DOT NET MLG

# ¿Cómo publicas tus APIs?

Diego Zapico

Verisk™ SECTOR ALARM prodware LEMONCODE METADEV plain concepts

# Diego Zapico

Solutions Architect en Carglass

Microsoft MVP AI

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# API

Interfaz de Programación de Aplicaciones. Es un **conjunto de reglas** o protocolos que permite a las aplicaciones informáticas comunicarse entre sí para **intercambiar datos, características y funcionalidades.**

# API

Sistema Operativo/Hardware

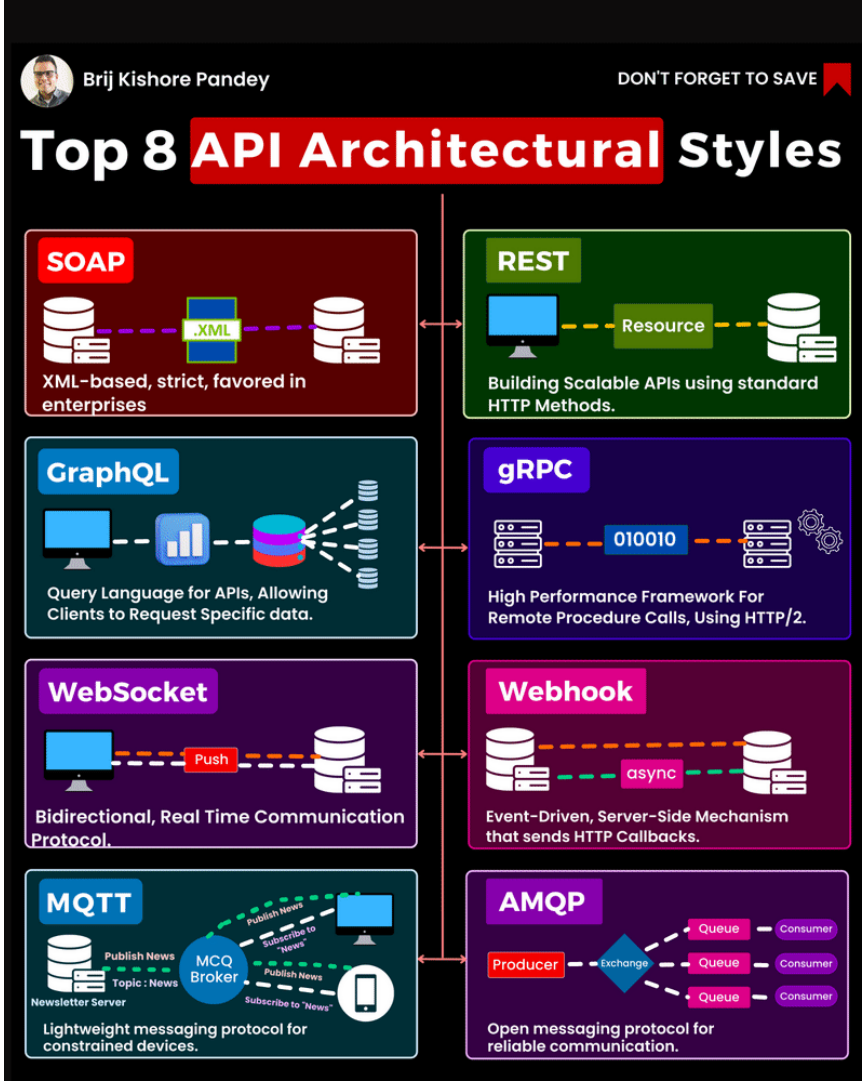
- Periféricos
- Gestión

Lenguaje

- Log

Web

- REST


Brij Kishore Pandey
DON'T FORGET TO SAVE
Top 8 API Architectural Styles
SOAP
.XML
XML-based, strict, favored in enterprises
REST
Resource
Building Scalable APIs using standard HTTP Methods.
GraphQL
Query Language for APIs, Allowing Clients to Request Specific data.
gRPC
010010
High Performance Framework For Remote Procedure Calls, Using HTTP/2.
WebSocket
Push
Bidirectional, Real Time Communication Protocol.
Webhook
async
Event-Driven, Server-Side Mechanism that sends HTTP Callbacks.
MQTT
Publish News
Subscribe to "News"
Publish News
Topic : News
MCQ Broker
Publish News
Subscribe to "News"
Newsletter Server
Lightweight messaging protocol for constrained devices.
AMQP
Producer
Exchange
Queue
Queue
Queue
Consumer
Consumer
Consumer
Open messaging protocol for reliable communication.

# REST

Recursos en plural

/cars/{id}

URL para API

api.mycompany.com/cars

mycompany.com/api/cars

Versión

mycompany.com/api/v1/cars

# REST

Nombres compuestos

- /my-folder
- /MyFolder

Acciones – Incompatibles con REST

- /Calculate
- /Calculate?num1=2&op=plus&num2=2
- Precalcular
- Triggers sobre actualizaciones

# Métodos

| Method | Scope | Semantics |
| --- | --- | --- |
| GET | collection | Retrieve all resources in a collection |
| GET | resource | Retrieve a single resource |
| HEAD | resource | Retrieve a single resource (header only) |
| POST | collection | Create a new resource in a collection |
| PUT | resource | Update a resource |
| PATCH | resource | Update a resource |
| DELETE | resource | Delete a resource |
| OPTIONS | any | Return available HTTP methods and other options |

# Responses

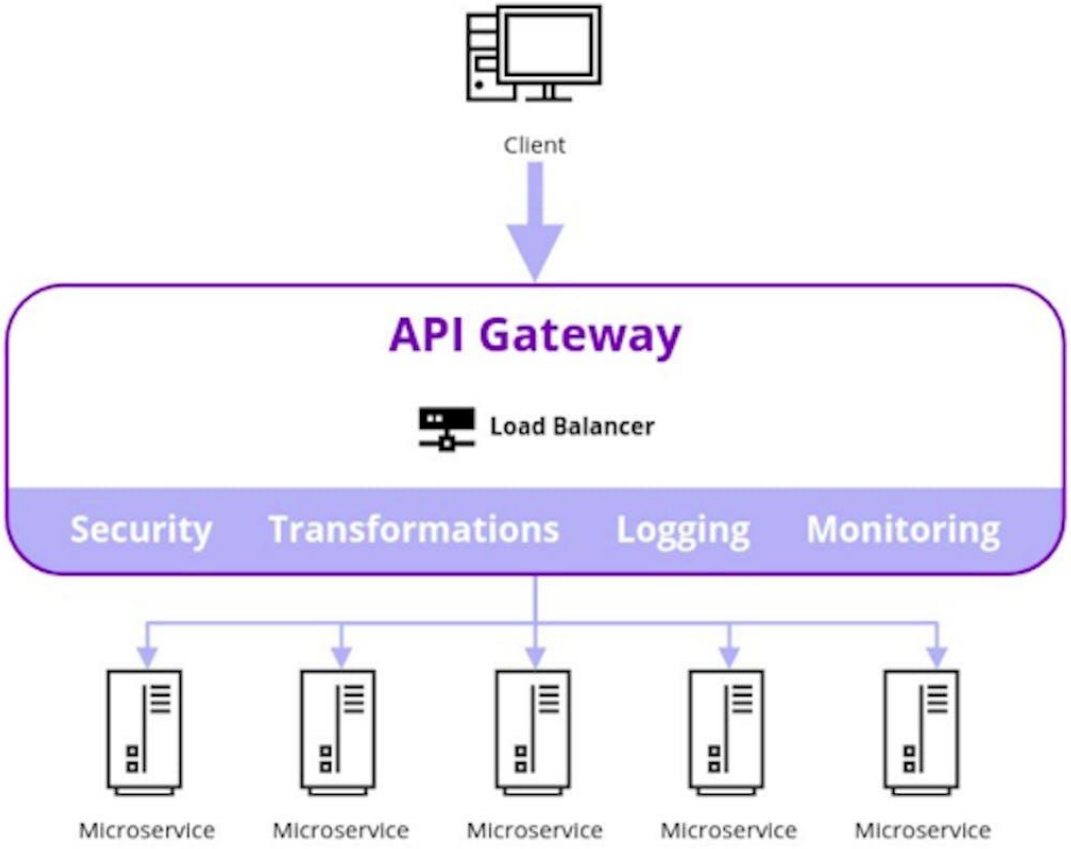
- 200 – OK
- 201 – Created
- 204 – No Content
- 400 – Bad request
- 401 – Unauthorized
- 403 – Forbidden
- 404 – Not Found
- 500 – Internal Server Error

# HATEOAS

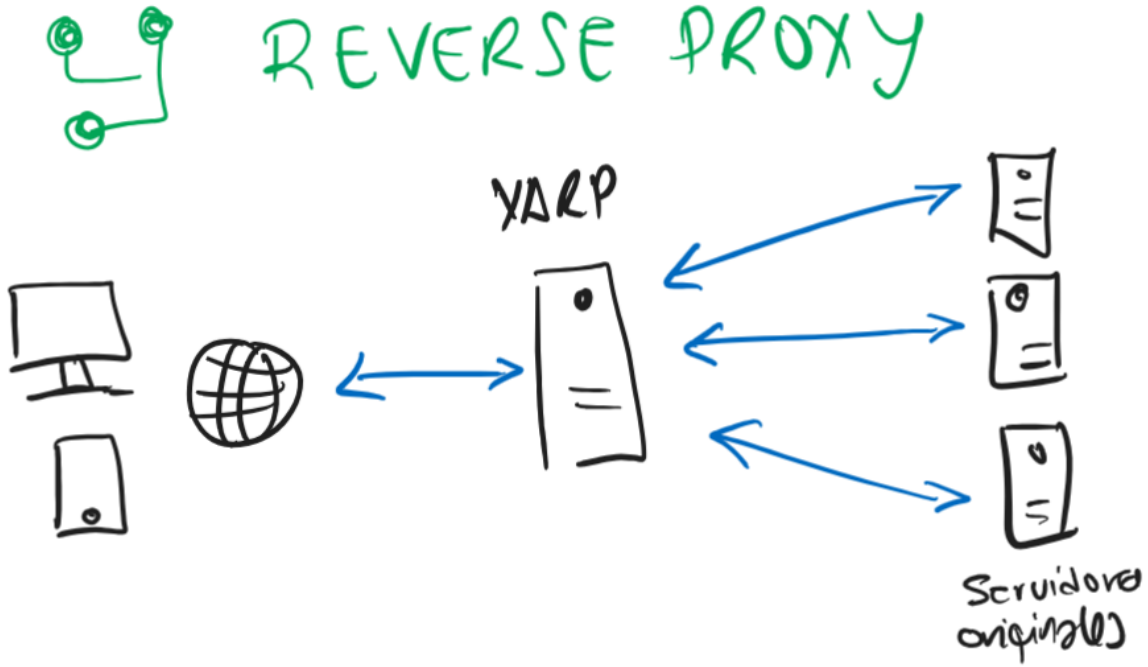
## Hypermedia As Transfer Engine Of Application State

```
{
"name": "John Doe",
"self": "http://localhost:8080/user/123",
"posts": "http://localhost:8080/user/123",
"address": "http://localhost:8080/user/123/address"
}
```

# Gateway


Client
API Gateway
Load Balancer
Security
Transformations
Logging
Monitoring
Microservice
Microservice
Microservice
Microservice
Microservice

# YARP



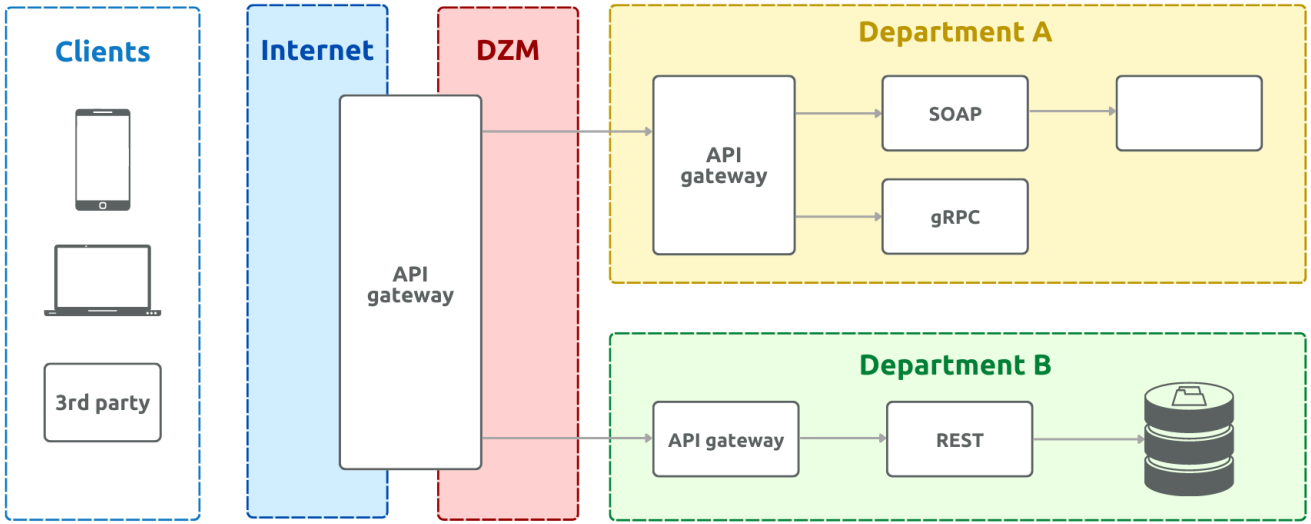
# YARP

- Crear proyecto ASP.NET Core +6.0
- Añadir paquete “Yarp.ReverseProxy”
- Añadir Middleware
- Configuración

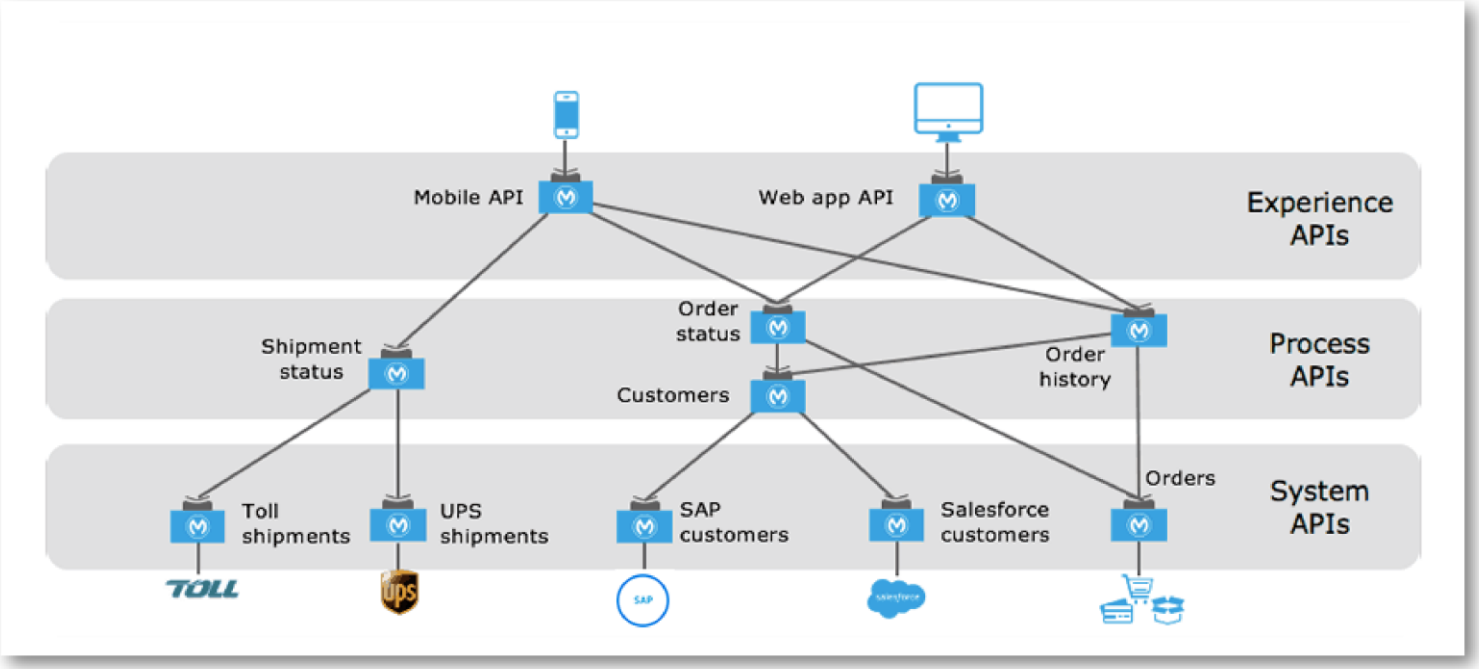
```
var builder = WebApplication.CreateBuilder(args)
builder.Services.AddReverseProxy().LoadFromConfig
(
)builder.Configuration.GetSection('ReverseProxy')
var app = builder.Build()
app.MapReverseProxy()
app.Run()
```

```
"ReverseProxy": {
  "Routes": {
    "route1" : {
      "ClusterId": "cluster1",
      "Match": {
        "Path": "{**catch-all}"
      }
    }
  },
  "Clusters": {
    "cluster1": {
      "Destinations": {
        "destination1": {
          "Address": "https://example.com/"
        }
      }
    }
  }
```

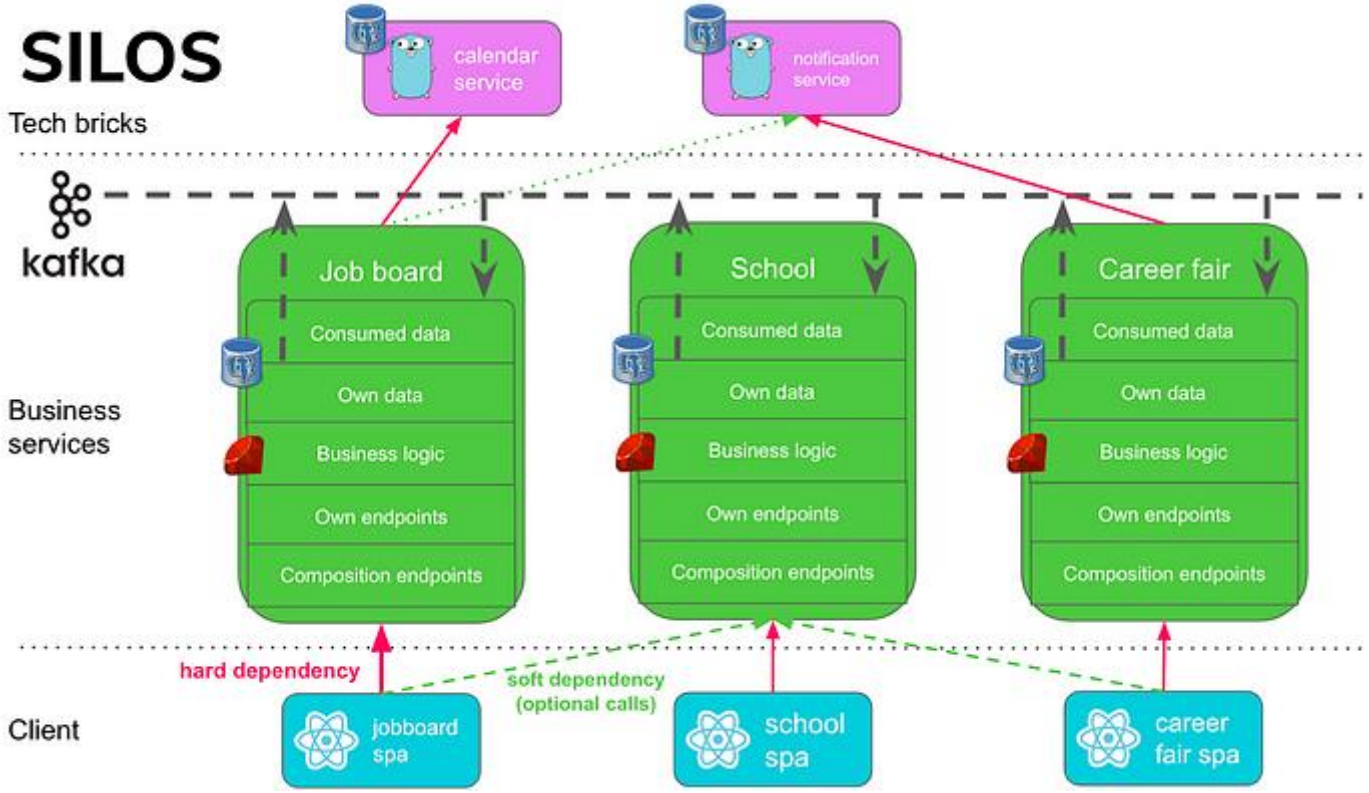
# Gateway


Clients
3rd party
Internet
API gateway
DZM
Department A
API gateway
SOAP
gRPC
Department B
API gateway
REST

# Layers


Mobile API
Web app API
Experience APIs
Order status
Shipment status
Order history
Customers
Process APIs
Orders
Toll shipments
UPS shipments
SAP customers
Salesforce customers
System APIs
TOLL
UPS
SAP

# Silos


SILOS
Tech bricks
calendar service
notification service
kafka
Job board
School
Career fair
Consumed data
Own data
Business logic
Own endpoints
Composition endpoints
Business services
hard dependency
soft dependency (optional calls)
Client
jobboard spa
school spa
career fair spa

# API MANAGEMENT LIVE

# Encuesta

EL EVENTO SOBRE

# TECNOLOGÍAS CLOUD, WEB Y DATA

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