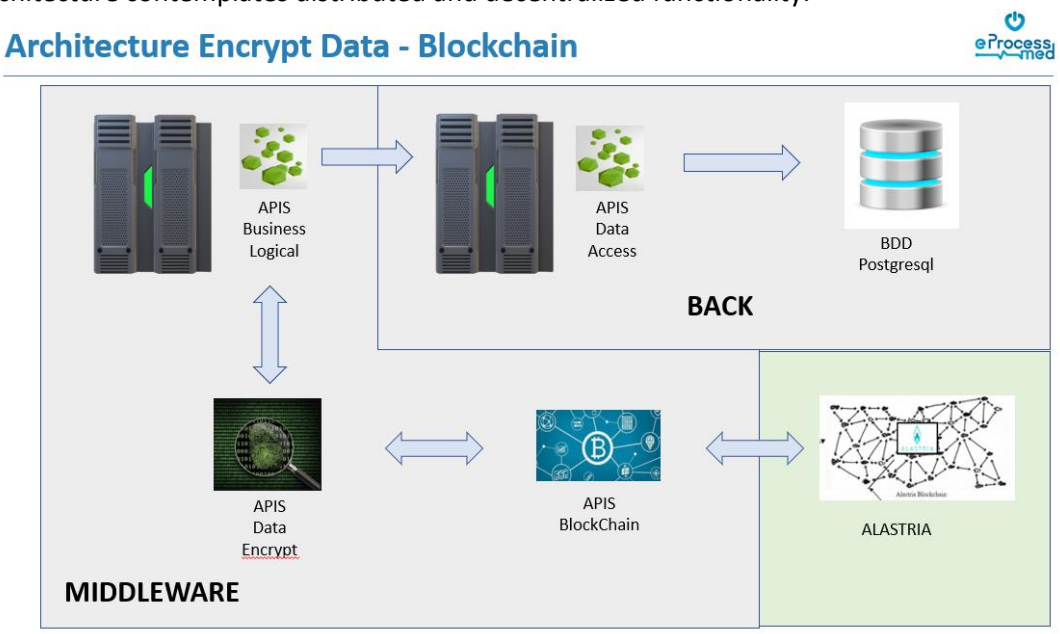
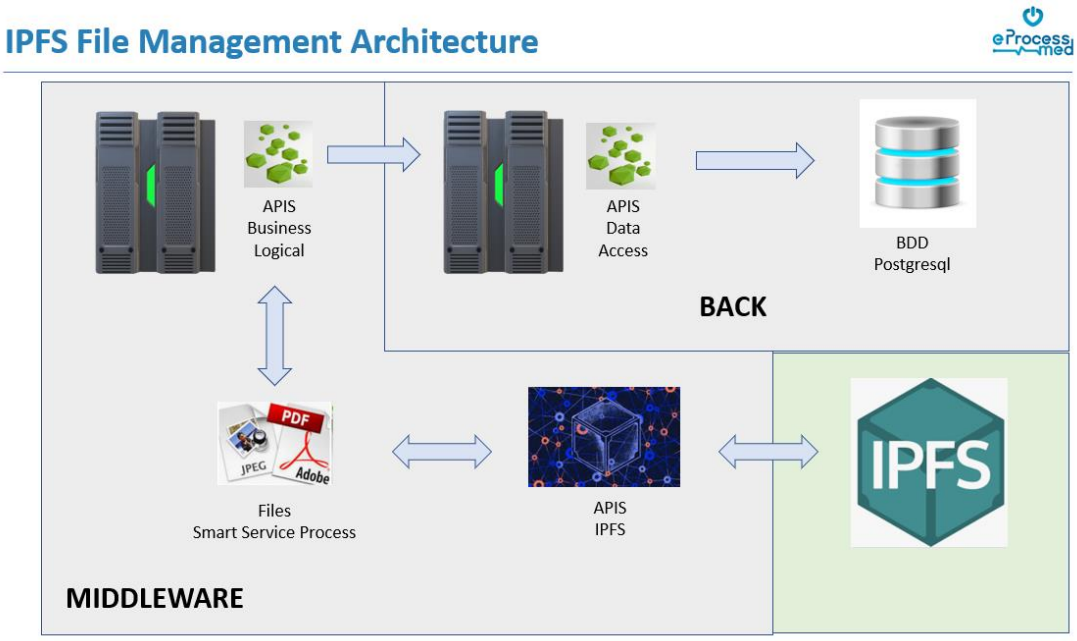
Smart Consent

Project's name:
Smart Consent - Tool for the comprehensive management of the informed consent procedure in digital format.
Project description:
The SMART CONSENT Project includes the implementation of a digital tool that issues a safe and inviolable Consent, resulting from the interaction and analysis between the medical specialist and the patient. The tool complies with the Information Security requirements, making use of blockchains to manage the integrity and availability of the information, using encryption and anonymization algorithms for the confidentiality of the information. The implemented modules are: • Security Management: Access Control, Roles and Profiles. • Administration Management: Parameterization of Catalogs and System Information. • Process Management (Mobile and Web) : Generation of Consents and Signature at Home
Technology
The Company works with Open Source Technology and Free Software, which provide unique characteristics and advantages that have been offered over the years with high quality programs. The objective is to deliver solutions with the highest Quality Standards based on Global Methodologies and International Standards in Project Management and Best Practices of the Software industry. The company is constantly evolving, implementing new solutions that can be integrated or adapted to the business needs of the Clients.

Architecture:

The architecture contemplates distributed and decentralized functionality:





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Tools:

The tools used for the implementation of the project are:

Description	Tool
Software	Angular / Node JS / Flutter / Python
Server Operating System	Linux
DataBase	Postgresql
Interconnection	Web Services, XML, REST API
Security	SSL Comunication / WAF Protection
Security of the information	Blockchains, Encryption and Anonymization.
File management	IPFS

Registration Change:

Included in this release are:

- Notification of Messages by WhatsApp.
- Encryption and Anonymization of Data to store in BDD.
- IPFS Decentralized File Management.
- Flow of Consent Signature at Home.

Improvements and Bug Fixes:

In this phase the following improvements were implemented:

- In the consent generation process, management of parameterizable information.
- Decentralized APIs for Notifications (SMS, WhatsApp, Mail), Encryption / Decryption, IPFS File Management, Blockchains
- Implementation of Global Error handling.
- Investigation of Client Applications that provide this Smart Consent service.

System Stability:

Two validation stages are carried out to ensure the behavior of the system or software component:

Technical Tests:

- ***Unit Tests:*** they are the ones that ensure that the code developed works correctly and provides the appropriate results.
- ***Integration Testing:*** to ensure that there is no problem in the combination of the different components of the system.
- ***Reliability Tests:*** Login with valid and invalid credentials, roles, accesses.

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Functional Testing: the following cycle is fulfilled

- ***Design of Tests:*** Build use cases to validate the different components of the system.
- ***Execute Tests:*** Based on a planning, carry out the execution of the test cases developed. As a result, the results report is issued, which include successful scenarios, errors and even new requirements.
- ***Develop Software:*** Correct errors found in the test execution process.

Application Repositories and Access

GIT Repositories:

Application Access:
Smart Consent:
http://forms.e-processmed.com:4100/consents/signature-house
Administration:
http://forms.e-processmed.com:4100/login