



# IoE Development Platform for Internet of Everything Applications.

## The Internet of Everything (IoE) Development Platform with support for Oracle Java ME embedded 3.2 lets software developers and systems integrators innovate, test and deploy IoE applications with embedded cellular connectivity.

Designed specifically for developing applications requiring embedded-to-enterprise communications, for verticals such as:

- Remote monitoring and tracking
- Industrial controls
- Healthcare

### Optimized apps. Faster time to market. Lower development cost.

The IoE Development Platform enables you to write and test IoE applications on devices powered by Qualcomm Technologies' chipsets, ensuring an optimized end-solution and helping speed time-to-market. And, because Qualcomm Technologies integrates its industry-leading cellular Gobi modems and customized ARM-based application processors into its System-on-Chip designs, there's no need for additional processors, microcontrollers or memory, reducing PCB area and offering additional cost savings.

### Powerful, flexible and always connected.

Oracle's Java platform combined with Qualcomm Technologies' innovative solutions delivers a powerful, flexible tool:

- Java's write once, run anywhere flexibility delivers code portability and increased developer productivity.
- Qualcomm Technologies' chipsets enable the integration of always-on, cellular 3G connectivity into a wide range of devices and solutions.
- The IoE Development Platform is designed to provide access to a large number of chipset IOs and interfaces, including GPIO, I<sup>2</sup>C, SPI and others.

### Easy to set up and use.

The IoE Development Platform with Oracle Java ME embedded 3.2 is designed to be easy to set-up and use. It's supported on JSRs and APIs for quick, connected-device application development. And, it is equipped with the sensors and indicators needed to create your first application.

The IoE Development Platform. A tool for unlocking new possibilities in IoE.



**The IoE Development Platform is built with JSRs and APIs to support IoE applications.**

JSR/API	Description
JSR 139 CLDC	Connected Limited Device Configuration (Networking supported via Connection Framework)
JSR 228 IMP-NG	MIDP with multimedia stripped out
JSR 172	SOAP Web Services
JSR 120	WMA (Wireless Messaging API)
JSR 75	Support File Connection pkg only
JSR 177	Security and Trust API for Cryptography
JSR 179	Location Services
Logging API	Java application level logging service.
Device Access	Low level access to GPIO, SPI/I <sup>2</sup> C, ADC/DAC
AT Command Pass Through	Allow standard and OEM AT commands to be passed through to AT command processor

**The IoE chipsets and support for Oracle Java ME for building complete IoE solutions support:**

- Low Level Device I/O Access – GPIO’s, Serial Peripheral Interface, I<sup>2</sup>C brought out headers and built-in sensors and actuators. All are accessible from Java using Device Access API’s:
  - GPIO: Register PortListener instance to be notified of any pin state changes. Use setValue to drive values onto pins.
  - I<sup>2</sup>C: Supports single and combined messages to/from I<sup>2</sup>C devices.
  - SPI: Connect SPI slaves for bi-directional data exchange. Clock frequency, polarity, and phase can all be configured.
- AT Command Pass Through – Allows custom AT commands to be sent to modem from Java environment:
  - Synchronous or Asynchronous commands supported with queuing.
  - URC’s supported via UnsolicitedResultCodeListener.
  - Receive serial port pin change events via ModemStateListener.

**The IoE Development Platform Interface Details Interfaces**

- SPI configurable for 1.8V or 3.3V operation
- I<sup>2</sup>C configurable for 1.8V or 3.3V operation
- 8 multiplexed ADC channels routed to onboard ADC on QSC6270T
- 5 GPIO controlled LED indicators
- Micro USB for FW downloads, debugs, and AT commands
- SD Card slot
- USIM socket
- 4x DB9 connector
  - 1 connector for UART
  - 3 connectors connected to 7 GPIO pins
- 20-pin JTAG ICE connector

**Flexible power supply**

- AC adapter
- Battery with onboard charging for truly portable applications

**Board Configuration Sensors**

- Accelerometer controlled by SPI or I<sup>2</sup>C interface, with interrupt on GPIO
- Light sensor
- Temperature sensor

**Memory**

- 128MB NAND Flash
- 64MB DDR RAM

**Multiband cellular coverage**

- Tri-band UMTS/HSDPA 2100/1900/850 MHz
- Quad-band GSM 850/900/1800/1900 MHz

**GPS**

- Standalone GPS, 1575.42MHz center frequency

**WLAN**

- 2.4GHz WiFi a/b/g/n

**IoE DEVELOPMENT PLATFORM**

