



INTERNET OF THINGS (IoT)



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Internet of Things has opened up an exciting array of possibilities for individuals and enterprises alike. Smart phones that help us stay connected with work and home at all times; wearable medical devices that help monitor our health in a non-intrusive manner; and home automation systems and smart sensors that can practically change the way we live. IoT is at the heart of all these experiences.

Enterprises are looking to leverage IoT for industrial automation, behavior analysis, telemetry, and telematics, among others. IoT, when combined with technologies such as virtualization, cloud, and mobility, create a powerful platform that can truly bring about a paradigm shift.

At GlobalEdge, we pride ourselves on our unparalleled experience in embedded systems; we combine this with our expertise in cloud solutions, enterprise mobility, and connectivity to develop innovative IoT products and solutions quickly and cost effectively.

What sets us apart

- Vast experience spanning over 20 years in the development of IoT applications, many years before IoT became an industry buzzword
- Dedicated Centre of Excellence and Laboratory that has led to the development of innovative IoT solutions
- Expertise in developing bespoke smart devices that work reliably even in harsh environments
- Strong expertise in independent verification and validation with an extensive library of test cases for functional, stress and interoperability testing
- Proven experience throughout the solution development lifecycle including concept development, implementation, testing, maintenance, and sustenance

OUR OFFERINGS

GlobalEdge partners with all stakeholders in the IoT ecosystem from microcontroller, sensor, and communication manufacturers to cloud service providers, thus, enabling chip-to-cloud support under a single roof.

Our offerings include:

- IoT System Architecture, Design, Development and Testing from “Chip-to-Cloud”
- Smart wearable device development and integration
- Sensor integration and testing
- Data aggregation
- Cloud device management for connected homes, connected cars, and industrial applications
- HMI development
- Intelligent Communication Gateways for Enterprise and Home automation solutions
- Functional and interoperability testing

SOLUTIONS & PRODUCTS

- Intelligent IoT Gateway

GlobalEdge’s Intelligent IoT Gateway is a multi-radio access point solution that provides communication services and first level IoT device discovery and management. The world’s first AP platform with Wi-Fi, Bluetooth, BT LE and 802.15.4 stacks running on it, the platform can be easily customized and integrated into any IoT application to enable seamless connectivity. The built-in IoTReflex™ framework enables immediate reactions to alerts and events generated by IoT sensors no matter on what interface they communicate on. This framework based on lwVM technology allows cloud programming of gateways and sensors no matter what hardware or software stacks they operate on. In addition to the built-in frameworks 3rd party frameworks, like AllJoyn can also be integrated.

- Garuda

Garuda is our state-of-the-art automotive product that enables vehicle network monitoring, flashing, and diagnostics. It is a multi-protocol interface that can obtain vehicle diagnostics information to enable technicians to diagnose and resolve issues quickly. This versatile device can be used to reprogram ECU software or used as part of a test automation framework to speed up automotive application and device testing.

- USB-over-WiFi

The USB-over-WiFi solution from GlobalEdge consists of a Wi-Fi to USB Bridge device and host driver software on Windows and Linux that allows a host to access wired USB devices over a wireless connection / IP network. The wireless USB bridge supports computers, game consoles, digital video recorders, and other USB-based consumer devices.

- Serial2WiFi™

Serial2WiFi™ from GlobalEdge enables small footprint microcontroller-based devices to connect to a wireless network via a simple serial interface and gain access to the Wi-Fi network and then onwards to the internet. This stack forms an integral part for building M2M/IoT solutions.

- Bluetooth LE Single Mode Stack & Profiles

GlobalEdge has developed various BLE components including a low-footprint BLE single mode stack and various profiles that can be easily integrated into sensor devices. One of the available solutions is for a heart rate monitor that aggregates information from a body sensor and sends this information to a client; the client decodes the information, displays values, and enables notifications.

IoT for All Industries

There is no dearth of hardware and software solutions available in the market for technologies such as Internet-of-Things (IoT), Cloud, and Big Data. This sheer number makes it an overwhelming task to find the right solution. To develop a successful solution, you must first ask the following questions:

- Can I deploy a solution to quickly solve my problem?
- Is my solution capable of integrating and supporting industry-leading products?
- Can I reconfigure the system to meet the changing needs without incurring huge costs?

There is an endless list of problems that you can identify. However, you can get real business value only when you solve these problems promptly. Global Edge provides flexible and integrated platforms in a single software development environment, with an extensive library of controls and strong integration capabilities, enabling you to move smoothly from prototype to deployment.

IoT Offerings

- Development of IoT Gateways based on OpenWrt
- IPv6 Enablement & compliance testing
- Integration of open source IoT frameworks (AllJoyn, IoTivity)
- Device management and Monitoring (LWM2M, OneM2M)
- Interface development with 3rd party Cloud using REST, WebSockets

IoT for Consumer Electronics

We can empower customers to deliver efficient IoT devices and solutions by offering services in the development of embedded systems, devices and applications to testing of network infrastructure and service provider operations.

IoT for Semiconductors

IoT has opened up vast opportunities for the semiconductor industry. The explosion of mobile devices and wearables are the driving force behind the growing embedded semiconductor systems.

GlobalEdge's end-to-end embedded semiconductor solutions are designed to improve productivity, drive rapid technological innovation, heightened efficiency, and low operating costs. Our most critical priority is to accelerate your time-to-market by seamlessly integrating OEMs/ODM, Carrier service providers and other multi-vendor service offerings.

IoT for Automotive

The automotive industry has witnessed a steep increase in demand for innovation over the last decade; automotive OEMs are relying more on embedded software-driven designs along with the existing monitoring, infotainment, and navigational systems. To address these complex business challenges, we offer end-to-end technology solutions that are based on AUTOSAR framework with chip-to-cloud capabilities.

IoT for Telecom

We empower customers to deliver Cellular M2M solutions by offering services in the development of embedded systems, devices and applications to testing of network infrastructure and service provider operations.

IoT for Industrial Automation

At this nascent stage, Internet of Things opens up vast opportunities and endless possibilities for Industrial automation. The combined strength of network, solutions and devices powers GlobalEdge to leverage untapped potential of industrial automation.