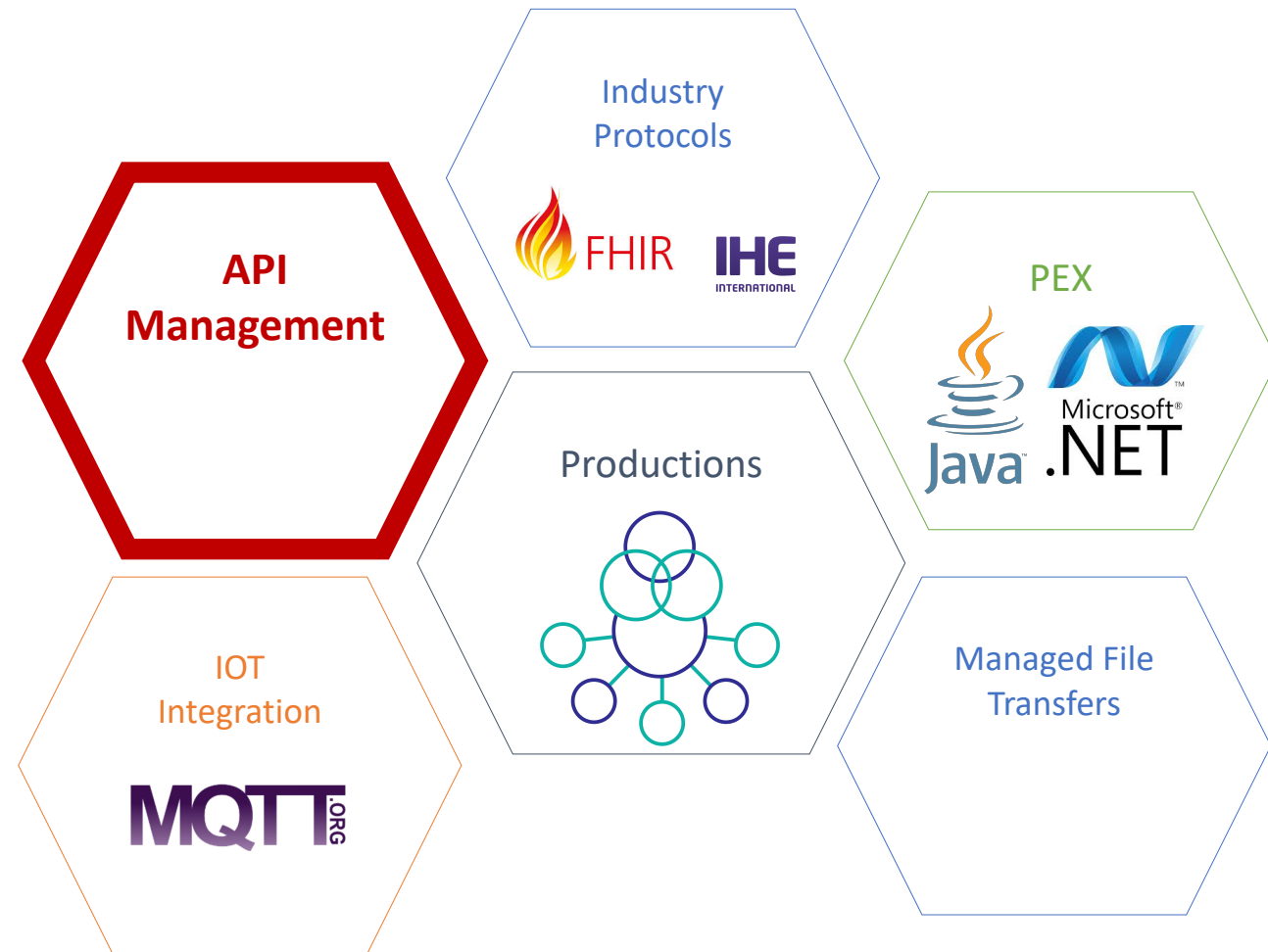


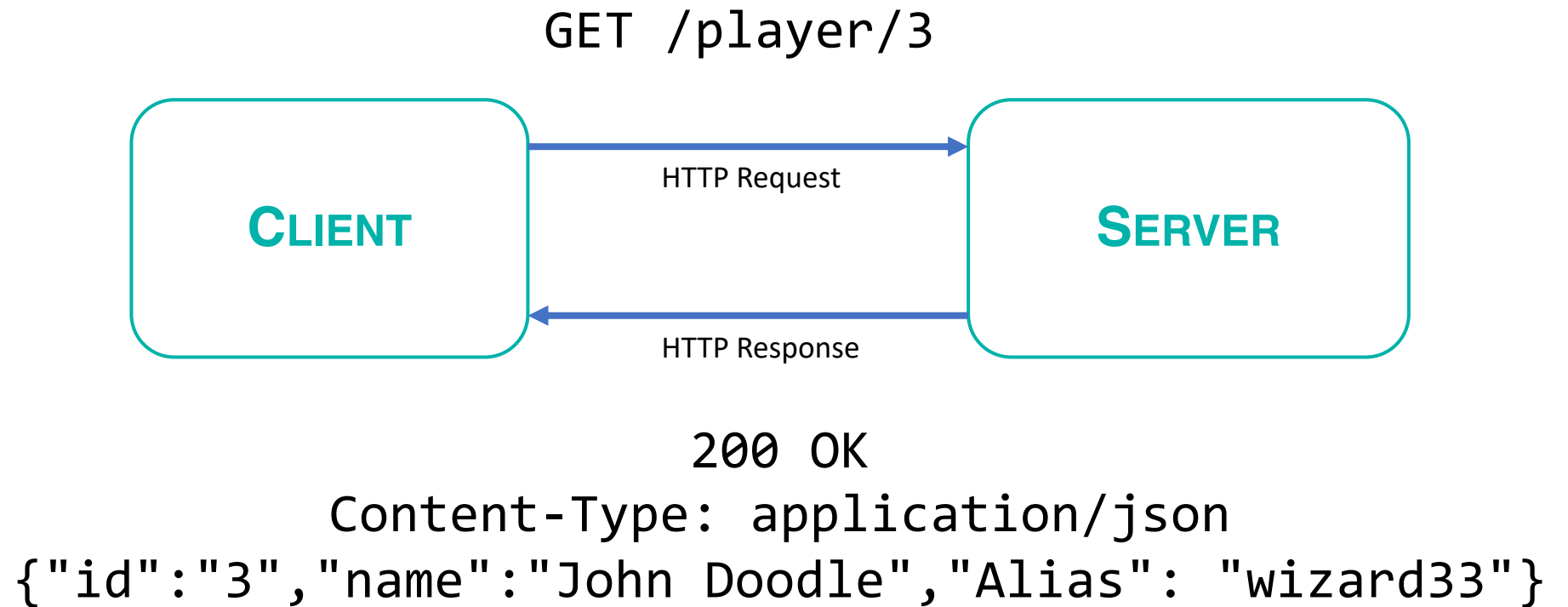
REST & API Management

Workshop

Alberto Fuentes
Sales Engineer



REST



REST

METHOD	RESOURCE	ACTION
GET	/player	Get all players
GET	/player/:id	Get one player
POST	/player	Create
PUT	/player/:id	Create (or replace)
PATCH	/player/:id	Update (partially)
DELETE	/player/:id	Delete

Swagger

The screenshot displays the SwaggerHub web interface for a project named 'leaderboard' (version 1.0.0). The interface is divided into several sections:

- Left Sidebar:** Contains navigation links for 'Info', 'Tags', and 'Models'. Under 'Models', 'Player' and 'Team' are listed.
- Center Editor:** A dark-themed code editor showing the OpenAPI specification in YAML format. The code defines a 'player' tag and a 'POST /player' endpoint with a 'body' parameter.
- Right Panel:** Titled 'Leaderboard API', it shows the API version (1.0.0), the base URL, and a description: 'A dummy player leaderboard API'. Below this, a 'Schemes' dropdown is set to 'HTTPS'. A section titled 'player' lists all endpoints:
 - POST /player:** Add a new player (green button)
 - GET /player:** Return all players (blue button)
 - GET /player/{playerId}:** Find player by ID (blue button)
 - PUT /player/{playerId}:** Update an existing player (orange button)
 - DELETE /player/{playerId}:** Deletes a player (red button)

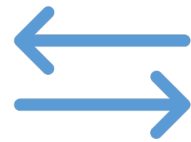
At the bottom of the editor, it indicates 'Last Saved: 11:50:51 am - Oct 10, 2019' and a green 'VALID' status.

OpenAPI

Developing an API

Design-First

OpenAPI → Source Code



/api/mgmt/v2



^%REST



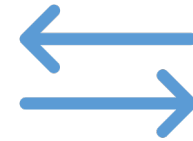
%REST.API
CreateApplication



API Explorer
Open Exchange

Code-First

Source Code → OpenAPI



/api/mgmt/

Developing an API



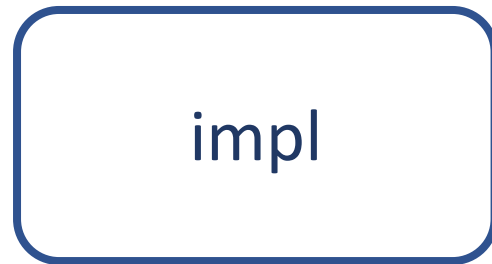
spec

OpenAPI specification



disp

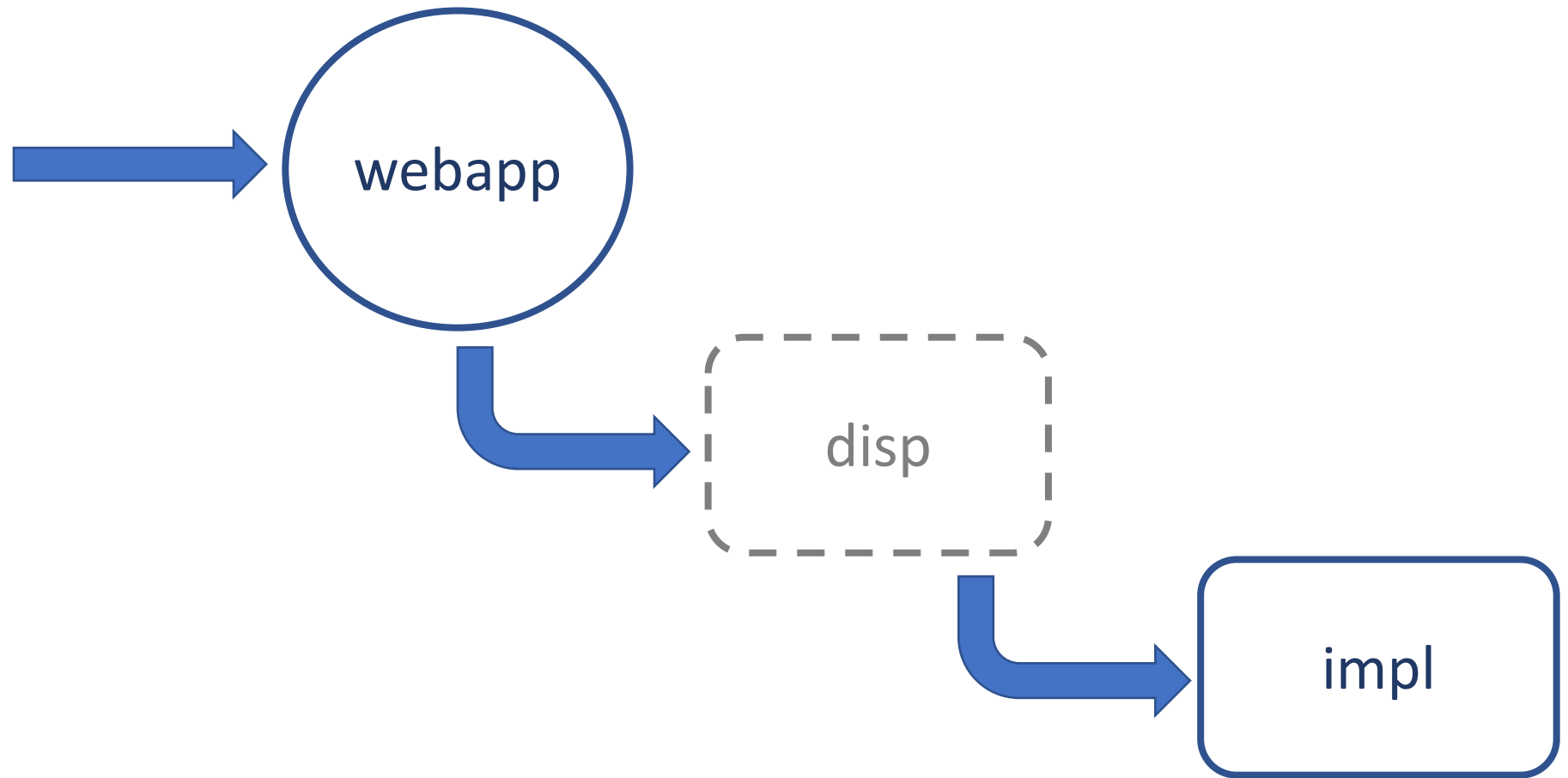
Automatically generated
Parse HTTP Request
Handle headers and HTTP Response



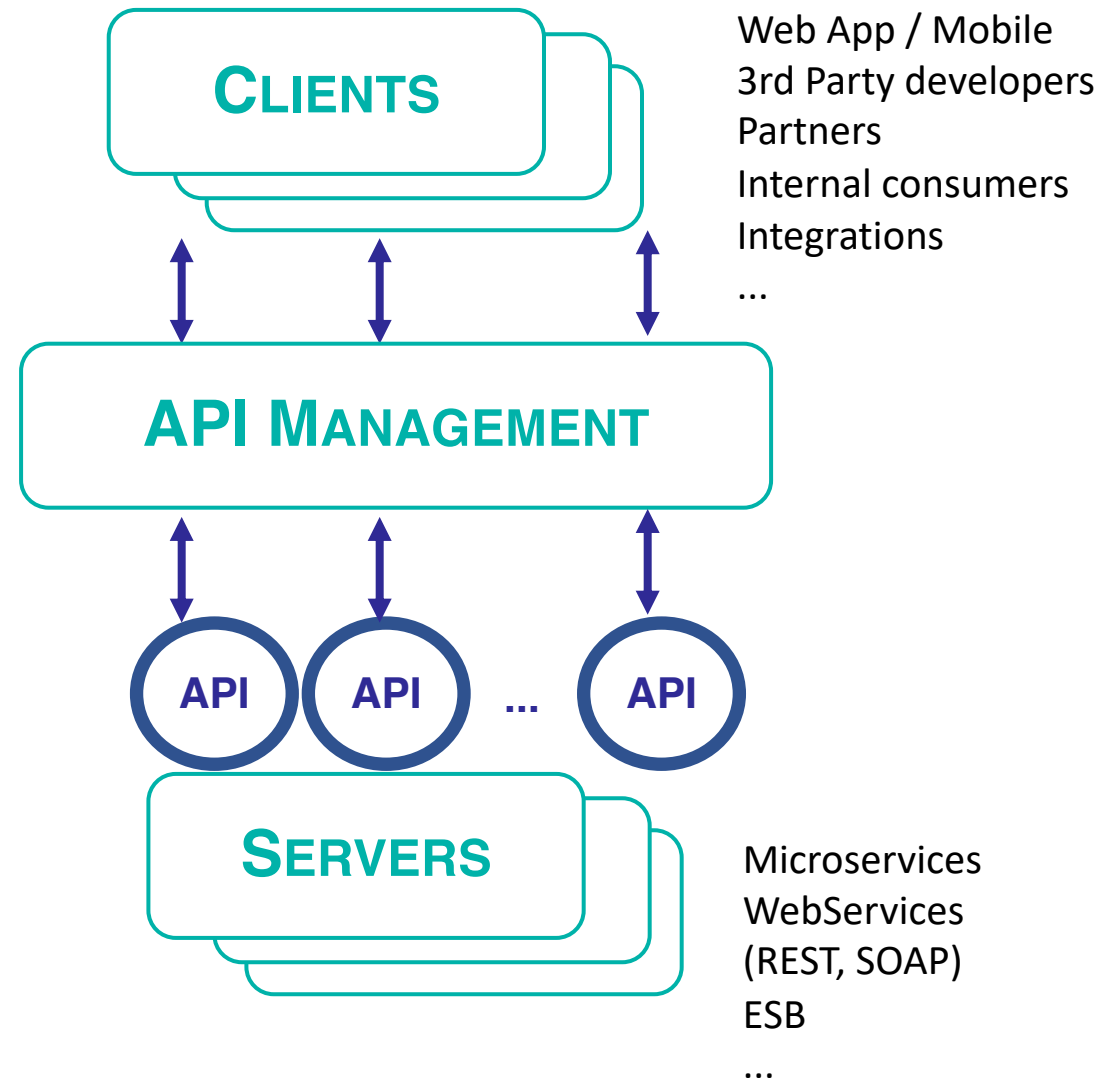
impl

Implementation

Developing an API



Design
Security
Publish
Control
Monitor
Analysis



API
Management

IAM – InterSystems API Manager



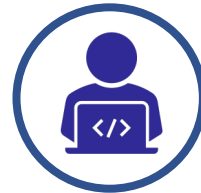
- High performance
- Scalable
- Easy to deploy



- Monitor all your API traffic in one point

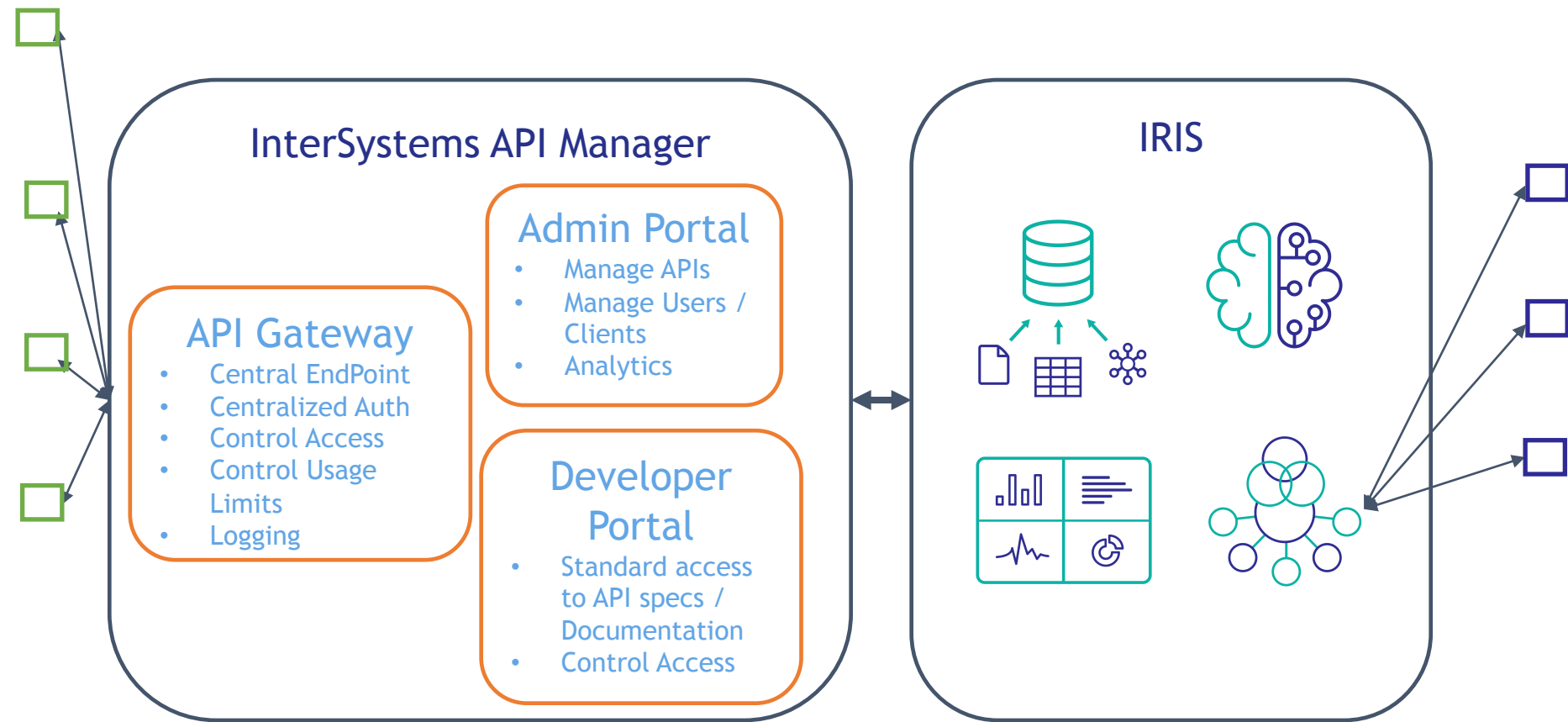


- Modular
- You can extend it using *plugins* (auth, traffic control, etc.)



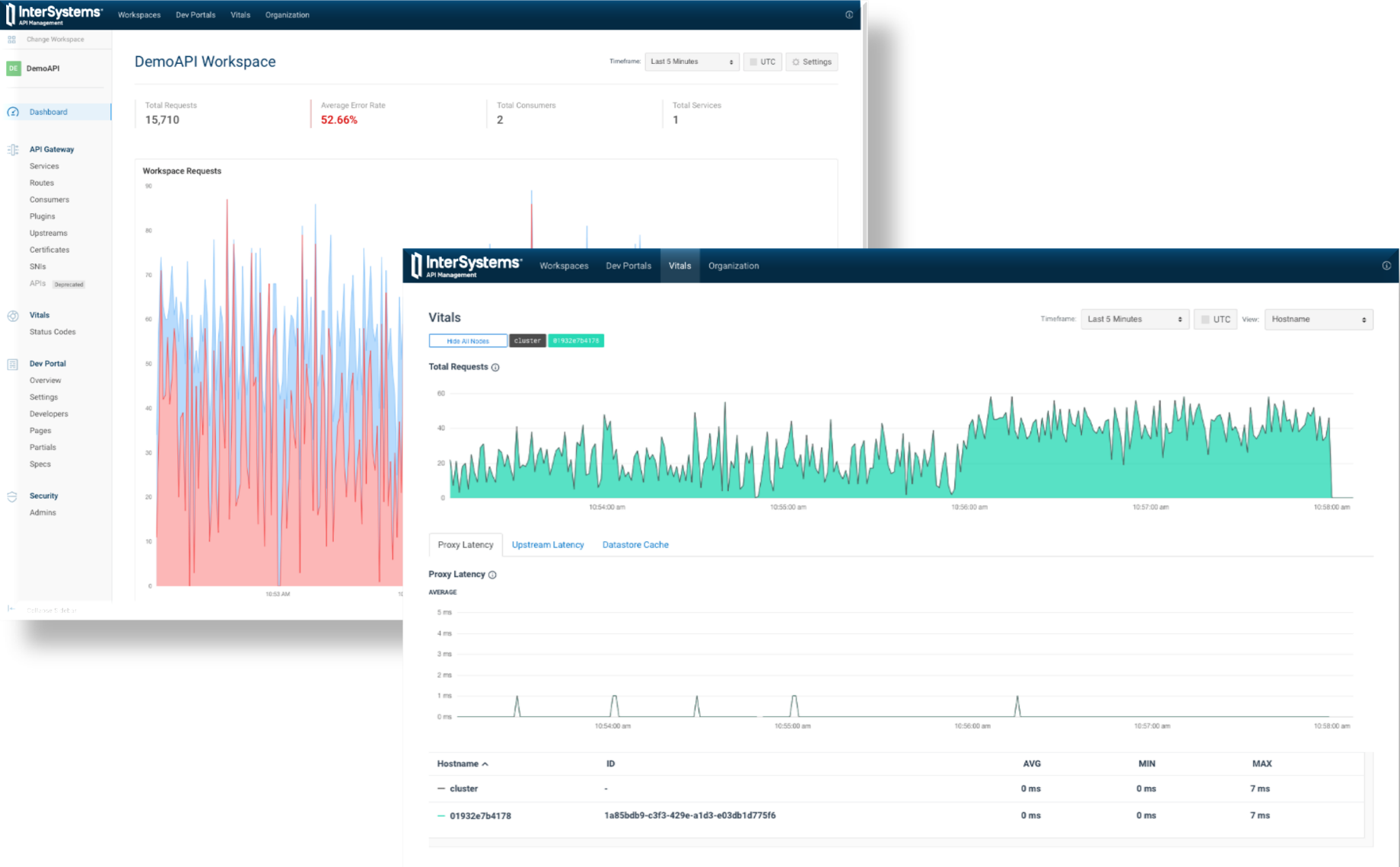
- *Developer Portal*
- API documentation

**API
Management**



API Management

Monitoring



API Management

Management: UI / REST API

InterSystems®
API Management

WorkspacesDev PortalsVitalsOrganization

Change Workspace

DE DemoAPI

Dashboard

API Gateway

- Services
- Routes
- Consumers
- Plugins
- Upstreams
- Certificates
- SNIs
- APIs Deprecated

Vitals

Status Codes

Dev Portal

Overview

Settings

Developers

Pages

Partials

Specs

Security

Admins

iris-api-player-v1

Edit Service

connect_timeout60000

created_atSeptember 26th 2019, 7:16:38am

host172.24.28.157

id5340dc9f-56a6-45d0-b2f6-e56915e6587f

nameiris-api-player-v1

path/api/webinar/v1/player

port52773

protocolhttp

read_timeout60000

retries5

updated_atJanuary 19th 1970, 5:09:38am

write_timeout60000

Routes

Activity

Routes

New Route

protocols	methods	hosts	paths	id	
["http"]	[]	[]	["/demo"]	f64d4c19-671b-44ad-b11f-4e2b8b071a27	<div>View</div> <div></div>

```
curl -i -X POST \
--url http://localhost:8001/services/iris-coffee-service/routes \
--data 'paths[]=/iris-coffeemaker'
```

API Management

Plugins

InterSystems®
API Management

WorkspacesDev PortalsVitalsOrganization

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DE DemoAPI

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Services

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Collapse Sidebar

Authentication


Basic Authentication



Add Basic Authentication to your APIs

Enable


HMACHMAC Authentication



Add HMAC Authentication to your APIs

Enable


JWT JWT Signer



Verify and (re-)sign one or two tokens in a request

Enable


JWT



Verify and authenticate JSON Web Tokens

Enable


Key Authentication



Add key authentication to your APIs

Enable


LDAP Authentication Advanced



Integrate IAM with a LDAP server

Enable


LDAP Authentication



Integrate IAM with a LDAP server

Enable


OAuth 2.0 Introspection



Integrate IAM with a third-party OAuth 2.0 Authorization Server

Enable


OAuth 2.0 Authentication



Add OAuth 2.0 authentication to your APIs

Enable

OpenID Connect




Integrate IAM with a third-party OpenID Connect 1.0 Provider

Enable


Security

Bot Detection




Detect and clock bots or custom clients

CORS



Allow developers to make requests from the browser

IP Restriction



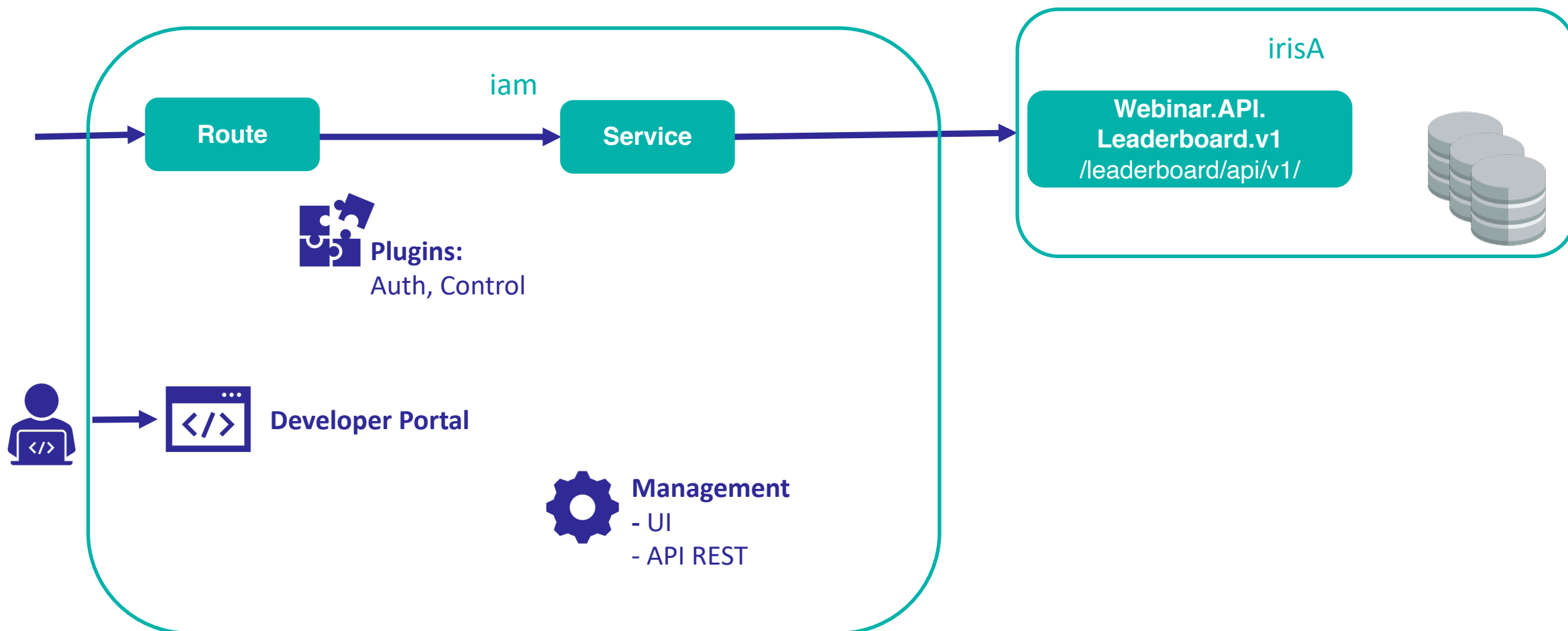
Whitelist or blacklist IPs that can make requests

API Management



Hands-on: Basic Scenario

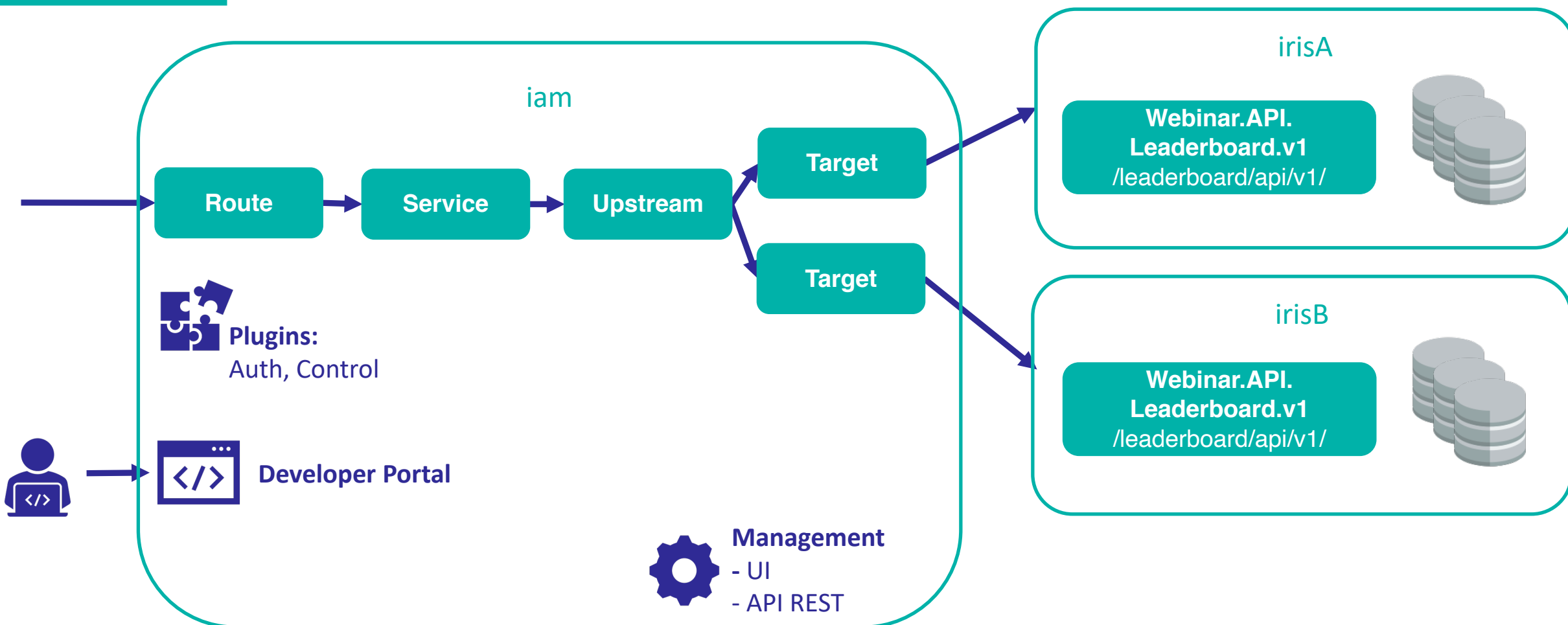
<https://github.com/intersystems-ib/workshop-rest-iam>





Hands-on: Load Balancing

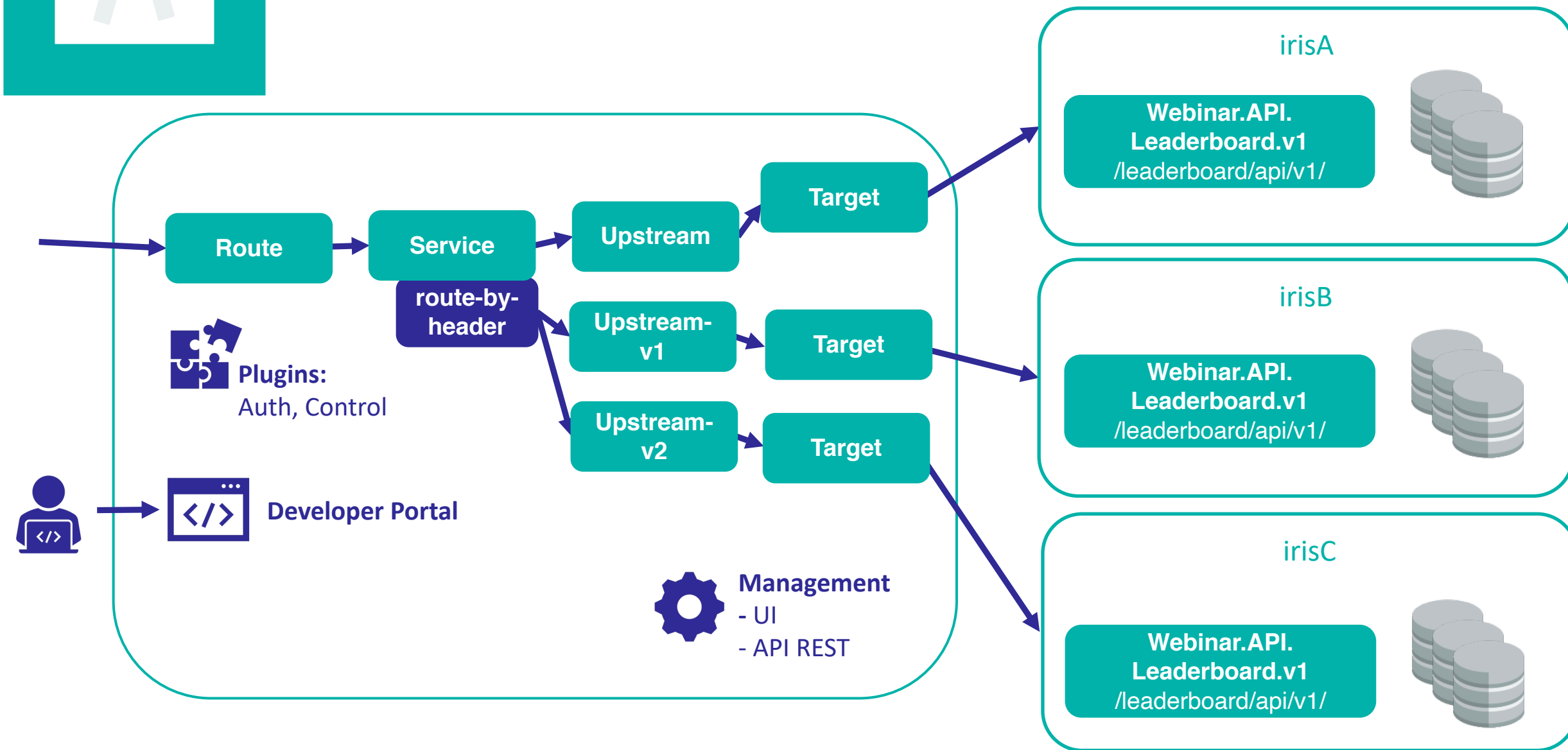
<https://github.com/intersystems-ib/workshop-rest-iam>





Hands-on: Route by header

<https://github.com/intersystems-ib/workshop-rest-iam>





Hands-on: OAuth2 (Client Credentials)

<https://github.com/intersystems-ib/workshop-rest-iam>

