

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

Date	30 October 2022
Team ID	PNT2022TMID31498
Project Name	Smart Famer – IoT Enabled Smart Farming Application
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

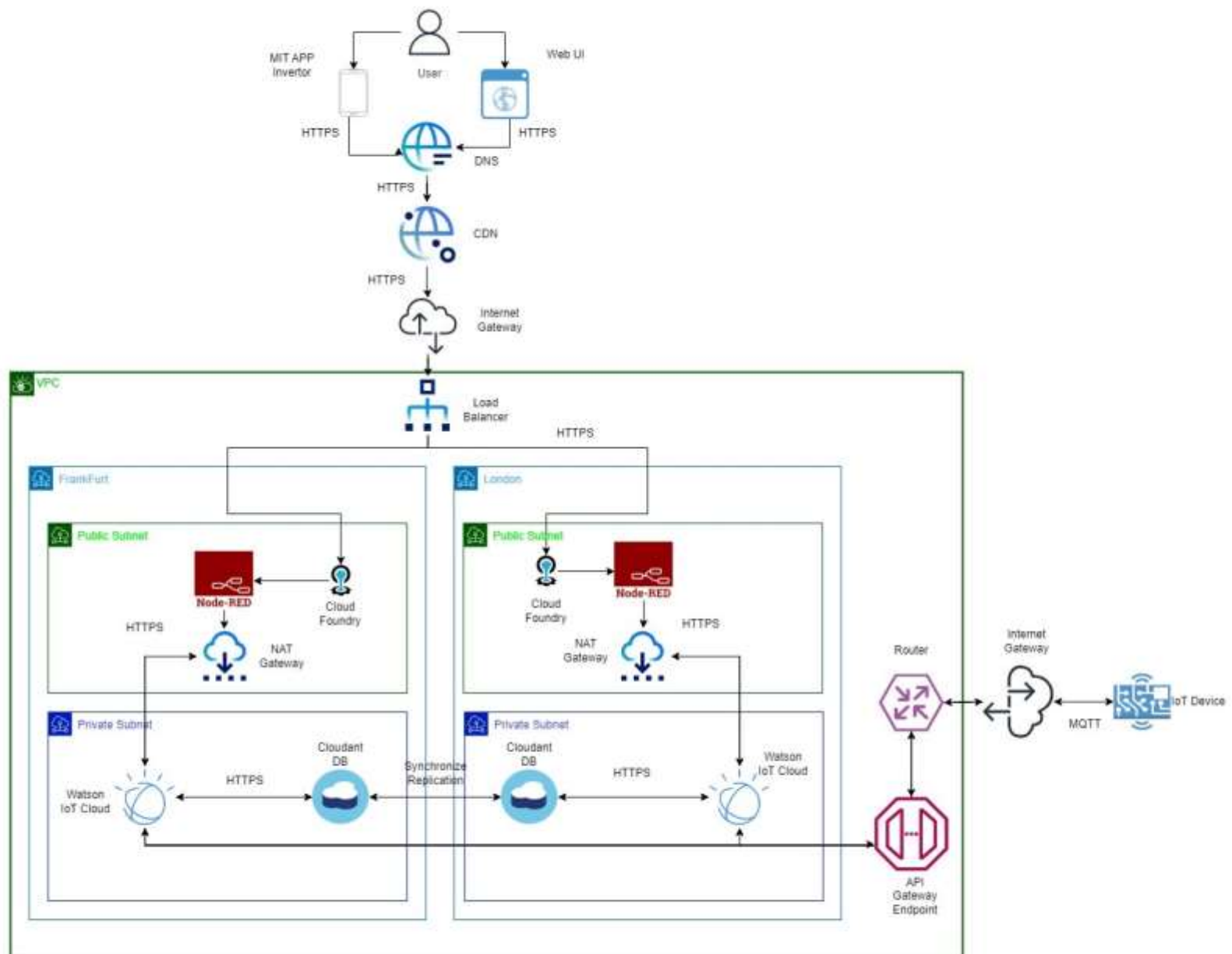


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application Web UI and Mobile App	NodeRed
2.	Application Logic-1	Logic for a process in the IoT Device to sense	Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson Assistant
4.	Cloud Database	Database Service on Cloud	IBM Cloudant DB
5.	External API-1	Purpose of External API used in the application	IBM Weather API
6.	Infrastructure (Server / Cloud)	Application Deployment on Cloud Server Configuration	Cloud Foundry.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Use API Gateway and Internet Gateway as firewall Protection
3.	Scalable Architecture	Every Cloud Services are hosted separately and make is scalable separately	Public and Private Gateway
4.	Availability	Application is hosted on two regions for availability	London and Frankfurt Region Data Centres are used
5.	Performance	Used Content Delivery Network and API gateway to scale millions of users and IoT Devices as well	IBM CDN and IBM API Gateway are used