

Project Design Phase-II Technology Stack (Architecture & Stack)

Date	27-October 2023
Team ID	Team-591212
Project Name	Project - Vande Barath Express
Maximum Marks	4 Marks

Technical Architecture:

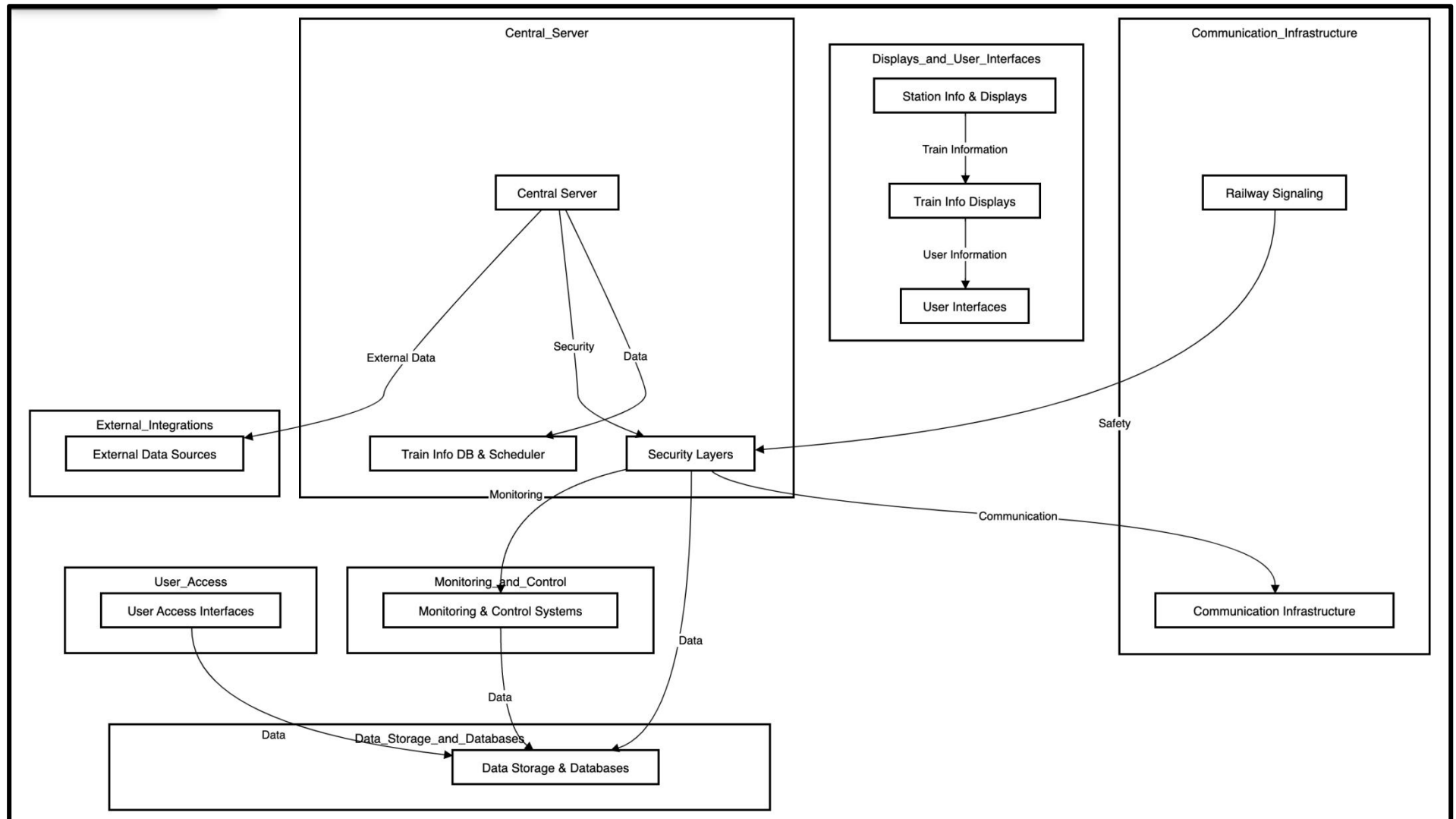


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	How users interact with the application	HTML, CSS, JavaScript / Angular Js / React Js, etc.
2	Application Logic-1	Logic for a process in the application	Java / Python
3	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5	Database	Data type, configurations, etc.	MySQL, NoSQL, etc.
6	Cloud Database	Database service on the cloud	IBM DB2, IBM Cloudant, etc.
7	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8	External API-1	Purpose of External API used	IBM Weather API, etc.
9	External API-2	Purpose of External API used	Aadhar API, etc.
10	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
11	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
Open-Source Frameworks	Utilization of open-source frameworks for application development and infrastructure.	e.g., React, Node.js, Express.js, Angular, etc.	Open-Source Frameworks
Security Implementations	Implementation of security measures to safeguard data, passenger information, and system operations.	e.g., SSL/TLS, encryption, authentication, authorization, firewalls, etc.	Security Implementations
Scalable Architecture	Architectural design that allows for scalability to accommodate an increasing number of users and data.	e.g., Cloud platforms, microservices, load balancing, containerization, etc.	Scalable Architecture
Availability	Ensuring that the application and services are consistently available to passengers.	e.g., High availability configurations, redundancy, failover mechanisms, etc.	Availability
Performance	Optimizing the system for fast and efficient operation, providing a seamless user experience.	e.g., Performance monitoring, optimization tools, caching, responsive design, etc.	Performance

