ARROW

Five Years Out

LA IoT Expo, October 15, 2015 at the Warner Center Marriott

Atmel - From the sensing edge node to the cloud
Discover the untold difficulties about launching an IoT application and why your solution maybe DOA. This deep dive overview of the IoT Ecosystem and components is a must for every Engineer or Business developer who is considering to launch an IoT product.

Card Access - Taking the Mystery Out of Apple Home Kit
Beyond the idea of it being Apple's approach to connecting smart home accessories to your iPhone or iPad, what do you know about Apple HomeKit? In "There's No Place Like HomeKit," ARROW ACES partner and Qualcomm Authorized Design Center CA Engineering will give you: 1. an architectural overview HomeKit, 2. an introduction to HomeKit-compatible Wi-Fi systems-on-chip (SoC) from Qualcomm, 3. a demonstration of seven different HomeKit-enabled accessories powered by the ARROW GT202 IoT Module, 4. a tutorial on how to integrate the GT202 into accessories you want to create, and 5. a review of the business model that enables your access the technology

Cypress - Using PSOC4 and BLE to get your sensor networks in the fast lane
Bluetooth Low Energy is today's superhighway for accessing the Internet Of Things. PSOC4 is the vehicle that delivers the most integrated BLE platform in the industry, allowing engineers to quickly connect a variety of sensors to the internet with simplicity.
PSoC® 4 BLE is an easy-to-use, ARM® Cortex™-M0 based, single-chip solution which integrates programmable analog front ends, programmable digital peripherals, CapSense® technology for touch-sensing, and a Bluetooth® LE (Low Energy) or Bluetooth Smart radio. Everything in the system including the Balon circuit is integrated in a low cost one chip solution. PSoC Creator software, the Integrated Design Environment used to configure the BLE Smart Radio, adds another layer of simplification by enabling the system developer to design the way he thinks. 2400 pages of BLE specification are reduced into 3 easy steps. Choose the profile, set up the GAP and GATT layers, and you are good to go in minimum time. This seminar will introduce you to the power of PSoC® 4 BLE and it will help you to get to the market faster.

Digi - Overcoming Critical M2M Design Challenges
Developing complete end-to-end IoT solutions is complex and time-consuming. Speed up your development by using Digi's cloud-connected SOM solutions and Device Cloud services. Digi's development kits provide all building blocks to develop complete end-to-end IoT solutions from the remote sensor or end nodes, through the cloud connectivity to client application integration. This training session will cover Digi's ConnectCore 6 System-on-Module (SOM) and Single Board Computer (SBC) using the i.MX6 applications processor, key features and differentiators, and target applications with case study overview.

Freescale - Wireless connectivity and low-power at the edge
Intelligent systems require edge devices that are constantly connected and efficient in terms of processing and battery life. This seminar will introduce the diversity of today's connectivity solutions for IoT and how emerging standards like Thread are addressing deficiencies with existing implementations. Learn about Freescale's strategy and vision as it relates to wireless connectivity and low-power processing solutions.

Freescale - Securing data communications in intelligent systems
Building an intelligent system that can sense and react to its environment often requires additional processing power that is only available through a cloud-based infrastructure. The challenge? How to secure this confidential data as it makes its way from the end node to the gateway to the cloud. Attendees will learn how Freescale is addressing security concerns as it evolves its Trust Architecture and software enablement on QorIQ processors.

Kore - Cellular Solutions
The idea of machines talking directly to other machines was supposed to make your life easier. But are you finding it a challenge to manage all your devices so you can actually do your job using the devices? That's where KORE can help. In this class we'll use the KORE PRiSMPro platform to show you best practices on how to efficiently and easily manage your Arrow IoT/ M2M edge devices regardless to where they reside, how dispersed they are, or be it cellular, satellite or both.

Linear Tech - Low Power, Reliable Wireless Sensor Networks for IoT
In order to place a sensor "anywhere" information needs to be collected; a wireless sensor network must deliver high data reliability yet remain low power to enable all wireless nodes to run on battery power for years or utilize energy harvesting. Low power, reliable wireless sensor networks are a reality with Time Synchronized Channel Hopping (TSCH) mesh networks, pioneered by Linear Technology's Dust Networks, and have been proven in some of the toughest environments around. The speaker will provide an overview of TSCH, its role in standards, plus discuss the usage of energy harvesting, examples of end-users successfully deploying wireless mesh networks to solve real world problems, and how using reliable, low-power wireless sensor networks have enabled new applications.

Microchip - Microchip and the Internet of Things
There are many terms being used as new products are introduced such as Internet of Things (IoT) and connected products. A common service used to move, store, and analyze data in these types of systems is the cloud. This class will provide an overview of how you can use the cloud to leverage your embedded (IoT) product, including an overview of the development tools available that can be used by both embedded engineers and the IT staff to get to market faster.

Microsoft - Make IoT real with the Internet of YOUR Things
The Internet of Things is already driving efficiencies, insights and ROI for organizations that know how to use it.   In this session Microsoft outlines their vision for the Internet of Things and how technologies such as Azure and Windows 10 IoT can accelerate the development and deployment of IoT solutions and services.   Yet, IoT is not all about technology. It's also about taking a step back and deciding how you want to change your business in the new digital age. And it all begins with what matters most to your company: the Internet of Your Things.

Multitech - IoT Solutions for the Industrial Space
During this seminar we will discuss:
How to navigate the IoT hype. Why cell carriers aren't the end all solution yet. What are possible solutions, Business Models for Carriers, Issues for deployment solutions, How to expedite your time to revenue and finally, MultiTech System's solutions leveraging Arrow's global resources. Technologies discussed will include:

NFC, BT, WiFi, FSK, Cellular, Mesh, LoRa, Cellular: (2G, 3G, 4G, LTE, CAT1, CAT0) Carriers and MVNOs; Certs, Approvals, PTCRB & Test labs.

Netcomm - How to Avoid an IoT Hangover
Does each deployment have to be complex, lengthy and expensive? Dazed & confused from all your options? Using Customer use-cases and real-world scenarios, NetComm Wireless and MachineShop will profile companies simplifying their IoT deployments. Attendees will understand the steps these companies went through to select technologies and plan deployments that opened new revenue channels inside of 3 months. By leveraging new technologies, the presentation will demonstrate how intelligent gateways can automate manual tasks using the real-time data from connected devices & systems.

NXP - Privacy and Security for the IoT & NFC
Exponential growth of connectivity brings with it concerns over data privacy and security. We constantly hear stories of how a baby monitor, smart home thermostat, or even a point-of-sales system has been hacked, resulting in leaked data, invasion of privacy, and even financial loss. In this session, we will introduce a security "thought model" that will help you understand what it takes to secure your next IoT application.

Pulse - Don't forget the Antenna
Don't forget the antenna! Find the right wireless solution for your IoT application. Pulse is a global leader in IoT, offering world class antenna solutions for the Medical, Utility, Transportation, Industrial, and Exploration industry's. Pulse offers internal and external solutions covering frequencies from 13.6 MHz to 6 GHz. We cover the major technologies such as WLAN, WiFi, Zigbee, ISM, GPS, Cellular, LTE, GSM, UHF and VHF. Pulse's worldwide extensive R&D has made us a technology leader and solution provider to our customers and distribution partners. Pulse has shipped over 2 Billion antennas!

Rigado - Secuity for BLE to ensure a customer's IP is protected
With known security holes in Bluetooth Low Energy that are easily exploited by hackers, device creators must implement better security for their IP and data. In this session learn how Bluetooth SMART is exploited, what additional layers of security can be implemented and how the Rigado BMD-200/300 Bootloader prevents your firmware from being sniffed and stolen by hackers and insures only properly signed code is loaded and executed.

Silex - Wi-Fi Options for the Freescale i.MX6 and Kinetis Platform
With the increasing breadth of applications leveraging Wi-Fi technology, and an equally expanding number of Wi-Fi radio choices, how do you decide which one to use for your Freescale platform? This seminar will explore the technical differences between the newer breed of IoT Wi-Fi radios and more traditional Wi-Fi radios, as well as hardware design considerations, software development impact, and application dependencies that may impact your selection of one over the other.

Silicon Labs - Navigating the Frontier of Wireless Connectivity
With an estimated 50 billion IoT nodes by 2020, knowledge of the hardware, embedded software, communications services, and information services associated with the Internet of Things is of primary importance. IoT end nodes must sense, process, control, actuate, and communicate using robust bi-directional communications links with relatively long range, low latency, low power, and a sufficient data rate to aggregate information from many connected

devices. In this seminar, Silicon Labs will educate engineers at the forefront of IoT development on the sensors, energy efficient MCUs, low power wireless radios, low power analog devices, and software tools available to them; describe applications for which specific technologies are best suited; and demonstrate a smartphone connected environmental sensor optimized for ultra-low power operation.

ST Micro - Wireless Connectivity for IoT Applications
Low Power Wireless connectivity represents the key technology to get smart objects connected to the internet and the cloud. As a matter of fact, wireless connectivity is not dominated by one single technology. Depending on application needs or technology constraints, it is needed to consider different hardware and software integration. This class will focus on the selection criteria to select the right wireless technology for an IoT application and will explore in details the ST wireless product portfolio of products and solutions for IoT.

Synapse Wireless - Developing and fielding a large scale device network
There is no end to the great ideas that can be brought to life by the Internet of Things (IoT). However, it turns out there is no quick & easy recipe to build such applications; especially when a large-scale, low-power wireless mesh network is required. During this session we will use real-life case studies to overview the tools, technologies, and methodologies that go into producing & deploying successful IoT products.

Telit - Connect, Manage, Integrate your Edge Devices to the Enterprise
Your business relies on the intelligent deployment of technology to collect, manage and analyze data needed to ensure corporate decision making and offer value added services to your customer base. Because you strive to reduce time and effort bringing innovation to market, you need the most effective, secure, timely and reliable solutions that give you a plug-and-play path to the Internet of Things (IoT). Seamlessly integrating devices, production assets and remote sensors with your web-based, mobile apps and enterprise systems is a big part of any IT system evolution. Whether you're already operating thousands of remote devices across the globe or just starting out, the ability to easily integrate M2M/IoT data into your enterprise environment is vital. Join us to learn more about the key to being successful in developing and deploying an IoT solution that controls cost, reduces time to market and provides the management and analytics needed to run a successful business.

Thinglogix - The Cloud and where do you fit?
The Internet of Things is often thought of as a future concept. Truthfully, it's already here - but there still remains a mystery in how to make it a valuable investment. Today, there are 4 major IoT capabilities that every business, in virtually every industry, can use to take advantage of IoT and create business value.
Remote Monitoring: You need to see, in real time, the status of your devices and sensors in the field with the best visualizations in order to understand what's happening now and what trends look like over time.
Remote Control: Not only can you see what's happening with a product or device, you now have the ability to control them remotely. Turn devices on/off, increase or decrease speed, temperature, pressure, etc.
Auto Replenishment: Did you know that devices and products can re-order their own consumables? From fuel, oil, filters, parts, cleaning chemicals, or beverages, devices can predict when inventory is running low and coordinate re-ordering of product with other items that

need to be consolidated into a shipment to help better manage inventory levels. With IoT, inventory management can operate automatically and independently from human involvement. Preventative Maintenance: By analyzing usage trends of a machine or product - what's called "machine learning" - you can see declines in performance and make fixes before major problems occur. This leads to new opportunities in customer service, customer loyalty, less product downtime, and major savings for your customers.

Turning IoT Capabilities into New Revenue Streams: The major 4 IoT capabilities improve internal business processes, but in addition, each can be tailored and offered as valuable services to the customer, creating revenue streams.

Learn how ThingLogix can help you turn data into dollars TODAY - not someday.

Texas Instruments - Maximum Wireless Flexibility
Coming soon

Texas Instruments - SimpleLink Connect More: Anywhere. Anything. Anyone.
Coming soon

Toshiba - Wireless connectivity solutions featuring TransferJet
Toshiba delivers industry-leading wireless connectivity products with a broad suite of products ranging from close-proximity technologies such as NFC, TransferJet, to longer range indoor technologies such as Bluetooth and WiFi. We will provide a broad overview of wireless technologies today and where they all fit in various applications. We will also showcase our unique high-bandwidth TransferJet technology.