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

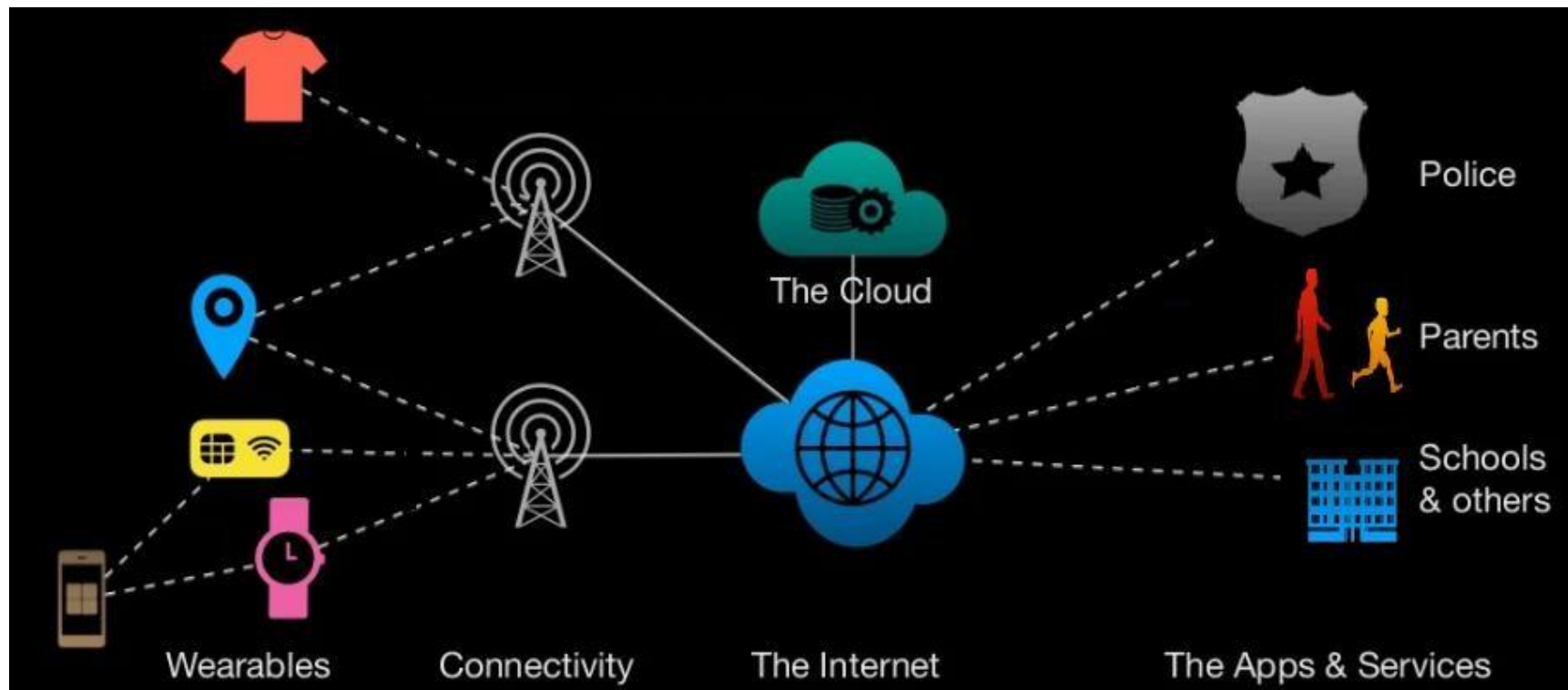| Date	03 October 2022
Team ID	PNT2022TMID19355
Project Name	Project – IOT Based Safety Gadget for Child Safety Monitoring and Notification
Maximum Marks	4 Marks

Table-1 : Components & Technologies:

	Component	Description	Technology
	User Interface	Web UI, Mobile App.	HTML, CSS, JavaScript
	Application Logic-1	Code Development Phase	Python
	Application Logic-2	Interfacing purposes	IBM Watson Assistant
	Browser-based flow editor	Visual Programming	Node Red
	Cloud Database	Database Service on Cloud	IBM Cloud
	File Storage	Usage of IBM Cloud Storage	IBM Block Storage
	Infrastructure (Server / Cloud)	Application Deployment on Local Server	Cloud Platform

Table-2: Application Characteristics:

	Characteristics	Description	Technology
	Open-Source Frameworks	A template for software developmentthat is designed by a social network.	IBM Watson Platform, NodeRed.

	Characteristics	Description	Technology
	Security Implementations	Each and every parent should take care of their own children, without letting them to fall into the dark world of abuses, which entirely ruin them physically, mentally and emotionally destroying our future. Hence, considering the importance of ourfuture, our project makes it easy for parents to track their children and to visually monitor them on regular basis, which makes them ensure the safety of their children and reduces the rate of incidents of child abuse.	Notifications and Alerts
	Scalable Architecture	If any abnormal values are read by the sensor, then an SMS is sent to the parents mobile and an MMS indicating an image captured by the serial camera is also sent. The future scope of the work is to implement the IoT device which ensures the complete solution for child safety problems.	Implementation usingSoftware.
	Availability	The solution represented takes advantages of Open-source platforms.	NODE RED, IBM cloud, IBM IoT platform.

	Performance	GPS is useful for tracking child and also provides the information where the child is currently located as well as it also informs the parents how long his child is far away from his parents. SMS services used when smart phones do not support internet connectivity in this case child is able to send a text message or exact location in the parents. This system is going to help the parents to track the location of their children without informing them because their movement is displayed on the parent's phone.	GPS