Morpheus
EDGE PROCESSOR

Ten times the speed at one tenth of the cost.*

Compatible with the Vision IoT Solution, the Morpheus Edge Processor is a highly integrated, low power Linux device that allows producers the ability to develop in house or purchase 3rd party apps to interact with controls and sensors at the well site. to interact with wired or wireless sensor networks at the well site.

Real time data collected from nearby devices can be analyzed on site and pushed up to Vision Cloud. From there, producers make their data available for access by SCADA, domain specific business systems, and deeper analytics. For more information on Vision Cloud, visit www.etcvision.io.

Morpheus is ideal for Edge migration to any existing RTU automation strategy, or new installations for next-generation automation, control, and analytics. Contact us to learn more or to book a demo!

Features

Cloud Based Device Management

- Remote Hardware Management
- Containerized Application Management
- Supporting Message Based SCADA
- Firmware & Application publishing
- Pre-Programmed Encryption Keys

Ease of Integration

- Push data to a private cloud
- Pre-integrated 3rd party services
- RESTful API for Data & Device Management
- LWM2M standardized protocol
- Modbus Master

Flexible Application Options

- Build-it or Buy-it application options
- C / C++ or Python programming
- Private and Public Online Application Store
- Open to 3rd Party Developers

Field Optimized

- Faster, Lower Power, Open Architecture, Secure
- 10x faster than traditional RTU
- Integrated Solar Charge Controller
- Class I Division 2 (Pending)
- -40°C/F to 60°C (140°F)
- Configurable Power Management
- Integrated 3G/4G LTE Cell Modem & GPS
- Onboard I/O: 2 AI, 2 DI, 1 DO

*Compared to complete field systems with a market leading RTU, cell modem, solar charger and GPS

Applications

- Brown-Field Edge Migration
- Asset Optimization
- Data Aggregation
- Asset Analytics
- Plunger Control
- Gas Lift Control
- Rod Pump
- Tank Battery

HARDWARE SPECIFICATIONS

Operating Environment	Temperature	-40°C/F to 60°C (140°F)
	Humidity	0-95% non-condensing
	Hazardous Area	Class I Division 2 (pending)
Power	Input / Consumption	12-24Vdc / 2W min, 4W typical, 10W max
Solar Charger	Integrated	12V, Sealed Lead Acid Battery
Physical	Size	4.25″ L x 3.75″ W x 2.4″ D
	Mounting	DIN Rail, Top hat IEC/EN 60715
	Weight	0.4lbs
Inputs / Outputs	Analog Input	(2) 0-10Vdc
	Sensor Power Output	(1) 5V or 11V (software selectable) Max 100 mA
	Discrete Input	(2) DI, Dry Contact or 24V Input Max
	Discrete Output	(1) DO , Open Drain Max 24V @ 100 mA
Process Automation Protocols	Serial	Modbus RTU
	Ethernet	Modbus TCP
Communications	Ethernet	(1) 100MBs Ethernet
	Serial	(1) RS485 Serial, (1) RS232/485
	USB	(1) Mini-USB (service port)
GPS		Onboard, 2.5m Resolution
Communication Options	Cellular	Integrated 3G/4G LTE AT&T, 4G Verizon
Processor	1GHz ARM Cortex A8 Processor	
Memory	512MB onboard RAM	
	32GB onboard Flash (30GB user space)	
Display	OLED (64×128 res) w/9-button navigation	

SOFTWARE SPECIFICATIONS

Operating System	Embedded Linux	Debian 8
Device Management	Vision	www.etcvision.io
Programming	Compiled	C / C++
	Interpreted	Python
	Collaboration Enabler	Docker Containerization

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