

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

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| Date | 16 October 2022 |
| Team ID | PNT2022TMID03053 |
| Project Name | Project : IoT Based Safety Gadget for Child Safety Monitoring & Notification |
| Maximum Marks | 4 Marks |

Technical Architecture:

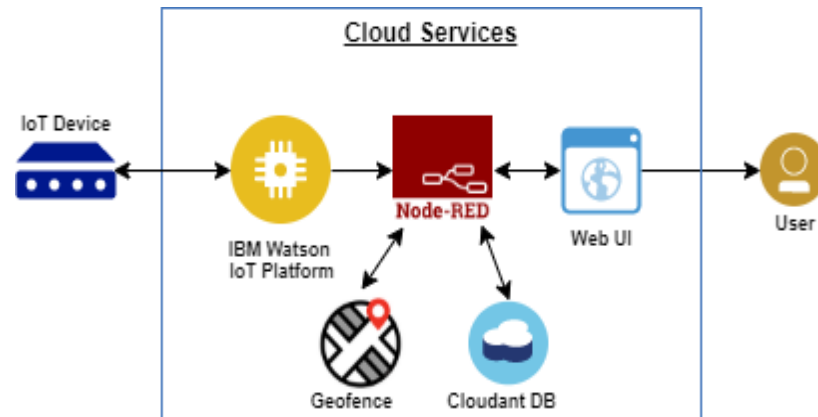


Table-1 : Components & Technologies:

| S.No | Component | Description | Technology |
|------|----------------|---|------------|
| 1. | User Interface | The communication protocol being used in the proposed solution might act as an interface the way like Wi-Fi, Bluetooth and ZigBee | MIT app |

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|----|---------------------------------|--|--|
| 2. | Application Logic | The data to be collected and sent to the authenticator's(parent) via GSM providing the GPS coordinates to easily locate access and monitor the child | IBM Watson STT service, python etc |
| 3. | Database | Data to be segregated and secured in the form of relational DBMS | MySQL |
| 4. | Cloud Database | IBM | IBM Cloudant |
| 5. | File Storage | File storage requirements | IBM Block Storage or Other Storage Service or Local Filesystem |
| 6. | External API-1 | To access the children location | GPS location monitoring etc |
| 7. | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud Local Server Configuration | Cloud Foundry |

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|--|----------------------------|
| 1. | Open-Source Frameworks | The proposed solution being framed in the form an android application providing the end user an easy surveillance of their children (preferably users are parents) | UI/UX design development |
| 2. | Security Implementations | The developed application should be accessible in the way it can only respond to the comments of the relevant users | Encryptions, IAM Controls. |
| 3. | Scalable Architecture | The app format comes the way easier to handle and operate. | Not yet determined |
| 4. | Availability | The developed solution tends to be available in the market at any time | Not yet determined |
| 5. | Performance | Highly proper and betterment functionalities are to be ensured in the designed solution | Not yet determined |

