e-Government Framework

Transforming Digital Citizen Services

Capital Digital

01.

The project in the framework of the Digital Transformation Strategy

Madrid, Digital Capital

Origin of the Project and Objectives

Framed in **the Digital Transformation Strategy of the Madrid City Council.**

Strategic objective 1. **Digital services for people**

Strategic axis 1. **The best digital administration with public employees as change agents**

Programme 1. Personalized services to attend to people

02.

Impact of Digital Transformation in the City of Madrid

Capital Digital

Madrid strengthens its digital services

+390 %

Use of the **E-Registry**

(since 2019)

+4MM

of **Electronic Notifications**

(in 2023)

+3.5MM

electronic signatures of public employees

(in 2023)

+600 %

Authentication at SEDE

(since 2019)

+610 %

Electronic Documents

(since 2019)

+22MM

visits **e-Government site**

(Last year)

+32 MM

Visits **Madrid.es**

(in 2023)

+2.3MM

accesses **Citizen's personal portal**

(in 2023)

7,91

Satisfaction Madrid City Council Portal

(since 2019)

SMARTCITY EXPO WORLD CONGRESS

Capital Digital

Madrid strengthens its digital services

+45m

Town planning licences

(Last year)

+8m

Applications for **Nursery**

(in 2023)

+2m

Social services procedures

(in 2023)

+300m

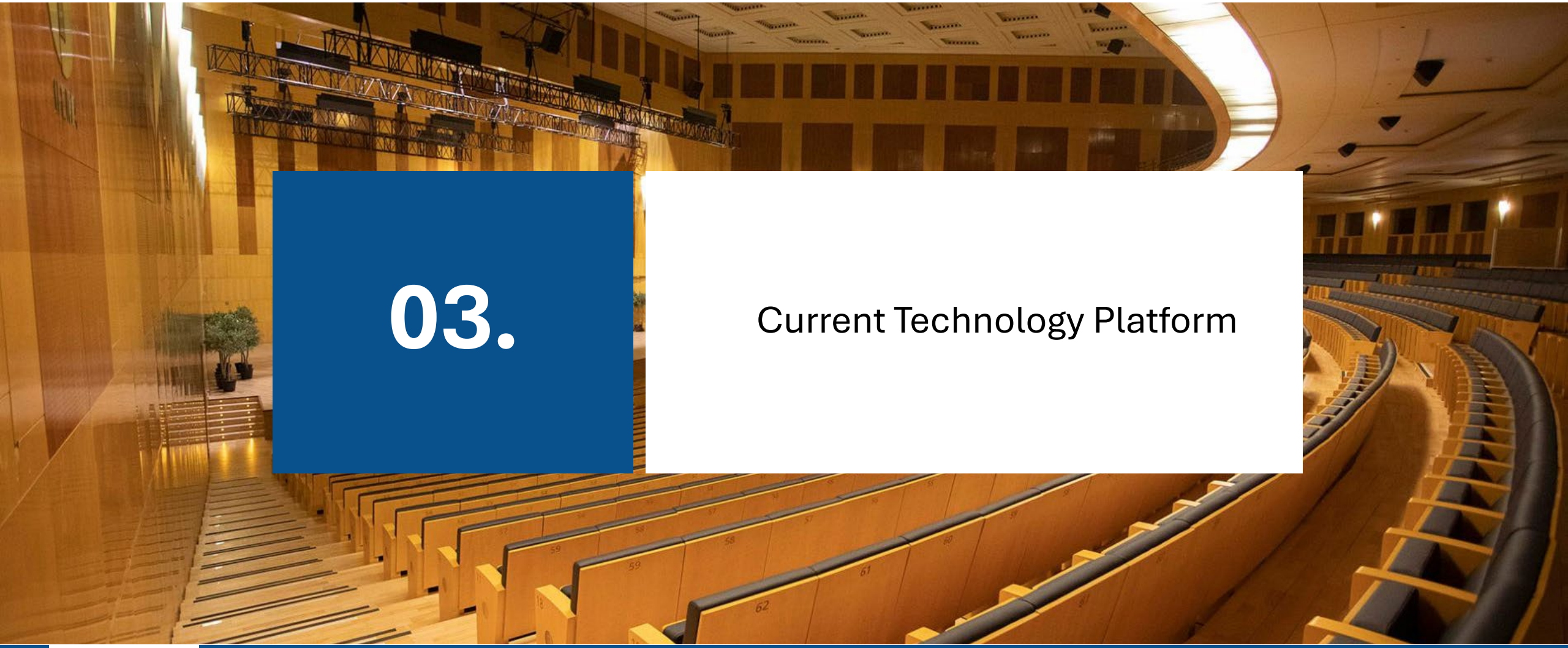
Appointments in **Social services**

(since 2019)

+130m

Applications for **Cultural Activities**

(since 2019)

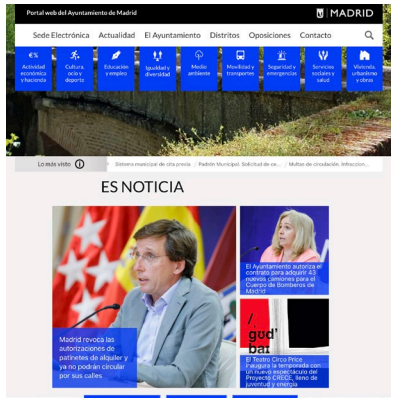


03.

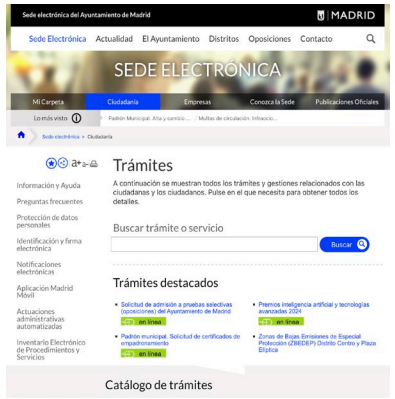
Current Technology Platform

Current Platform

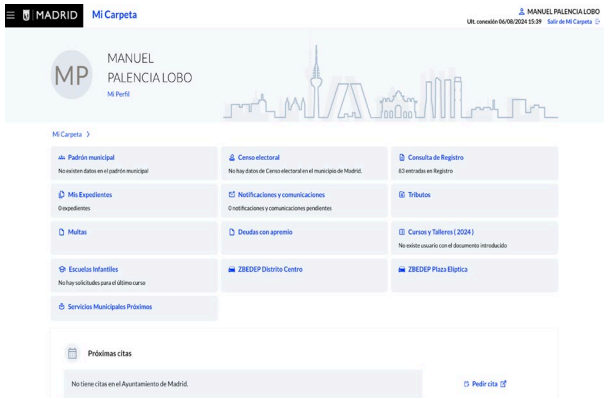
Madrid City Council Portal



E-Government portal



Citizen's personal portal

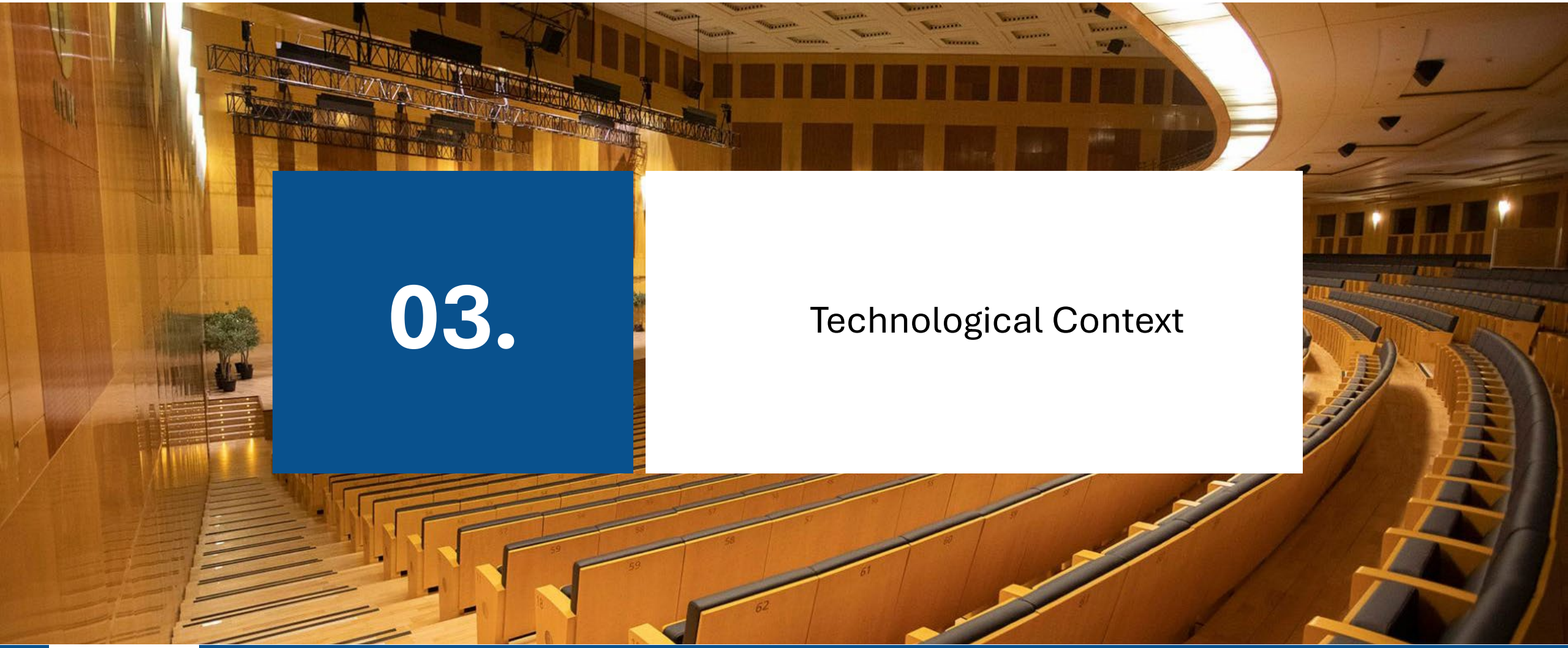


Components

- Electronic registry
- Electronic Notification
- Electronic Archive
- Citizen 360
- E-Signature platform
- Other...

Technologies

- AI
- RPA
- DATA
- GIS
- FrameWork
- Other...



03.

Technological Context

Global Objective

The fundamental objective is to be more productive, to eliminate bureaucracy that does not add value (Lean approach), and at the same time to be more agile by reducing time to market.

Objectives of the Framework

- Simplifying and homogenising application development
- Facilitating the construction of applications
- Provide a standard architecture for identification and authentication.
- Provide a nomenclature and structure for the applications.
- Base projects are provided so that the skeleton of an application can be generated with the components to be used.
- Example projects of different module technologies (FWTUT project)
- Re-use of components
- APIs have to be backwards compatible

Front End: SPA with Angular

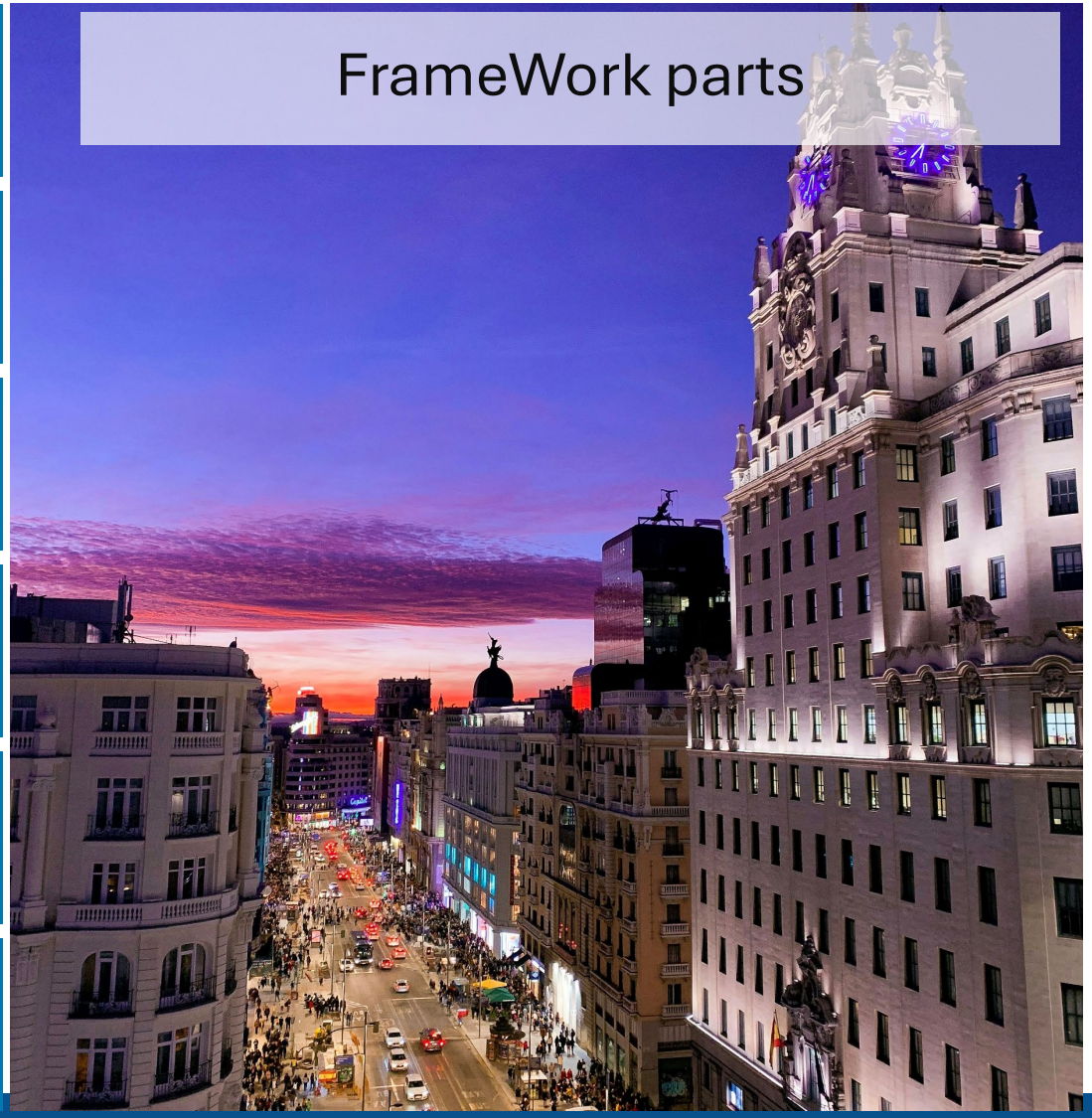
Back en: Java with REST Services

Authentication Server: WS02 Identity Server with OpenID Connect

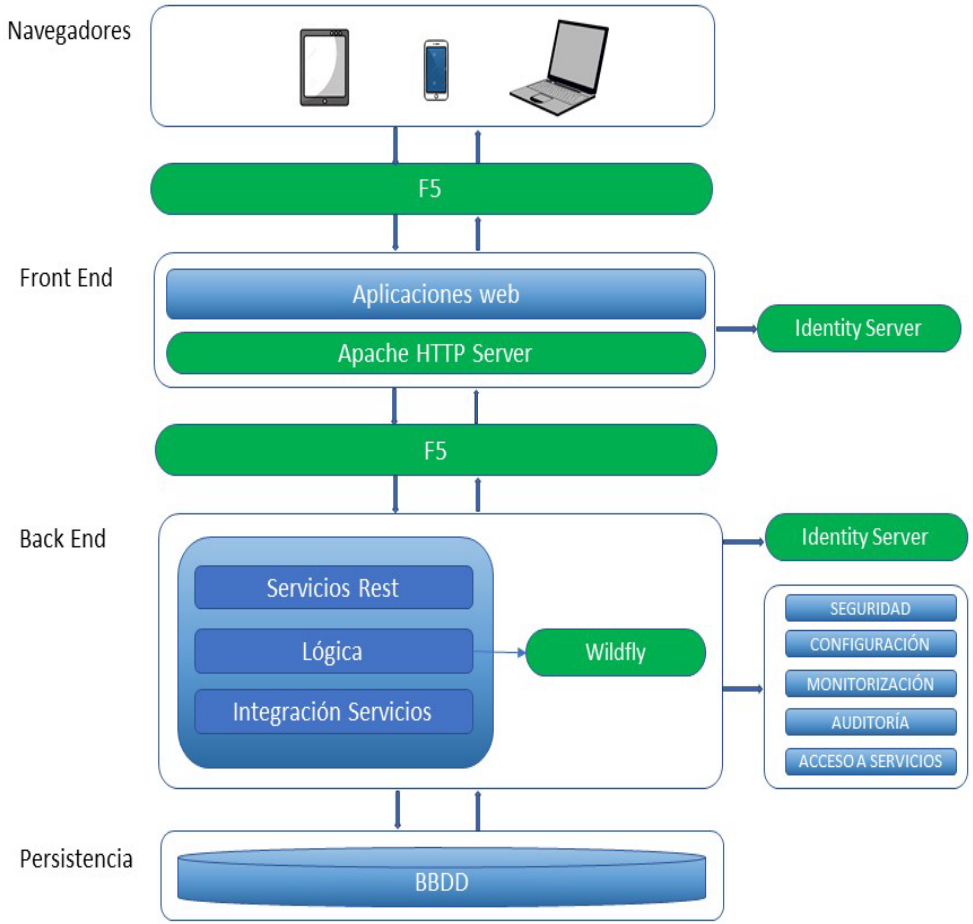
Inter-application token management: F5 BIG-IP APM

Reusable java backend and angular front-end components

Definition of deployment and security domains



Starting point



- It starts from the currently existing basis, which is the Lightweight Architecture (ALW) defined by the Architecture and Quality Service.
- F5 handles the authentication flow with the Identity Server, obtains the token and stores it, establishing an SSO session with the browser.
- On any subsequent request to the backend that is part of that session the SPA application does not have to do anything except send the session cookie, F5 adds the token and the backend receives the token and validates it.

Technology

Front End SPA	Development	Angular 14, Node 14, Webpack, HTML5, CSS3
	Web server	Apache HTTP Server 2.4
	Unit Testing	Karma / Jasmine
Back End Services Rest	Development	Jakarta JEE 10 + Microprofile 4.0 (Openjdk 21)
	Web server	Wildfly 30
	Unit Testing	JUnit 4.11 + Mockito 2.18.3
Persistence	Bookshops	JPA 2.1
	Database	PostgreSQL 16
Infrastructure	Authentication	IODC implemented by infrastructure (F5 + WSO2)
	Construction	Maven 3,9,4
	GIS	ArcGis Enterprise
	Document manager	Opentext Documentum

(*) Subject to annual review by the IAM framwork working group.