



ORACLE

# HOUUG Oracle Cloud workshop-sorozat

Oracle Cloud Infrastructure (OCI) **alapozó**

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**Kovács** Norbert, Farkas **Miklós**

2023. szeptember 14.

# Safe harbor statement

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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, timing, and pricing of any features or functionality described for **Oracle's** products may change and remains at the sole discretion of Oracle Corporation.

# Program



8:30 - 9:00  
9:00 - 9:10  
9:10 - 9:40  
9:40 - 10:30  
10:30 - 10:50  
10:50 - 12:00  
12:00 - 13:00

**Regisztráció és reggeli**  
**Köszöntő, workshop sorozat ismertetése**  
Oracle publikus **felhő szolgáltatásainak áttekintése**  
Alap **fogadókörnyezet** elemeinek **áttekintése**  
**Kávészünet**  
**Fogadókörnyezet kialakítása és alkalmazás elhelyezése**  
**Ebéd**

# HOUUG Oracle Cloud workshop-sorozat

# Distributed Cloud **stratégia**



## Multicloud

Our products work with your other providers



## Hybrid cloud

We bring cloud services to you



## Public cloud

Access cloud services in 45 global locations including Commercial, Governmental, and European Sovereign (2023)



## Dedicated cloud

We build a cloud just for you, with all 100+ OCI services running in customer data centers





# Oracle Cloud Infrastructure (OCI) alapozó



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# Oracle **privát/hibrid** felhő



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## Hybrid cloud

Oracle Exadata Cloud@Customer - Cloud autonomous databases running in customer data centers

Oracle Compute Cloud@Customer - Fully-managed rack-scale, OCI regional resource bringing cloud services on-premises

Oracle Cloud VMware Solution - Complete control using familiar VMware tools



## Dedicated cloud

We build a cloud just for you, with all 100+ OCI services running in customer data centers



# Oracle Multi-cloud **ajánlatai**



## Multicloud

OCI Interconnect with Azure - 2 millisecond latency private connection and identity federation

OCI Database Service for Azure - OCI databases provisioned and managed through Azure (AWS, GCP on roadmap)

Inbound Multicloud (Cloud Hub) - GCP, AWS, Azure services available in OCI (on roadmap)

MySQL HeatWave on AWS - Database runs on AWS and managed through OCI console



## Public cloud

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## Hybrid cloud

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# Alkalmazás modernizáció



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# Oracle felhő áttekintése


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# Teljes körű regionális lefedettség

August 2023: 45 Regions, 7 planned; 12 Azure Interconnect Regions

100% renewable energy used for Oracle Cloud data centers in Europe (today); All regions (by 2025)




- Same Architecture
- Same Services
- Same Prices

- 35 Commercial
- 7 Commercial Planned
- 2 Sovereign
- 8 Government
- 12 Microsoft Azure Interconnect



# Telepítési opciók a szuverenitási elvárások szempontjából

	Commercial Regions Global operations	Government Regions US, UK & Australia operations	EU Sovereign Cloud EU operations	Dedicated Region Cloud deployed in your datacenter	Isolated Region Designed to work in disconnected mode	Oracle Alloy* Enables partners to become cloud providers
Data Center Location	Global	US/UK/Australia	EU	Customer-defined	Customer-defined	Partner-defined
Operations and Support	Oracle Global	US or UK or Australia personnel	Oracle EU	Oracle Global	Customer-defined	Partner-defined
Network Isolation (Realm)	Global realm	US or UK or Australia government realms	EU realm	Dedicated realm	Air-gapped, dedicated realm	Dedicated realm
Multi-tenancy	Yes	Yes	Yes	<b>Customer's</b> organization	Customer-defined	<b>Partner's</b> customers

Same OCI architecture, services, experience, and value

\*coming soon



# Az **alapoktól építettük** fel a felhőszolgáltatásunkat

Az **első generáció indulása** után 11 évvel tiszta lappal **indítottunk**



Off-box virtualization

The way we manage OCI is entirely separate from your resources, maximizing isolation, performance, and security



Nonblocking networks, minimal charges

We optimized our networks, so you get guaranteed bandwidth between your resources, with 90% lower costs to access data and 80% lower costs to serve data



Maximum computing density per MW

We pack over 230,000 cores into each megawatt and can deliver an entire cloud region in only 12 racks



Flex infrastructure

You can choose exactly the number of cores, memory, and storage performance you need, and pay for exactly that, minimizing waste



Simple, predictable pricing

Our pricing is simple to understand, 50-90% lower than other hyperscalers, and consistent worldwide, so you get predictable savings with no surprises

The unique design of OCI enable Oracle to offer to most competitive and extensive SLAs in the market covering availability, performance and scalability





# Széles szolgáltatás portfólió, 100+ szolgáltatás



Oracle Applications

Custom Applications

ISV Applications

 Developer Services	 Containers and Functions	 Integration Services	 Analytics and BI	 Machine Learning and AI	 Big Data and Data Lake
 Compute	 Storage	 Networking	 Oracle Databases	 Open Source Databases	 Native VMWare
Security   Observability and Management   Compliance   Messaging   Cost Management & Governance					

Global Cloud Datacenter Infrastructure  
Commercial and Government Public Cloud Regions | Hybrid Cloud: Cloud@Customer, Dedicated Regions, Roving Edge



# Nyílt és rugalmas választás



Managed services based on upstream open source

Reduce operational burdens and use the skills you already on your team.

Run the technologies you already use

Extend technology investments **you've** already made

Native integrations with the dev tools **you're** used to

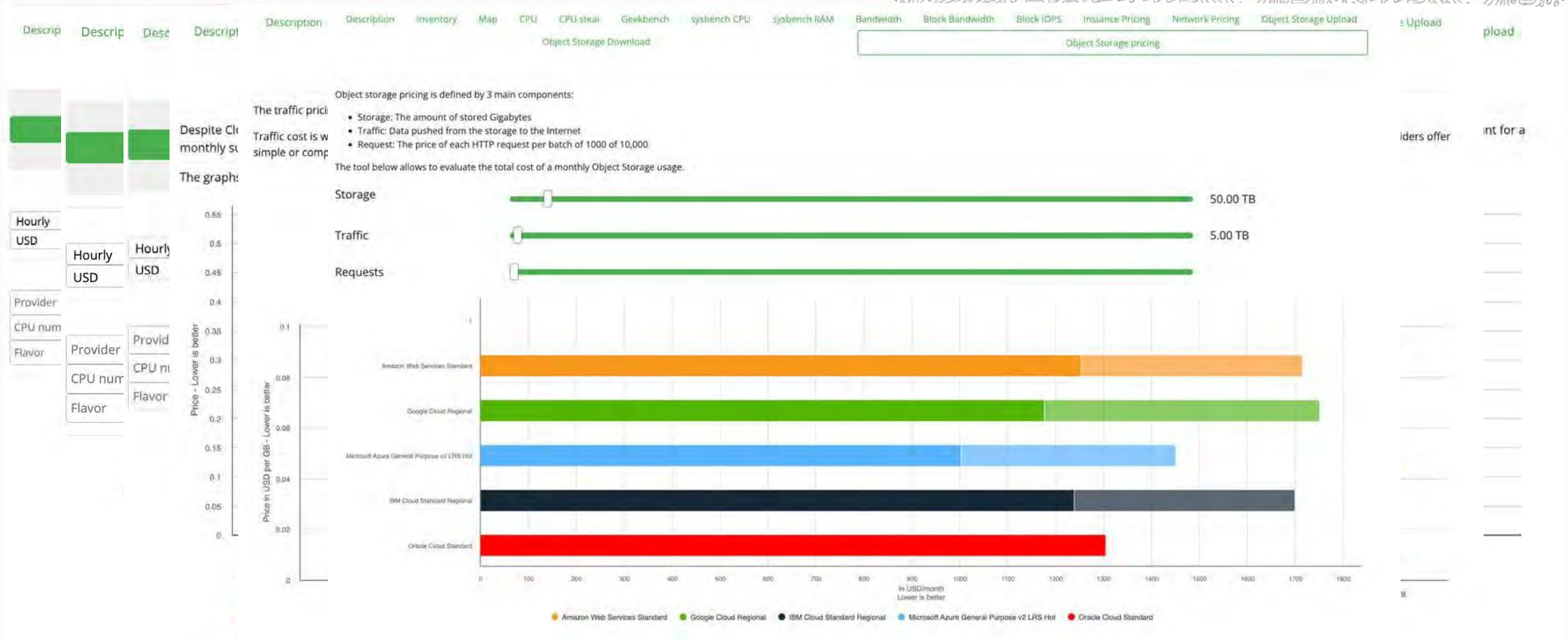
Simplifies building, deploying, and managing applications with skills you already have

		<p>Communities we contribute to</p>



# Benchmark

## AWS vs Azure vs Google vs IBM vs Oracle - VMs Q2 2023



<https://projector.cloud-mercato.com/projects/aws-vs-azure-vs-google-vs-ibm-vs-oracle-vms-q2-2023>





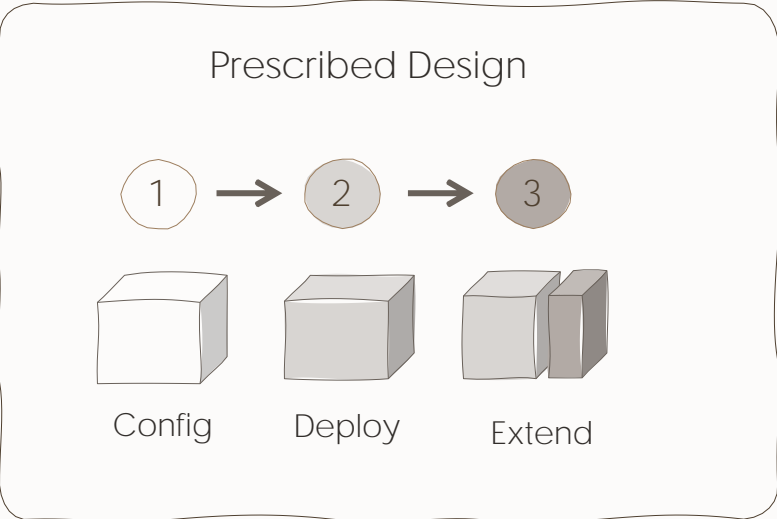
# Fogadókönyezet/Landing Zone

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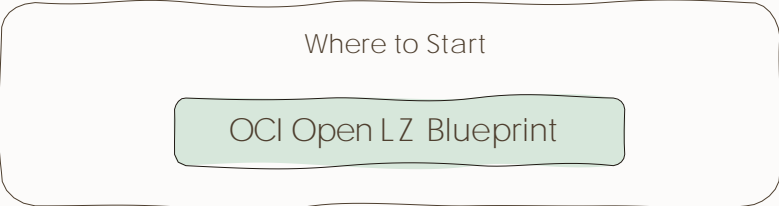
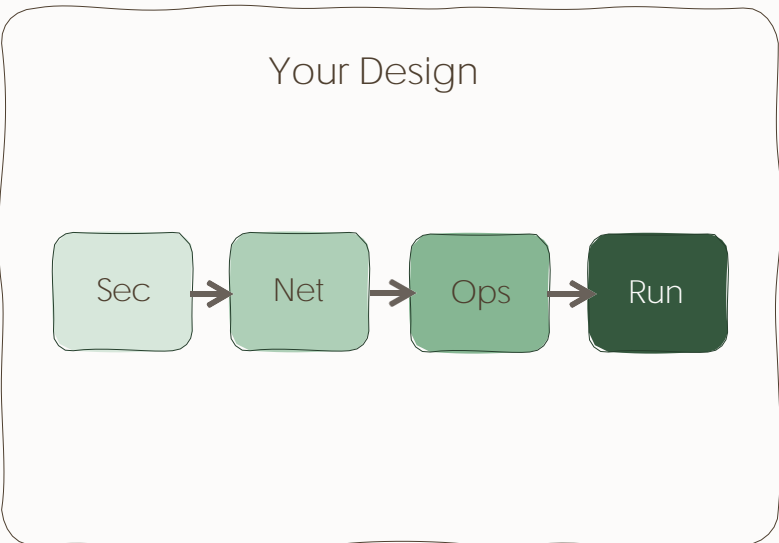
# Landing Zone **konceptió** (standard, tailored)



## Standard Landing Zones



## Tailored Landing Zones



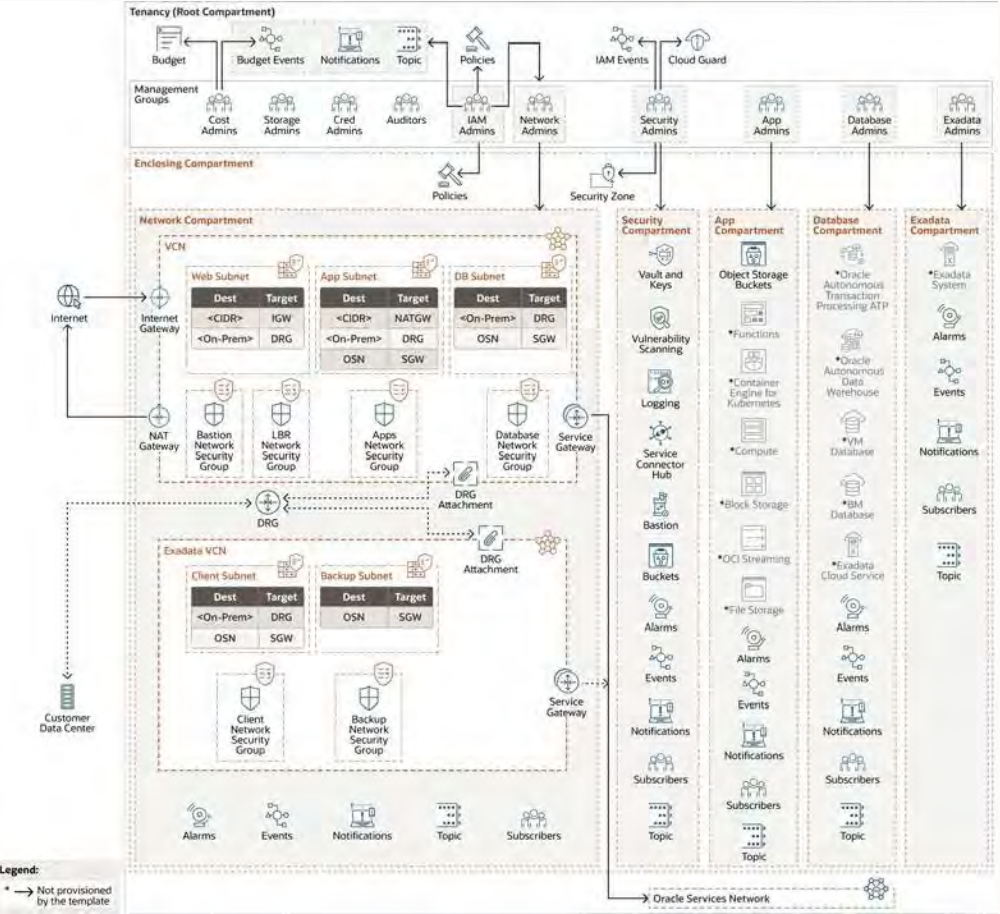
<https://github.com/oracle-devrel/technology-engineering/blob/main/landing-zones/README.md>



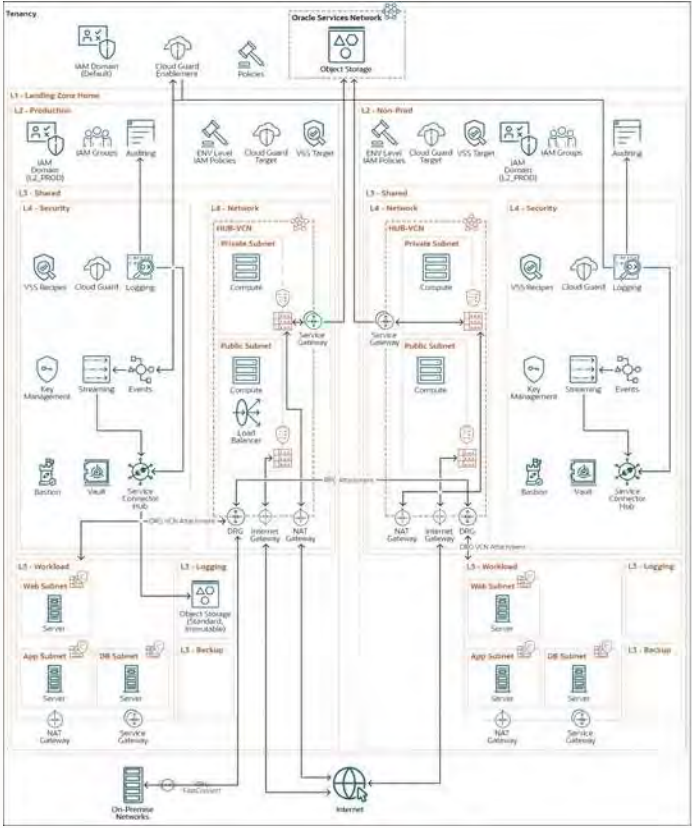


# OCI Standard Landing Zones

CIS Landing Zone



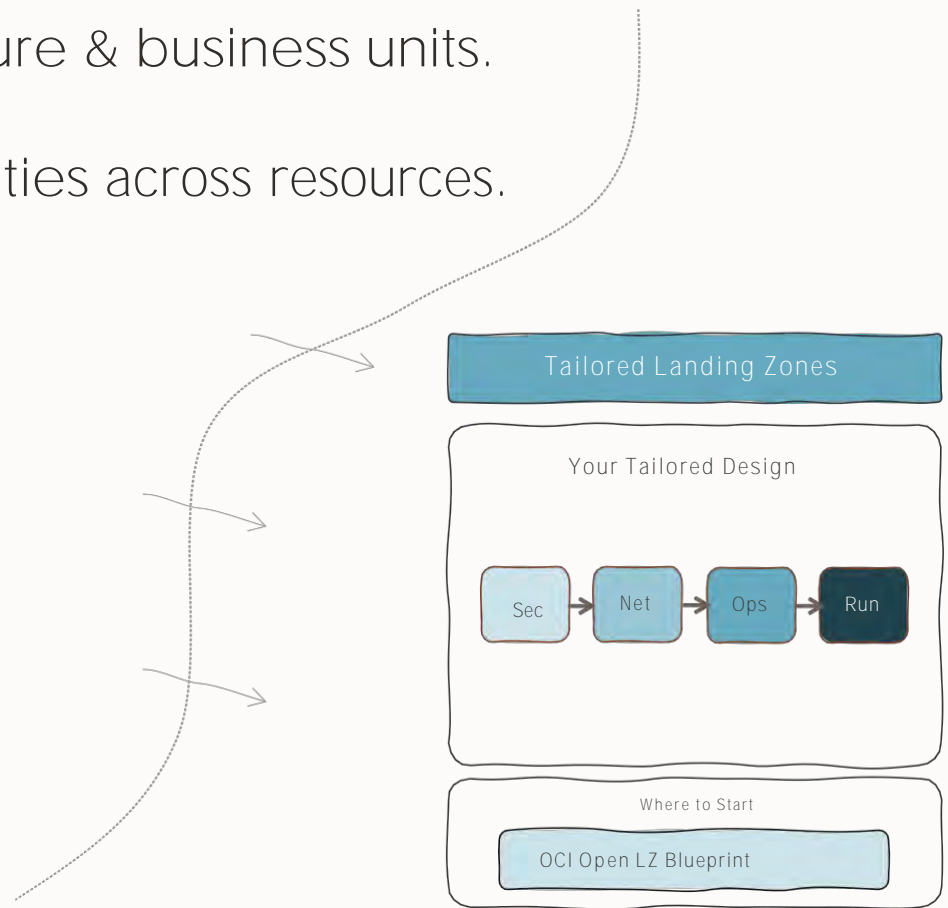
Oracle Enterprise Landing Zone



# Tailored Landing Zone



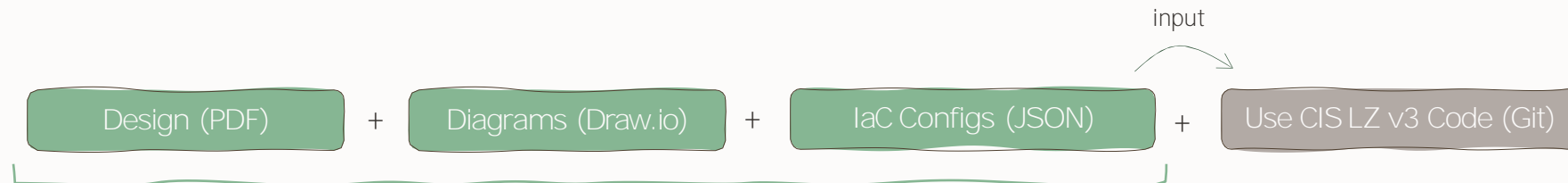
1. Onboarding and reflecting your organization structure & business units.
2. Fine grained segregation of duties and responsibilities across resources.
3. Highly tuned network design and security posture.
4. Mirror existing landing zones on other CSP.
5. Heterogeneous/Large workloads landscape.
6. Adopting a highly scalable operating model.



# OCI Open LZ

## OCI Operating Entities Landing Zone

*A **blueprint** to simplify the Onboarding of Organizations,  
Business Units, and Subsidiaries into OCI.*



<https://github.com/oracle-quickstart/terraform-oci-open-lz>



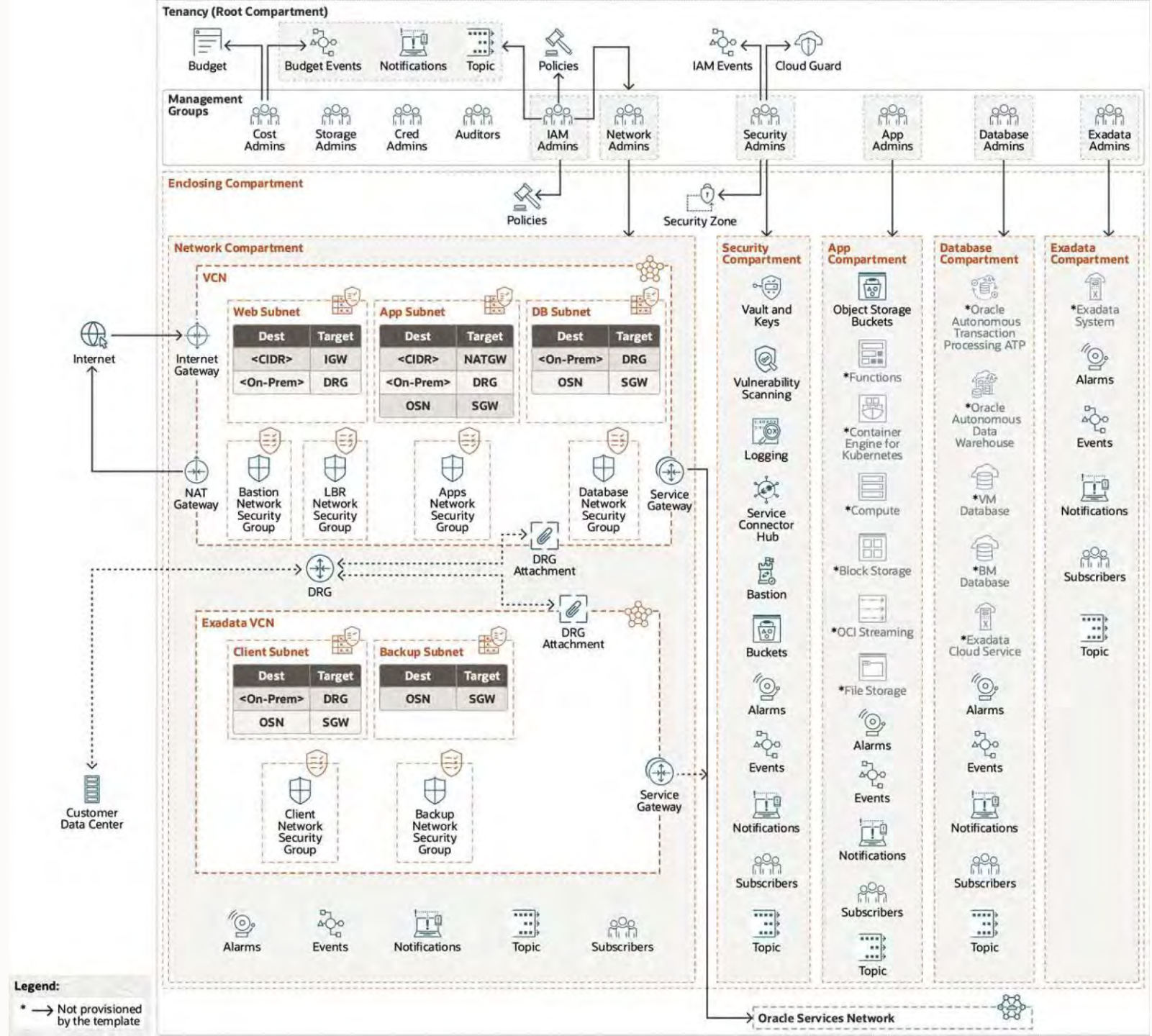


# Fogadókönyezet elemeinek áttekintése

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# CIS Landing Zone

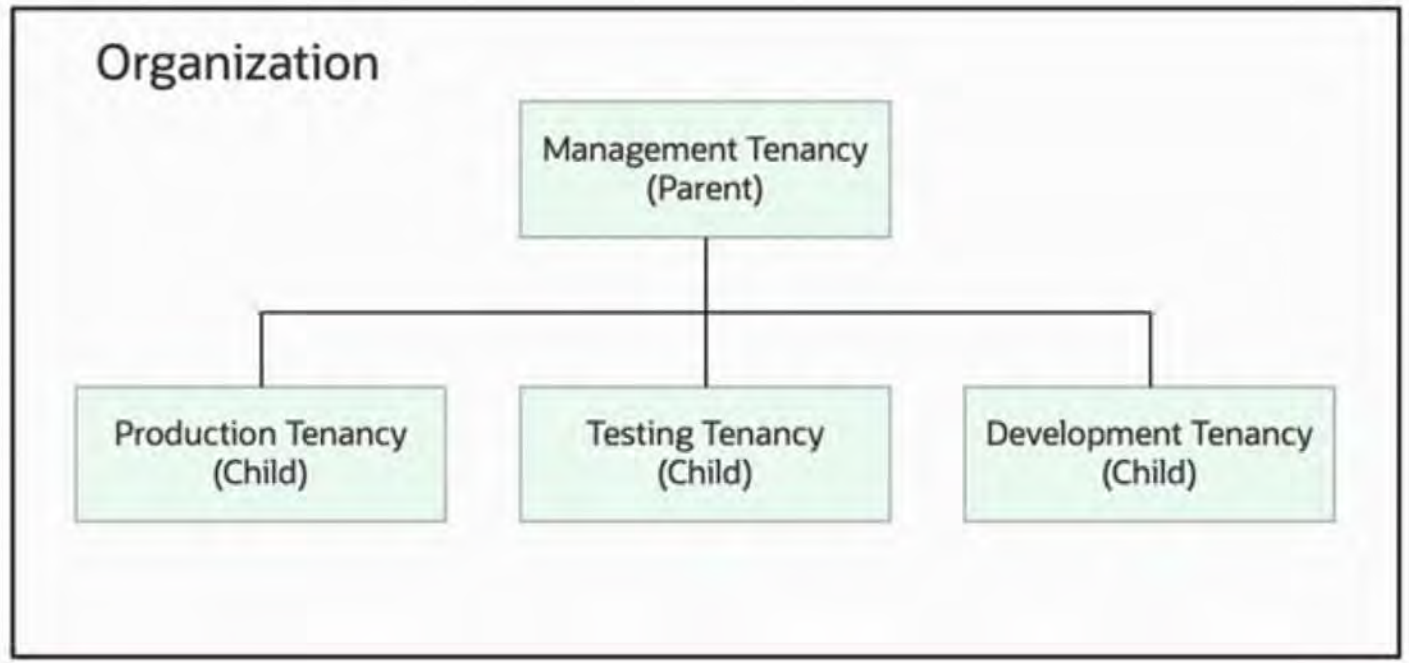




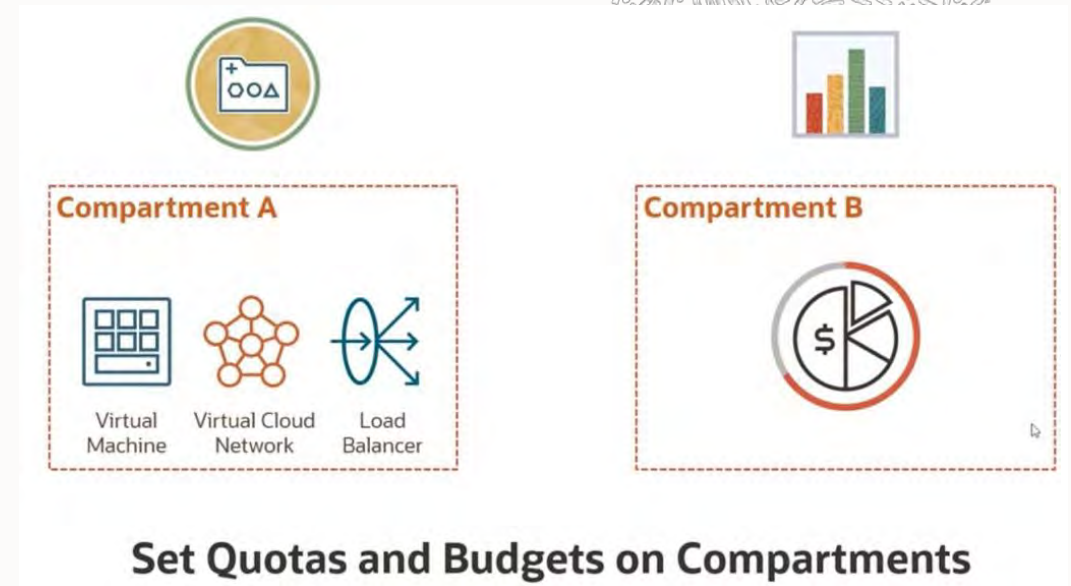
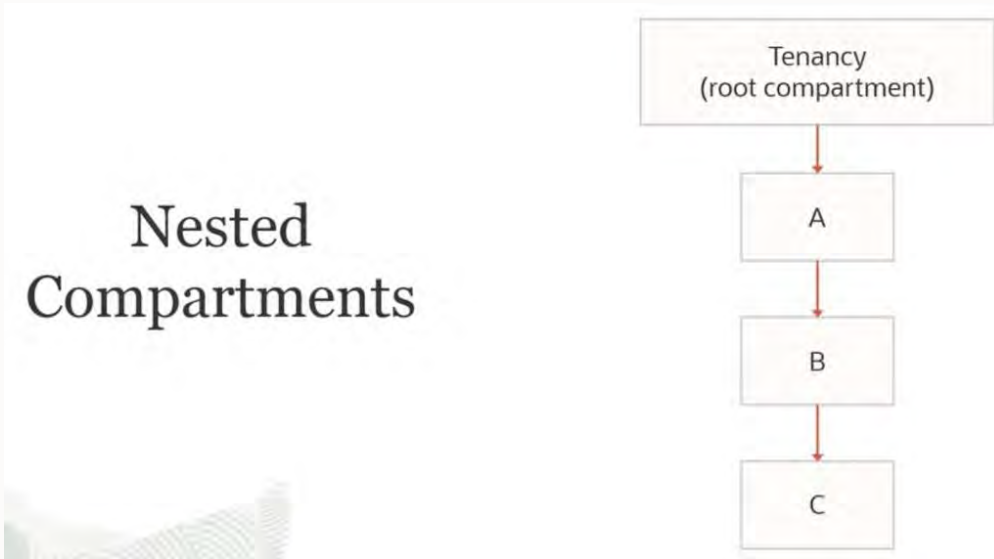
# Organization Management

Tenancy, Compartment, Availability Domain, Fault Domain

# Tenant **kezelés**



# Compartment **konceptió**

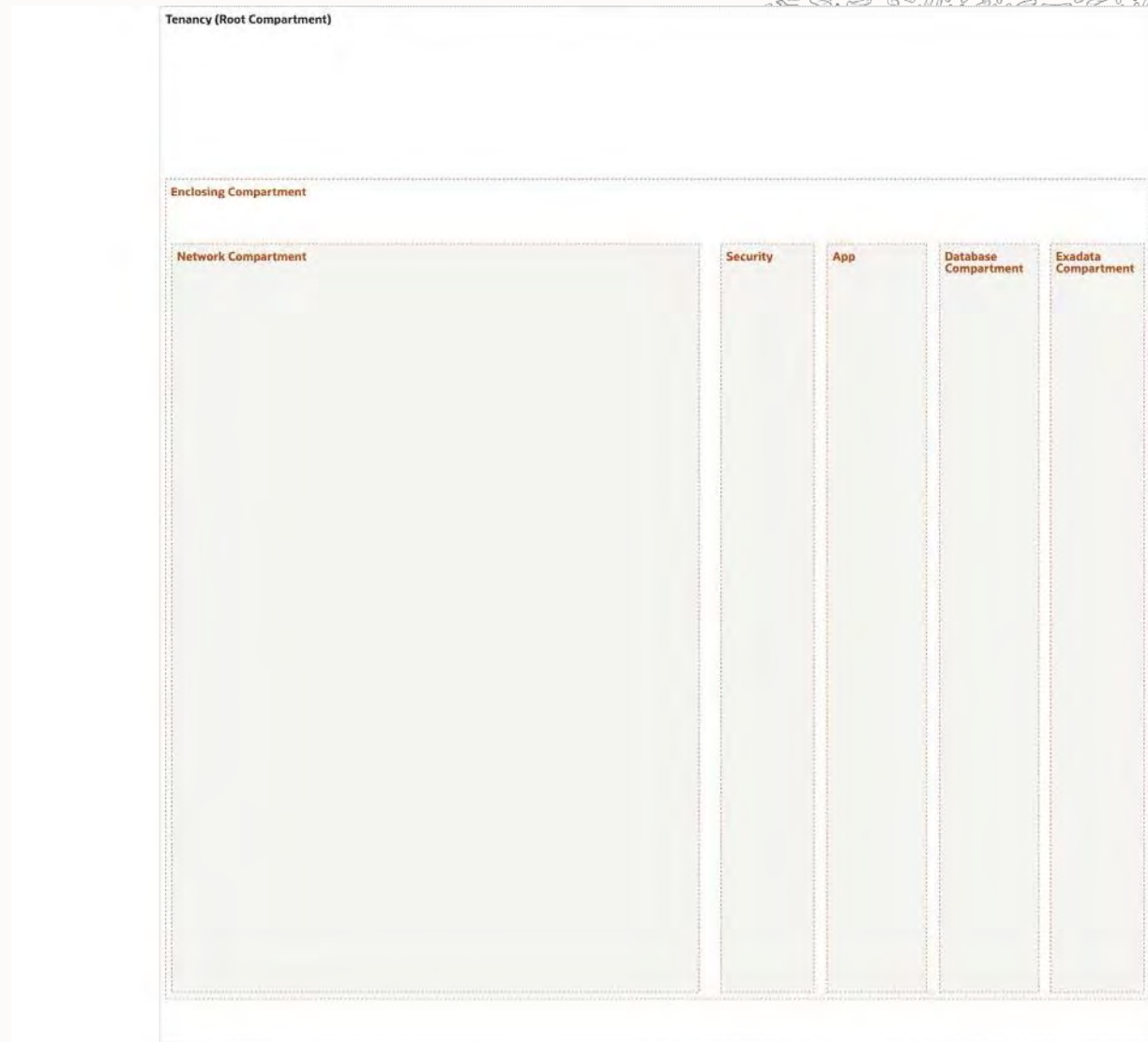


- 1) Compartments can be **nested** and can be **six levels** deep (Six levels of nesting).
- 2) Allows you to write policies for the **root compartment** or even more granular on the **sub-compartments**.
- 3) You could **set quotas** on the shapes of the VM's that the compartment is allowed to consume.
- 4) You can also set a **Spending budget** on each compartment.
- 5) Resources from **multiple regions** can be in the same compartment, you can restrict access to users based on region.





# Landing Zone architektúra - compartment





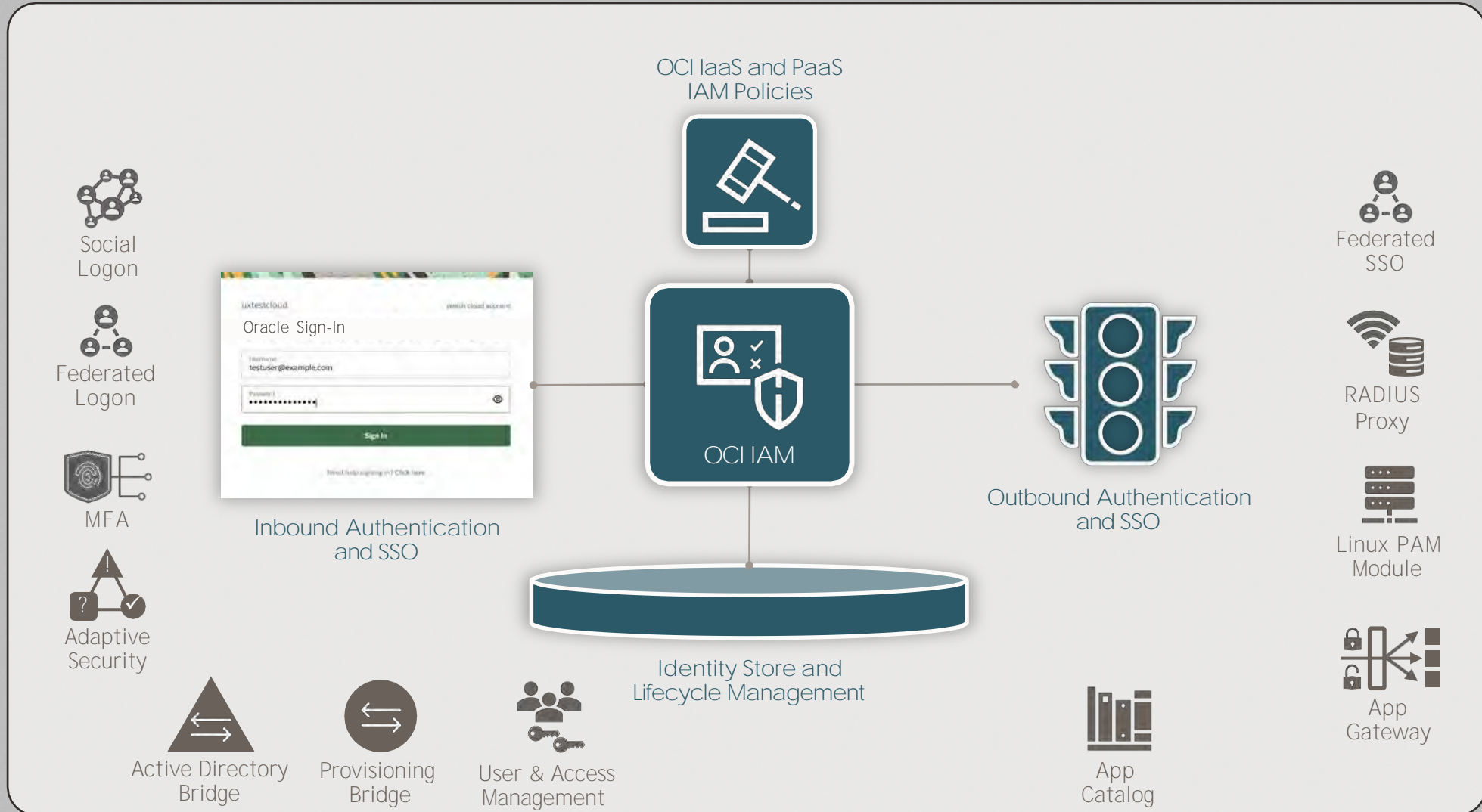
# Identity and Access Management

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Authentication, Authorization, Identity, Policies



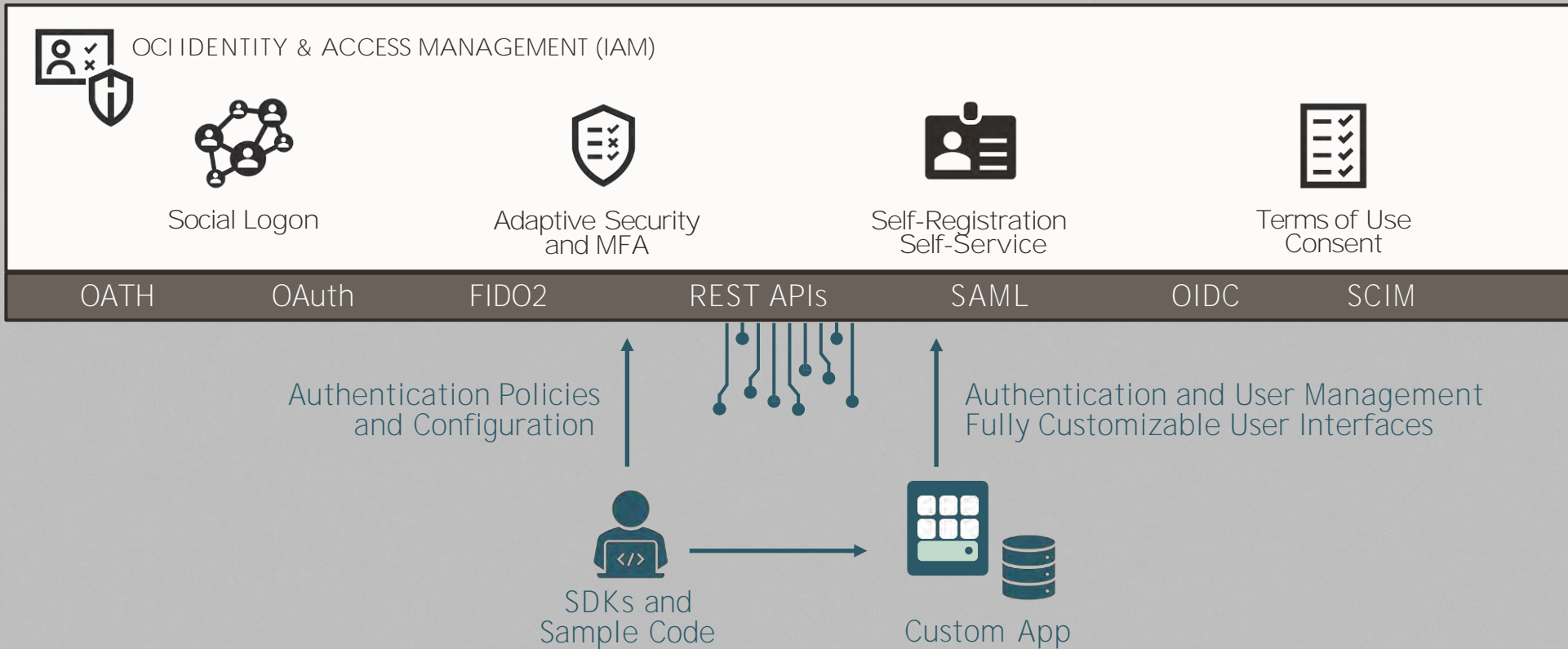
# OCI Identity & Access Management (OCI IAM)

## Enterprise Identity & Access Management



# OCI Identity & Access Management (OCI IAM)

## IAM Domains for Application Developers





# AuthN options



Social / Username & Password



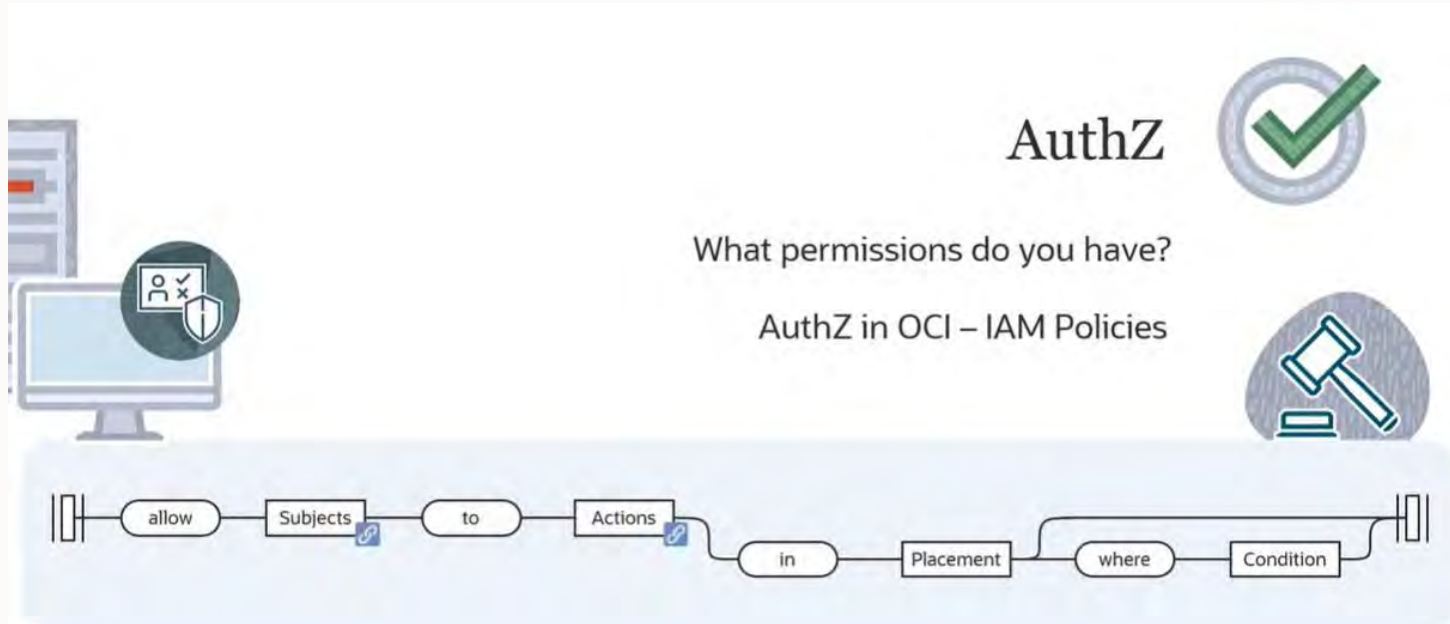
Using OCI API + CLI / SDK

Oracle generated token strings

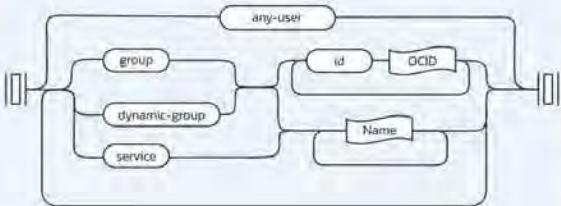
```
begin
  DBMS_CLOUD.create_credential (
    credential_name => 'OBJ_STORE_CRED',
    username => '<userXX>',
    password => '<your Auth Token>'
  );
end;
```



# AuthZ – Security Policy



## Subjects Clause



Subjects are a clause for the various ways that an authenticated actor can be addressed:

- By membership in an Identity registered group (e.g., "group Admins", "group id ocid1.group.oc1....")
- As a service, for OCI services (e.g., "service objectstorage-us-sanjose-1")
- As a wildcard, with "any-user" (any request from the tenancy)
- More than one name or group can be named in Subjects element. These can be chained by kind (e.g., "group Alice, Bob")

## Actions Clause



Services define one or more Permissions that any given API call will require.

These are documented and bundled into convenient "verb resource" pairs (e.g., "inspect objects", "manage objects") for Actions clauses.

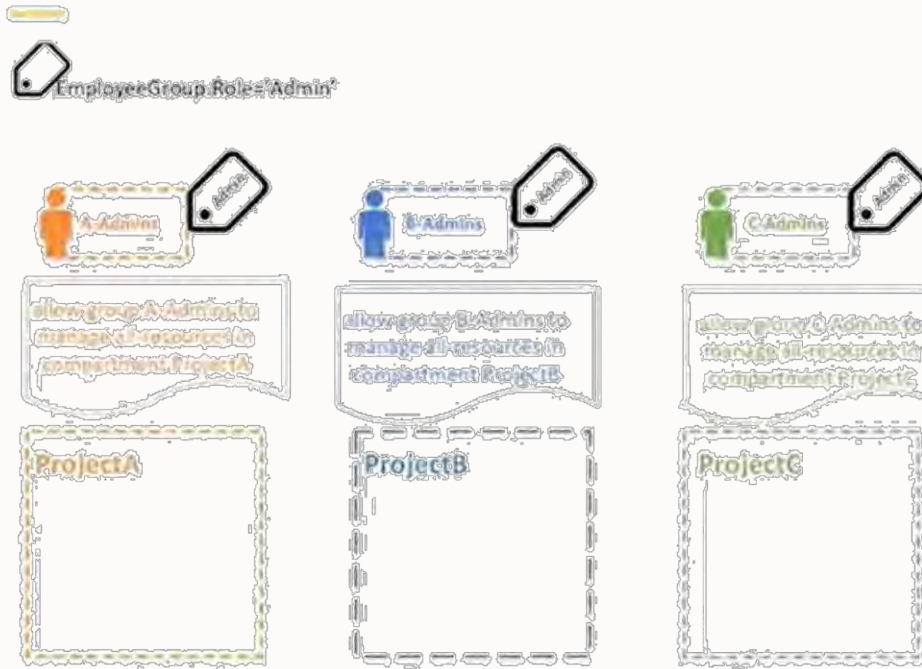
Verb	Type of access	Permission Example
inspect	Permissions necessary to observe, enumerate and monitor, w/o access to confidential information	«inspect objects» learn details about objects stored in buckets - quantity, confirmation of object existence, etc. without getting access to the object itself
read	Permissions necessary to access but not alter resources	«read objects» Reads the contents of the object
use	Permissions to modify pre-existing resources	«reencrypt objects» re-encrypt objects using a different key version
manage	Permissions to do anything to the resource kind	«create objects» create or delete objects

## Network Sources



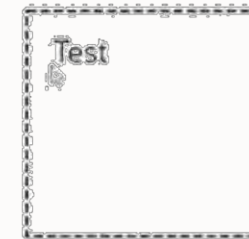
# AuthZ – Tag-Based Access Control

## Example



Set up a Test compartment for members of the three projects to share

allow any-group to manage all-resources in compartment Test where `request.principal.group.tag.EmployeeGroup.Role = 'Admin'`



- All existing admin groups with the tag have access to Test compartment.
- Any new group tagged with `EmployeeGroup.Role='Admin'` will have access without updating policy statements





# Azure AD **federációs példa**

Dashboard > Enterprise applications > **Browse Azure AD Gallery**

+ Create your own application | Got feedback?

The Azure AD App Gallery is a catalog of thousands of apps that you can use to integrate with your application. When deploying an app from the App Gallery, you leverage prebuilt applications. If you are wanting to publish an application you can file a request using the process described in [this article](#).

Search application  Single Sign-On

**Cloud platforms**

- Amazon Web Services (AWS)
- Oracle

### Create your own application

Got feedback?

If you are developing your own application, using Application Proxy, or want to integrate an application that is not in the gallery, you can create your own application here.

What's the name of your app?

What are you looking to do with your application?

- Configure Application Proxy for secure remote access to an on-premises application
- Register an application to integrate with Azure AD (App you're developing)
- Integrate any other application you don't find in the gallery (Non-gallery)

**We found the following applications that may match your entry**  
We recommend using gallery applications when possible.

- Oracle Fusion ERP
- Eloqua
- Oracle Cloud Infrastructure Console
- Oracle IDCS for JD Edwards

## ORACLE Cloud

GreenCorp

### Oracle Cloud Account Sign In

Identity domain ⓘ  
Default

User Name

Password

[Forgot Password?](#)

Or sign in with

[Need help signing in?](#)



# Landing Zone architektúra - IAM

