

Fast-Track Your Way to an

INTELLIGENT INDUSTRIAL

EDGE

The Industrial Internet of Things (IIoT) provides a path for virtually all industrial enterprises to jump ahead of and edge out their competition, arming them with more robust and actionable data on their remote operations – if they can access it quickly.

The challenge is that much of the insights generated by remote sensors and devices today are still stranded in the field. Traditional approaches of centralized data processing and network polling simply can't support the breadth of data and real-time delivery speed required to realize transformative IIoT gains.

WHAT'S NEEDED IS A PARADIGM SHIFT

To computing at the edge, where remote operations happen.

THE CURRENT WAY

VS

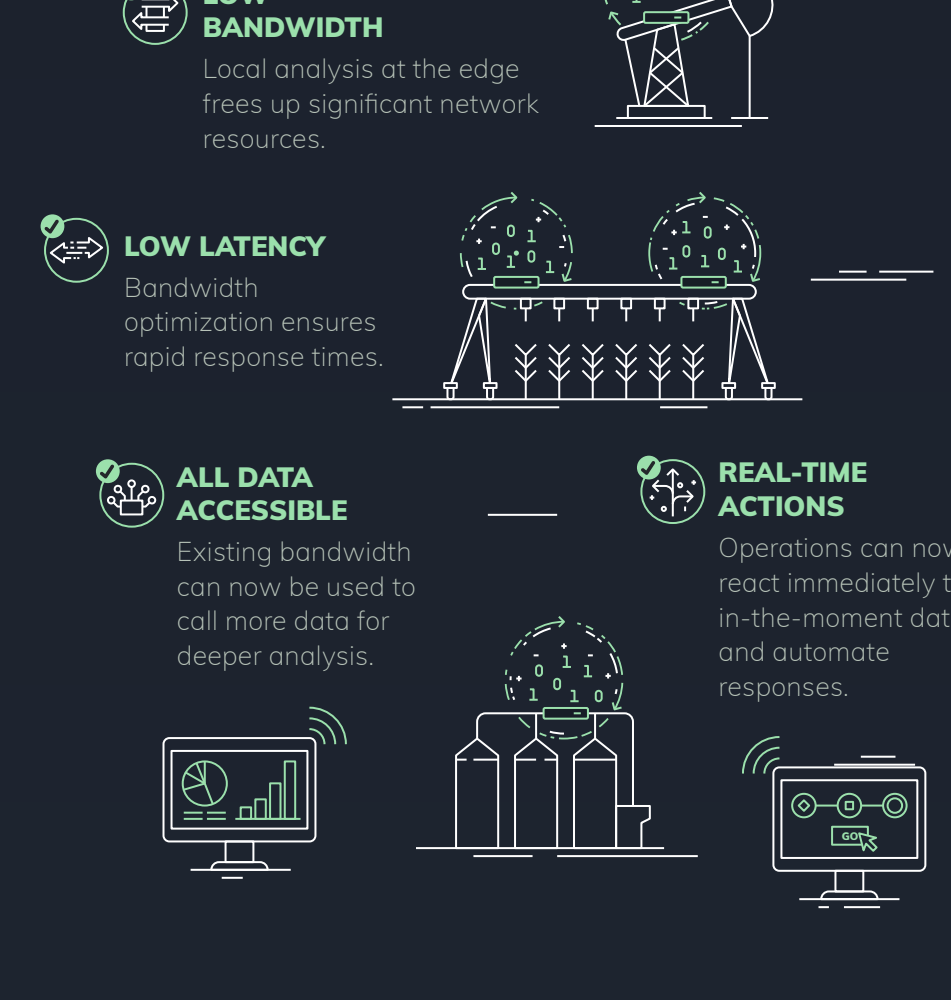
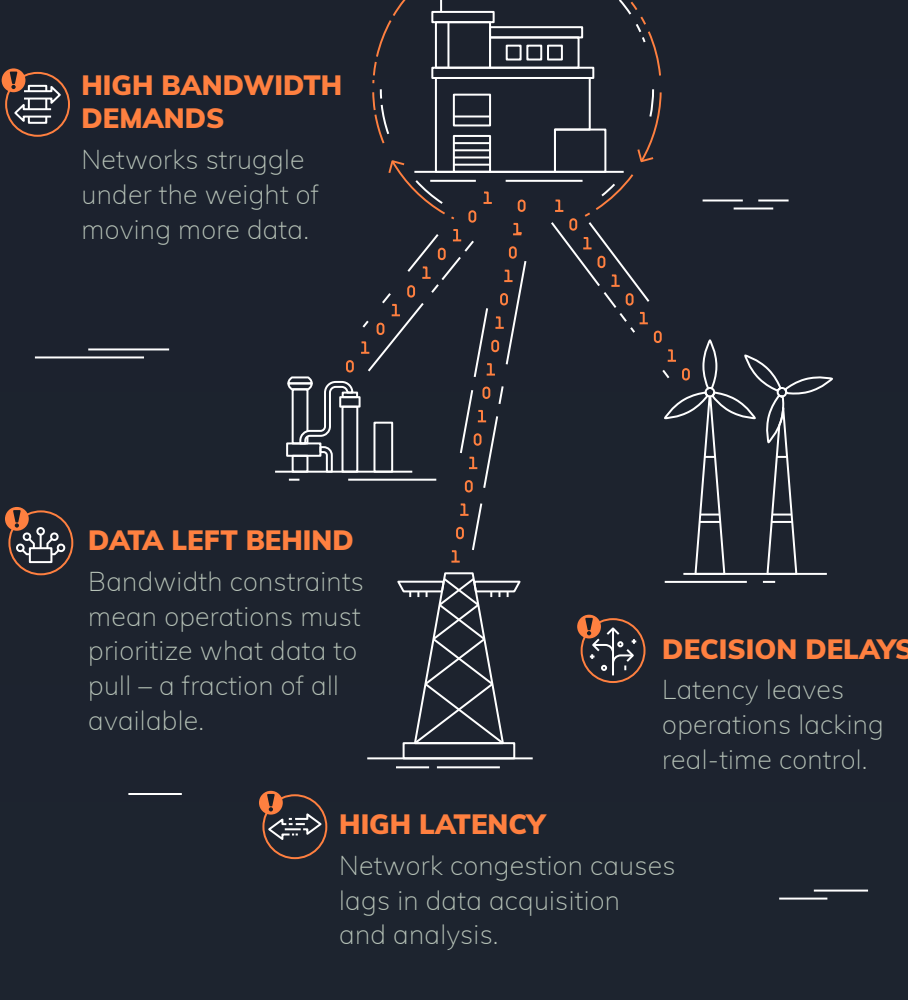
THE IIoT WAY

Centralized Computing

Data from remote locations must traverse the entire network to reach the closet or the cloud for analysis.

Edge Computing

Processing is distributed to the edge of the network, where data is being generated in real time.



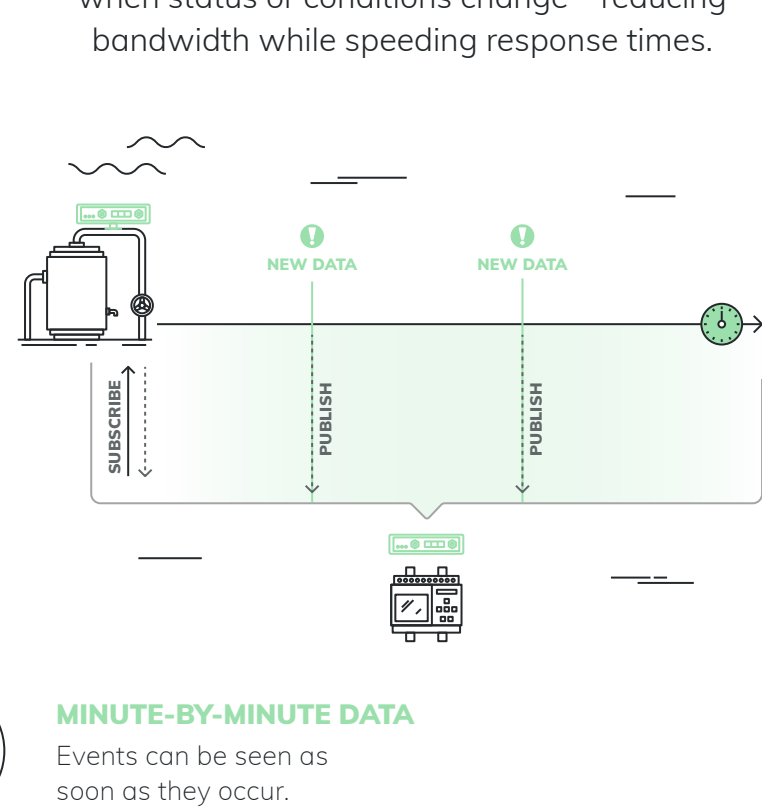
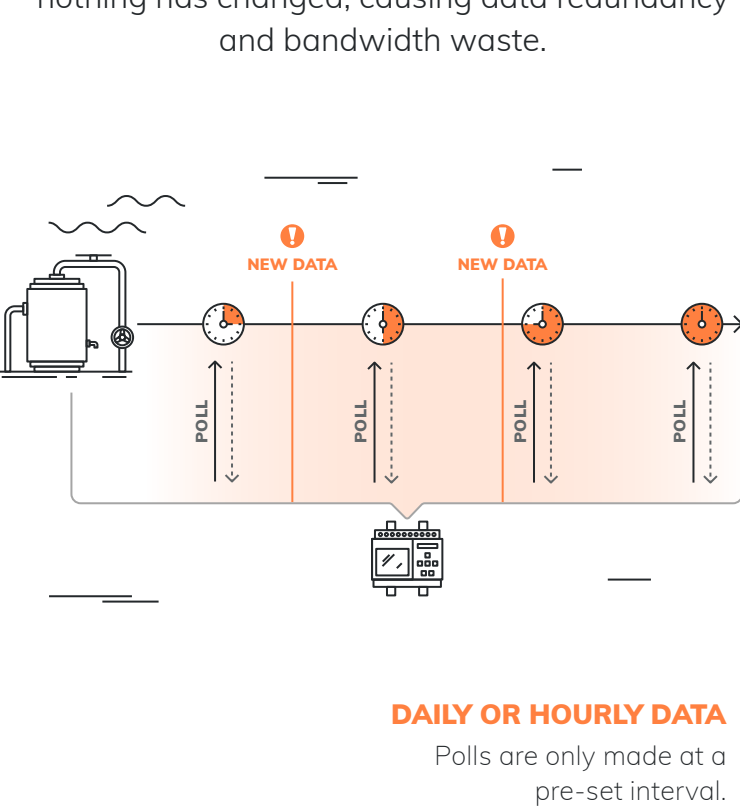
By 2022, 75% of enterprise-generated data will be created and processed outside a traditional centralized data center or cloud.¹

Poll-Response Topology

With traditional polling protocols, edge sensors and devices are polled for status updates even if nothing has changed, causing data redundancy and bandwidth waste.

Publish/Subscribe Architecture

An IIoT protocol enables report-by-exception publishing so that updates are only delivered when status or conditions change – reducing bandwidth while speeding response times.



A pub/sub approach reduces bandwidth needs by 80-95% while driving millisecond response times.

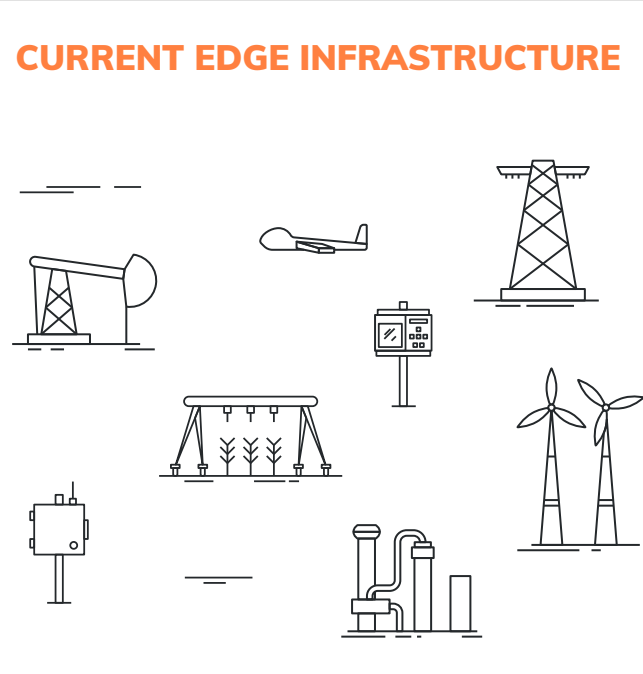
MAKING THE MOVE

Get more out of your existing OT systems and network, fast.

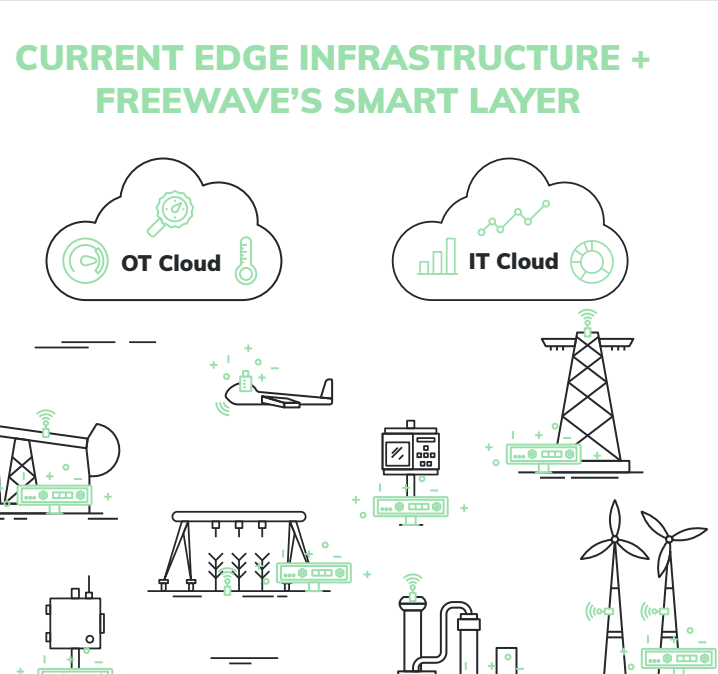
So how can you evolve your approach without significant time and cost investment? With FreeWave.

BUILD ON WHAT YOU HAVE
FreeWave's ruggedized edge intelligent solutions are built to rapidly enhance your existing infrastructure and devices – providing a route to rapid modernization at a fraction of the time and cost to replace legacy equipment.

CURRENT EDGE INFRASTRUCTURE



CURRENT EDGE INFRASTRUCTURE + FREEWAVE'S SMART LAYER



- PROPRIETARY**
Multiple legacy protocols
- DISPARATE**
Not easily integrated with IIoT devices
- ISOLATED**
OT and IT systems disconnected
- OUTDATED SECURITY**
Achieved through isolation

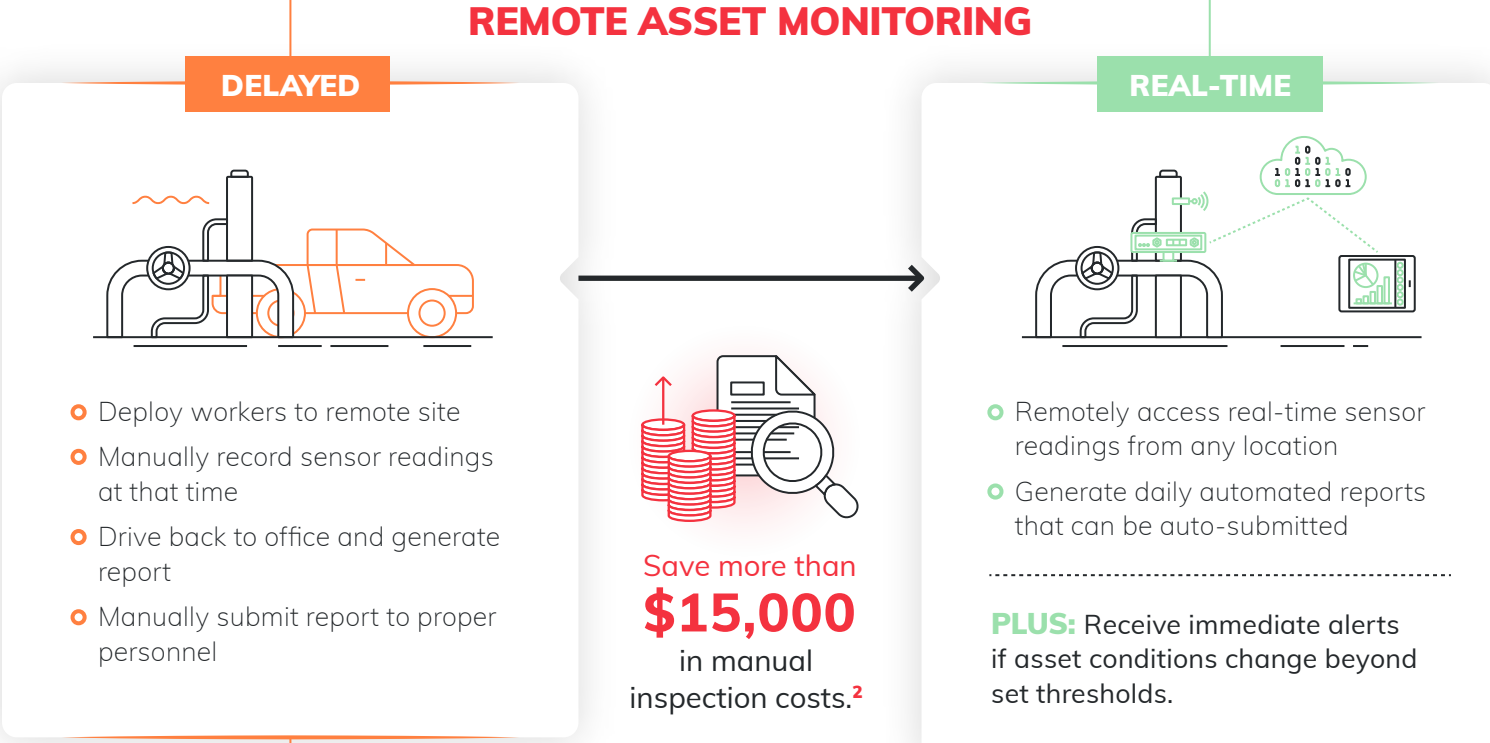
- OPEN**
Linux-based platform to deploy and run edge apps
- MODERN ENCRYPTION**
Ensures cybersecurity
- INTEROPERABLE**
IIoT protocol provides common communication language among devices
- CLOUD-ACCESSIBLE**
All stakeholders can access the data they need

A SMART EDGE IN ACTION

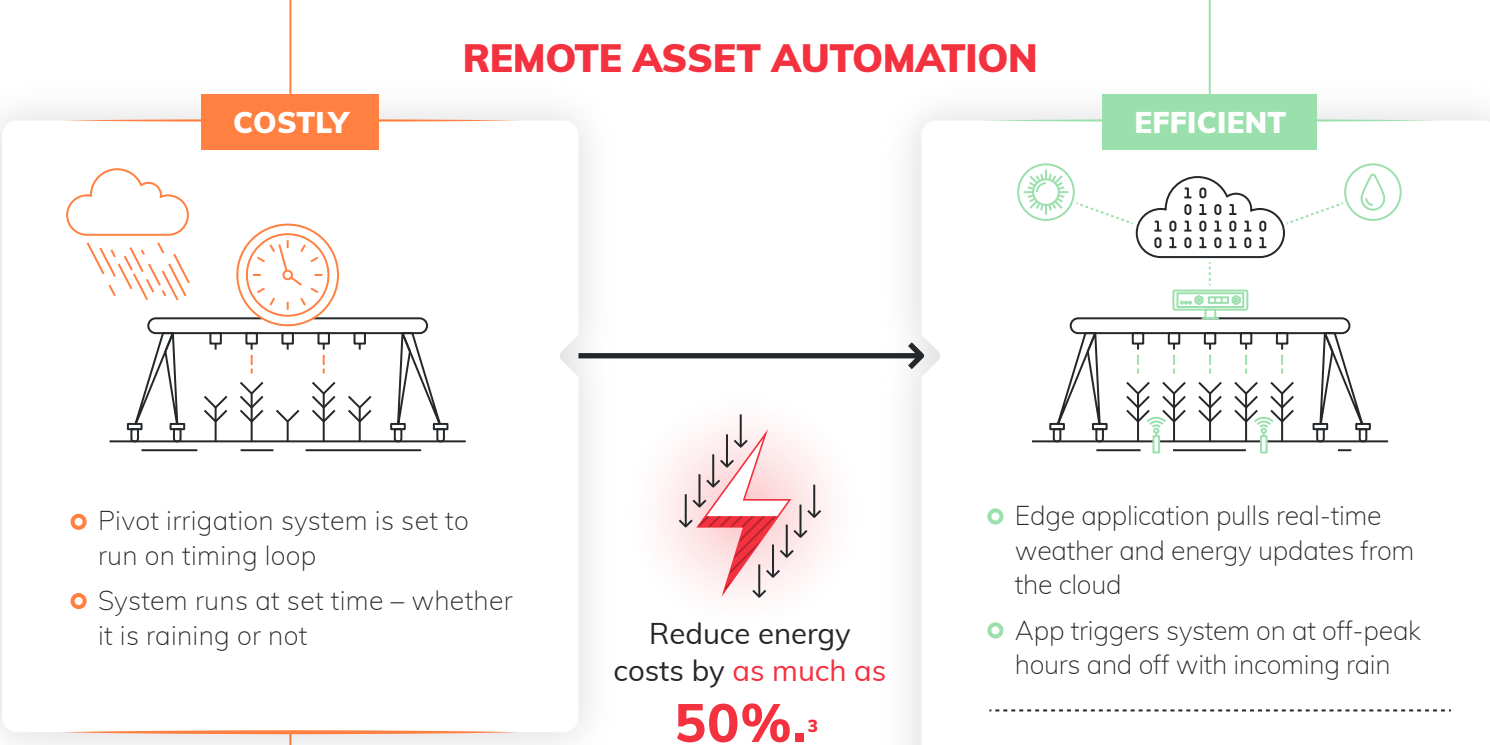
Here are just a few things you can do with a smarter industrial edge.

BEFORE AFTER

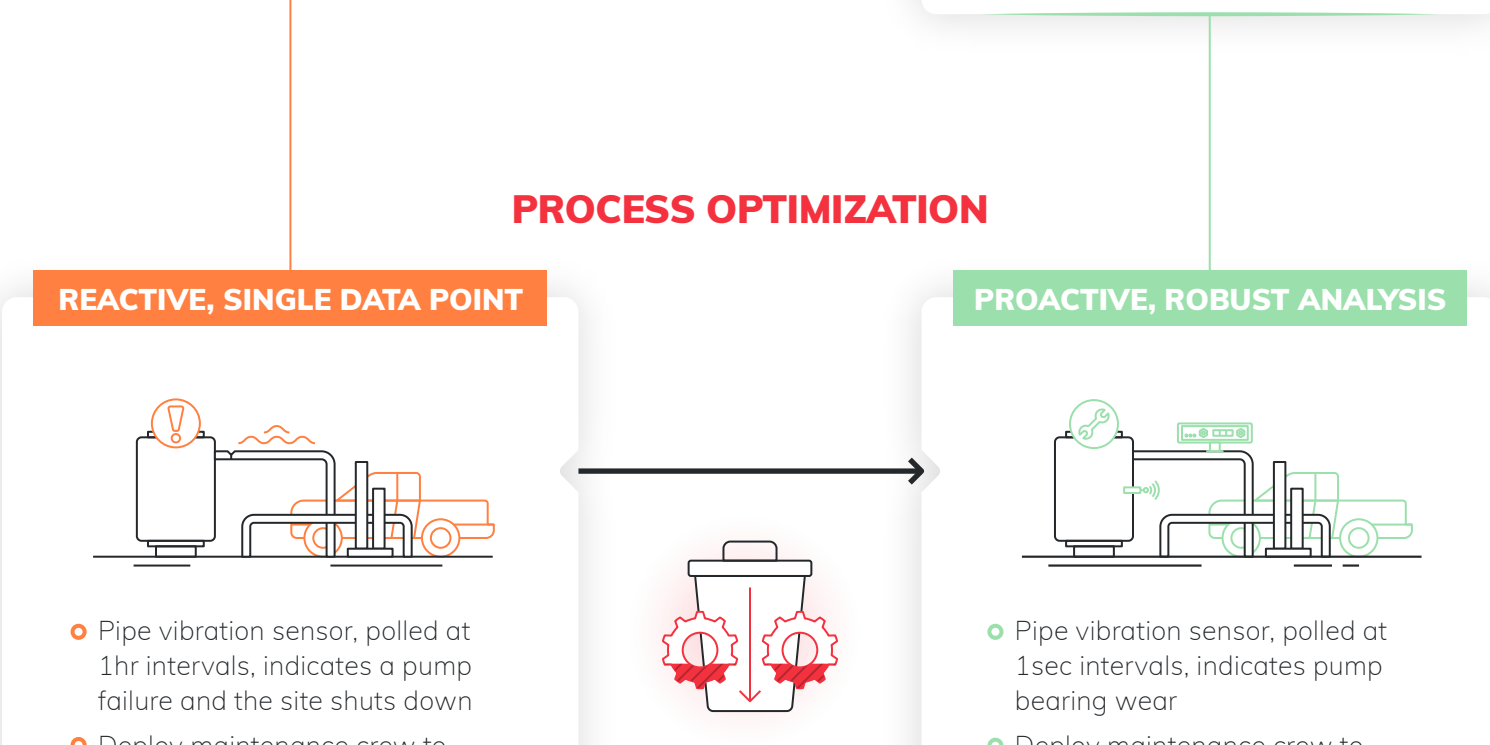
REMOTE ASSET MONITORING



REMOTE ASSET AUTOMATION



PROCESS OPTIMIZATION



BRINGING YOUR INTELLIGENT EDGE WITHIN REACH

With FreeWave as your partner, IIoT is not a far-off vision but a near-term reality.

FreeWave is ready to help your industrial operation capitalize on IIoT efficiencies to achieve your competitive edge.

To learn how, visit freewave.com/edge today.

References
 1. <https://www.gartner.com/smarterwithgartner/what-edge-computing-means-for-infrastructure-and-operations-leaders/>
 2. <https://freewave2019.wpengine.com/wp-content/uploads/2018/12/case-study-natural-gas-remote-monitoring.pdf>
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