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AI World

Enterprise Best Practices with Oracle Integration

LRN2792

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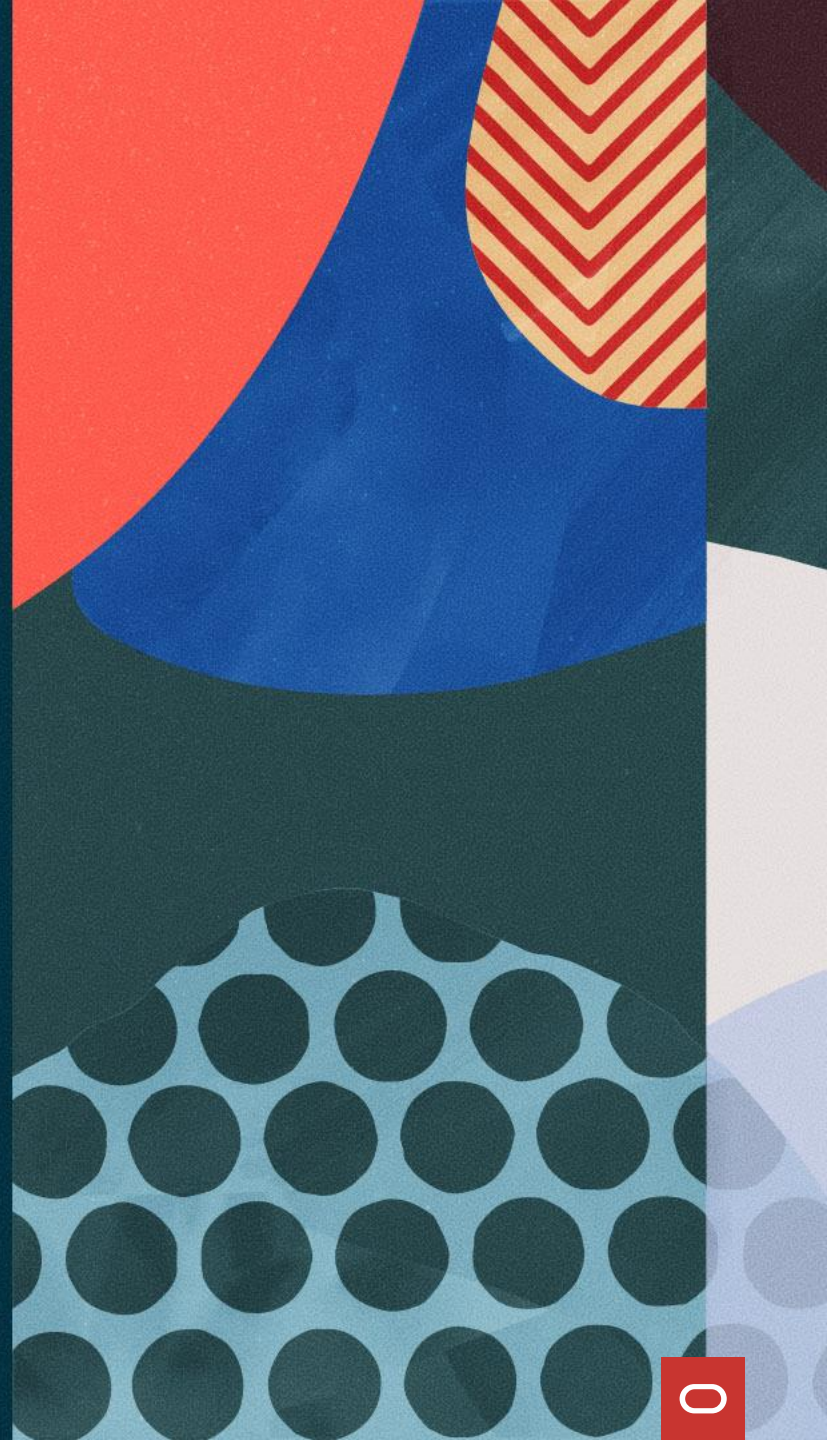

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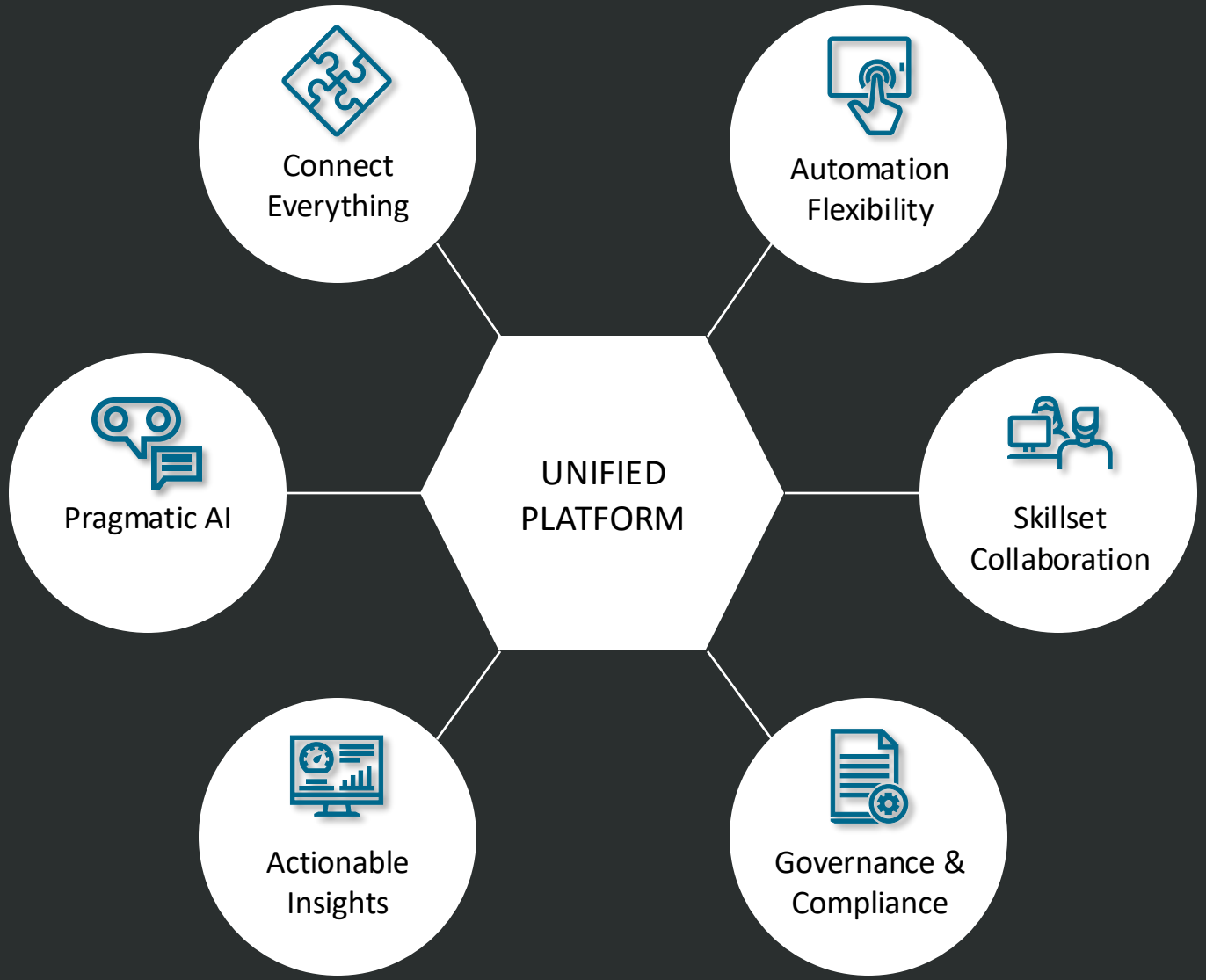
AI strategies succeed with connected apps, trusted data, and intelligent automation

Pillars for Next-Generation Automation



Oracle Integration
Connects your apps, people, processes, and AI

Agenda

1 Provisioning

2 Configuring

3 Developing integrations

4 Securing network access

5 Performance & monitoring

Provisioning

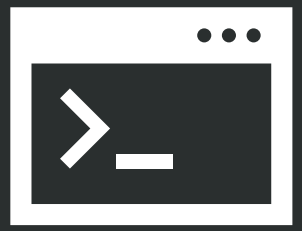
Options for provisioning

User interface

- ⊕ Simple
- ⊕ Web form-driven

- ⊖ Doesn't lend itself to automation
- ⊖ Some scenarios not supported

! Low complexity



Command line

- ⊕ All use cases
- ⊕ Any shell

- ⊖ Prereq: OCI environment
- ⊖ Must look up OCIDs

!! Medium complexity

Terraform

- ⊕ All use cases
- ⊕ Combine with creating other resources

- ⊖ Prereq: OCI environment
- ⊖ Must look up OCIDs from variables or directly injected

!! Medium complexity

API

- ⊕ All use cases
- ⊕ REST, Java, Python, .NET, JavaScript, GO, Ruby, PL/SQL

- ⊖ Prereq: OCI environment
- ⊖ Must look up OCIDs

!! High complexity

Key decisions at provisioning time

Changeable decisions

- Compartment
- Edition
- Message packs
- Disaster recovery (as of Q1CY26)

Unmodifiable decisions

- Region
- Name
- Shape
- Identity Domain
  - Use Fusion Domain if SaaS
- License type
- Consumption model

Configuring

Oracle Integration Additional Auto-Provisioned Features

Model Context Protocol (MCP)

Enterprise connectivity for AI-driven automation

AI Assistant

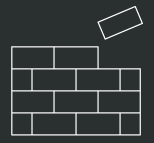
Lifecycle and operations guided by AI

RPA

Adapt automatically to UX changes

FHIR / MLLP

Healthcare integration made simple



Events

Decoupled messaging

AI Agents

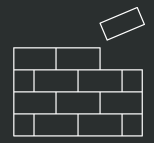
Low-code, custom guardrails, enterprise trust

AI Workflows

Intelligent AI orchestration

RPA Autonomous Environments

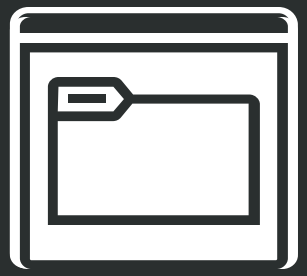
No-touch robot environment management



B2B

Exchange data with trading partners

Optionally provisioned features

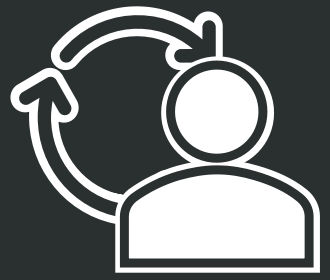


File Server

SFTP with
500 GB storage

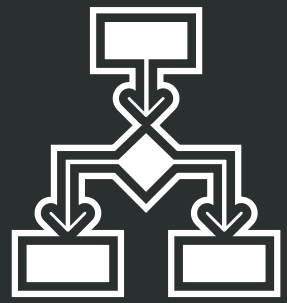
Visual Builder

Low code
web & mobile app
development



Human in the Loop

Simplify
workflows & approvals
across applications



Decisions

User-updateable
decision trees

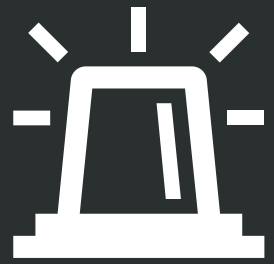
Always Configure These Settings

Backups

Configure OCI Object Storage for backup and recovery

Use a service account with a token

Oracle Integration



Notifications

Set up email recipients

Enable reports and alerts

Oracle Integration

SMTP setup

Use OCI Email Delivery

Configure DKIM

Oracle Integration

OCI Console

User access

Give *groups*, not *users*, access to the Oracle Integration instance

OCI Console

Configure As Needed

CI/CD integration

Built in support for GitHub

If not using GitHub, set up an alternative mechanism

Oracle Integration

File Server

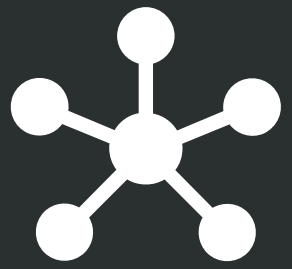
Users

Directories

Access Permissions

Oracle Integration

Recommended Configuration (1 of 2)



Private endpoint

Reduce load on connectivity agent

Improve security

OCI Console

Network Access (Access Control Lists)

Separate for FTP & HTTPS access

Design time ACL coming!

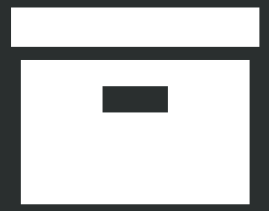
OCI Console

Tags

Use tags to identify instance properties

OCI Console

Recommended Configuration (2 of 2)



Data retention

Default: 32 Days

Can extend to 3 or 6 Months

- Increased cost (10% or 20% additional messages)

Balance against using OCI Logging

OCI Console

Logs

Send activity stream to OCI Logging

Set up connector to send logs to OCI Log Analytics

Store as long as you are willing to pay

- First 10GB free

OCI Console

Developing integrations

Development Best Practices

Use projects!

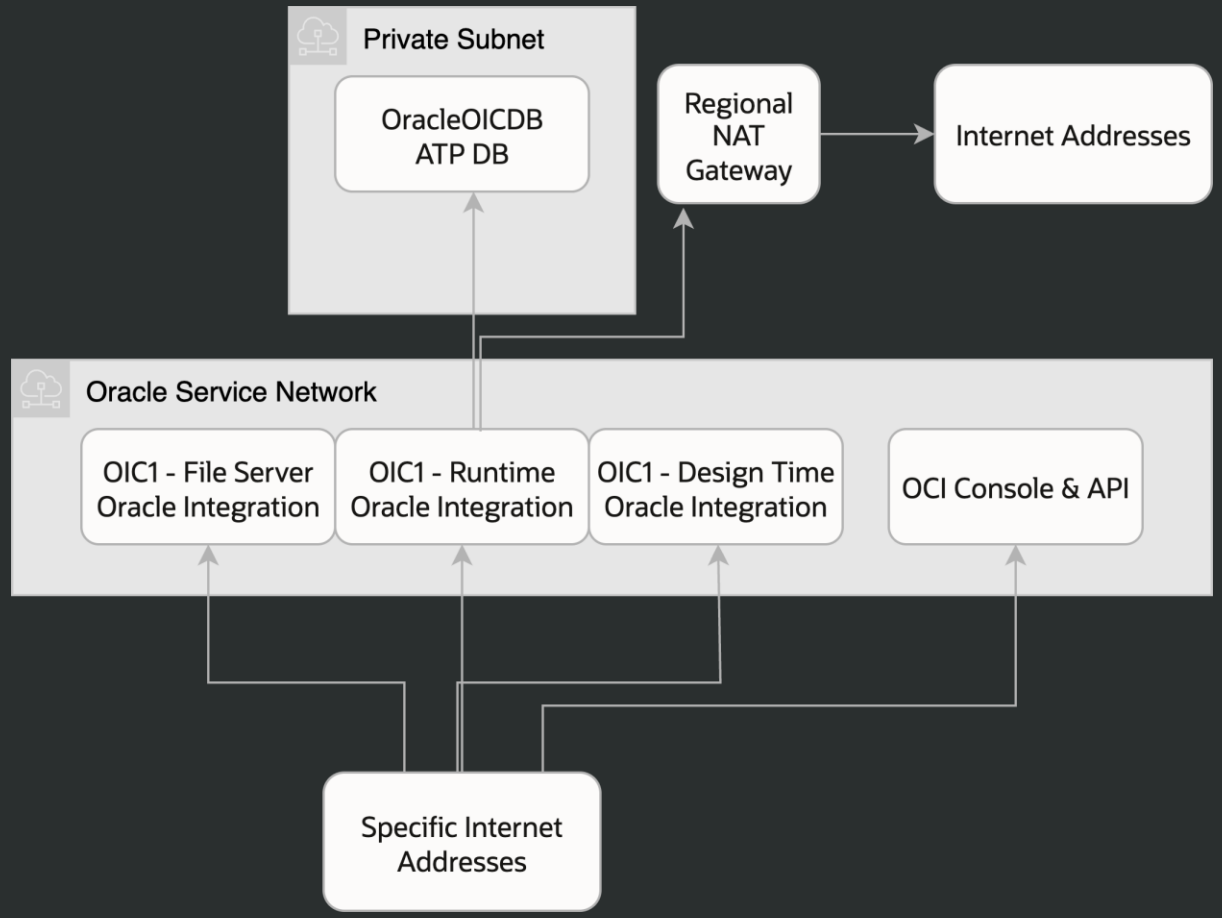
- ★ **New features are only available in projects**
- ★ **Build, manage, and monitor everything in one place**
- ★ **Fine-grained access control**
  - RBAC restricts all roles except admin
  - Admin role overrides project access control
  - Best practice: Use groups
- ★ **Reuse resources**
  - Centralize security with dedicated connection project
  - Centralize error handling and logging in single project
  - Share other configuration resources
- ★ **Run operations in parallel with async flows**
- ★ **Improved repository management**
  - Export project for backup
  - Deploy multiple components as complete solution
- ★ **Better handling of child integrations**
  - Calling async integration increments async count
  - Calling sync integration
    - Local invoke does NOT increment sync count
    - Loopback DOES increment sync count

Securing network access

Basic Oracle Integration

"Naked" instance or
Oracle-managed custom endpoint

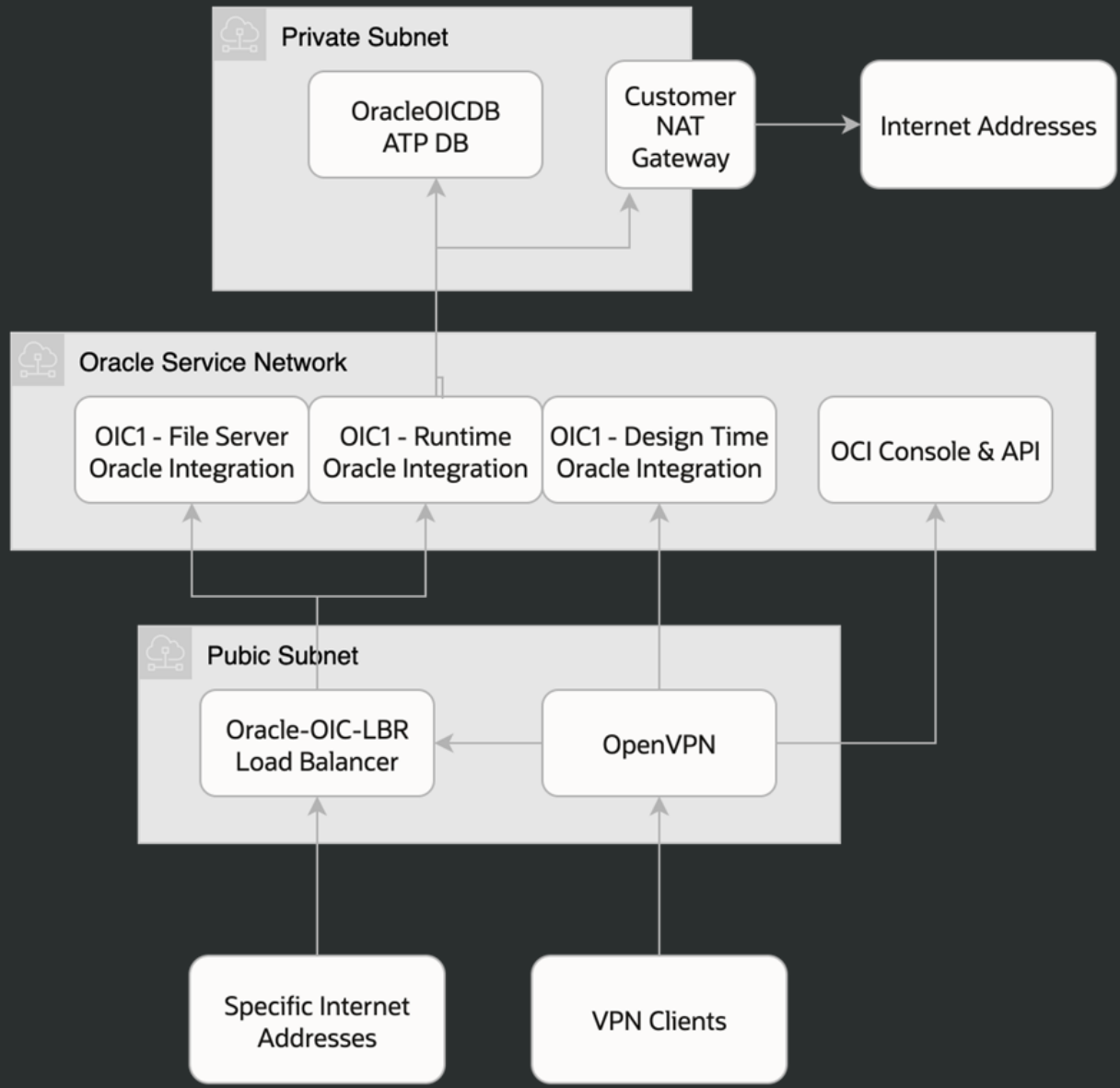
- **Oracle-managed custom endpoint assigned to Runtime**
- **OIC ACL limits traffic to specific clients**
  - Same ACL for Design Time and Runtime
  - Separate ACL for File Server



Customer-managed custom endpoint

Front components with load balancer

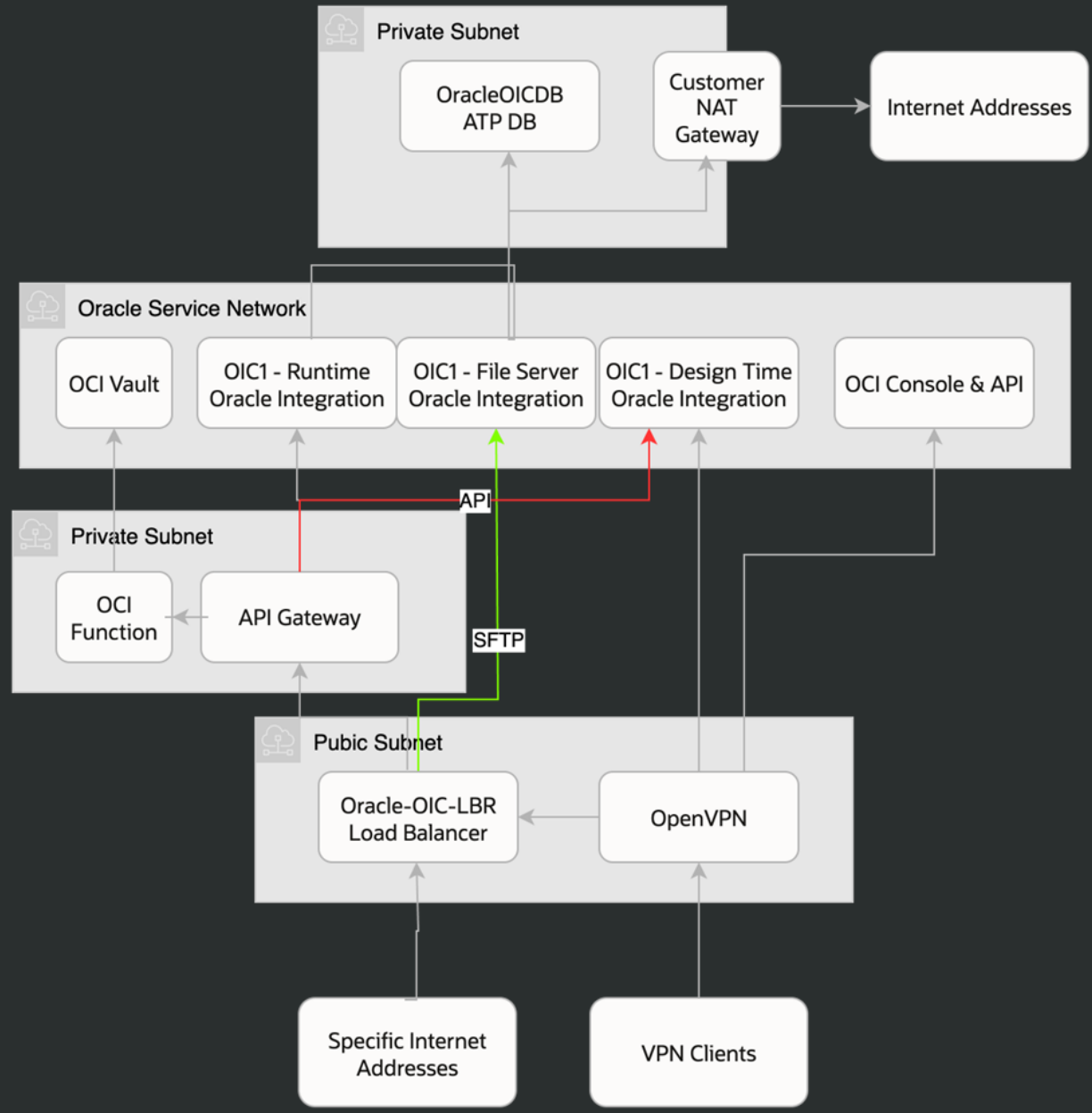
- **Custom endpoint assigned to load balancer**
- **OIC ACL limits traffic to load balancer VPN**
  - Design Time only accessible via VPN
- **LBR network security group**
  - Provides port 22 for File Server
  - Provides ACL for File Server and Runtime
- **Customer NAT gateway**
  - Provides unique IP source for OIC
  - VPN forwards internet traffic via NAT gateway



Integration level access control

Add API gateway

- **API gateway adds fine-grained access control**
- **OCI Function performs token exchange**
  - Validates incoming token against path
    Path includes integrations and OIC API
  - Returns token stored in OCI Vault
- **Design Time access only from VCN**
- **OIC ACL now only API gateway and VPN**
  OIC File Server ACL still LBR



Performance & monitoring

Boost performance

Authentication: Use OAuth

- Will avoid 429s from Identity Service
- Basic auth is a tool of the devil

Concurrency: Understand how it works

- Based on number of message packs (100 sync, 50 async per MP)
- 12-second response time at 100 concurrency uses 1 message pack in 10 minutes
- Schedule & async use the same concurrency pool
- If a schedule integration doesn’t need to be singleton, move it to an async integration to avoid blocking the schedule
- Use parallel processing – counts against concurrency

Slowness? Use monitoring

- Easily identify slow back-end systems
- Review actual concurrency against message packs

Explore options for monitoring

Building on OCI Logging

Reports and dashboards in Oracle Integration

- Comprehensive monitoring at two levels: projects and integration instances

OCI Logging

- Use search and saved searches for ad hoc monitoring
- OCI Dashboards visualize logging queries based on the activity stream or OCI Service Metrics for Integration
  - Use as-is or modify the dashboards in OCI Log Analytics
  - Leverage OCI Alarms based on OCI Service Metrics for Integration

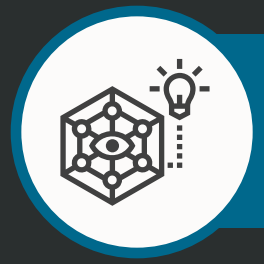
Additional options

- Send to third parties, such as Splunk
- Store in Oracle Database for use by Oracle Analytics

Oracle can help accelerate your automation journey

Connect Apps and Data

Automate Processes



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