Plugging into the Internet of Things

UNICOM[®]Engineering, Inc.

How Independent Software Vendors Can Anticipate and Overcome Key IoT Challenges



What is IoT?

The Internet of Things (IoT) is the network of physical objects (things) connected to the Internet that provide data for collection, storage and analyses.

BASIC ARCHITECTURE



The Importance Of Connectivity And Gateways

The myriad of signal and language options makes processing and translating all of them extremely difficult. Gateways have emerged as a primary method for managing much of these "data packaging" duties to ensure that the most valuable sensor data is readily available to analytics-side servers.





KEY CHALLENGES

- * Standardizing languages
- * Efficient data-sharing architecture
- * Defining roles of key components
- * Addressing system updates and maintenance needs
- * Anticipating that systems can become obsolete
- * Conflicting solutions, confusion and redundancy
- * Misuse of data and overall data security
- * Control of information flow

Key players are still refining Big Data analytics solutions

- * Information overload potential
- * Monetizing the convenience IoT brings
- * Using data to inform future business infrastructure

How ISVs Can Make Sense of It All

When you enlist the right industry partner, you can bring your ideas to market while sailing past obstacles. Such a partner can help you grow the marketplace of ideas while maintaining a healthy bottom line the entire time.

HOW THE INTERNET OF THINGS IS EMERGING

- A shift from technology's potential to practical realization; moving away from "gimmicks" to legitimate useful functionality
- Evolving network capabilities (like SDN and NFV) that can send, receive and process massive amounts of data with low latency
- COTS-based hardware that offers lower cost and faster time to market

Areas for Improvement



Device gateways designed to more intelligently share data with less burden on networks



Field support for hardware solutions deployed in large enterprises

- Industrial sensor devices like RFID scanners, Bluetooth Low-Energy beacons and onboard vehicle diagnostics sensors that are amassing field data and sending it along to application servers at unprecedented rates
- Consumer-end appeal of IoT devices like fitness trackers, smart watches and "learning" thermostats



Data security and data transfer oversight



Lifecycle management with painless updates, maintenance and support

HOW TO GET PAST THE ROADBLOCKS

Together with a global value integrator, ISVs can:

- Dramatically increase their product's speed-to-market
- Eliminate costs associated with "reinventing the wheel"
- Attain better market position and monetization potential
- Grasp industry standards, expectations and regulations more adeptly
- Ensure compatibility with IoT language standardizations and performance expectations
- Create a cohesive yet flexible product that can be implemented across a wider range of business IoT ecosystems

Putting Your Ideas in a Marketable Package

When an application is created as an appliance, you can:

- D Create stable builds that isolate the application's needed OS and resources, avoiding conflicts found on general server installations
- Streamline the installation process your customers use to integrate your product onto their IoT network
- 5 Increase customer satisfaction by decreasing the chance your application could be blamed on downtime, poor server performance or inoperability
- 6 Simplify lifecycle management through the use of secure OS and stable, holistic product builds designed with maintenance and updates in mind
- 3

Avoid problems associated with end-user-level OS tinkering

- 4 Lower support costs associated with maintenance, updates or servicing since fewer touchpoints are needed to ensure operability
- Focus on core goals with less peripheral concerns



FINDING THE RIGHT INTEGRATION PARTNER

Here is a list of criteria that can help you identify and compare companies that might be qualified to serve your needs:

) Experience

- 2) A Bespoke Consultation Model
- 3) Attentive Quality Control
- (4) Customer Service Expertise
- 5) Familiarity with Common Hurdles
- 6 Project/Program Management Guidance
- 7) Lifecycle Management Knowledge
- 8 Access to Logistics and Trade Compliance Resources
- Up to the Minute Knowledge of Security and Best Practices
- OEM Capability



UNICOM Engineering is a leading provider of server-based application platforms and lifecycle support services for software developers and OEMs worldwide. Through its expertise and comprehensive suite of design engineering, system integration, global logistics, trade compliance, support and business analytics services, UNICOM Engineering is redefining application deployment solutions to provide customers with a sustainable competitive advantage. More than a decade of appliance innovation and strong technology partnerships make UNICOM Engineering one of the most trusted, capable software deployment partners in the industry.

Founded in 1997, UNICOM Engineering has facilities in Canton, Massachusetts; Plano, Texas; and Galway, Ireland. For more information, visit www.unicomengineering.com.



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