What is developer self-service?

Developer self-service describes automated tools and processes to empower developers to work without help.
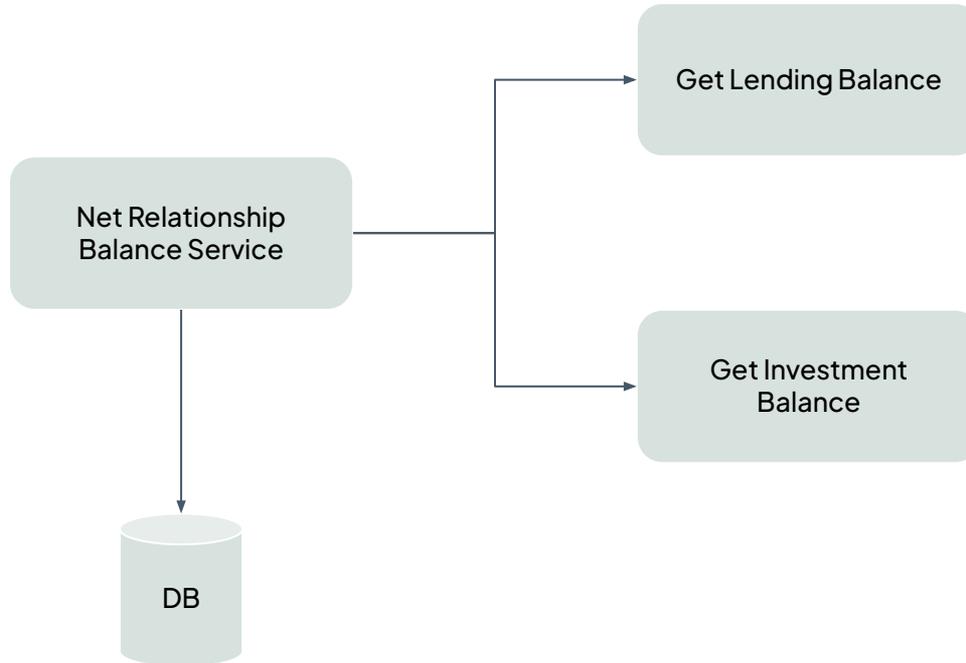
– Puppet Blog –

Scenario

- Two banks are exploring private banking offerings
- They have the need to go to market first and capture the limited prospects
- Two developers (Arakin & Luka) representing two banks are tasked to develop an API to return existing **high net relationship** clients.
- Net relationship criteria:
  - Investment account balance
  - Lending account balance
- They have the need to persist monthly reports as well.

Net Relationship Balance Service → Get Lending Balance

Net Relationship Balance Service → Get Investment Balance

Net Relationship Balance Service → DB

Dependency Discovery

Arakin

Luka

Dependency Discovery

Arakin

- Ask around!
- Search in source code
- Search in internal documentation
- Use heterogeneous portals
  - API developer portals
  - Cloud provider portals

Luka

Dependency Discovery

Arakin

- Ask around!
- Search in source code
- Search in internal documentation
- Use heterogeneous portals
  - API developer portals
  - Cloud provider portals
-

Luka

- Service catalog
  - Automated dependency addition
  - Searching and filtering
  - Context aware
  - Developer tool integration

Select a Resource

Services   Databases

🔍 Search Services

Name ⌄   ⇅

Type ⌃

☑ Internal
☑ Third Party

Network Visibility ⌃

☑ Project
☑ Organization
☑ Public

Categories ⌃

☐ Business Management/ERP
☐ GenAI
☐ HR
☐ utility
☐ customer relation

L   ⧉

lending-backend
Lending Division
REST
`Version: v1` `Status: Published`

👁 Organization, Public   🕐 21 hours ago

I   ⧉

investment-banking-backend
Investment Banking Division
REST
`Version: v1` `Status: Published`

👁 Organization, Public   🕐 22 hours ago

T   ⧉

exchange-rates
Utility Division
REST
`Version: v1` `Status: Prototype`

👁 Public, Organization   🕐 1 day ago

D   ⧉

interest-rates
Utility Division
REST
`Version: v1` `Status: Published`

👁 Public   🕐 2 days ago

D   ⧉

promotion-backend
Marketing Division
REST
`Version: v1` `Status: Published`

👁 Public   🕐 2 days ago

E   ⧉

Employee-details
HR Division
REST
`Version: v1` `Status: Prototype`

👁 Public   🕐 3 days ago

B   ⧉

token-issue-service
Customer Relation Division
REST
`Version: v1` `Status: Prototype`

👁 Public, Organization   🕐 4 days ago

Select a Resource

Services   Databases

🔍 Search Services

Name ⌄   ⇅

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☑ Internal
☑ Third Party

Network Visibility ⌃

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L   ↗

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☑ Third Party

Network Visibility ⌃

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L   ⬈

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👁 Organization, Public   🕐 21 hours ago

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REST
Version: v1   Status: Published

👁 Organization, Public   🕐 22 hours ago

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promotion-backend
Marketing Division
REST
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B   ⬈

token-issue-service
Customer Relation Division
REST
Version: v1   Status: Prototype

👁 Public, Organization   🕐 4 days ago

Select a Resource

Services   Databases

🔍 Search Services   Name ∧   ⇅

		Name
		Content
		Label

Type   ∧

☑ Internal

☑ Third Party

L ↗	I ↗	T ↗	D

lending-backend

Lending Division

REST

Version: v1 Status: Published

investment-banking-backend

Investment Banking Division

REST

Version: v1 Status: Published

exchange-rates

Utility Division

REST

Version: v1 Status: Prototype

interest-rates

Utility Division

REST

Version: v1 Status: Published

Network Visibility   ∧

☑ Project

☑ Organization

☑ Public

⊘ Organization, Public   🕐 21 hours ago

⊘ Organization, Public   🕐 22 hours ago

⊘ Public, Organization   🕐 1 day ago

⊘ Public   🕐 2 days ago

Categories   ∧

☐ Business Management/ERP

☐ GenAI

☐ HR

☐ utility

☐ customer relation

D ↗	E ↗	B ↗

promotion-backend

Marketing Division

REST

Version: v1 Status: Published

Employee-details

HR Division

REST

Version: v1 Status: Prototype

token-issue-service

Customer Relation Division

REST

Version: v1 Status: Prototype

⊘ Public   🕐 2 days ago

⊘ Public   🕐 3 days ago

⊘ Public, Organization   🕐 4 days ago

I investment-banking-backend Version: v1.0

No summary provided

REST Project: Investment Banking Division Status: Published

Overview **API Definition** How to Use Related Documents

⬇ Download

| GET | **/clients** List all clients | ⌄ |

| POST | **/clients** Create a new client | ⌄ |

| GET | **/clients/{clientId}** Get a client by ID | ⌄ |

| PUT | **/clients/{clientId}** Update a client | ⌄ |

| DELETE | **/clients/{clientId}** Delete a client | ⌄ |

| GET | **/accounts** List all savings accounts | ⌄ |

| POST | **/accounts** Create a new savings account | ⌄ |

| GET | **/accounts/{accountId}** Get a savings account by ID | ⌄ |

| PUT | **/accounts/{accountId}** Update a savings account | ⌄ |

| DELETE | **/accounts/{accountId}** Delete a savings account | ⌄ |

Create a Connection

Connecting to

I	investment-banking-backend ✎
	REST
	Version v1

Name

investment banking connection

Description (Optional)

Enter Description

Access Mode

⊞ **Organization**	🌐 **Public**
Access the service with the organization-level internal endpoint	Access the service with the public endpoint.

Authentication Scheme

API Key	**OAuth2**
Authenticate using a simple, unique API key for direct access.	Generate and use an access token with client credentials for secure access

Cancel   Create

16

Create a Connection

Connecting to

I	investment-banking-backend ✎
	REST
	Version v1

Name

investment banking connection

Description (Optional)

Enter Description

Access Mode

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Cancel   Create

17

Create a Connection

Connecting to

I	investment-banking-backend ✎
	REST
	Version v1

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investment banking connection

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Generate and use an access token with client credentials for secure access

Cancel   Create

investment banking connection

Developer Guide

Connecting to	investment-banking-backend ⧉
Connection Schema	Default API Key Connection - Organization
Service URL	https://1456f846-f4f9-4e8f-bb99-a461df78c2d4-dev-internal.e1-us-east-azure.internal.choreoapis.dev/investment-banking-divis/investment-banking-backen/v1

Development (US)   Production (US)

Configuration key	Configuration Value	
ServiceURL	https://1456f846-f4f9-4e8f-bb99-a461df78c2d4-dev-i...	
ChoreoAPIKey	***************** 👁 ⓘ	Regenerate

investment banking connection

Developer Guide

Connecting to	investment-banking-backend ⧉
Connection Schema	Default API Key Connection - Organization
Service URL	https://1456f846-f4f9-4e8f-bb99-a461df78c2d4-dev-internal.e1-us-east-azure.internal.choreoapis.dev/investment-banking-divis/investment-banking-backen/v1

← Back to Connection Listing

Development (US)   Production (US)

Configuration key	Configuration Value	
ServiceURL	https://1456f846-f4f9-4e8f-bb99-a461df78c2d4-dev-i...	
ChoreoAPIKey	***************** 👁 ⓘ	Regenerate

20

investment banking connection

Developer Guide

Connecting to	investment-banking-backend [↗]
Connection Schema	Default API Key Connection - Organization
Service URL	https://1456f846-f4f9-4e8f-bb99-a461df78c2d4-dev-internal.e1-us-east-azure.internal.choreoapis.dev/investment-banking-divis/investment-banking-backen/v1

← Back to Connection Listing

Development (US)   Production (US)

Configuration key	Configuration Value	
ServiceURL	https://1456f846-f4f9-4e8f-bb99-a461df78c2d4-dev-i...	
ChoreoAPIKey	***************** 👁 ⊘	Regenerate

How to Use the Connection

What is your source configuration file ?
The source configuration file is located within the .choreo directory at the root of the project directory.

[**component.yaml v1.1**] [component.yaml v1.0] [component-config.yaml]

Introduction
› Create programmatic connections to other services from your component (See more)

Add Connection Configuration

To integrate the mentioned configurations into your application, copy and paste the following snippet into the component.yaml file.

```
dependencies:
  connectionReferences:
    - name: investment banking connection
      resourceRef: service:/investment-banking-divis/investment-banking-backen/v1/5c
```

The `name` represents the name of your connection, and the `resourceRef` represents a readable service identifier unique to the service you are connecting to.

The table below details the Choreo-defined environment variables.

Configuration Key	Choreo-Defined Environment Variable Name
ServiceURL	CHOREO_INVESTMENT_BANKING_CONNECTION_SERVICEURL
ChoreoAPIKey	CHOREO_INVESTMENT_BANKING_CONNECTION_CHOREOAPIKEY

› Manage connection references (See more)

Using the Connection in Application

› Use the connection configurations within the application (See more)

[go - Native ⌄]

```
import (
    "net/http"
    "os"
)

// Read environment variables
serviceURL := os.Getenv("CHOREO_INVESTMENT_BANKING_CONNECTION_SERVICEURL")
choreoApiKey := os.Getenv("CHOREO_INVESTMENT_BANKING_CONNECTION_APIKEY")

client := &http.Client{}
// Provide the correct resource path
req, err := http.NewRequest("GET", fmt.Sprintf("%s/%s", serviceURL, <RESOURCE_PAT
```

Deployment Pipeline(CD) → Service Catalogue Service → Developer Portal

Service Catalogue Service → DB

Deployment Pipeline(CD) → Get Lending Balance

Net Relationship Balance Service → Get Lending Balance

Net Relationship Balance Service → Get Investment Balance

Net Relationship Balance Service → DB
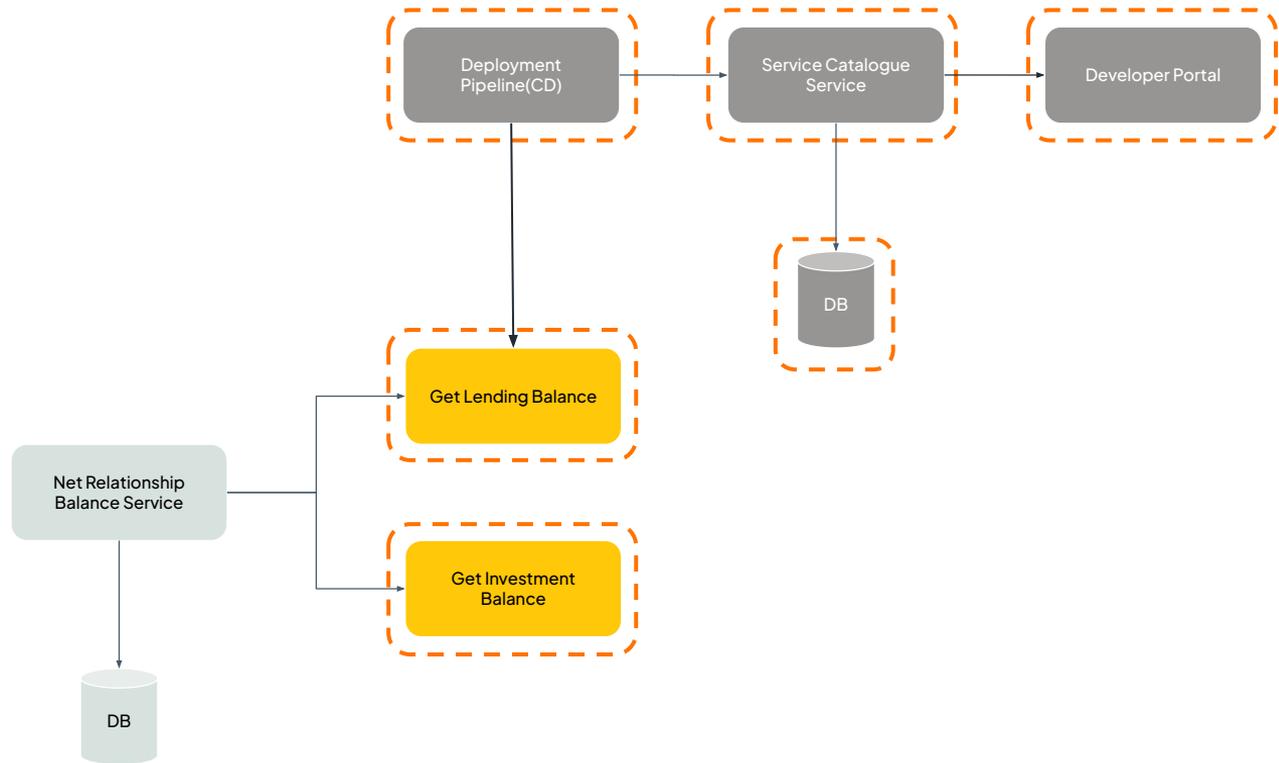
Advantages

- Ready to use information
- Less cross team interaction

- Configuration governance

- Less human error

Provisioning

Arakin

Luka

Provisioning

Arakin

- Approval emails
- JIRA tickets to SRE
- Compose IaC

Luka

Provisioning

Arakin

- Approval emails
- JIRA tickets to SRE
- Compose IaC

Luka

- UI/CLI provisioning options
- Source code based provisioning options
- Support different resource classes and customization
  - PostgreSQL vs MySQL DB

STEP 1
1 Select Database Type

STEP 2
2 Select service plan

Create Database Server

Select Cloud Storage

PostgreSQL
A highly performant, fully-managed object-relational database management system

MySQL
A fully-managed offering of the world's most popular relational database management system

Choreo Cache
A managed in-memory NoSQL database compatible with legacy Redis® OSS

Service Name

Enter service name

Back   Next

Select a Resource

Services   **Databases**

🔍 Search Databases   Name ⌄   ⇅

Storage Types   ⌃

- ☑ PostgreSQL
- ☑ MySQL
- ☑ Choreo Cache

Cloud Providers   ⌃

- ☑ DigitalOcean
- ☑ GCP
- ☑ AWS
- ☑ Azure

Categories   ⌃

D   ↗

defaultdb
investment-banking-division
PostgreSQL
`Powered Off` `Allow all IPs`

🕐 7 days ago

D   ↗

defaultdb
lending-division
PostgreSQL
`Active` `Allow all IPs`

🕐 13 days ago

B   ↗

bankingdb
core bank system
MySQL
`Powered Off` `Allow all IPs`

🕐 3 months ago

C   ↗

customerdb
customer relation division
MySQL
`Powered Off` `Allow all IPs`

🕐 3 months ago

B   ↗

billing-database
finance division
MySQL
`Powered Off` `Allow all IPs`

Choreo

Developer (Default)   Copilot

CI Pipelines

Filter by build preset:

.NET ✕	Android ✕	Angular ✕	Ballerina ✕	Ballerina Buildpack ✕	Docker ✕
Flutter ✕	Go ✕	IOS ✕	Java ✕	MySQL ✕	NPM ✕	NodeJS ✕	PHP ✕
Postman Collection ✕	Prism Mock ✕	PyPI ✕	Python ✕	React ✕
React Native ✕	Ruby ✕	Spring Boot ✕	Static Website ✕	Vue.js ✕
WSO2 MI ✕

Pipeline Name		Build Preset	Source Type	Actions
GO bg-go-test-2		Go	Inline YAML	Remove
V Choreo Provided Vue.js Pipeline	Default pipeline for Vue.js buildpack	Vue.js	Choreo Provided Default	Remove
⚛ Choreo Provided React Pipeline	Default pipeline for React buildpack	React	Choreo Provided Default	Remove
☕ Choreo Provided Java Pipeline	Default pipeline for Java buildpack	Java	Choreo Provided Default	Remove
GO Choreo Provided Go Pipeline	Default pipeline for Go buildpack	Go	Choreo Provided Default	Remove
GO Choreo Provided Go Pipeline	Default pipeline for Go buildpack	Go	Choreo Provided Default	Remove
A Choreo Provided Android Pipeline	Default pipeline for Android buildpack	Android	Choreo Provided Default	Remove
✏ Choreo Provided Postman Collection Pipeline	Default pipeline for Postman Collection buildpack	Postman Collection	Choreo Provided Default	Remove
📝 Choreo Provided Static Website Pipeline	Default pipeline for Static Website buildpack	Static Website	Choreo Provided Default	Remove
→ Choreo Provided WSO2 MI Pipeline	Default pipeline for WSO2 MI buildpack	WSO2 MI	Choreo Provided Default	Remove

|< < 1 - 10 of 30 > >| Rows per page   10

- Overview
- Components
- Resources
- Connections
- Insights
- Observability
- DevOps
  - CI Pipelines
  - CD Pipelines
  - Environments
- Settings
- Collapse

Developer (Default)

Copilot

Provision S3 Bucket New

Pipeline Variables & Secrets

Edit Pipeline YAML

provision S3 bucket

Created 🕐 8 days ago

Runs

Start New Run

RUN ID	VERSION	STATUS	START TIME	DURATION	ACTIONS
10050	v16	✓ Successful	🕐 19 minutes ago	1m 48s	View Logs 🗑
10049	v16	✓ Successful	🕐 1 hour ago	1m 59s	View Logs 🗑
10048	v16	✓ Successful	🕐 2 hours ago	1m 46s	View Logs 🗑
10047	v14	✓ Successful	🕐 2 hours ago	1m 39s	View Logs 🗑
10046	v14	✓ Successful	🕐 2 hours ago	1m 39s	View Logs 🗑

|◁ ◁ 1 - 5 of 20 ▷ ▷| Rows per page 5 ▾

Pipeline Logs for Run ID: 10050

⟳ Refesh Logs

✓ **Clone Repo**

```
Cloning into '/mnt/vol/terraform'...
Repo cloned.
time="2025-05-28T06:10:40.617Z" level=info msg="sub-process exited" argo=true
error="<nil>"
```

✓ **Run Terraform**

```
Running terraform init...

Initializing the backend...

Successfully configured the backend "s3"! Terraform will automatically
use this backend unless the backend configuration changes.

Initializing provider plugins...
- Finding latest version of hashicorp/aws...
- Installing hashicorp/aws v5.98.0...
- Installed hashicorp/aws v5.98.0 (signed by HashiCorp)

Terraform has created a lock file .terraform.lock.hcl to record the provider
selections it made above. Include this file in your version control
repository
so that Terraform can guarantee to make the same selections by default when
you run "terraform init" in the future.

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see
any changes that are required for your infrastructure. All Terraform commands
should now work.

If you ever set or change modules or backend configuration for Terraform,
```
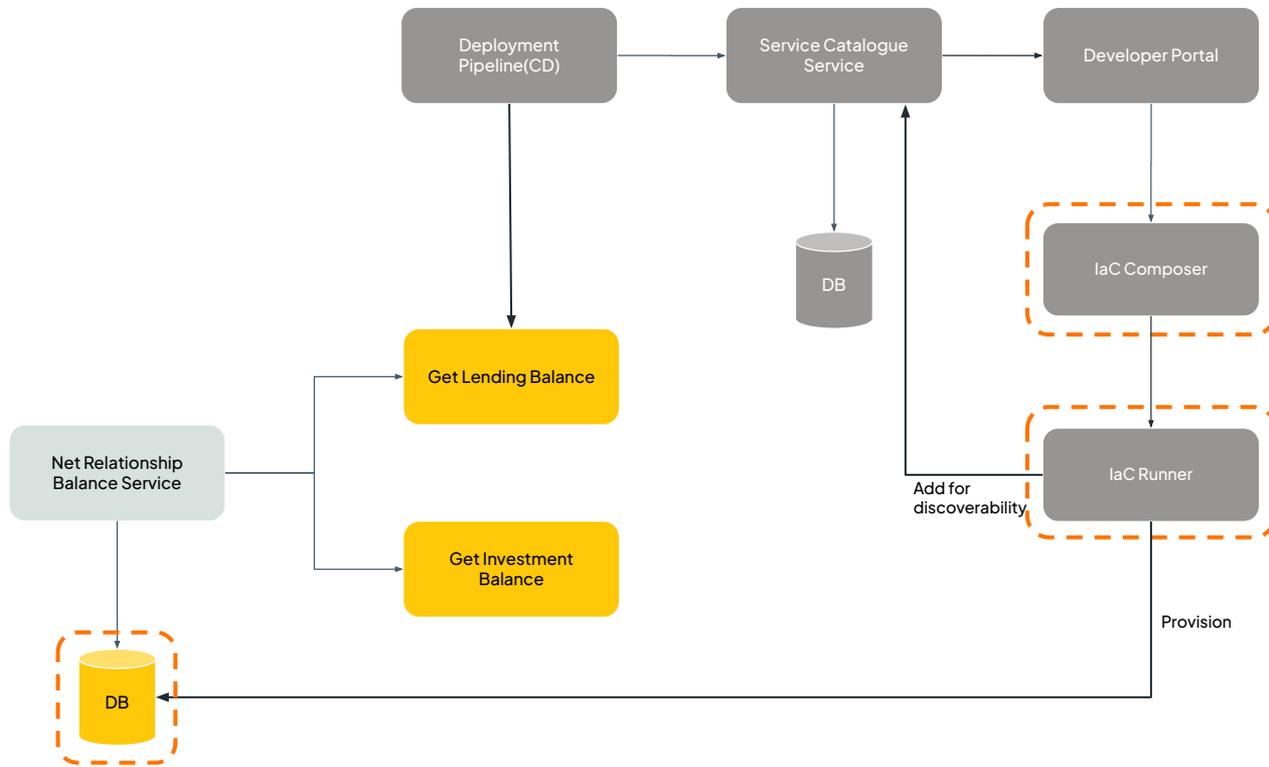
30

Advantages

- Ready to use information
- Less cross team interaction
- No wait time

- Configuration governance
- Infrastructure governance

- Less human error
- Common tested pipelines

Golden Paths(Paved Roads)

Arakin

Luka

Golden Paths

Arakin

- Clone and copy from old repo
- Ctrl + C, Ctrl + V for docker files, pipeline yamls
- Trial and error integrations with CI/CD, Infrastructure
- Internal documentation
    - Guides
    - Best practises

Luka

Golden Paths

Arakin

- Clone and copy from old repo
- Ctrl + C, Ctrl + V for docker files, pipeline yamls
- Trial and error integrations with CI/CD, Infrastructure
- Internal documentation
  - Guides
  - Best practises

Luka

- Create component wizards
  - Repo structure
  - IaC pipelines
  - CI/CD
  - Observability hooks
- Verified base images
- Auto register in service catalogue

Create a New Component

Select a Type   Try a Sample

Service

A backend component that exposes logic via REST, gRPC, or GraphQL endpoints.

Create →

Web Application

A frontend component that serves static or dynamic content like SPAs or server-rendered sites.

Create →

Scheduled Task

Runs an integration or logic automatically at defined intervals using a cron-like schedule.

Create →

MCP Server

A long-running integration using MCP, enabling real-time data via Server-Sent Events.

Create →

API Proxy

A lightweight gateway that routes external requests to backend services, adding governance, monitoring, and security policies.

Create →

Webhook

Handles incoming HTTP POST requests from external systems to process events.

Create →

Manual Task

Executes integrations only when manually triggered by the user.

Create →

Event Handler

Listens for events and runs logic in response, including continuous event streams.

Create →

Test Runner

Runs automated tests to validate component behavior.

Create →

External Consumer

Represents external clients like mobile apps or third-party systems that use Choreo services.

Create →

Create a Service

Repository Details

Organization ↻

| tishan89 | ⌄ |

Repository ↻

| banking-repo | ⌄ |

Branch ↻

| ⌥ main | ⌄ |

Component Directory

| / | ✎ Edit |

Component Details

Display Name

| Enter display name here |

Name ?

| ✎ |

Description (Optional)

| Enter description here |

Build Details

Build Presets

🐍 Python	☕ Java	⬡ NodeJS	⟩GO Go
.NET .NET	✦ Ballerina	php PHP	◆ Ruby
🐳 Docker	⚙ WSO2 MI	🤖 Prism Mock	

| Cancel | Create and Deploy |

37

Create a Service

Repository Details

Organization
tishan89

Repository
banking-repo

Branch
⌥ main

Component Directory
/   ✎ Edit

Component Details

Display Name
Enter display name here

Name ⊘
✎

Description (Optional)
Enter description here

Build Details

Build Presets

🐍 Python	☕ Java
NodeJS	GO Go
.NET	Ballerina
php PHP	Ruby
Docker	WSO2 MI
Prism Mock	

Cancel   Create and Deploy

Create a Service

Repository Details

Organization
tishan89

Repository
banking-repo

Branch
⌥ main

Component Directory
/   ✎ Edit

Component Details

Display Name
Enter display name here

Name ⓘ

Description (Optional)
Enter description here

Build Details

Build Presets

🐍 Python	☕ Java	⬡ NodeJS	⇒GO Go
.NET .NET	⧓ Ballerina	php PHP	◆ Ruby
🐳 Docker	⚙ WSO2 MI	🤖 Prism Mock	

Cancel   Create and Deploy

39

⎇ main | API v1.0 | ⌄

Build Details ✕

Service

investment-banking-backend

Source

⚫ https://github.com/tishan89/banking-repo/tree/main/investment-backend 📋

⎇ main

Build Configurations ✎

Build Path: investment-backend

Build Language Version: 1.x

Container (Trivy) vulnerability scan ⚪

Build ID: 20000235077

✅ Environment Setup

✅ Source Configuration File Validation

✅ Build Component   ▤

🔄 Container (Trivy) Vulnerability Scan

✅ Push Image to Registry

✅ Environment Cleanup

Builds ↻

Auto Build on Commit ⚪ | **Build Latest** | Show Commits ⌄

BUILD ID	REFERENCE	STATUS	TIME	ACTION
20000235077 [Manual]	⟳ 3bc807b51	✅ Success	🕐 4 days ago	Deploy ↗ View Details
20000235075 [Manual]	⟳ f056d9b69	✅ Success	🕐 4 days ago	Deploy ↗ View Details
20000235061 [Manual]	⟳ ed5003d1e	❌ Failed	🕐 4 days ago	View Details
20000235057 [Manual]	⟳ ed5003d1e	❌ Failed	🕐 4 days ago	View Details
20000234913 [Initial Build]	⟳ 340adfa6d	❌ Failed	🕐 4 days ago	View Details

|◁ ◁ 1 - 5 of 5 ▷ ▷|

Items per page 5 ⌄

ⓘ Build logs will be retained for 30 days

40

Deployment Track ⍰

⌥ main `API v1.0` ⌄

Set up

Build ID ✎

20000235077 `Latest`
🕐 4 days ago

Commit Details

Fix duplicate /clients route reg...

◌ **3bc807b51**

by 👤 tishan89

Auto Deploy on Build ⬤

Endpoint Configurations 👁

Deploy ⌄

Development   ⏹ Stop ↻

Deployed 🕐 4 days ago

Deployment Status	Active

Image   Deployment History

Build ID

20000235077 ✅
🕐 4 days ago

Commit Details

Fix duplicate /clients route reg...

◌ **3bc807b51**

by 👤 tishan89

Endpoints 1 `Active` 👁

Configurations

Manage Configs and Secrets 🛠

CORS, Rate Limiting and Resiliency 🛠

⊡ Scale to Zero `Enabled`

→ **Promote**

Production   ⏹ Stop ↻

Deployed 🕐 4 days ago

Deployment Status	Active

Image   Deployment History

Build ID

20000235077 ✅
🕐 4 days ago

Commit Details

Fix duplicate /clients route reg...

◌ **3bc807b51**
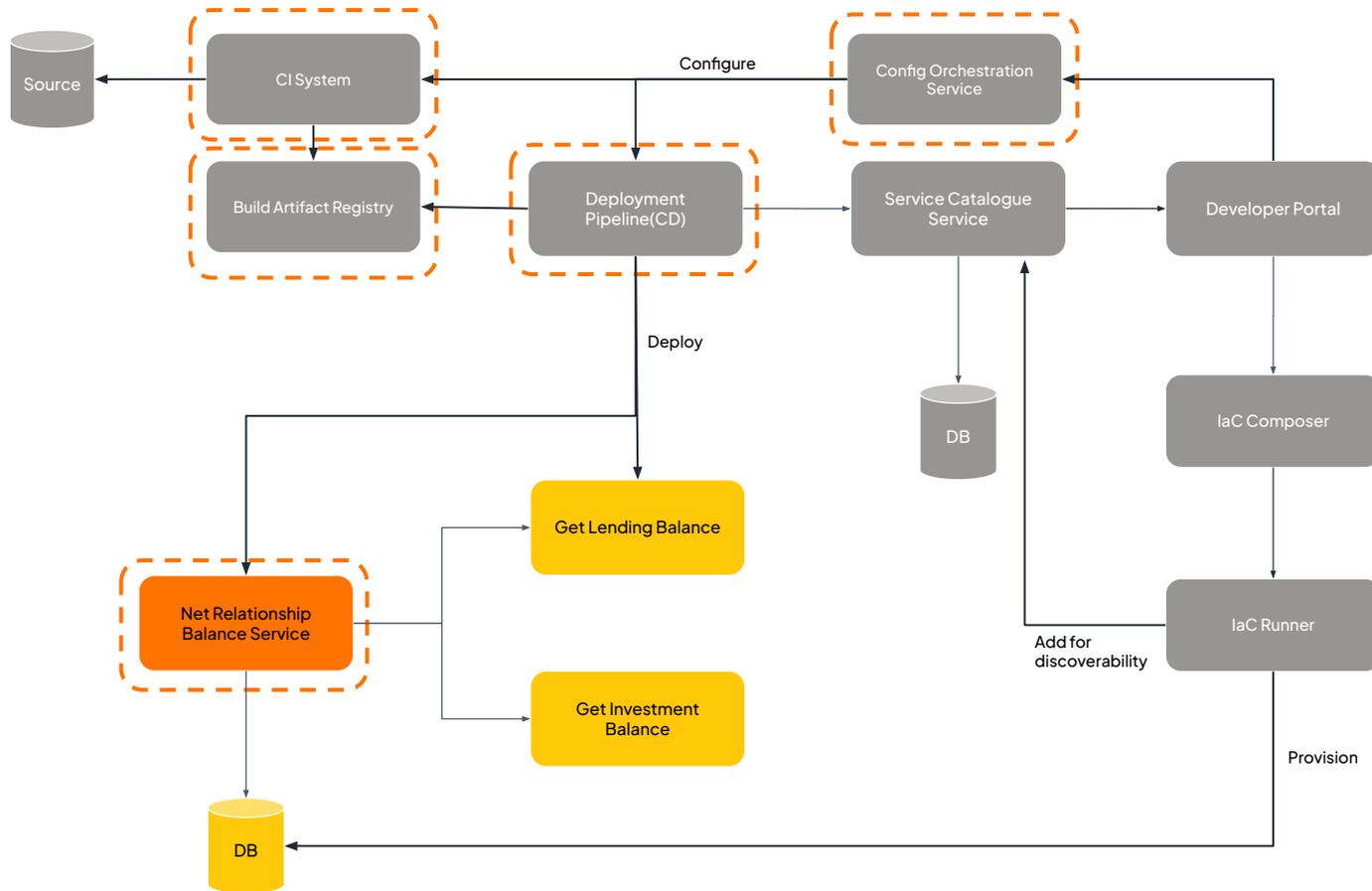
by 👤 tishan89

Endpoints 1 `Active` 👁

Configurations

Manage Configs and Secrets 🛠

CORS, Rate Limiting and Resiliency 🛠

⊡ Scale to Zero `Enabled`

Advantages

- Ready to use information
- Less cross team interaction
- No wait time
- Less tasks

- Configuration governance
- Infrastructure governance
- Organizational guideline enforcement
- Secure runtime

- Less human error
- Common tested pipelines
- Battle tested configurations
- Stable base images
- Default sanity checks (trivy)

Built-in Observability

Arakin

Luka

Built-in Observability

Arakin

- Manual configurations
- Add sidecars
- Usage of secondary portals
- Open tickets for observability data

Luka

Built-in Observability

Arakin

- Manual configurations
- Add sidecars
- Usage of secondary portals
- Open tickets for observability data

Luka

- Autowired observability
  - No or minimal configs
- Unified dashboards and alerts
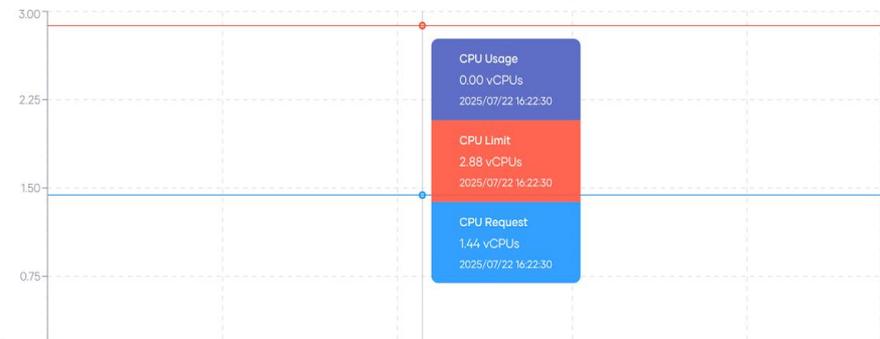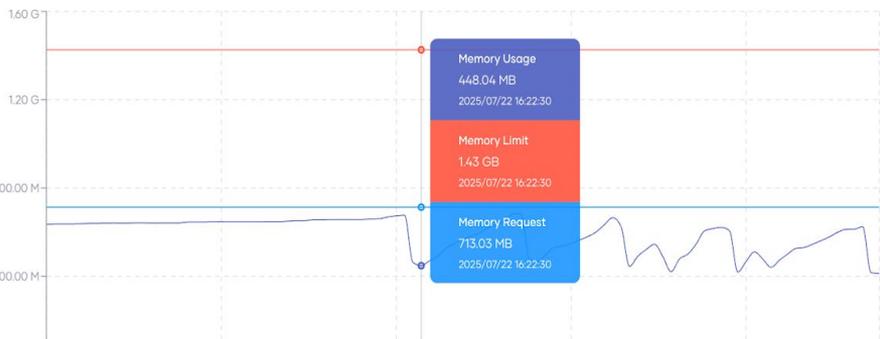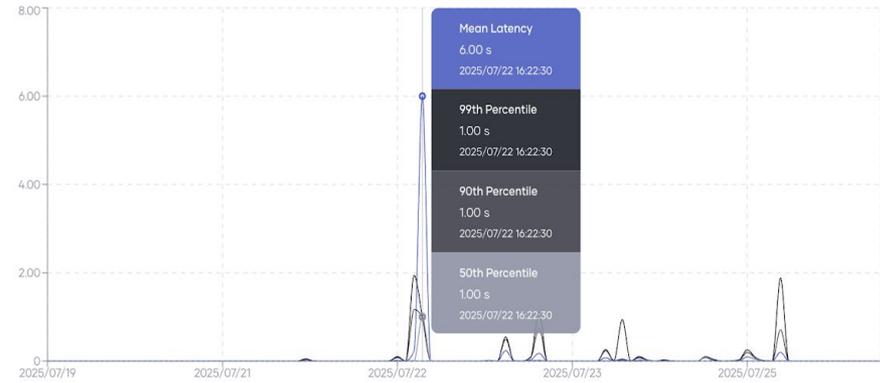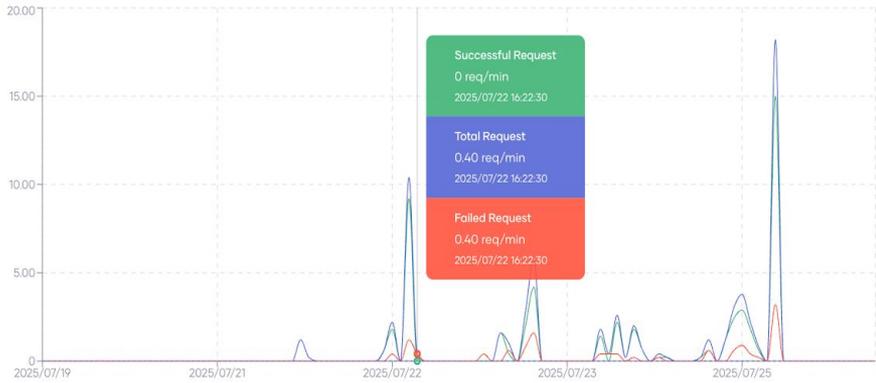- Seamless correlation between different systems

Only runtime dependency
Only static dependency
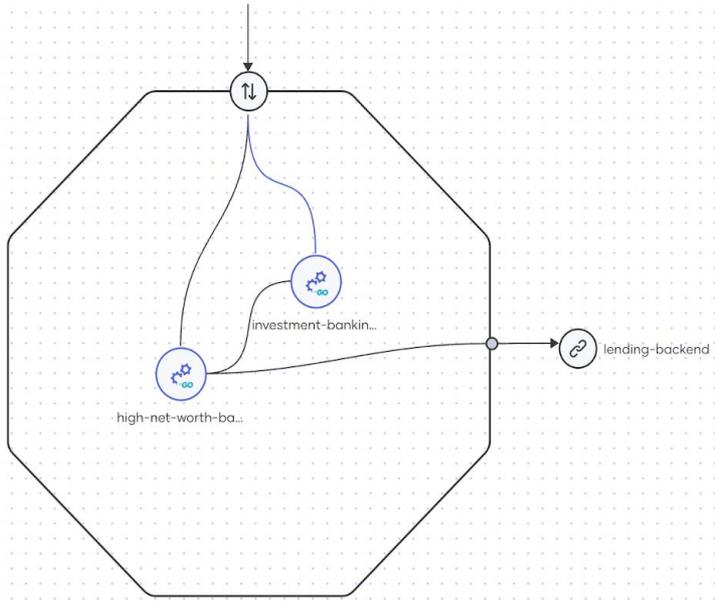
investment-bankin...

high-net-worth-ba...

lending-backend

Static   Runtime   Diff

```
> 2025-07-24T20:05:46.719+05:30 investment-banking-backen net/http.HandleFunc({0x722c5d?, 0x0?}, 0x0?)
> 2025-07-24T20:05:46.719+05:30 investment-banking-backen net/http.(*serveMux121).handleFunc(...)
> 2025-07-24T20:05:46.719+05:30 investment-banking-backen /layers/google.go.runtime/go/src/net/http/servemux121.go:63 +0x205
> 2025-07-24T20:05:46.719+05:30 investment-banking-backen net/http.(*serveMux121).handle(0x9a0f20, {0x722c5d, 0x8}, {0x797060, 0xc000124320})
> 2025-07-24T20:05:46.719+05:30 investment-banking-backen goroutine 1 [running]:
> 2025-07-24T20:05:46.719+05:30 investment-banking-backen
> 2025-07-24T20:05:46.719+05:30 investment-banking-backen panic: http: multiple registrations for /clients
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen /workspace/main.go:296 +0x127
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen main.main()
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen /layers/google.go.runtime/go/src/net/http/server.go:2864 +0x4c
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen net/http.HandleFunc({0x722c5d?, 0x0?}, 0x0?)
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen /layers/google.go.runtime/go/src/net/http/servemux121.go:100
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen net/http.(*serveMux121).handleFunc(...)
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen /layers/google.go.runtime/go/src/net/http/servemux121.go:63 +0x205
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen net/http.(*serveMux121).handle(0x9a0f20, {0x722c5d, 0x8}, {0x797060, 0xc000014370})
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen goroutine 1 [running]:
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen
> 2025-07-24T20:06:22.993+05:30 investment-banking-backen panic: http: multiple registrations for /clients
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen /workspace/main.go:296 +0x127
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen main.main()
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen /layers/google.go.runtime/go/src/net/http/server.go:2864 +0x4c
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen net/http.HandleFunc({0x722c5d?, 0x0?}, 0x0?)
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen /layers/google.go.runtime/go/src/net/http/servemux121.go:100
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen net/http.(*serveMux121).handleFunc(...)
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen /layers/google.go.runtime/go/src/net/http/servemux121.go:63 +0x205
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen net/http.(*serveMux121).handle(0x9a0f20, {0x722c5d, 0x8}, {0x797060, 0xc000124320})
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen goroutine 1 [running]:
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen
> 2025-07-24T20:07:14.759+05:30 investment-banking-backen panic: http: multiple registrations for /clients
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen panic: http: multiple registrations for /clients
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen /layers/google.go.runtime/go/src/net/http/server.go:2864 +0x4c
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen /layers/google.go.runtime/go/src/net/http/servemux121.go:100
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen goroutine 1 [running]:
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen /workspace/main.go:296 +0x127
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen main.main()
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen net/http.HandleFunc({0x722c5d?, 0x0?}, 0x0?)
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen net/http.(*serveMux121).handleFunc(...)
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen /layers/google.go.runtime/go/src/net/http/servemux121.go:63 +0x205
> 2025-07-24T20:07:52.989+05:30 investment-banking-backen net/http.(*serveMux121).handle(0x9a0f20, {0x722c5d, 0x8}, {0x797060, 0xc000014370})
> 2025-07-24T20:11:28.093+05:30 investment-banking-backen Server running on :8080
> 2025-07-24T20:11:53.215+05:30 investment-banking-backen Server running on :8080
> 2025-07-24T20:48:09.958+05:30 high-net-worth-backend Server running on :8080
> 2025-07-24T21:32:04.122+05:30 investment-banking-backen Server running on :8080
```

Successful Request | Total Request | Failed Request

20.00
15.00
10.00
5.00

Successful Request
0 req/min
2025/07/22 16:22:30

Total Request
0.40 req/min
2025/07/22 16:22:30

Failed Request
0.40 req/min
2025/07/22 16:22:30

2025/07/19 | 2025/07/21 | 2025/07/22 | 2025/07/23 | 2025/07/25

Request Latency

Mean Latency | 99th Percentile | 90th Percentile | 50th Percentile

8.00
6.00
4.00
2.00

Mean Latency
6.00 s
2025/07/22 16:22:30

99th Percentile
1.00 s
2025/07/22 16:22:30

90th Percentile
1.00 s
2025/07/22 16:22:30

50th Percentile
1.00 s
2025/07/22 16:22:30

2025/07/19 | 2025/07/21 | 2025/07/22 | 2025/07/23 | 2025/07/25

Memory Usage

Memory Usage | Memory Limit | Memory Request

1.60 G
1.20 G
800.00 M
400.00 M

Memory Usage
448.04 MB
2025/07/22 16:22:30

Memory Limit
1.43 GB
2025/07/22 16:22:30

Memory Request
713.03 MB
2025/07/22 16:22:30

CPU Usage

CPU Usage | CPU Limit | CPU Request

3.00
2.25
1.50
0.75

CPU Usage
0.00 vCPUs
2025/07/22 16:22:30

CPU Limit
2.88 vCPUs
2025/07/22 16:22:30

CPU Request
1.44 vCPUs
2025/07/22 16:22:30

Runtime Logs

> 2025-07-26T10:47:41.912+05:30 Inserted attendee 00vVM000000JZaY module="wso2/conference_app"
> 2025-07-26T10:47:41.913+05:30 Inserted attendee 00vVM000000Jal8 module="wso2/conference_app"
> 2025-07-26T10:47:41.914+05:30 Inserted attendee 00vVM000000K3gg module="wso2/conference_app"
> 2025-07-26T10:47:41.916+05:30 Inserted attendee 00vVM000000KKHh module="wso2/conference_app"
> 2025-07-26T10:47:41.917+05:30 Inserted attendee 00vVM000000KH0T module="wso2/conference_app"
> 2025-07-26T10:47:41.918+05:30 Inserted attendee 00vVM000000KHWj module="wso2/conference_app"
> 2025-07-26T10:47:41.919+05:30 Inserted attendee 00vVM000000KKKv module="wso2/conference_app"
> 2025-07-26T10:47:41.921+05:30 Inserted attendee 00vVM000000Knpx module="wso2/conference_app"

Operational Insights

Contributors
80 Total

Projects
30 Total
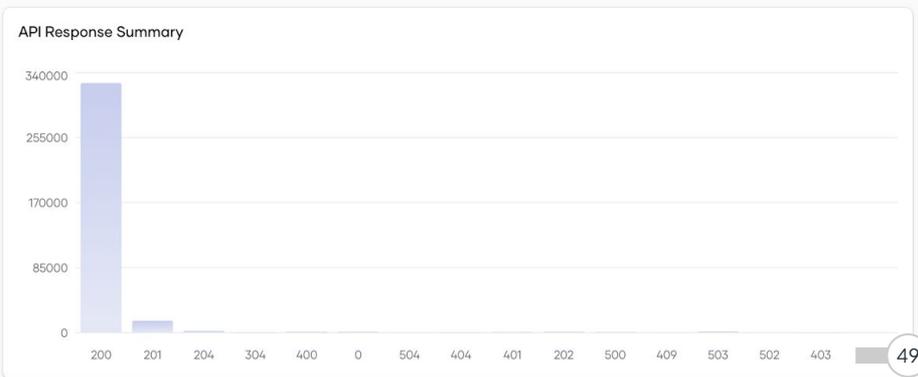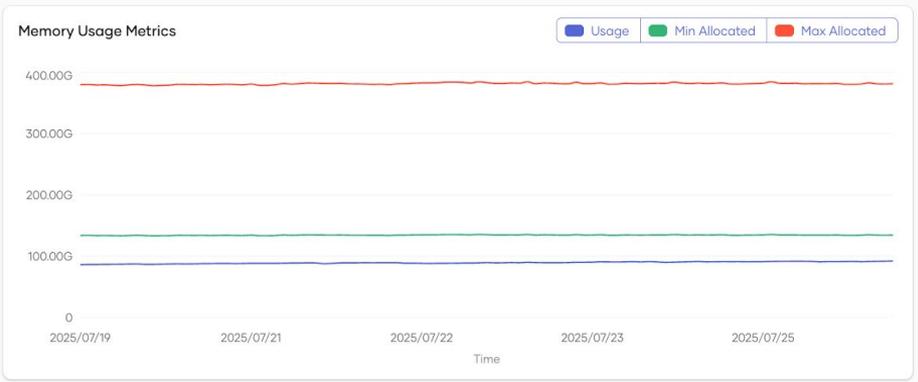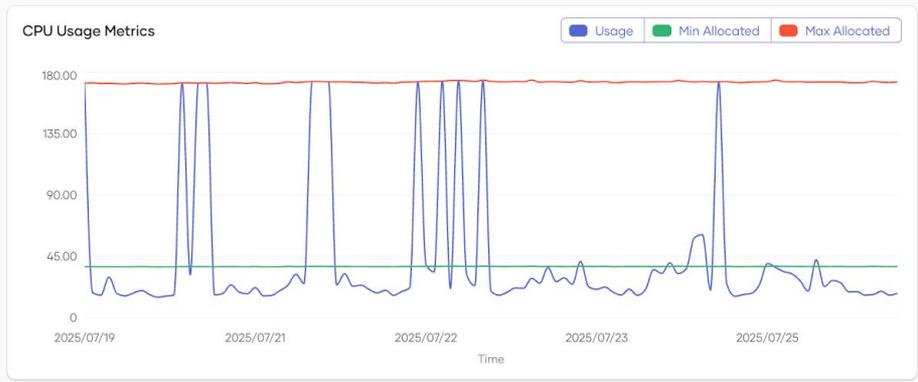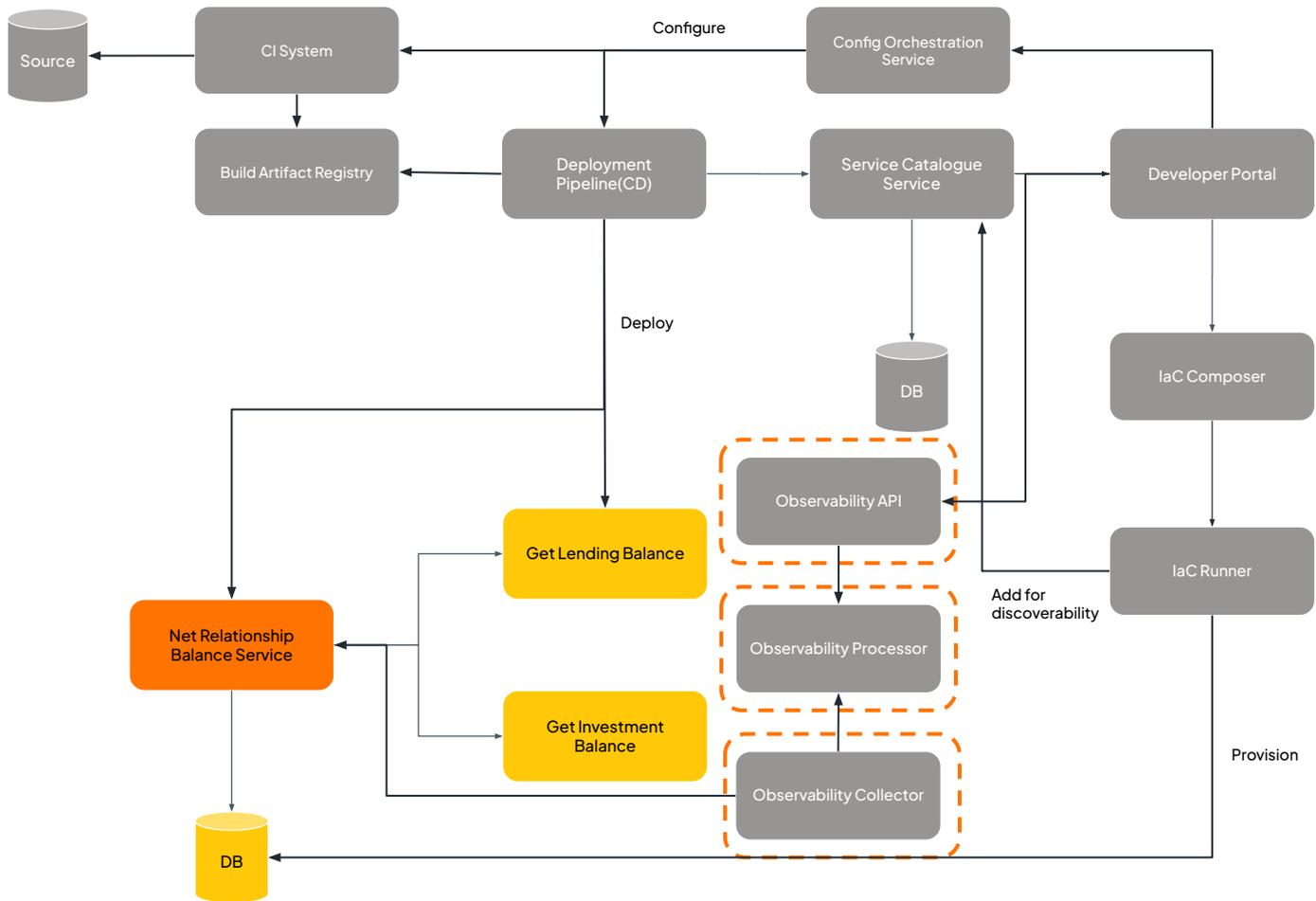
Components
301 Total

Services
192

API Proxies
4

Web Apps
61

Tasks
32

Other
12

Production ▾

| 1D | 1W | 2W | 1M |

CPU Usage Metrics

■ Usage ■ Min Allocated ■ Max Allocated

180.00

135.00

90.00

45.00

0

2025/07/19 2025/07/21 2025/07/22 2025/07/23 2025/07/25

Time

Memory Usage Metrics

■ Usage ■ Min Allocated ■ Max Allocated

400.00G

300.00G

200.00G

100.00G

0

2025/07/19 2025/07/21 2025/07/22 2025/07/23 2025/07/25

Time

Deployments

12

9

6

3

0

19 Jul, 25 20 Jul, 25 21 Jul, 25 22 Jul, 25 23 Jul, 25 24 Jul, 25 25 Jul, 25 26 Jul, 25

API Response Summary

340000

255000

170000

85000

0

200 201 204 304 400 0 504 404 401 202 500 409 503 502 403

49

Advantages

- Ready to use information
- Less cross team interaction
- No wait time
- Less tasks
- Quick feedback cycle

- Configuration governance
- Infrastructure governance
- Organizational guideline enforcement
- Secure runtime
- In-built alerting of SLA violations

- Less human error
- Common tested pipelines
- Battle tested configurations
- Stable base images
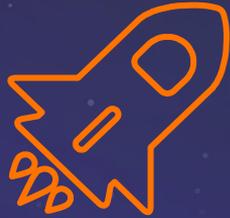- Default sanity checks(trivy)
- Quicker issue resolution

Advantages
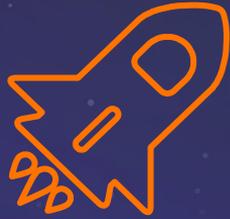
Velocity & Efficiency

- Configuration governance
- Infrastructure governance
- Organizational guideline enforcement
- Secure runtime
- In-built alerting of SLA violations

- Less human error
- Common tested pipelines
- Battle tested configurations
- Stable base images
- Default sanity checks(trivy)
- Quicker issue resolution

Advantages

Velocity & Efficiency

Built-in Governance & Security

- Less human error
- Common tested pipelines
- Battle tested configurations
- Stable base images
- Default sanity checks(trivy)
- Quicker issue resolution

Advantages
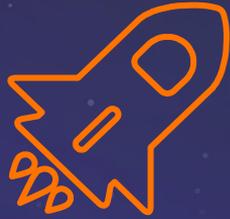
Velocity & Efficiency
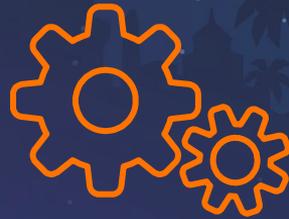
Built-in Governance & Security

Stability

DORA Metrics

Deployment Frequency   ➡️   **Velocity**

Lead Time for Change   ➡️   **Efficiency**

Change Failure Rate   ➡️   **Stability**

Mean Time to Recovery   ➡️   **Efficiency & Monitoring**

Gartner

Under "Why and how developer experience (DevEx) drives outcomes", Gartner research shows teams with a high-quality developer experience are:

31%

More likely to improve delivery flow

20%

More likely to intent to stay with their employer

33%

More likely to attain their target business outcomes

"Treat the developer experience like a product. Assign clear accountability for delivering the end-to-end developer journey to a dedicated developer experience team and product owner, while enabling individual development teams to identify and address local developer experience needs."

Question Time!