




## Industrial IoT made easy


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

Our IoT + AI solution includes,

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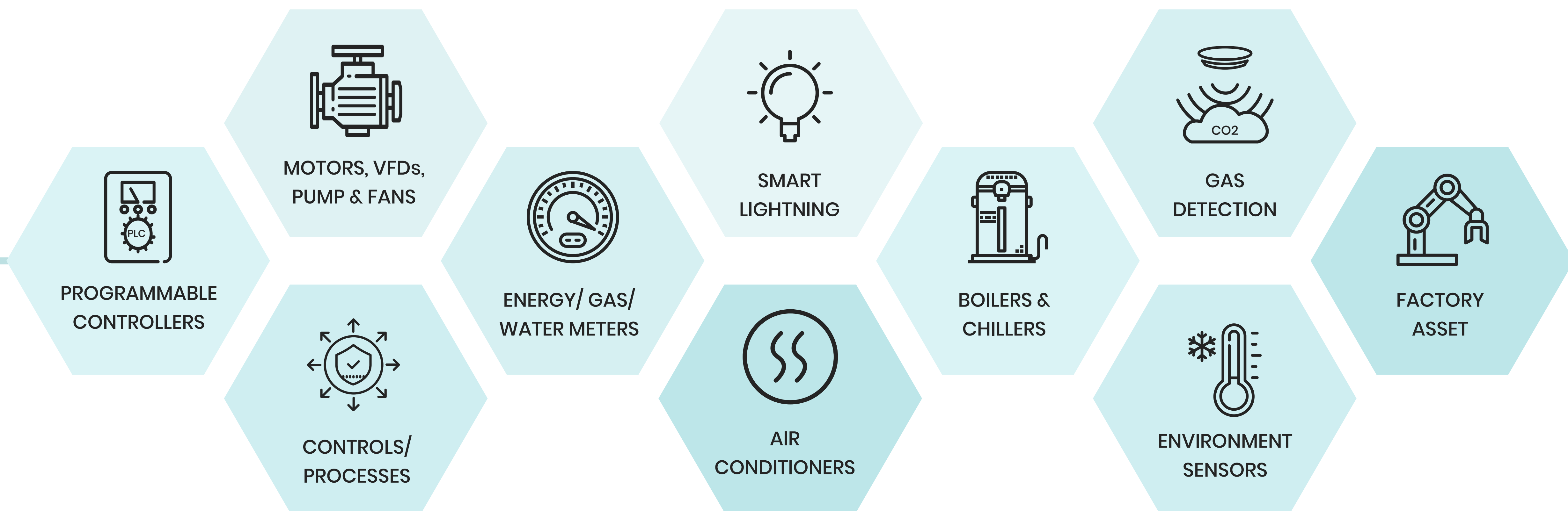
**Web/ Mobile App**  
Continuously monitor and optimise asset performance
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**Cloud Service (SaaS)**  
Easily manage devices, user/data, monitor assets & detect anomalies





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

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**ONE STOP SHOP**  
Device hardware, device software, Mobile App, IoT Cloud SaaS subscription all provided by Shoreline. Faster time to deployment at lower cost
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**REMOTE ASSET MONITORING**  
Efficiently monitor assets, remote data logging, get live data, see real time oscilloscope view of machines, charts and alerts
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**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
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**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

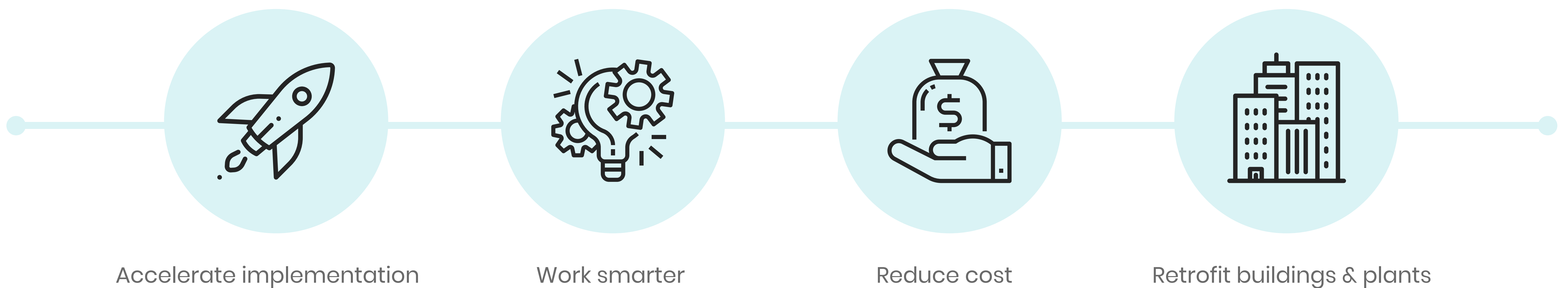
## IoT Mobile Software

- **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



## 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

