



RUGGED. REMOTE. RELIABLE.



Boat Tracking, Monitoring,
Diagnostic and Remote
Switching Systems



EntelNet



ADVANCED TELEMATICS SOLUTIONS

Faria Beede EntelNet™ Telematics system is a cellular, wi-fi and satellite-based boat location tracking, monitoring, diagnostic, emergency notification and communication system.

Faria Beede's communication networks includes an extensive network of low-earth-orbit satellites and cellular carriers to provide worldwide coverage and ensure that your connections are not only reliable, but affordable too.

Monitor & Track

EntelNet™ watches your boats while you are away by monitoring your engines and onboard critical systems. This includes bilge levels, low batteries, power interruption, and engine diagnostics - all while tracking the precise location of your boat.

Secure & Protect

The EntelNet™ system will notify you immediately via e-mail or SMS of any alarm condition or unauthorized movement of your asset. You are instantly notified of detected intrusions and can set up boundary alarms based on GPS coordinates.





Diagnose & Repair

With Faria Beede EntelNet™, your technicians can diagnose problems in near real-time. This allows you to find conditions before they become a problem.

Communicate

EntelNet™ systems provides alert notifications, to designated responders, for emergency situations and alerts anywhere in the world.

Iridium® satellite e-mail services are available on the WD750 Satellite models. Stay in contact even when you're away from cell phone service.





Don't lose connection to your boat
when you leave the dock.



Stay Connected with
Telematics systems from Faria Beede
Wherever you are - **24 Hours / 365 Days a Year**

Thousands of boats, worldwide,
are connected today with



Marine Link



A web served application, no need for internal servers or
IT Management, all that's needed is an Internet
connection and staff can access boats in real-time,
across town or across a continent.

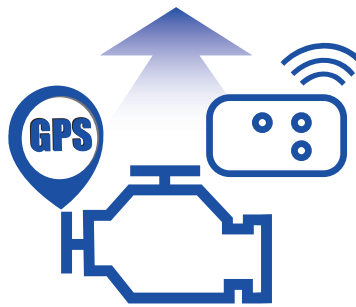
99.99% service level



Monitor Critical On-board Systems



Battery Voltage



Telemetry



Engine Hours



Bilge Pump

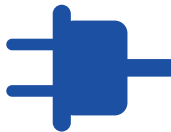


I/O

Control Lighting, AC/Heater
and more with switchable IO.



High Water Alarm



Shore Power



GPS Tracks / Routes



Inside Temperature



Security Alarm



Weather



Anchor Alarm



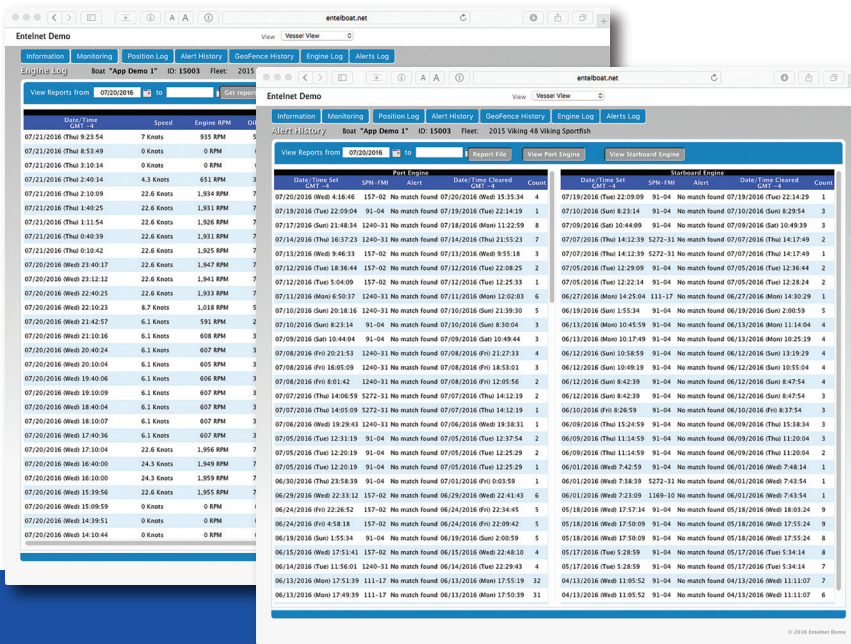
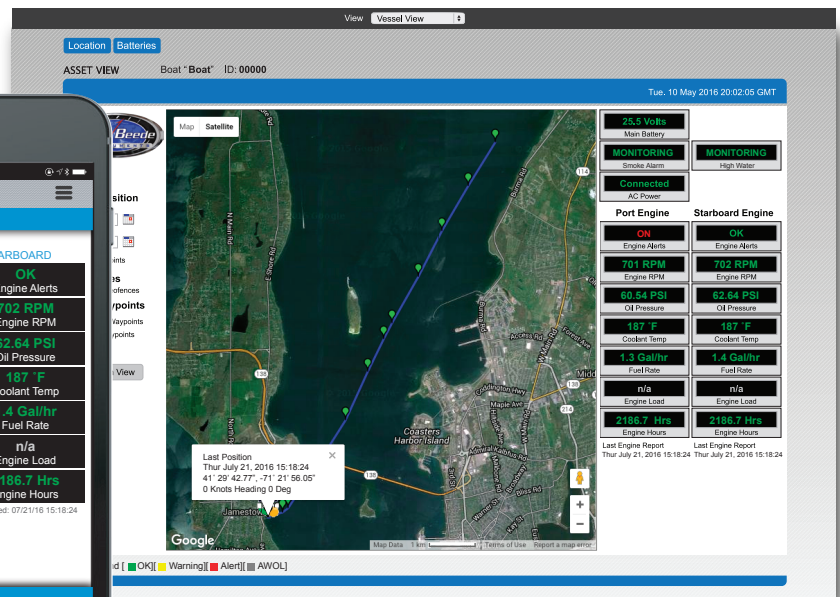
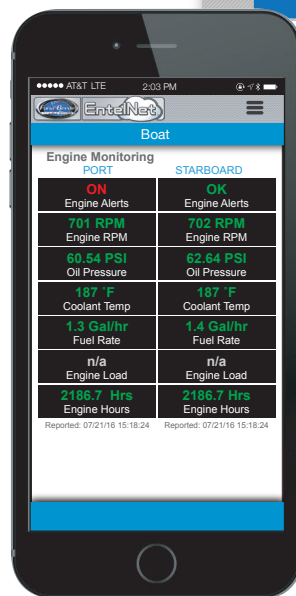
Geo Fencing

Get Real-Time alerts from your engine.



Engine Monitoring and Diagnostic Alerts

Provides real-time Engine Monitoring that changes the “service paradigm” by eliminating the first service call, reducing warranty cost and improving customer satisfaction.



When a DM1 code is detected, the alert message is transmitted real-time via e-mail, SMS and by Smart phone notifications to the boat owner's designated contact.



e-mail

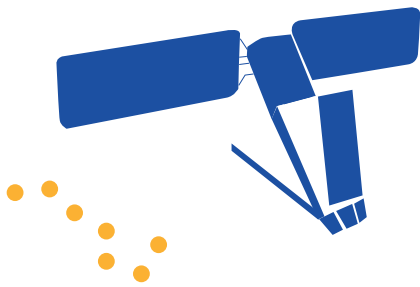


SMS



Notifications

The data is then logged for later review.

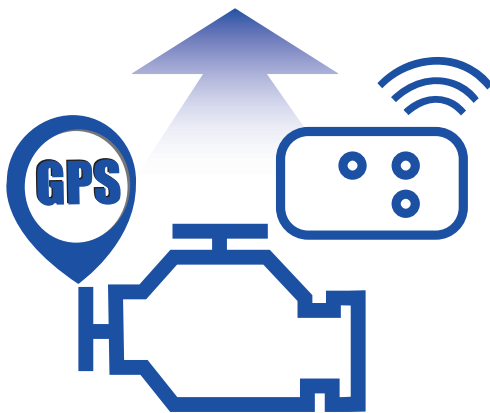


IRIDIUM

GSM services
provided by,



T-Mobile



Telemetry

Current GPS position, engine and
environmental monitoring data is
sent to the cloud servers.



SAE J1939



Faria Beede offers three versions of the EntelNet™ telematics system

WD100



Connected directly to the CAN Bus, Real-World data is sent by the EntelNet™ Wi-Fi module.

The data, GPS speed, Map position, Instrument data and CAN error code information is displayed in an easy to read application built for the Android® operating system and can be view by any Internet capable device i.e. Smart Phone, Tablet or Computer. No wires needed.



WD300



With the FB-Sentry installed boat owners can connect directly to their boat from any smart phones or Internet connected device. FB-Sentry web app is included and can be accessed anywhere there is Internet connectivity.



WD750



The Faria Beede MTU system provides reliable and cost-effective marine cellular and/or satellite tracking and communications anywhere in the world, including the northern A-4 waters, and has met the demanding requirements of the commercial fishing industry.



Compare

	WDI100	WD300	WD750
GPS	If on CAN network	•	•
NMEA2000	•	•	•
SAE J-1939	•		•
SmartCraft			•
Modbus			•

Monitors

	Direct*	With MG3000	Direct
Engine Monitoring	If on CAN network	•	•
Bilge Pumps	If on CAN network	•	•
Battery Voltage	If on CAN network	•	•
Shore Power	If on CAN network	•	•
Inside Temperature	If on CAN network	•	•
Engine Parameters	If on CAN network	•	•
Engine Hours	If on CAN network	•	•
Service Reminders		•	•
Logs Daily Boat Data		•	•
GPS Tracks and Routes		•	•
Remote Digital Switch		3 IO (200 ma)	4 IO (500 ma)

Communication

WiFi			
Cellular			
Iridium Satellite			

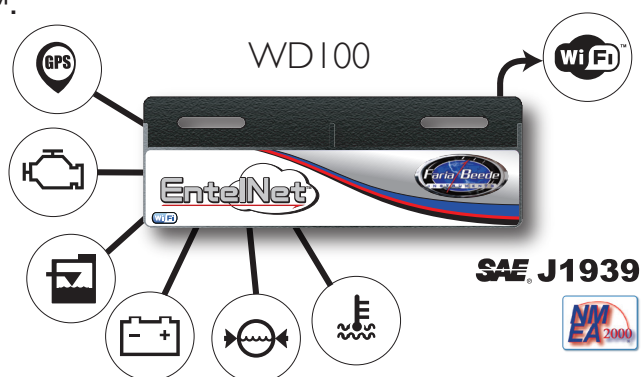
* Can be viewed locally on Internet capable device.



WD100



Connected directly to the CAN Bus, Real-Time data is sent by the EntelNet™ wireless module via Wi-Fi™.



The data (GPS speed, Map position, Instrument data and CAN error codes) is displayed in an easy to read website by web browser or can be displayed on an Android™ device i.e. Smart Phone, Tablet using the Faria Beede app.

The engine information can then be sent to a repair facility, via e-mail, giving your repair technician a heads up that you're having problems.

Standard Features

- No additional costs
- Send the engine and other critical data anywhere in the world to be diagnosed.
- Helps reduce warranty costs and can help lessen repair time.
- Data can be viewed on a secure website for remote systems diagnostics.

Remote Dashboard App



Made for Android™



Coming Soon!



Faria Beede app built for Android™

- Standard and Secondary instruments
- Tank monitoring and control
- Fuel Management
- Error Codes

Step 1
(Connect to EntelNet™[web browser])

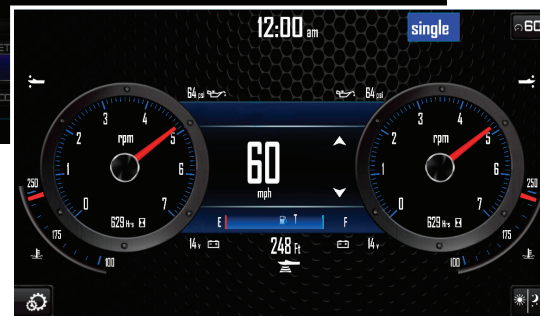
Step 2
(Send e-mail)

Step 3
(Response)



Built from the ground up to be a touch-based user interface. Each screen is optimized to maximize the touch screen. Large target areas ensure smooth operations even in the harshest environments.

Customizable User Interface



Specifications	Communication	Wi-Fi
	Coverage area	Local
Activation	Configured	
Wiring Harness	NMEA 2000, J1939 or Wire lead	
Environmental	Voltage:	12 ready (11.5 - 16 vDC)
	Maximum Draw:	
	Transmitting:	325 mA
	Receiving:	225 mA
	Reverse Polarity Protection:	Standard
	Load Dump:	Meets SAE J1113, 3 positive 80V transients one minute intervals
	Over Voltage:	Withstands 18V continuously for one hour
	Operating Temperature:	- 40 C to + 85 C
	Storage Temperature:	- 40 C to + 85 C 50% RH
	Humidity:	95% @ 110°F (43°C) non-condensing
	Salt Spray:	Front is Corrosion resistant per ASTM B117-73
	Shock (Non-Operating):	50 +/- 2 G and a half sine duration of 11 +/- 2ms. per MIL-STD-202, Method 213
	Vibration (Non-Operating):	4 G peak, 10 to 200Hz SAE J1455 Appendix A
Mechanical	Sealed	IP 67 compliant

Dimensions and Weight	
L:	5.93" (151 mm)
W:	.46" (12 mm)
H:	2.02" (51.3 mm)
Wg	3 oz. (85 g.)

Boat Tracking and Monitoring System

Measures Only
4.5" x 3.94" x 1.5"
Easy to Install.



WD300

Boat Monitoring Solutions

FB-Sentry and the WD300 is a complete tracking and remote monitoring package for your boat. FB-Sentry allows you to view all of your boat's vital systems directly in the palm of your hand.

Keep Them On the Water™

Who watches your boat when you are not there? FB-Sentry is a low cost boat monitoring system that won't cost you lots of money but will give you great peace of mind.

With the FB-Sentry installed boat owners can connect directly to their boat from any smart phones or Internet connected device. FB-Sentry is a free web app that can be accessed anywhere there is Internet connectivity.

From the web app the boat owner can monitor their boat's vital systems in real time, set up alerts for unusual activity and even control desired functions like lighting, refrigeration, or air conditioning. All of this for just a small monthly monitoring fee.

Optional Sensors

Shore Power Sensor
Temperature Sensors
Magnetic Door Switch
Control Relay (12 and 24 Volt DC)



Benefits:

Monitor

- Bilge Pump (2)
- Battery Voltage (2)
- Shore Power
- Inside Temperature
- Engine Parameters

Real-Time engine monitoring available via RS232 with optional Digital Tachometer or EntelNet™ module.

Maintenance

- Monitors Engine hours
- Service Reminders
- Logs daily Boat data

Weather

- Provides weather at your boat's location.

E-mail and text messages (SMS) alerts
Unlimited Users

Easy to install.

Mounts directly under the dash with easy to connect flying leads.

Alerts

- Security Alerts (2)
- Dock/Anchor Alarms
- High Water Alarm
- Engine Alerts

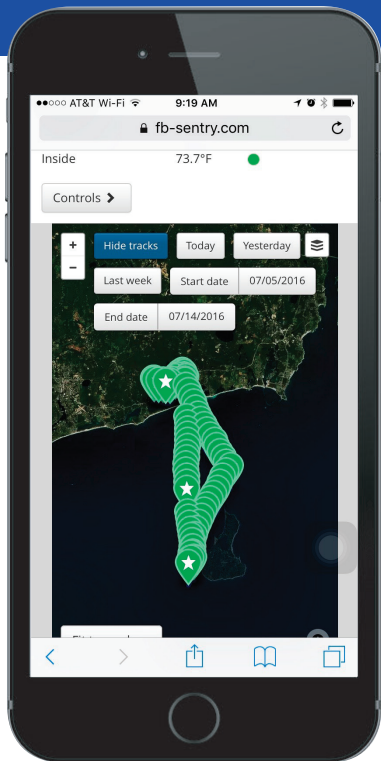
Control

Switch outputs (3)

- Lighting
- AC/Heater
- Generators
- Gyros

Map

- GPS tracks and routes
- Geo-Fencing



The FB-Sentry module (WD300) is a compact, ruggedize, feature-rich and cost effective web-based GPS/Cellular Boat Tracking and Monitoring System. Combined with the monitoring web app you are never out of touch with your boat.

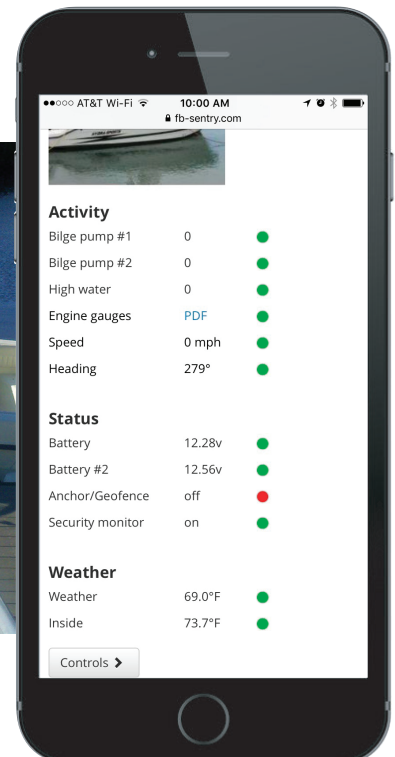
Always on reporting

When you are away from Cellular service the system can store up to 20,000 reports and downloads when back in range.

Reports position every 7 minutes when in motion with comprehensive GPS Tracking and Routes.

Engine reports every 15 minutes

Low Power Draw <20ma



**Specifications**

Communication	Wireless; 2G/3G Cellular
Coverage area	Worldwide Cellular Coverage
Telemetry Address	IP; Dynamic (static optional)
Configuration States	Multiple; Primary; Conditional or Contingency Event/ Alert Driven
Battery Voltage Monitor	2 External
Activation	Connect to Voltage
Wiring Harness	15 22 AWG leads, 2 20 AWG power leads (Wiring diagram available)
Harness Connection	20-pin Molex type
Geo-Location & Tracking	GPS
Antennas	Internal; GPS and Cellular
Logs	Permanent time stamped logs of shore power, bilge activity, battery voltage (2), GPS location, temperature, security events, engine/generator hours.
Alerts	Independent alerts for logged activities and events.
I/O functionality	5 Digital Inputs 3 Digital Outputs (200mA) 2 Analog Inputs 1-Bit Bus (Serial) 1- RS232

Environmental

Voltage:	12 & 24V ready (9-30 vDC) < 20 mA during 12V sleep < 70 mA average while active
Operating Temperature:	- 30 C to + 75 C
Storage Temperature:	- 40 C to + 85 C

Dimensions and Weight

L:	4.56"	(115 mm)
W:	3.94"	(100 mm)
H:	1.5"	(38.1 mm)
	3 oz.	(85 g.)

GPS

56 Channel
-162 dBm sensitivity
< 2m (CEP50)
(Circular Error Probability)

Communication Modes

GSM/UMTS,
HSDPA/EDGE/GPRS
Packet data, UDP

Certifications

CE
FCC
PTCRB
Cellular Carriers

Wherever you boat,
the WD750, from
Faria Beede, uses
the lowest cost of
service to keep you
connected.

Available in;

- Cellular
- Iridium Satellite
- Dual-Band (Cellular/Iridium).

The WD750 Dual Band (DB) uses the very cost effective Cellular networks as the primary communications mode. In the event that cellular is not available it will automatically switch to the Short Burst Data (SBD) services on the Iridium® satellite network for continuous, highly reliable and near-real time reporting.



World Wide Coverage



WD750 DB



A powerful dual mode Iridium® Satellite and GSM MTU (Mobile Transmitting Unit).

Our Iridium® Satellite and GSM based solutions keep you connected at all times, anywhere in the world.* Also available as Cellular or Satellite only systems. Offering a wide variety of cost effective systems to fit your monitoring needs.

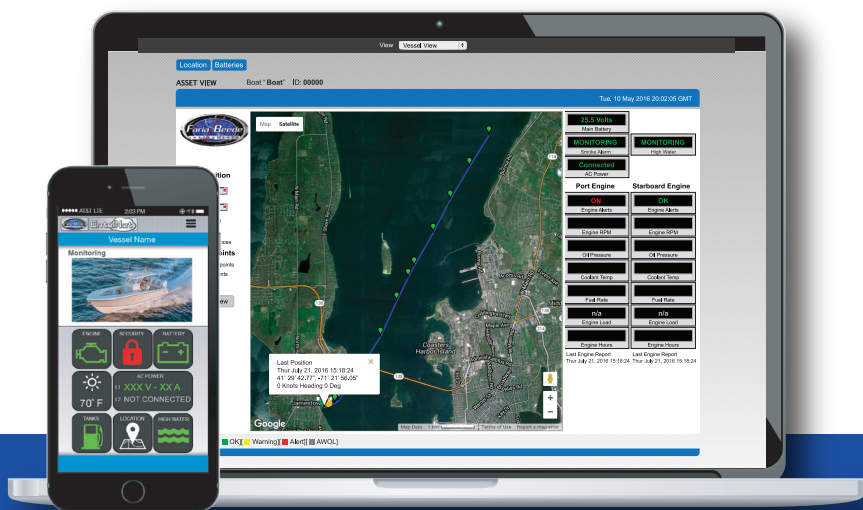
Packages are available to track your yacht in real-time via GPS, receive security alerts from the alarm system, set geofences (i.e. to manage charterers or other users), and remote-control switching equipment (lights etc.)

Direct engine integration allows your dealer to remotely diagnose engine issues, saving you time and money.



- Dual or single band Iridium® satellite and/or Cellular communicator, with integrated GPS.
- Directly integrates with select engine brands including Caterpillar®, Mercury® and Cummins® - speeding repairs by supporting remote diagnostics.
- Dual CANbus interfaces, for multi-engine boats
- Custom website access for owners
- Google® maps display, to track your yacht
- View engine performance data **
- Monitor fuel and bilge levels **
- Remote-control digital switching (lights, alarm system, air-conditioning etc) **

*** Available features vary by package*



Available Customized Web Portal and Smart phone app.

Specifications

Communication	Wireless; Cellular, Iridium Satellite
Coverage area	Worldwide Cellular Coverage
Telemetry Address	IP; Dynamic (static optional)
Configuration States	Multiple; Primary; Conditional or Contingency Event/ Alert Driven
Battery Voltage Monitor	2 External
Activation	Connect to Voltage
Wiring Harness	15 22 AWG leads, 2 20 AWG power leads (Wiring diagram available)
Harness Connection	Harnessing meets ABYC standards, IMO and Iridium requirements and features marine industry Deutsch® “plug and play” water proof connectors
Geo-Location & Tracking	GPS
Antennas	External; GPS, Cellular and Satellite
Logs	Permanent time stamped logs of shore power, bilge activity, battery voltage (2), GPS location, temperature, security events, engine/generator hours.
Alerts	Independent alerts for logged activities and events.
I/O functionality	<ul style="list-style-type: none"> • On-board J1708 and J1939 CAN and wired OBDII interfaces to provide vehicle data and reporting of diagnostic codes • RS232, RS422 and RS485 interfaces • 2MB of compact flash RAM for data logging that can be requested over the air or downloaded locally • Four factory configured I/O's
Extremely Low power draw	

Environmental

On-board power conditioning, and reverse polarity protection with internally re-settable fuses.	
Voltage:	12 & 24V ready (9.5-36VDC power)
Operating Temperature:	- 20C to +85C
Storage Temperature:	-40C to +85C
Water and Weather Resistance:	IP64
Humidity:	90% RH at 29°C for 24 hours
Shock Resistant:	MIL-STD-202, 50G
Vibration Resistant:	SAE J1455
Corrosion Resistant:	ASTM-B117-73, 48 Hr

Dimensions and Weight

L:	9"	(229 mm)
W:	4 5/8"	(118 mm)
H:	3"	(76 mm)
		3 lbs. (1430 gr.)

GPS

U-blox 50 Channel GPS for highly accurate positioning

Certifications

CE
FCC
PTCRB
Cellular Carriers

All of our hardware is built on ISO-9001 certified production lines and tested for use in the harshest C&I, Mining, Oil&Gas and Maritime environments. From the North Slopes of Alaska, to Work boats in the North Sea, you can be confident that your Faria Beede EntelNet™ solution will continue to perform.


SAE J1939


The Anatomy of a Connected Boat

The "Connected" boat has become a reality.
Today we live in an environment where we're connected to the Internet at all times.



Faria Beede Telematics integrates Iridium Satellite, GPS, Cellular, Wi-Fi, CAN Technologies, Digital Switching Systems, on-boat sender/sensors & the Internet to provide real-time information about the status and location of boats, sensors and on-board systems.



Know before you go!

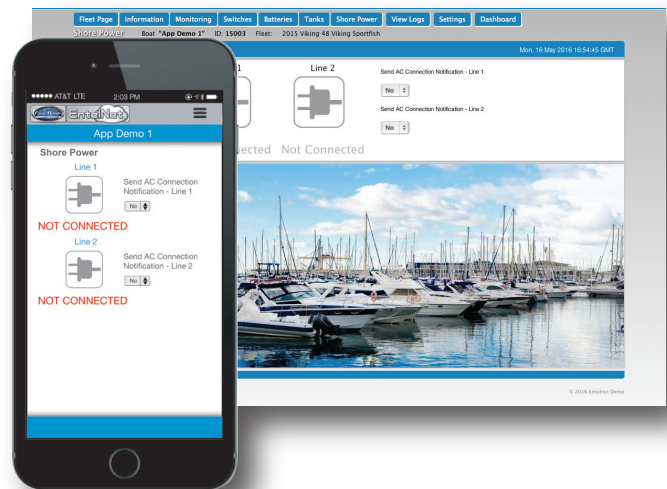
*Do I need to have someone charge
the battery, before I get there?*

Do I need fuel?

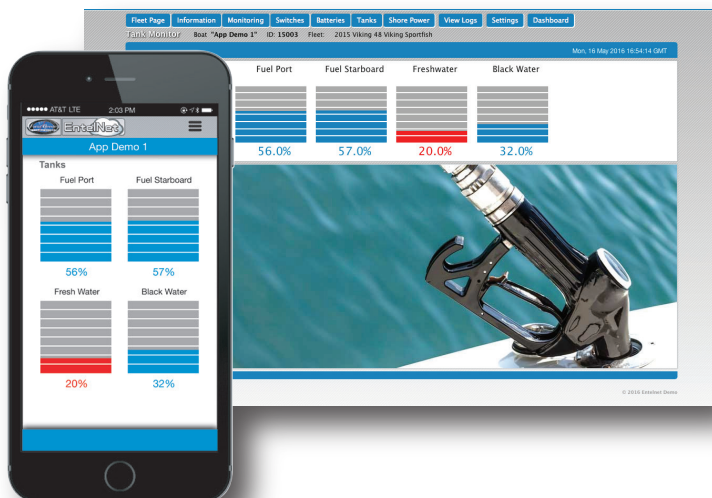
Am I still connected?

Remote Monitoring

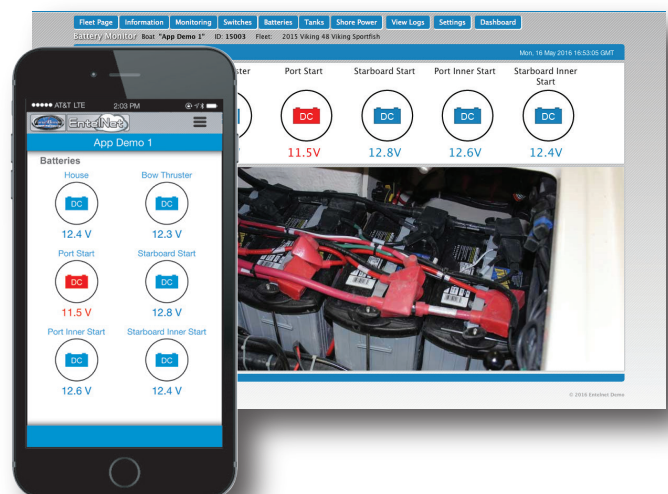
Shore Power



Tank Monitoring

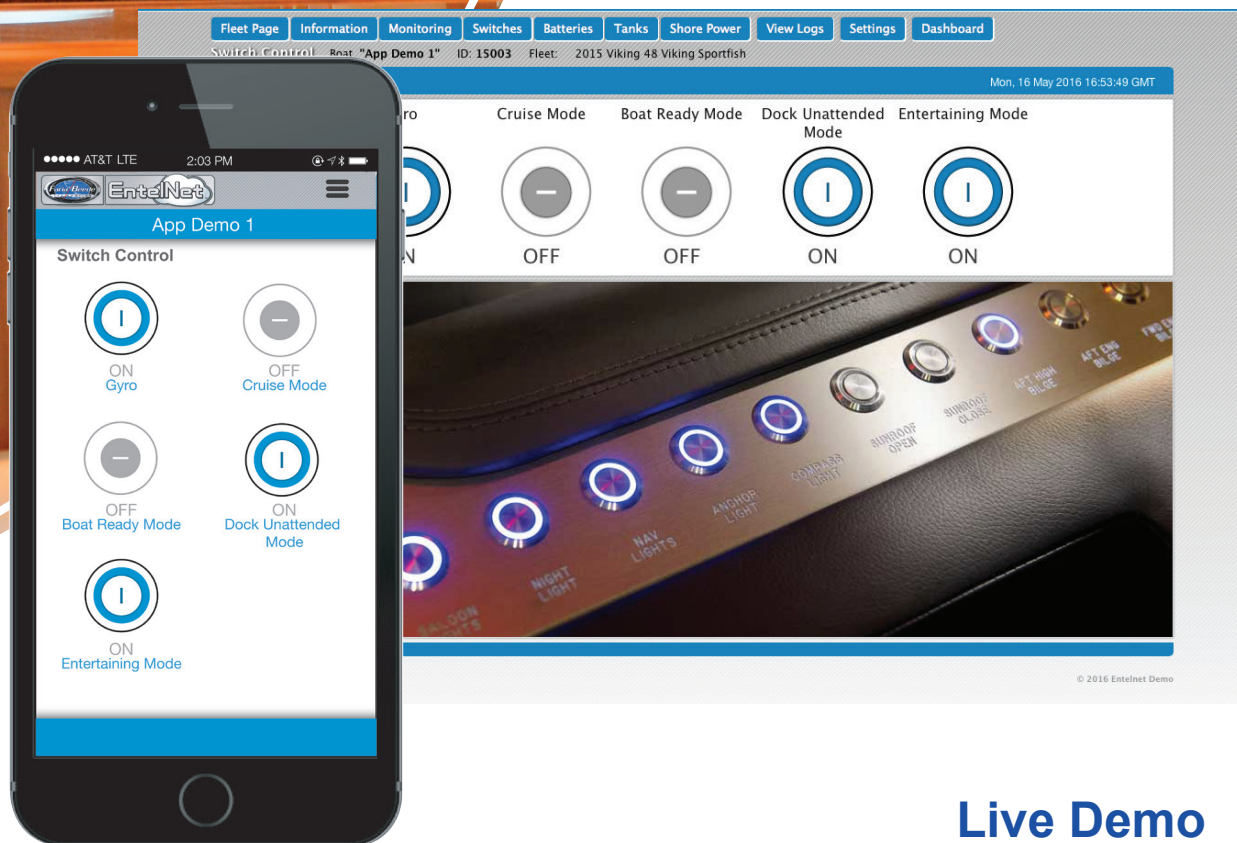


Battery Monitoring



Be up and
running before
you get there!

Spin up the Gyro
Turn on the Refrigerator
Did I turn off the AC?



Digital Switching

Live Demo

www.entelboat.com



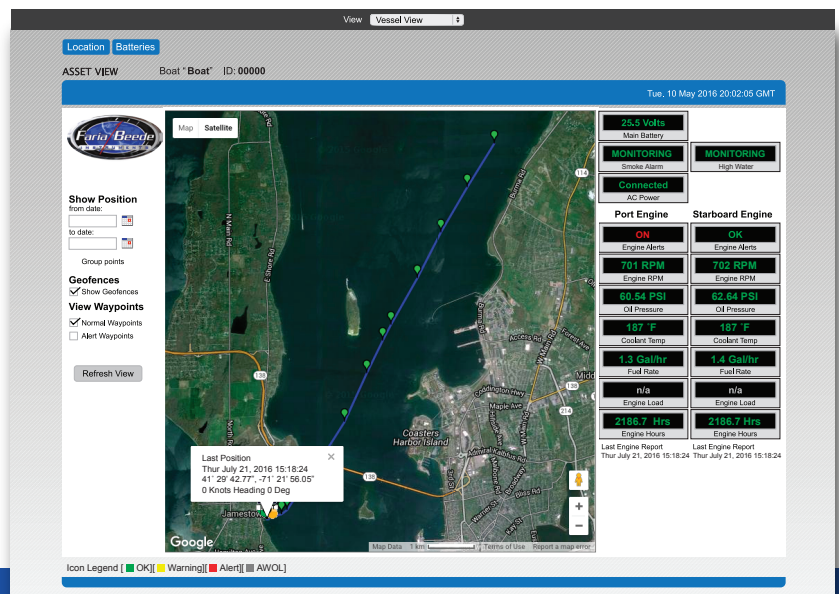
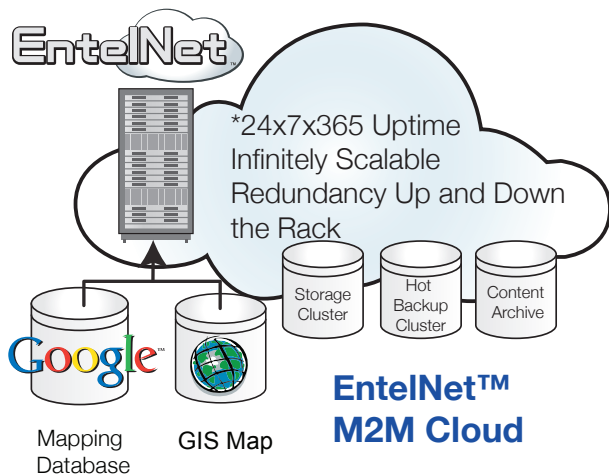
See it in action!
1) Scan the code.
2) Log in
User name: **@Demo1**
Password: **test**

www.entelboat.net

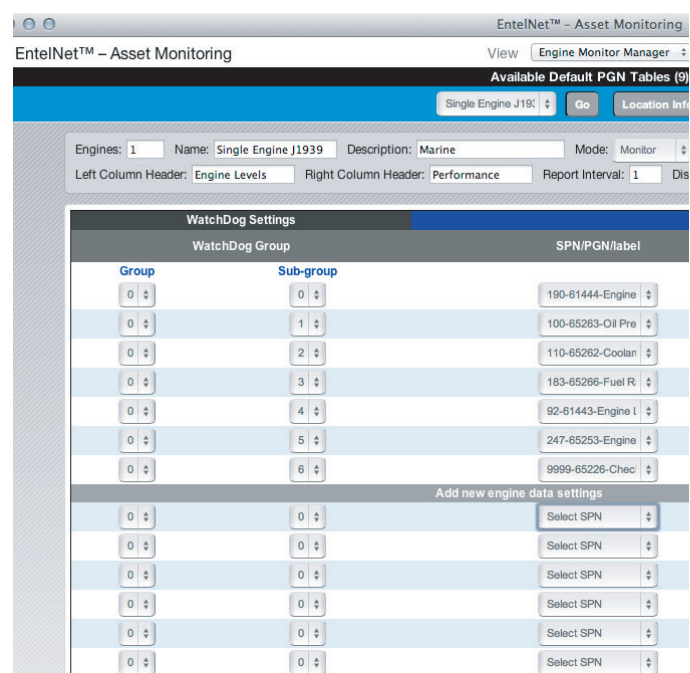
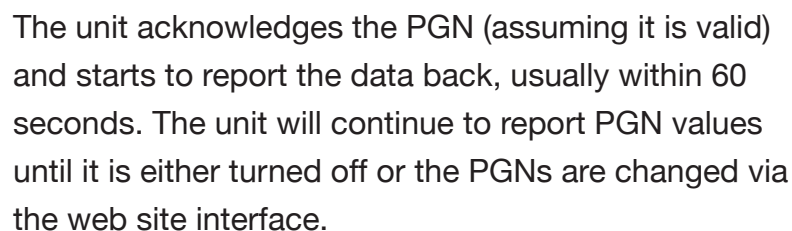
Feature Rich Web-Based System

Faria Beede supplies an easy-to-use, secure (https) web-based application that requires no software to install or manage.

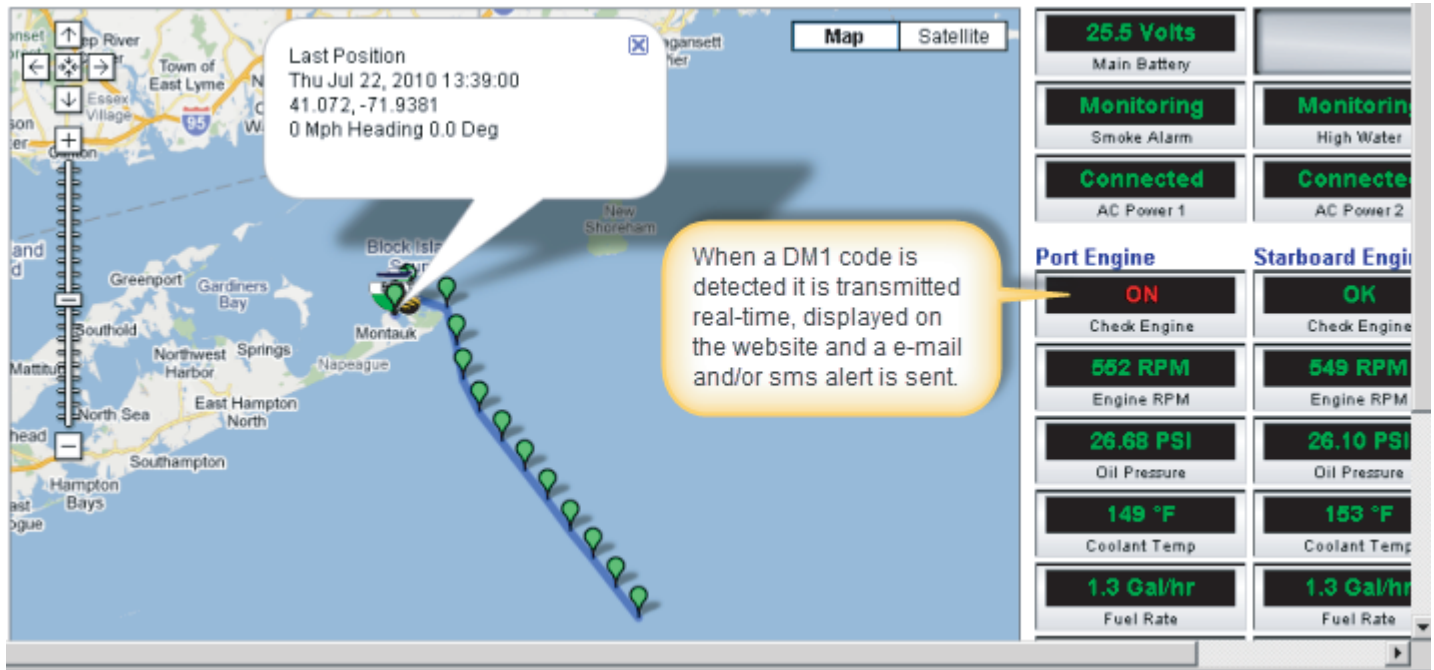
- The system provides a secured log-in and is password protected and provides for different user access/levels.
- E-mail, SMS and telephone notification mechanisms.
- A graphical view of all data, featuring the ability to visualize assets and data on “Google Earth” maps or GIS Maps with satellite imagery overlays.
- The ability to download tabular data in standard formats (such as .xls or .csv files).
- An interface to the telemetry hardware on the vehicle/asset to create a relationship between the MTU serial number, the on-board Iridium Satellite Modem (IMEI#), and vehicle VIN number/or ID number via secure login.
- Web 2.0 technologies that include a scripting language and a data access layer.
- A WSDL/SOAP or JSON/TCP interface enabling you to pull down all asset information to be used for other applications.



Fleet managers can get near real-time engine data to view engine hours, fuel burn, road speed and diagnostic alerts.



This real time Satellite Engine Monitoring and Tracking System changes the “service paradigm” by eliminating the first service call, reducing warranty cost and improving customer satisfaction.



View Port Engine					View Starboard Engine				
Date/Time Set GMT -5	SPN-FMI	Alert Text	Date/Time Cleared GMT -5	Count	Date/Time Set GMT -5	SPN-FMI	Alert Text	Date/Time Cleared GMT -5	Count
07/13/12 (Fri) 11:37:30	91-08	Throttle Position signal abnormal	07/13/12 (Fri) 11:41:58	2	07/13/12 (Fri) 12:02:22	110-17	Low Engine Coolant Temperature	07/13/12 (Fri) 12:27:37	127
07/13/12 (Fri) 11:37:29	91-08	Throttle Position signal abnormal	07/13/12 (Fri) 11:41:58	3	07/10/12 (Tue) 8:53:09	110-17	Low Engine Coolant Temperature	07/10/12 (Tue) 9:01:29	127
07/8/12 (Sun) 14:34:34	110-17	Low Engine Coolant Temperature	07/8/12 (Sun) 14:40:14	2	07/10/12 (Tue) 7:13:04	110-17	Low Engine Coolant Temperature	07/10/12 (Tue) 7:20:59	127
07/8/12 (Sun) 2:38:29	110-17	Low Engine Coolant Temperature	07/8/12 (Sun) 2:44:04	1	07/9/12 (Mon) 21:38:21	110-17	Low Engine Coolant Temperature	07/9/12 (Mon) 21:45:30	127
07/6/12 (Fri) 15:04:49	1382-11	Unexpected Engine Shutdown	07/6/12 (Fri) 15:14:59	36					

Custom Reports Designed For Customer Specific Requirements

- The EntelNet™ system enables fleet managers to
 - Report the location and status of assets
 - View J1939 CAN Engine Data & Diagnostics
- Alert for excess idling, rpm's & fuel burn
- Directly integrates with select engine brands including Caterpillar® and Cummins® - to generate engine performance & fuel usage reports
- Extensive Alert, Notification and Reporting functions, to comply with conditions of charter, and to provide proof-of-performance for service/deliveries to your clients.
- Establish service intervals
 - Reduce operating costs
- Data integration with your in-house ERP or Scheduling System **

** Available features vary by package

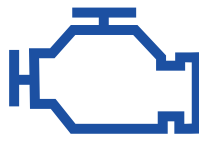
About Faria Beede EntelNet™ Telematics



Faria Beede is a leading data and communications service provider, which is focused on extending the 'Internet of Things' into the Power Generation, Mining, Maritime, Oil & Gas and Rail sectors, via ruggedized Iridium Satellite, Cellular & Wi-Fi solutions, which are coupled with a Software-as-a-Service (SaaS) business model, that can be customized for any client's monitoring, control and data management needs.



Customized Website



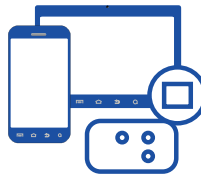
Telemetry



Communications



M2M Cloud



Hardware



Installation

Tested Tough - Proven Reliable

Our proprietary ruggedized hardware solution is fitted on-board each asset - where it interfaces to engine management systems, data entry tablets (for operators), data-loggers ("black-boxes"), GPS, on-board systems, other sensors/senders (i.e. fuel level) and remotely can turn on/off devices.

Intelligence on-board selects and prioritizes the

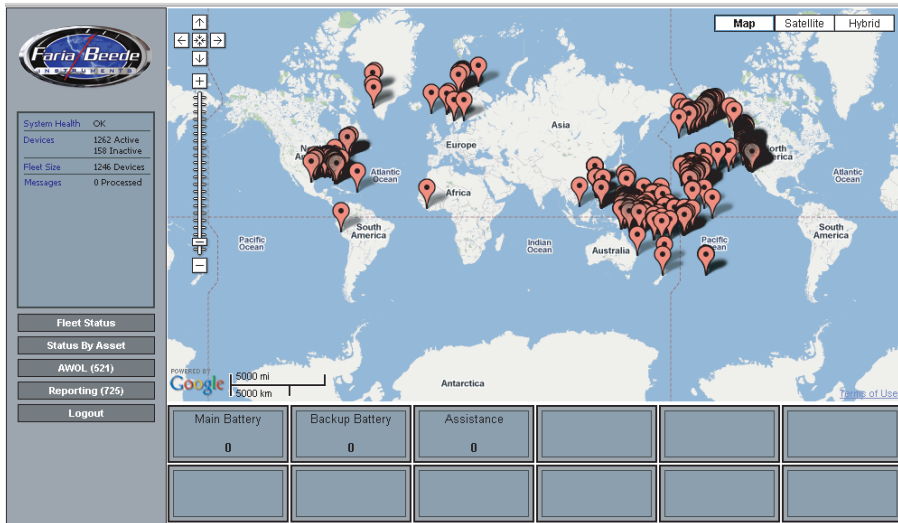
information of most importance to the customer, which is transferred wireless over satellite and cellular networks to the web-tier—allowing Faria Beede to provide a seamless Software-as-a-Service (SaaS) offering tailored to each customer.



The 750VMS MTU is type certified by the US National Marine Fishery Service, Forum Fishery Agency, the IMO (International Maritime Association) for LRIT and 50 government agencies around the world.



Today we are tracking and monitoring thousands of vessels worldwide.



Faria Beede pioneered the use of Iridium Satellite's SBD (Short Burst Data) for vessel tracking, monitoring & communications. Today Faria Beede 750 MTU systems are transferring millions of position reports and messages monthly.

Putting the Internet of Things to work for you!

The Machine-to-Machine (M2M), EntelNet, technology is used to monitor mobile assets including Oil & Gas Assets, Work Boats, Fishing Vessels, Mining Equipment, Trains and Individual Workers in high-risk areas.



Worker Protection



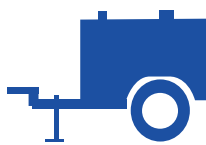
Oil & Gas



Mining



Work Boats



Mobile Assets



Yachts

M2M is an integral part of Internet of Things, one of the fastest growing areas of the technology. The information gathered by Faria Beede M2M systems is transformed into actionable intelligence—via sophisticated reports and alerts.

Enhance operational efficiency

Reduce warranty and operating costs

Increase time on the water and asset utilization

Comply with environmental and regulatory mandates

Schedule preventative maintenance

Improve safety

Satellite, Cellular and Wi-Fi Asset Monitoring Solutions



For more information contact



Tel: 860.848.9271
Web: www.FariaBeede.com