PROJECT PHASE DESIGN - I

SOLUTION ARCHITECTURE

Date	27 sept 2022
Team Id	PNT2022TMID19917
Project Name	Gas leakage monitoring and alerting system for industries
Maximum mark	4mark

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

• Find the best tech solution to solve existing business problems.

• Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.

• Define features, development phases, and solution requirements.

• Provide specifications according to which the solution is defined, managed, and delivered.

USERS/APPLICATIONS

OPERATOR · DEVICE UI · PEER PLATFORM · END USER APPLICATION · END USER · ENTERPRISE USER · ENTERPRISE APPLICATIONS

PEER PLATFORM APPLICATION

EDGE · PLATFORM · ENTERPRISE

IBM PLATFORM

IoT SOLUTION

IIoT PLATFORM

ACCESS NETWORK · SERVICES NETWORK

API MANAGEMENT · APPLICATION RUNTIME · PROCESS MANAGEMENT

VISUALIZATION SUPPORT

SENSOR GATEWAY

SENSOR/ACTUATOR

PROXIMITY NETWORK

EDGE SERVICES

USER MANAGEMENT

ENTERPRISE TRANSFORMATION & CONNECTIVITY

Transform/Connect
Apps/Analytics
Gateway Device Management
Device Management Client
Configuration/Container Management
Device Data

IoT GATEWAY

Digital Device
Firmware
Apps/Analytics
Network Connection
Device Management Client

DEVICE

IoT CONNECTIVITY & BROKERING · DEVICE MANAGEMENT · IoT INFORMATION MODEL · AI/ANALYTICS · IoT BLOCKCHAIN INTEGRATION

ENTERPRISE DATA

ENTERPRISE USER DIRECTORY

PHYSICAL ENTITY

SCADA

DATA MANAGEMENT SERVICES · IoT DATA LAKE

LEGEND

- Security
- User
- Data oriented service
- Infrastructure services
- Application
- Management
- Analytics
- Blockchain
- Scalable infrastructure
- ↔ Data and control
- ↔ User path
- IBM content

EXTERNAL DATA SERVICES · SECURITY · CONFIGURATION MANAGEMENT & COMPOSITION · IoT GOVERNANCE · BLOCKCHAIN NETWORK