



SIA Visualization Platform

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Mid-term Webinar, 9th July 2020



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Agenda

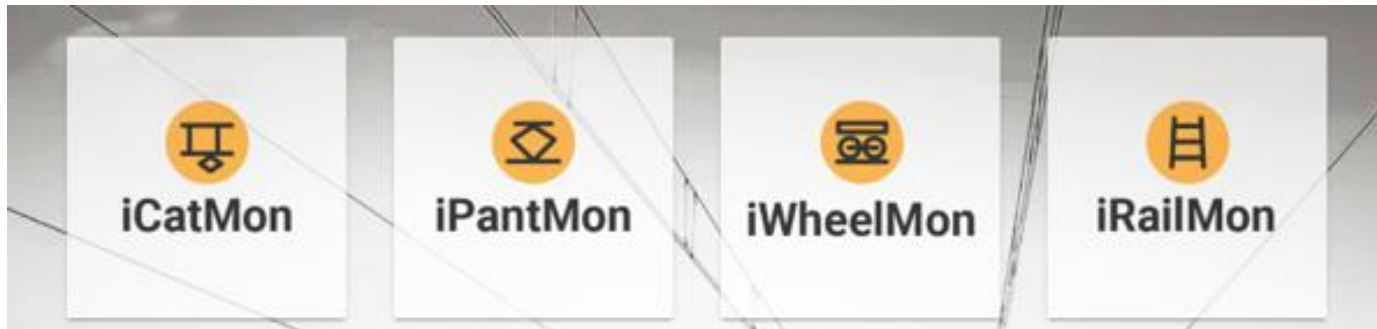
- Introduction
- Visualization Platform Functionalities
- Visualization Platform Architecture
- Software Framework
- Demo Video
- Questions and answers



Visualization Platform: SIA_VP

To create a visualization User Interface for **railway infrastructure and vehicles maintenance supporting georeferenced data.**

1. To establish and standardize a set of views of railway specific maintenance issues for the infrastructure and for the vehicle.
2. To select a software framework and implement these views.
3. End users customise and use the SIA Visualization Platform.



SIA_VP Functionality

- Manage the list of components and associated KPIs, as well as their limits and thresholds
- Manage the maintenance list associated to each KPI, and the actions to do based on the KPIs status
- Display in a simple GIS (Geographical Information System) map the railway lines in the system
- Report and visualize the raw auscultation and inspection data
- Display the current status of the components based on the KPIs
- Display a prediction of the future status of components based on KPIs
- Generate alerts reporting the early detection of future failures
- Display maintenance recommendations based on the assets status

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SIA_VP Challenges

Ubiquity

Security

Rapidity

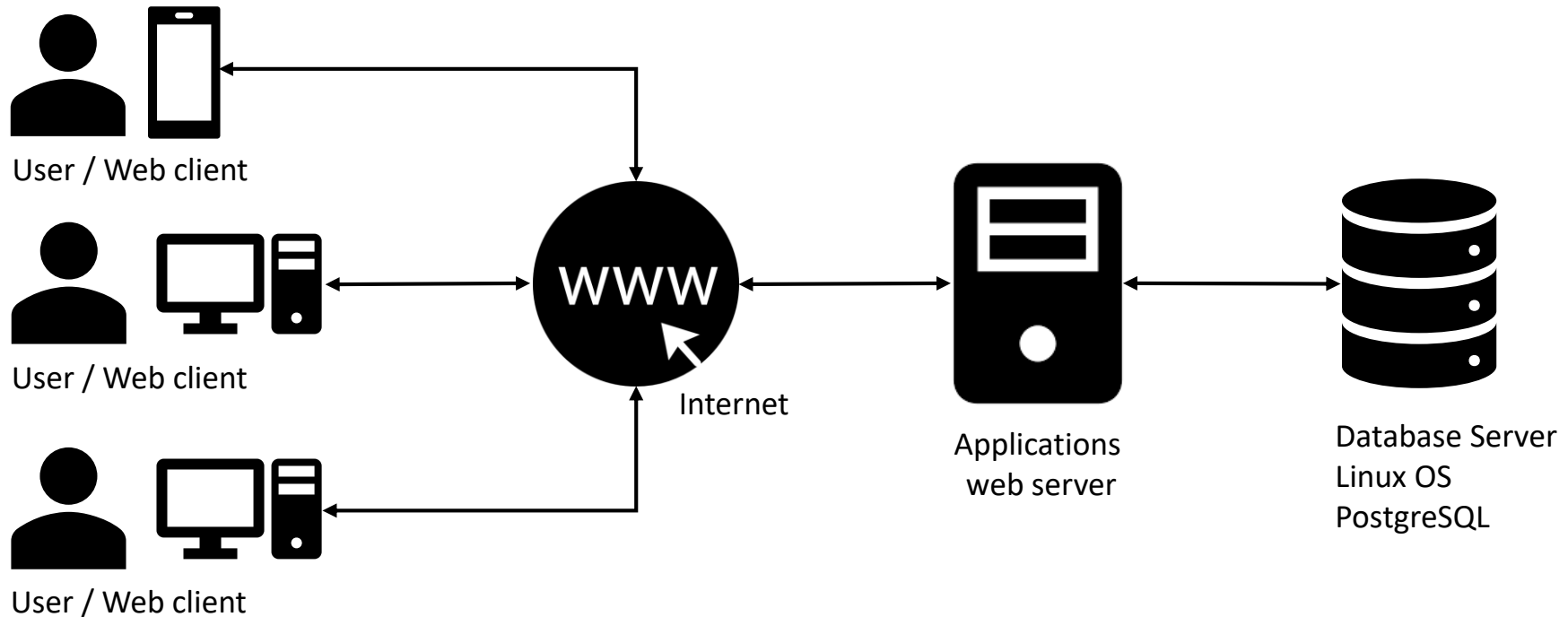
Scalability

Interoperability





Open-source

SIA_VP Architecture




- The SIA visualization system is a web-based platform with a client-server architecture in three layers.



Software framework

	Operating System: Linux Ubuntu 18.04 "Bionic Beaver" LTS
	Applications Web Server: HTTP Apache Server
	Database: PostgreSQL with PostGIS package
	Database connection interface: PHP

Software framework

	Web app: JavaScript using Polymer library
	Javascript library to create map applications: Leaflet
	Maps repository: OpenStreetMaps

Demo video



Beta Version 02



Thank you

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