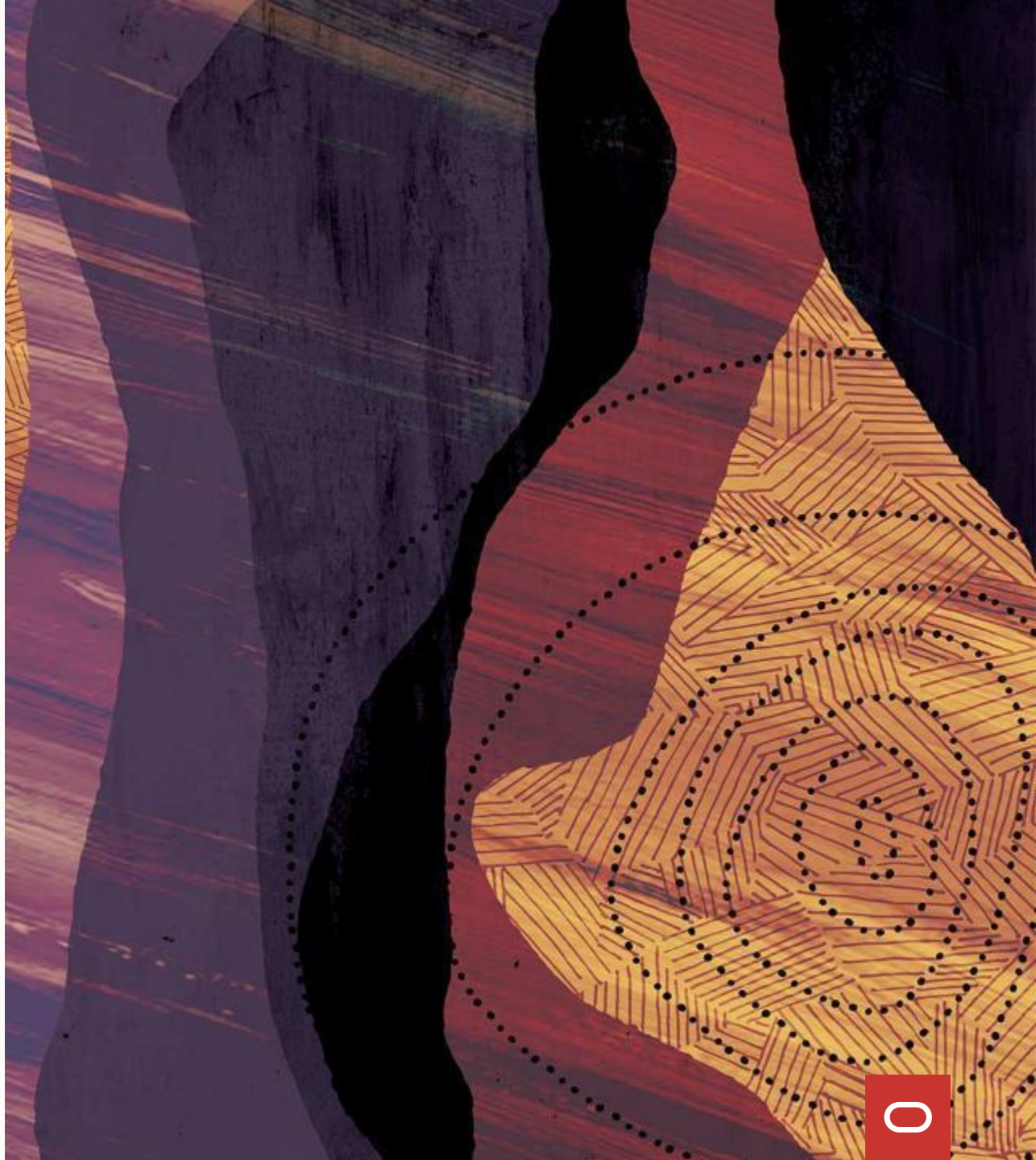
Uber

ACCOR HOTELS

RICOH

Thank you

Alexandre Fagundes
Cloud Architect | Oracle Latin America

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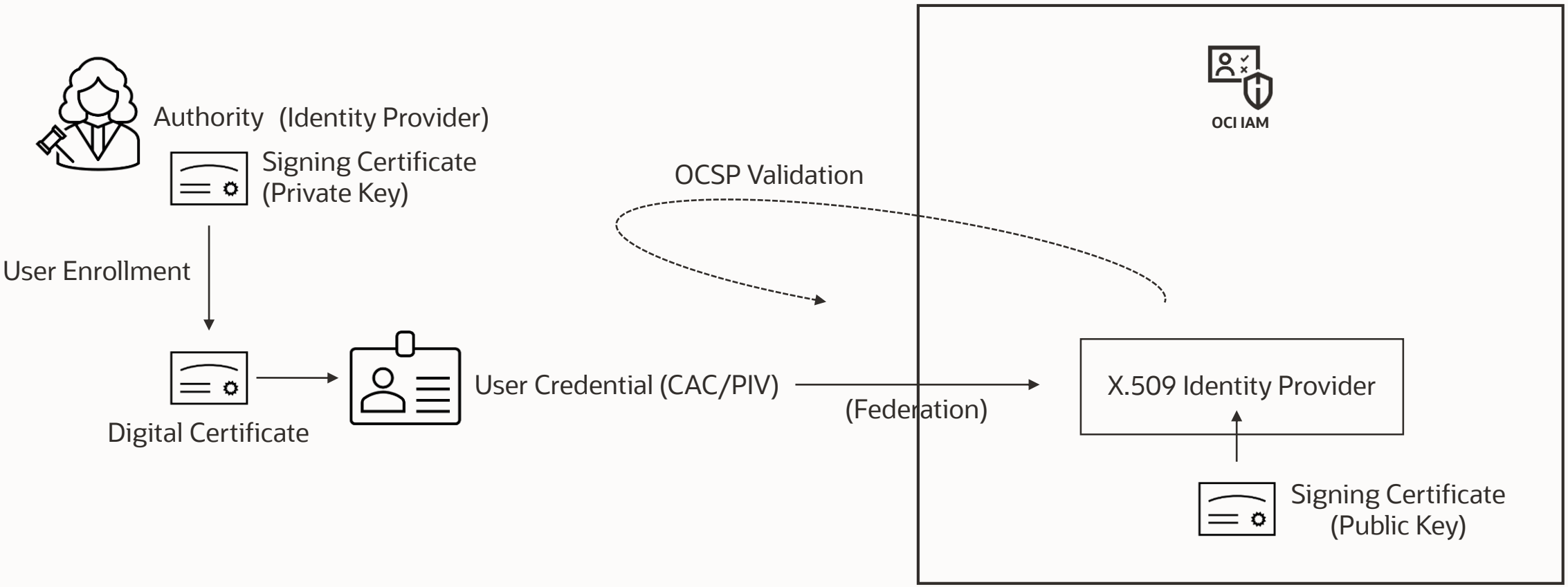
Appendix Content

OCI Identity and Access Management

X.509 | Common Access Card (CAC) | Personal Identity Verification (PIV)



Using Credentials Across Multiple Tenancies

- Today, you can configure any Identity Provider (inc. OCI IAM) to federate to multiple OCI tenancies.
- OCI IAM is planning for improved use of credentials across multiple OCI tenancies. This is part of a broader effort to create a single Oracle identity for use across all Oracle services. Timing TBD.
- Design approaches under consideration include:
  - Associate DNS domain names with an identity domain making it authoritative for that DNS domain name suffix. Users who authenticate with matching credentials see available resources.
  - Authoritative identity domains with links to user identities in non-authoritative identity domains which can exist in other tenancies. Organizations cloud leverage authoritative identity domains making it easier to manage users across parent and child tenancies.