

Microsoft Azure based cloud platform for monitoring and controlling industrial systems

01 BUSINESS REQUIREMENT:

- Modbus inputs/outputs, TCP/IP Sockets, BLE/WiFi, 4G
- Real time data processing, Controls, Alarm/Failsafe, OTA
- Security on Edge gateway and secured communication with cloud
- Web server/ mobile based application for device setup, diagnostics

02 OUR SOLUTION:

- ARM/ x86 based Off-the-self hardware
- Data acquisition, Control logic, Alarm generation, Failsafe handling, OTA firmware updates implemented in Azure IoT Edge module.
- Security – Secure boot, File system encryption, Encrypted database,
- TPM chip (keys), X.509 certificate based device provisioning.
- Inbuilt Webserver/ Mobile App for device provisioning, diagnostics and local debugging.

03

TOOLS /TECHNOLOGIES:

- Visual studio 2019, Linux
- Wi-Fi Hostspot/SoftAP, GPS, BLE 5.0, 4G
- WebSocket, IoT Edge Module in C#, Stream analytics, Blob Storage, Azure C2D /D2C,
- Ubuntu 18.04 with Linux kernel 4.9 , Yocto Dunfell 3.1 with Linux kernel 5.4

04 BUSINESS IMPACT



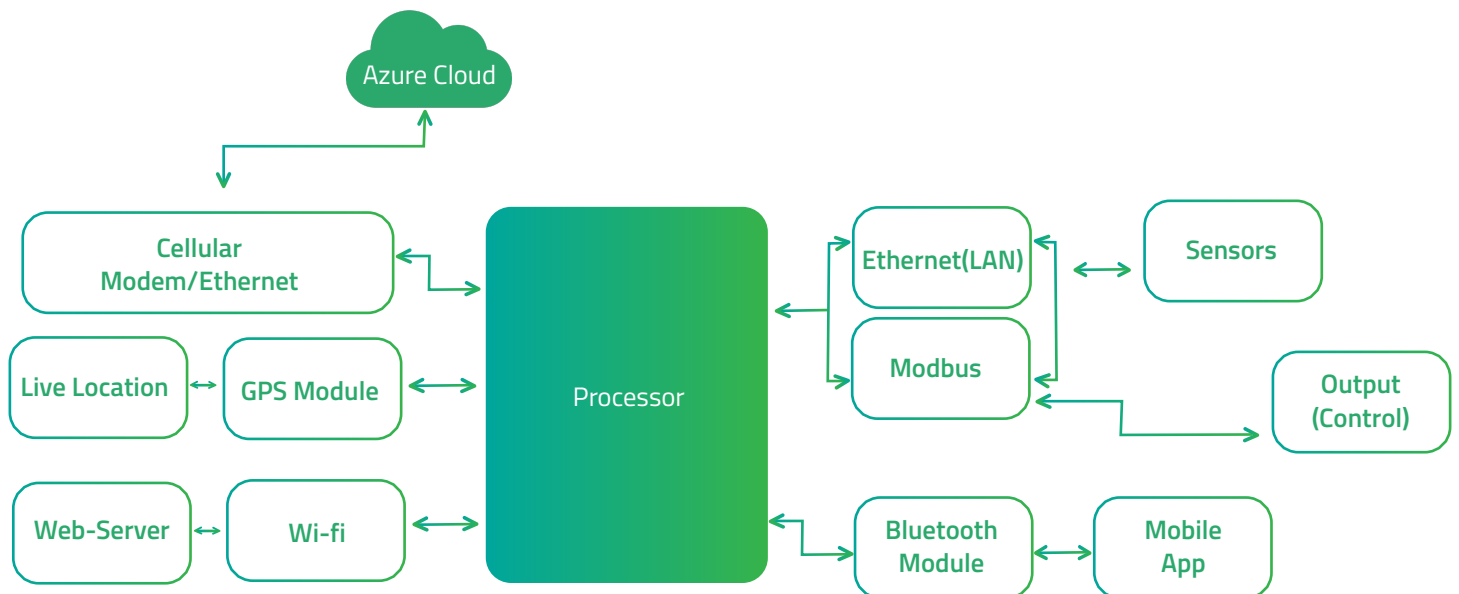
Ability to monitor, analyze and optimize the performance of the industrial processes thereby enhancing plant efficiency



The solution provides a good user experience by streamlining the process flow, automating device provisioning and firmware/configuration update with limited manual intervention.



Foolproof design - meets all the Edge security and cybersecurity requirements



Write to us business@happiestminds.com

About Happiest Minds Technologies

Happiest Minds, the Mindful IT Company, applies agile methodologies to enable digital transformation for enterprises and technology providers by delivering seamless customer experience, business efficiency and actionable insights. We leverage a spectrum of disruptive technologies such as: Big Data Analytics, AI & Cognitive Computing, Internet of Things, Cloud, Security, SDN-NFV, RPA, Blockchain, etc. Positioned as "Born Digital . Born Agile", our capabilities spans across product engineering, digital business solutions, infrastructure management and security services. We deliver these services across industry sectors such as retail, consumer packaged goods, edutech, e-commerce, banking, insurance, hi-tech, engineering R&D, manufacturing, automotive and travel/transportation/hospitality.

Headquartered in Bangalore, India; Happiest Minds has operations in USA, UK, The Netherlands, Australia and Middle East.

Media Contact media@happiestminds.com