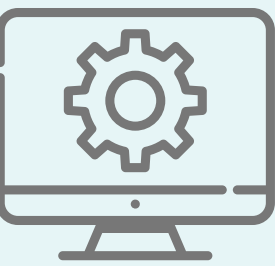


Industrial IoT made easy

End to end, remote asset monitoring and predictive maintenance for legacy assets.

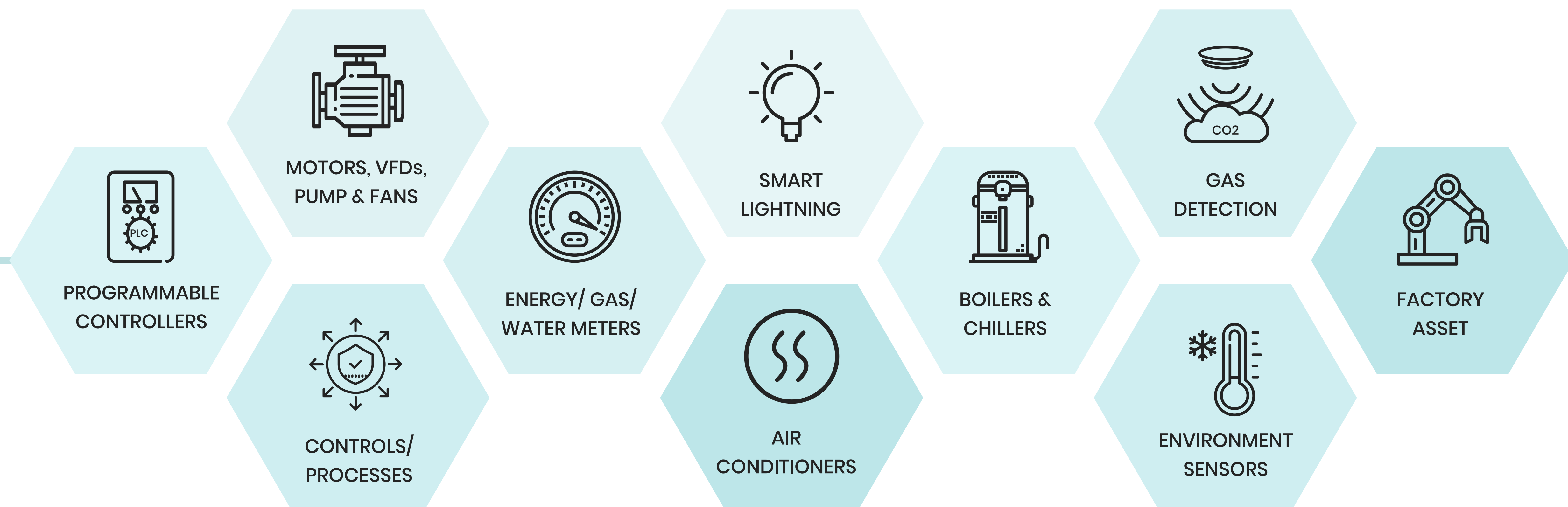
Our IoT + AI solution includes,

- 
IoT Bridge
 Tiny far edge device with Wi-Fi, BLE, Modbus and sensor ports
- 
Software w/AI Engine
 For easy onboarding, data logging & anomaly detection
- 
Web/ Mobile App
 Continuously monitor and optimise asset performance
- 
Cloud Service (SaaS)
 Easily manage devices, user/data, monitor assets & detect anomalies



iCast1 seamlessly integrates Greenfield and Brownfield assets including sensors, meters, motor drives, PLCs and Modbus RTU capable devices with the Shoreline IoT cloud at a minimal cloud subscription providing long-term data storage, real-time monitoring and alert notifications

Target Applications



Key Features

- 
ONE STOP SHOP
 Device hardware, device software, Mobile App, IoT Cloud SaaS subscription all provided by Shoreline. Faster time to deployment at lower cost
- 
REMOTE ASSET MONITORING
 Efficiently monitor assets, remote data logging, get live data, see real time oscilloscope view of machines, charts and alerts
- 
FAST AND SECURE ONBOARDING
 Connect and start monitoring legacy assets within few min. Securely provision legacy assets and sensors at much lower up front cost
- 
AI BASED ANOMALY DETECTION
 Early detection of problems with rotating machine such as motors, pumps, fans, etc. Anomaly examples – broken / slip belt, worn out bearings



IoT Cloud Software (SaaS)

- **Multiple SaaS plans** based on usage and services
- **Fast & Secure Onboarding** – Registration, configuration & authentication
- **User account & data management** – Multi tenancy support, historical data downloads
- **Remote Asset monitoring** – Using real time data, rules engine, alerts, charts & notification. API interface for third party cloud and applications.
- **Device management** – Device activation, MODBUS & sensor profile manager, health diagnostics & logs, OTA firmware upgrades



IoT Mobile Software

- **iOS & Android Mobile Apps** for on-boarding & User App
- **Easy device provisioning** to Wi-Fi AP & Shoreline IoT Cloud platform
- **Re-configuration** of sensor and actuator profiles
- **Device health status** and on-site diagnostics
- **Monitoring** using real-time readings, alerts, notifications & charts



IoT Device Software

- **Machine learning** – Real time anomaly detection with local AI engine
- **Live Oscilloscope View** – Real time monitoring at 10K samples/sec
- **Data logging** & pre-processing. **Local rules** configurable from cloud
- **IoT Protocols** – MQTT, WebSockets, TCP/IP, HTTP, DHCP, TLS 1.2, SSL
- **AWS IoT device SDK** and option to add other Cloud agents



Benefits



Accelerate implementation



Work smarter



Reduce cost



Retrofit buildings & plants



IoT Bridge Hardware

Radio	
Wi-Fi	Certified IEEE 802.11 b/g/n Wi-Fi, 2.4GHz radio
Bluetooth	BLE v4.2, Mesh support (optional)
Southbound interfaces	
Modbus I/O	MODBUS RTU over RS485(Max. baud rate 115200)
Sensor I/O	2 Analog Inputs (0-10V / 4-20 mA) 4 Digital I/O (configurable as Input / Output)
System features	
System	Two 32 bit (ARM M4) Micro-controllers, 8 MB Flash
Security	Secure boot, Enhanced AES engine
General features	
Power In	External power supply 12-24V DC / 1A
Power Out	+5 V DC Output, 0.5 A
Certification	FCC, CE

