

XetaEDGE Overview

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XETAWAVE
CUSTOM RF SOLUTIONS

xetawave.com

XetaEDGE Webinar Agenda

- Overview
- Features
- Applications
- Competition
- Roadmap



Edge computing is a distributed computing paradigm which brings computation and data storage closer to the location where it is needed to improve response times and save bandwidth.

XetaEDGE Overview

Industrial Edge Computer Family

- Lowest Price
- Class 1 Div 2 Industrial Grade
- 8 Programmable Inputs & Outputs
- Integrated 900 MHz ISM Radio



XetaEDGE Features

- 1 GHz ARM Cortex-A8 Processor
- Open Embedded Linux Debian OS
- 1 GB of RAM & 4 GB of FLASH
- 1 micro SD card slot



- 2 Ethernet & 2 Serial Ports
- 2 Micro USB 2.0 Ports
- +5 to +36 Vdc
- -40°C to +85°C
- Class 1 Div 2
- 182g Plastic Enclosure

XetaEDGE + I/O



- 8 Programmable I/O signals
- Configured as 8 analog inputs, 4 digital & 4 analog inputs, 4 digital outputs & 4 analog outputs
- Configure and monitor via Modbus (common Modbus map) or python API

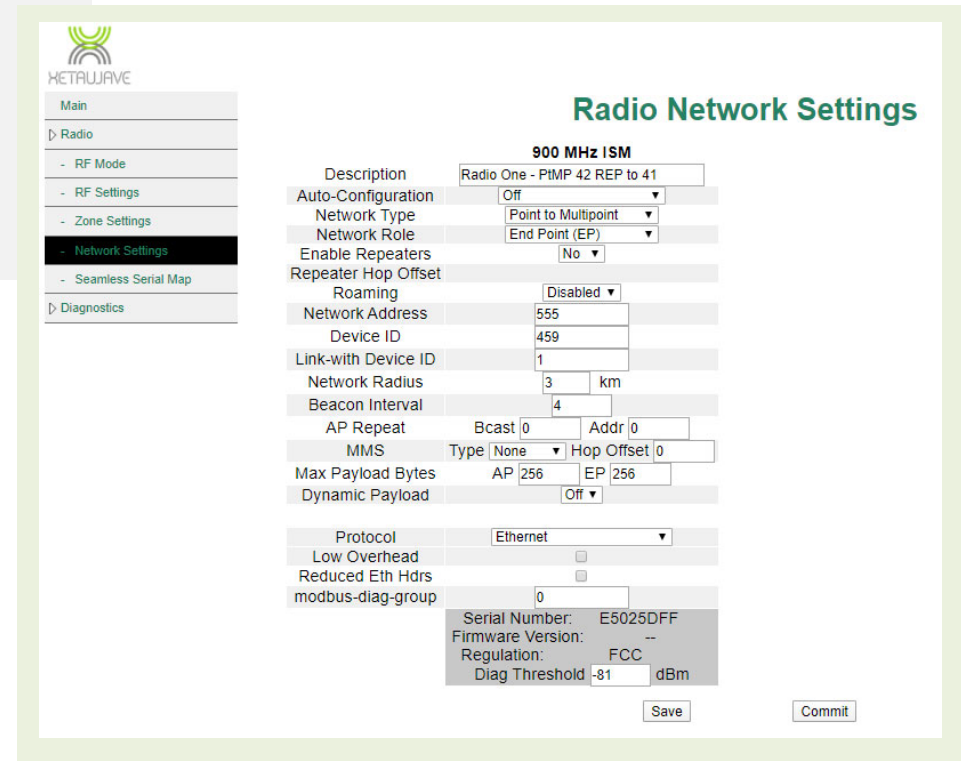
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XetaEDGE + 900 MHz Radio

- Integrated Xeta9 radio module
- 902-928 MHz ISM unlicensed band
- Compatible with existing Xeta9 & Xeta9x Emancipator radios
- Same radio GUI as Xeta9

"I received the XetaEdge9 unit and I cannot express in an email how excited I was to power it up, plug into the Ethernet port, and see a web GUI appear. It boots and changes radio configurations lightning fast. This is absolutely awesome, a game changer."

- Field Tech



Radio Network Settings

900 MHz ISM

Description: Radio One - PtMP 42 REP to 41

Auto-Configuration: Off

Network Type:

Network Role:

Enable Repeaters: No

Repeater Hop Offset:

Roaming:

Network Address:

Device ID:

Link-with Device ID:

Network Radius: km

Beacon Interval:

AP Repeat: Bcast Addr

MMS: Type Hop Offset

Max Payload Bytes: AP EP

Dynamic Payload:

Protocol:

Low Overhead:

Reduced Eth Hdrs:

modbus-diag-group:

Serial Number: E5025DFF

Firmware Version: --

Regulation: FCC

Diag Threshold: dBm

Hosted Applications on XetaEDGE



Edge ACM (eACM)

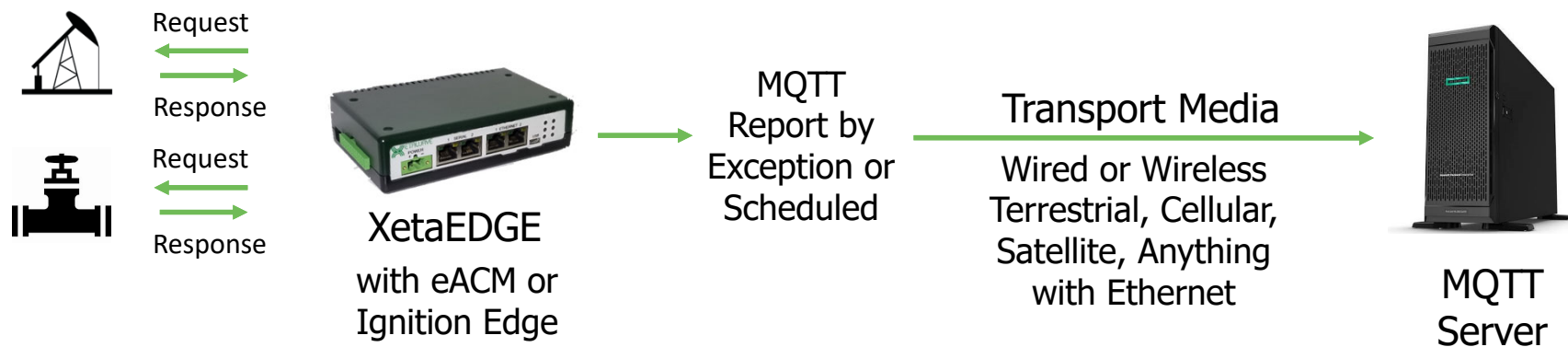
- Lightweight Linux application
- Protocol polling engine
- Translates real-time native RTU and PLC protocols
- Supports MQTT & Sparkplug B
- Data buffering during lost connections
- Unlimited end device connections

Ignition Edge

- Ignition software solution
- Lightweight Linux application
- Protocol polling engine plus HMI
- Access data from PLCs and OPC-UA servers
- Supports MQTT & Sparkplug B
- Works seamlessly with Ignition
- Two end device connections

XetaEDGE Application

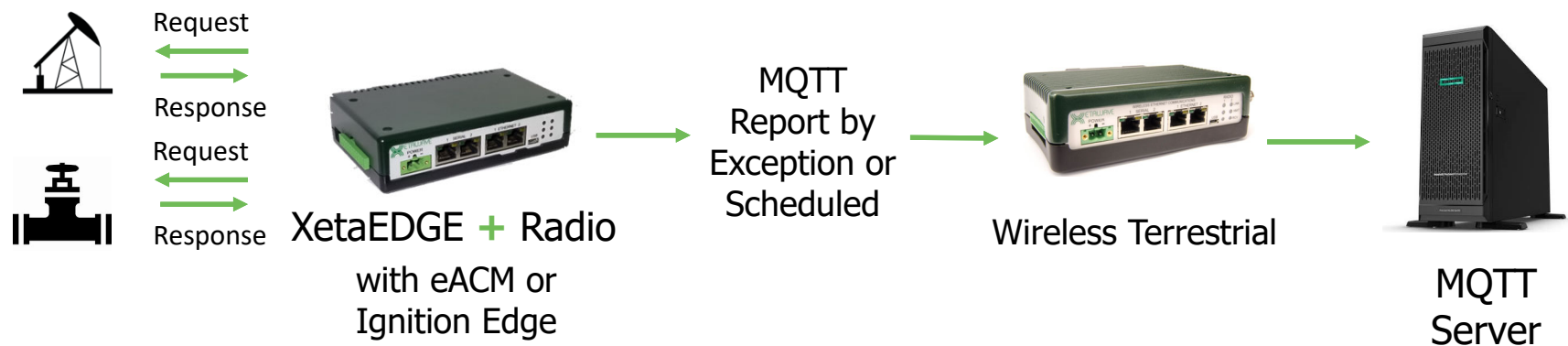
Polling Engine, Aggregator & Protocol Translator



- Communicate with multiple end devices
- Communicate with end devices using multiple protocols
- Communicate with end devices over Ethernet or serial
- Store data locally when transport media is interrupted
- Reduce transport media bandwidth by reporting with exception using MQTT

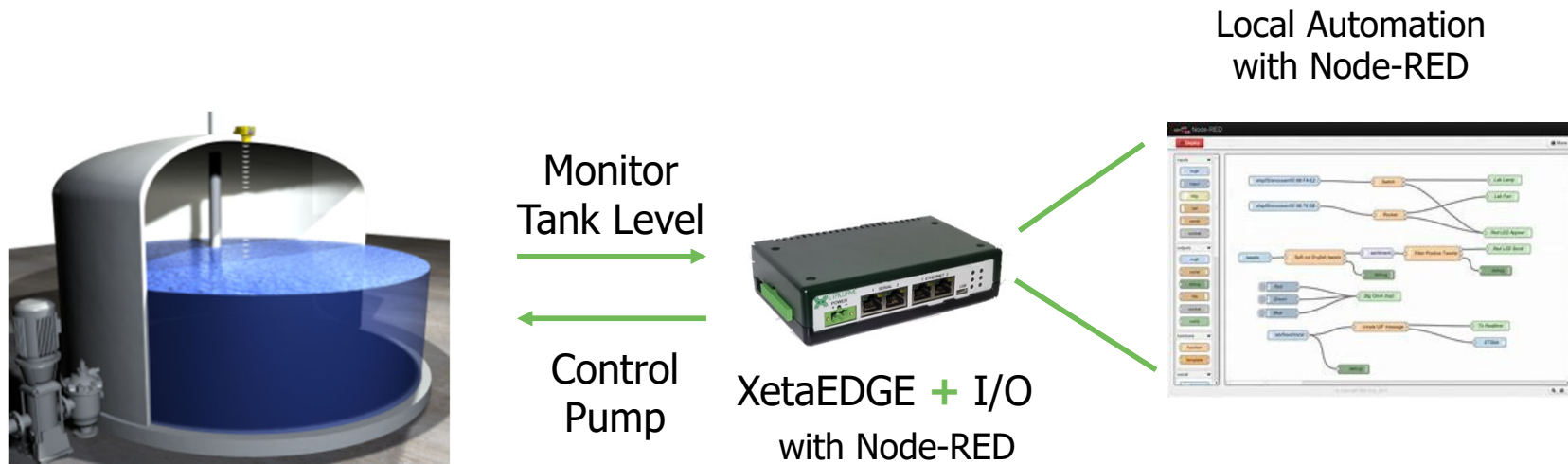
XetaEDGE + Radio Application

Polling Engine, Aggregator & Protocol Translator



- Communicate with multiple end devices
- Communicate with end devices using multiple protocols
- Communicate with end devices over Ethernet or serial
- Store data locally when transport media is interrupted
- Reduce transport media bandwidth by reporting with exception using MQTT

XetaEDGE + I/O Application: Tank Level Automation



- Monitor voltage, current, or digital signal levels with programmable input
- Control devices with programmable digital and analog outputs
- Implement edge intelligence using Python, Node-RED, or other applications

Terminal Server Comparison

★ Key XetaWave Differentiators



	Advantech	FreeWave	FreeWave	Moxa	XetaWave
Processor	800 MHz ARM Cortex-A8	1 GHz ARM Cortex-A8	1 GHz ARM Cortex-A8	1 GHz ARM Cortex-A8	1 GHz ARM Cortex-A8
Memory	1 GB RAM, 8 GB FLASH, Micro SD Card Slot	512 MB RAM, 1 GB FLASH	1 GB RAM, 1 GB FLASH	512 MB RAM, 4 GB FLASH	1 GB RAM, 4 GB FLASH, Micro ★ SD Card Slot
OS	Linux Yocto	Linux Debian	Linux Debian	Moxa Linux	Linux Debian
Ethernet Interface	10/100/1000Base-TX (Qty 2)	10/100/1000Base-T (Qty 1)	10/100/1000Base-T (Qty 2)	10/100Base-T (Qty 2)	10/100Base-T (Qty 2)
Serial Interface	RS232/485 (Qty 2)	RS232/422/485 (Qty 2)	RS232/422/485 (Qty 2)	RS232/422/485 (Qty 1)	RS232/485 (Qty 2)
USB Interface	Mini USB OTG (Qty 1)	Micro USB (Qty 1)	Micro USB (Qty 1) Type A (Qty 1 - future)	Type A	★ Micro USB Host (Qty 1) Micro USB OTG (Qty 1)
Voltage	12-24 Vdc	6-30 Vdc	6-30 Vdc	9-36 Vdc	★ 5-36 Vdc
Power draw	< 4.7 W	< 2.2 W	< 2.2 W	< 6 W	★ < 2.5 W
Dimensions	5.47" x 3.35" x 1.18"	7.52" x 3.77" x 1.65"	7.52" x 3.77" x 1.65"	5.0" x 3.5" x 1.0"	5.5" x 3.5" x 1.5"
Weight		26.5 oz	26.5 oz	19.4 oz	★ 6.4 oz
Temperature	-20°C to +70°C	-40°C to +75°C	-40°C to +75°C	-30°C to +70°C	-40°C to +85°C
Certifications	CE, FCC, CCC, BSMI	FCC, UL, C1D2	FCC, UL, C1D2	CE, FCC, UL, C1D2	FCC, UL, C1D2
Part Number	Not Available	ZIQ-PE	ZIQ-PE2	UC-3101-T-US-LX	XETAEC-22NPDNA
Price		\$\$\$	\$\$\$	\$\$\$	★ \$
With IO	EPC-R3220IS-OLA1	Not Available	Not Available	Not Available	XETAEC-22NPDNA-IO
Price	?				★ \$

Roadmap

- Ability to upgrade radio module firmware.
- Possible GUI for network and interface configuration.
- Housing and front panel variants.
- Additional frequency bands – if you have a project with interest but in a different frequency band, let us know.

Feedback is Encouraged

We want to hear about likes, dislikes, and issues.
We want to hear about ways to improve.

Thank you for joining us

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