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Nov-Dec 2016

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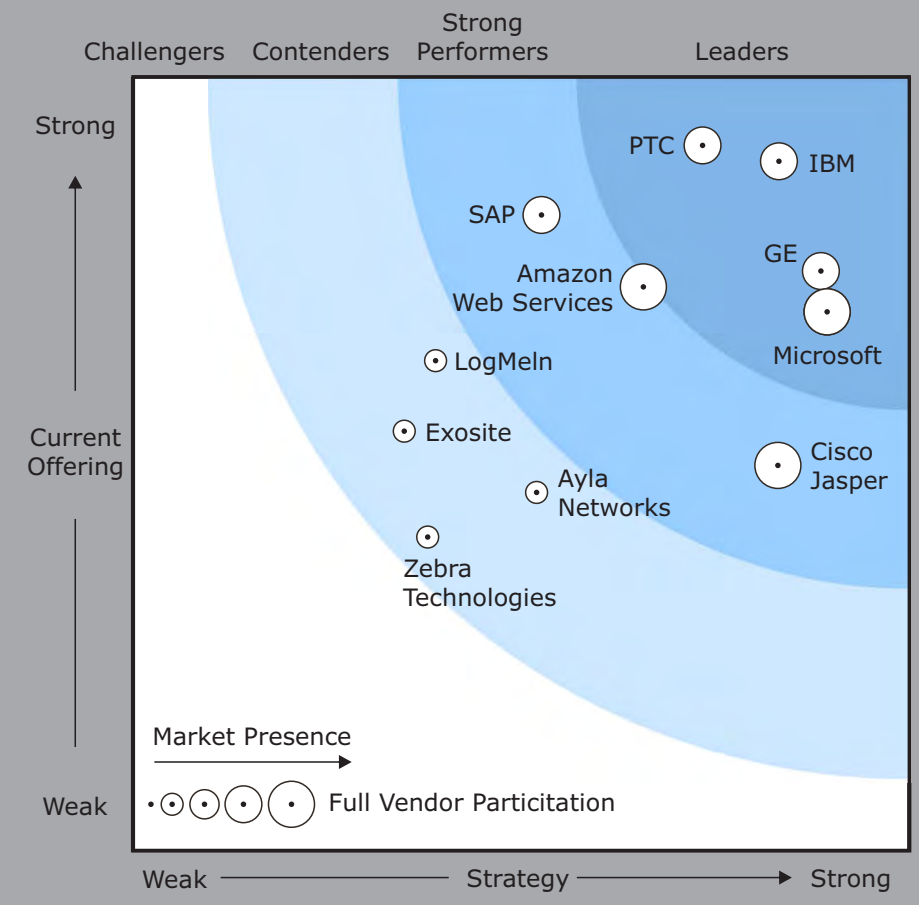
Forrester Research names PTC a leader in the new Forrester Wave™ report that evaluates IoT SW platforms



New IIoT Building Blocks Based on Latest Intel® Atom™, Pentium® & Celeron® CPUs

HEVC High Efficiency Video Coding

4K Display Support

Board Formats
- COM Express
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ADLINK TECHNOLOGY INC.

In this Edition

Daniel Dierickx
CEO & co-Founder
at e2mos
Acting Chief Editor

Dear Reader,

Here is your free copy of IoT World, one of our four magazines published by e2mos.

Our aim is to provide you with relevant information in relation with your activity.

Those magazines are part of the e2mos « Go-to-Market Platform »

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Telecom COTS World
Broadband Broadcast IoT Convergence

Embedded Systems World

ATCA World

(Photo: Tomas Havel / Barcroft India)

Playing at the IoT Edge: Azure IoT, AWS IoT, IBM Watson IoT, GE Predix & Google

Published on December 23, 2016 – By Toby McClean Chief Solutions Architect IoT / IoT Thought Leader

There is no shortage of IoT platforms available from both established players and startups. As Pablo Chacin points out they are at risk of becoming commoditized (if not already). I believe that there are still differences in how the platforms handle the edge of an IoT system. The role of the edge is becoming more and more important in IoT systems as the volume of data increases. For example, Wikibon shows the importance of processing data at the edge in order to better control costs.

Here I take a look at the edge capabilities of the IoT platforms from the established players Microsoft, Amazon Web Services, IBM, GE Predix and Google Cloud Platform.

Edge SDK Platform Support

	Linux	Windows	RTOS	C	C++	Node.js	Java	.NET	Python
Microsoft Azure IoT	✓	✓	✓	✓		✓	✓	✓	✓
AWS IoT	✓			✓	✓	✓	✓		✓
IBM Watson IoT Platform	✓	✓		✓	✓	✓	✓	✓	✓
Predix	✓	✓				✓	✓		✓
Google Cloud Platform	✓	✓			✓	✓	✓	✓	✓

Edge-to-Cloud Protocol Support

	REST	MQTT	AMQP	DDS	gRPC
Microsoft Azure IoT	✓	✓	✓		
AWS IoT	✓	✓			
IBM Watson IoT Platform	✓	✓			
Predix	✓	✓			
Google Cloud Platform	✓				✓

Edge SDK Features

	Device Management	Edge Storage	Edge Streaming Analytics	Edge Advanced Analytics	Gateway Support	Device Shadow	Security
Microsoft Azure IoT	✓	✓			✓	✓	✓
AWS IoT	✓	✓	✓		✓	✓	✓
IBM Watson IoT Platform	✓		✓[1]	✓[2]	✓		✓
Predix	✓	✓	✓	✓	✓	✓	✓
Google Cloud Platform							✓

1.The IBM Watson IoT Platform has support for Edge Streaming Analytics as a restricted beta at the time of writing.
2.The IBM Watson IoT Platform has support for Edge Advanced Analytics through its partnership with **Prismtech an ADLINK Company** http://www.prismtech.com/

The article has made no attempt to make any specific recommendations about which platform is better. Its goal is to provide the reader with information in order to help them make an informed decision for their specific use case. In future articles I will look at each of the features in greater detail.
Hopefully you find it useful and please leave comments and suggestions HERE

See also page 4: The Vital Role of Edge Computing in the Internet of Things (Wikibon)

The Vital Role of Edge Computing in the Internet of Things

by David Floyer | 20 October 2015 | Analysis, Cloud, Economic Models

Premise – Internet of Things requires Edge and Cloud Computing

AWS announced its initial architecture for managing the IoT at AWS re:Invent in October 2015.
Not surprisingly, it is cloud-centric. All the management and processing of data from the sensors is performed in the AWS cloud. It is well designed, and there are IoT spaces (especially initial deployments) when this approach will be appropriate. However, the AWS architecture is built round the premise that the cloud should provide all the management, compute and storage centrally and manage the sensors on its own.

This research is designed to compare this cloud-only architecture approach with a low-cost converged "edge computing" working in concert with cloud computing. The two equipment reference models in this research are AWS IoT cloud service and the Pivot3 Server SAN with a time-series database. Both are cost leaders in their field.

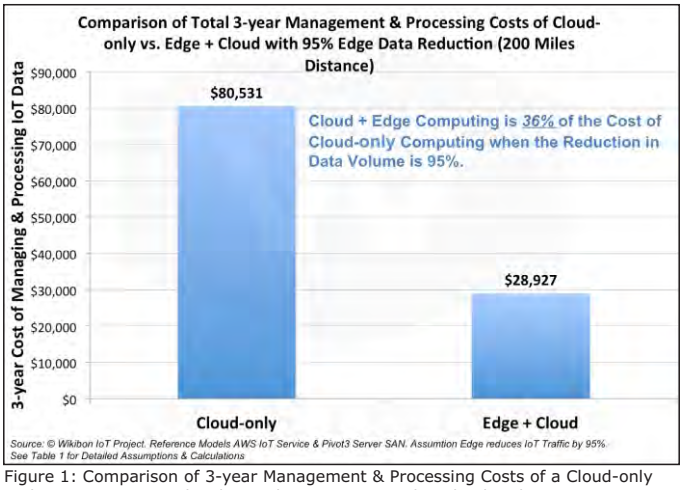


Figure 1: Comparison of 3-year Management & Processing Costs of a Cloud-only Architecture Compared with an Edge Server SAN plus Cloud Architecture
Source: © Wikibon IoT Project. Reference Models AWS IoT Service & Pivot3 Server SAN. Assumtion Edge reduces IoT Traffic by 95%. See Table 1 for Detailed Assumptions & Calculations

The reference case study for this research is a remote wind-farm with security cameras and other sensors. Figure 1 is a summary of the findings of this research. It compares the 3-year management & processing costs of a cloud-only solution using AWS's IoT services compared with an Edge + cloud solution using a Pivot3 Server SAN with an Open Source Time-series Database together with AWS IoT services. With a distance of 200 miles between the wind-farm and the cloud, and with an assumed 95% reduction in traffic from using the edge computing capabilities, the total cost is reduced from about $81,000 to $29,000 over 3 years. The cost of Edge + Cloud is about 1/3 the cost of a Cloud-only approach. As a result of this research and other work, Wikibon believes IoT systems will be safer, more reliable, lower cost and more functional using an Edge computing plus Cloud (private or public) approach.

FULL ARTICLE: 9 pages and 5 diagrams please CLICK HERE

David Floyer is Wikibon's resident CTO. Floyer spent more than twenty years at IBM holding positions in research, sales, marketing, systems analysis and running IT operations for IBM France. He directly worked with IBM's largest European customers including BMW, Credit Suisse, Deutsche Bank and Lloyd's Bank.

PTC an IoT Software Platform Leader Forrester Research names PTC a leader in the new Forrester Wave™ report that evaluates Internet of Things (IoT) software platforms

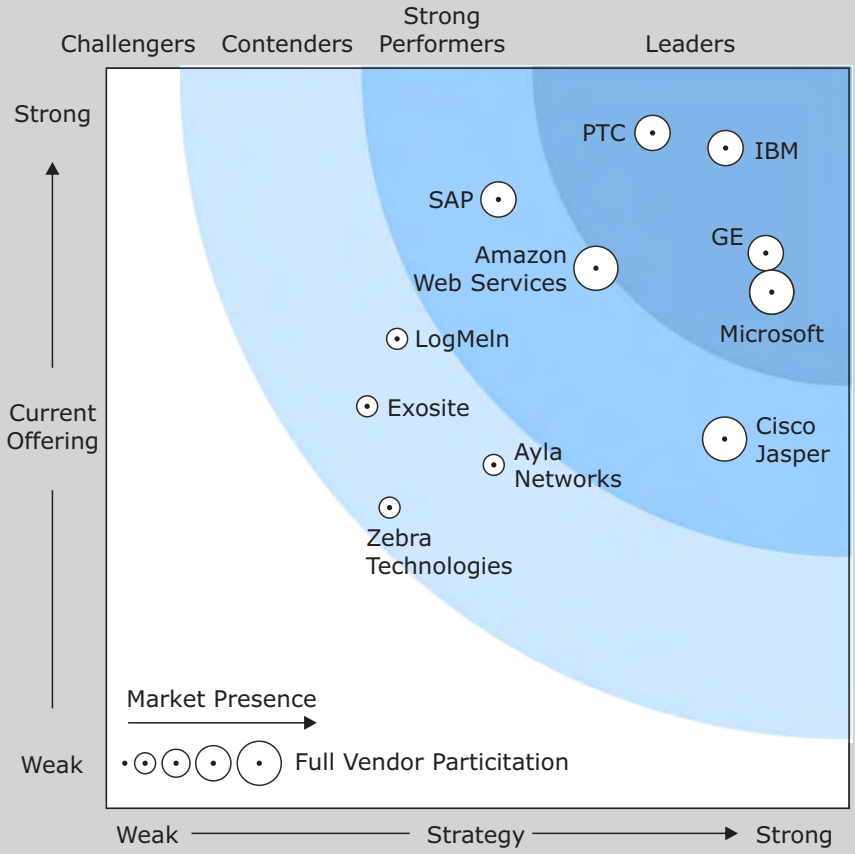
PTC's Take on the news:

Over 1,000 companies use the ThingWorx platform to support their IoT strategies and to create new business value in a smart, connected world. Additionally, hundreds of companies have partnered with PTC to bring IoT to reality across multiple markets.

"I believe that this report by a top-tier industry analyst firm validates ThingWorx as the platform of choice for companies looking to capitalize on the immense impact that the Internet of Things will have on their businesses."

Jim Heppelmann, President and CEO, PTC. -

Download the report: Click Here



ADLINK Launches New IIoT Building Blocks Based on Latest Intel® Atom™, Intel® Pentium® and Intel® Celeron® Processors

New boards and modules provide high efficiency video coding (HEVC) and improved 4K display support, as well as virtualization capabilities and a minimum seven-year lifetime

San Jose, CA – October 25, 2016 – ADLINK Technology, Inc., a leading global provider of embedded building blocks and application-ready intelligent platforms that enable the Internet of Things (IoT), today announced new computer-on-modules and embedded boards based on the latest Intel® Pentium® N4200 and Intel® Celeron® N3350 processors (codename Apollo Lake) and Intel® Atom™ processor E3900 series (codename Apollo Lake-I). These new offerings take advantage of several improvements over the previous generation of respective Intel® processors, including improved graphics performance with support for Gen 9 LP (18x EUs) and 4K/UHD displays, added virtualization capabilities with full support for Intel® VT-x/VT-d, high-speed DDR3L memory and eMMC 5.0 flash storage.

COM Express®

SMARC

ADLINK has developed two new COM Express® modules, the Compact Size cExpress-AL and Mini Size nanoX-AL. Both modules offer DDR3L memory up to 1867MHz, with the nanoX-AL supporting a soldered memory capacity range from 2GB to 8GB. In addition to providing three independent display ports that cover DDI/LVDS/optional analog VGA, the cExpress-AL fully utilizes the graphics capabilities enabled through the latest Intel® Atom™ processor and still supports legacy applications. Both modules are cost efficient platforms with rich native I/O support that eliminate the need for an added USB hub, and provide long-life support of at least seven years.

ADLINK's LEC-AL module is based on this year's SMARC 2.0 specification update and offers dual-channel LVDS, 2x MIPI CSI camera interfaces and DDR3L memory up to 1867MHz. The company is also introducing the Q7-AL module based on the Qseven 2.1 specification with fast LPDDR4 memory. All new modules and boards target industrial automation, medical and infotainment applications that require compact, rugged forms factors for harsh, space constrained environments.

Finally, ADLINK's thin Mini-ITX embedded board AmITX-AL-I offers a low profile design, dual DDR3L memory up to 1867MHz, and dual BIOS and Trusted Platform Module (TPM) support. Rich graphics interfaces and I/O includes HDMI, 2x DisplayPort, LVDS/eDP (optional), 7x USB, 6x COM port, dual GbE LAN, PCIe x1, mini-PCIe, 2x SATA 3 and mSATA.

"This latest generation of the Intel® Pentium®, Intel® Celeron® and Intel® Atom™ processors offers several new high-end features that help to lower the overall expense of customer applications requiring high performance computing," said Dirk Finstel, executive vice president of ADLINK's Module Computing Product Segment. "These features include support for up to three independent 4K/UHD displays at 4096x2160@60Hz and added virtualization capabilities, as well as H.265 compression for Internet streaming, which saves bandwidth and lowers communication costs."

All new modules and boards are equipped with ADLINK's Smart Embedded Management Agent (SEMA) to provide access to detailed system activities at the device level, including temperature, voltage, power consumption and other key information, and allow operators to identify inefficiencies and malfunctions in real-time, thus preventing failures and minimizing downtime. ADLINK's SEMA-equipped devices connect seamlessly to our SEMA Cloud solution to enable remote monitoring, autonomous status analysis, custom data collection, and initiation of appropriate actions. All collected data, including sensor measurements and management commands, are accessible any place, at any time via encrypted data connection.

For more information on our new computer-on-module and embedded board offerings based on the latest Intel® Pentium® N4200 and Intel® Celeron® N3350 processors, as well as Intel® Atom™ processor E3900 series, please visit www.adlinktech.com

intel® IOT Solutions Alliance

ADLINK TECHNOLOGY INC.

TDK to Acquire InvenSense Realize New Sensor Solutions in IoT, Automotive and ICT - Total acquisition price of USD 1.3 billion

Key Transaction Highlights:

- Acquisition promotes further growth in sensor and actuator products, an important part of TDK's strategic growth plan, and will strengthen TDK's position as a stronger global player for sensor solutions.

- Transaction brings together more complete portfolio of sensor and software solutions spanning inertial, pressure, microphone and ultrasonic wave sensor products and technologies from InvenSense, with TDK's pressure, temperature, electric current and various other sensors.

- USD 13.00 per share, representing a 19.9% premium to InvenSense's closing share price on December 20, 2016 and a 52.4% premium to its 60-day volume-weighted average trading price as of December 20, 2016.

- Transaction will be financed with cash-on-hand.

TOKYO, Japan, SAN JOSE, California, U.S.A., December 21, 2016 - TDK Corporation (President and CEO: Shigenao Ishiguro, hereinafter referred to as "TDK") and InvenSense, Inc. (President and CEO: Behrooz Abdi, hereinafter referred to as "InvenSense") entered into a definitive agreement today wherein TDK agrees to acquire all of the outstanding InvenSense shares for cash at an acquisition price of USD 13.00 per InvenSense share, for a total acquisition price of USD 1.3 billion. The transaction has been unanimously approved by the Boards of Directors of both companies. Completion of the transaction is expected in second quarter of the fiscal year ending March 31, 2018, and is subject to approvals by InvenSense shareholders and the relevant regulatory authorities. The acquisition will be completed through a merger of a newly created subsidiary of TDK with and into InvenSense, with InvenSense continuing following the merger as a wholly-owned subsidiary of TDK.

TDK's current medium-term (3-year) management plan ending in March 2018 focuses on the importance of three areas: a) automotive, b) manufacturing devices and energy, and c) Information and Communications Technology (ICT). As part of its strategy for growth in these key areas, TDK has identified sensors and actuators, energy units and next-generation electronic components as three product areas for strategic growth aimed at unlocking new business opportunities in the fields of Internet of Things (IoT). Sensors are viewed as an important IoT-enabling technology and TDK envisions greatly expanding this portion of its business and providing a broad range of sensor solutions to its customers. TDK currently sells magnetic sensors that employ thin-film magnetic technology, which TDK has accumulated through its endeavors with hard disk drive (HDD) solutions over many years. Further, TDK's product line includes pressure, temperature, electric current, and various other sensor types, and TDK plans to expand its sensor business going forward.

Through the acquisition of InvenSense, TDK will be able to strengthen its product line-ups and technologies, which is expected to enable the combined company to become a stronger player in broad based sensor solutions for IoT, automotive and ICT by accelerating the sensor product roadmap to offer innovative next generation products and platforms. In addition, sensor fusion, the combination of various sensor technologies and software creates products with enhanced value solutions for customers across multiple fields.

InvenSense is a world forerunner in motion sensor solutions, known mostly for its flagship six-axis and nine-axis motion sensors, which are used in some of the world's most advanced consumer products and applications. In recent years its portfolio has expanded with additional solutions for inertial, environmental, microphone, and ultrasonic sensors. InvenSense's "fabless" manufacturing model enables development of high-performance and cost effective products via its **unique CMOS-MEMS production process**. Enhanced by its value-added software solutions, InvenSense has expanded rapidly to become a worldwide strong player in sensors for consumer devices including smartphones, drones, wearables, gaming, inertial navigation, and both optical and electronic image stabilization for cameras.

Looking ahead, growth avenues beyond mobile include large addressable opportunities in the fields of IoT, automotive, and industrial, driven by increasing consumer demand of indoor navigation, Virtual Reality (VR), Augmented Reality (AR), and Advanced Driver Assistance Systems (ADAS).

... to next page

TDK to Acquire InvenSense Realize New Sensor Solutions in IoT, Automotive and ICT - Total acquisition price of USD 1.3 billion

... from previous page

The acquisition will enable TDK to combine InvenSense's advanced suite of sensor and software platforms with its wide-ranging portfolio of magnetic, pressure, temperature, and microphone sensors. In addition, sensor fusion, combining various types of technologies and product line-up, creates products with high added value. Sensor fusion combines multiple sensors and software solutions that enables TDK to expand its business in the three key areas and further strengthening of its position as a global player in the sensor business, which is one of TDK's strategic growth products.

In January 2016, **TDK established a joint venture with Qualcomm Incorporated, called RF360 Holdings Singapore PTE, Ltd.,** and has also entered into agreements to expand technical cooperation in a wide range of fields including passive components, batteries, wireless power transfer, sensors, MEMS and various other next-generation technologies for mobile communications, IoT, and automotive. This joint venture presents an exciting opportunity for InvenSense to expand its customer base in ICT (Information and Communications Technology), IoT and automotive areas while enabling InvenSense to provide sensor solutions with increased synergies.

As the fields of ICT, automotive and industrial experiences growing demand for sensors, TDK, together with InvenSense, expect to provide unique products and sensor expertise across sales channels and a global customer base that TDK and InvenSense have each cultivated over several years. TDK and InvenSense are resolved to exhibit the same level of commitment to providing customers with quality, expert solutions and customer service as a combined company.

TDK's President and CEO, Mr. Shigenao Ishiguro, made the following statement regarding the acquisition:

"TDK's sensor business, one of its strategic growth areas, can be strengthened by merging TDK's portfolio of magnetic sensor technologies (where its strength lies) and its wide range of sensor products with InvenSense's expanding sensor technology. This acquisition is a fundamental element in TDK's strategy to provide unique and high-value-added products and services in IoT. We aim to become a strong player in the sensor business with InvenSense as our perfect partner."

InvenSense's President and CEO Behrooz Abdi made the following comment:

"This is an exciting day for InvenSense as our proposed acquisition by TDK represents what we view as a compelling win for InvenSense's shareholders, customers and employees. TDK understands the value of InvenSense's suite of sensor and software platforms. This merger is the culmination of years of innovation and execution by our world-class employees. Together with TDK, we see a bright future that leverages our commitment to innovation with TDK's scale, significant partner relationships and distribution channel. Our strategic goals are aligned, and we are confident that together with TDK we will accelerate our roadmap to provide next-generation sensor technologies in key fields for the world's most innovative companies."

In connection with the acquisition, BofA Merrill Lynch is acting as TDK's exclusive financial advisor and Jones Day is acting as legal counsel to TDK. Qatalyst Partners is acting as exclusive financial advisor and Pillsbury Winthrop Shaw Pittman LLP is acting as legal counsel to InvenSense.

MORE (and source):
http://www.global.tdk.com/news_center/press/201612212610.htm

GE simplifies IIoT with an 'app store' approach

TBR SPECIAL REPORT
GE Digital declares the app store of industry open for business

GE Digital, the software and services division of industrial giant General Electric (GE), is taking an app-store-like approach to help industrial companies take concrete steps to implement Industrial Internet of Things (IIoT) and position for broader digital industrial transformation.
GE Digital intends to enable a diverse ecosystem of first- and third-party applications and services — all accessible via GE's Predix.io community and supported by its **Predix platform** — to encourage efficiency in business operations and identify new business opportunities. This app-store-like approach, unveiled at GE's Minds + Machines conference in late November, will provide a rich collection of components to simplify the rollout of IIoT to company assets. Employees will then be able to focus on the benefits of greater access to data, optimizing business operations and creating new revenue, rather than managing technology.
The GE Internet of Things (IoT) division furthers adoption of GE's IIoT apps and services, backed by the Predix IIoT platform, to clear the way for the first wave of mass digital transformation among industrial companies. As a result, improved costs and increased revenue opportunities will bring measurable changes to industries. For example, sustainable energy could compete with old-world technology.
The change is enabled by the implementation of an underlying continuous feedback loop for physical assets, which increases the efficiency of business operations and informs business decisions on tactics and even go-to-market strategy. For example, in sustainable energy GE enables greater wind turbine effectiveness — achieved through mechanical efficiency and optimization of settings — and more opportunistic selling of power on the open market, through predictive modeling of the asset and the market — achieved via its ability to collect data directly from a wind turbine and then apply **machine learning, artificial intelligence** and model it out. The machines, in this case, make people a lot smarter about business and operations.

Download the Report: Click Here
by:John Spooner, Director IoT Practice

Qualcomm Snapdragon 600E and 410E Designed for Embedded Computing, Internet of Things Applications Now Widely Available

Powerful, Energy-Efficient Qualcomm® Snapdragon™ Processors for Embedded Devices Now Available Through Third-Party Distribution With Long-Term Support and Availability

Qualcomm Incorporated (NASDAQ: QCOM)--Sep 29, 2016--SAN DIEGO--today announced that its subsidiary, Qualcomm Technologies, Inc., is introducing the Snapdragon 600E and 410E processors, for embedded applications in many verticals such as digital signage, set-top-boxes, medical imaging, point of sale systems, industrial robotics, and other Internet of Things (IoT) related applications. Qualcomm Technologies has utilized its mobile investment in Snapdragon processors to introduce solutions for product categories beyond smartphones. The Snapdragon 600E and 410E are being made available globally by third party distributors, initially through Arrow Electronics, for a minimum of 10 years from the Snapdragon 600 and Snapdragon 400 (respectively) product families' first commercial sampling. This is the first time stand-alone Snapdragon processors are available by distributors, making them accessible in a variety of quantities to manufacturers of all sizes for embedded computing and IoT products.

"Snapdragon is a powerful and versatile processor with many potential applications in a wide variety of IoT applications and we can now offer this technology to a much wider range of customers with the additional benefit of long-term support and availability," said Raj Talluri, senior vice president, product management, Qualcomm Technologies, Inc. "The Snapdragon 600E and 410E bring together some of our best connectivity and compute technologies to meet the needs for a large range of embedded and IoT applications."

The Snapdragon 600E featuring 1.5GHz quad-core Qualcomm® Krait™ 300 CPU is the ideal processor for building advanced systems with multi-core performance and immersive 3D graphics, thanks to the Qualcomm® Adreno™ 320 GPU and Qualcomm® Hexagon™ DSP. It supports integrated Bluetooth 4.0/LE & 3.x, 802.11 a/b/g/n/ac & GPS for connected applications. It is also highly expandable for a variety of use cases with SATA, SD3.0, DDR memory, eMMC storage, HDMI, LVDS, HSIC, & PCIe interfaces.

The Snapdragon 410E 1.2GHz quad-core processor offers high performance, low power consumption and rich multimedia with an Adreno 306 GPU and Hexagon DSP. It supports Bluetooth 4.1/LE, 802.11 b/g/n and GPS, making it ideal for IoT use cases in smart homes, digital signage, medical equipment, industrial automation, digital media players and smart surveillance.

"The introduction of Snapdragon 600E and 410E offers a broad range of product options," said David West, senior vice president, Arrow Electronics. "Arrow looks forward to offering Qualcomm Technologies' Snapdragon processors and complementing them with the full range of parts and engineering services we can offer to help customers through commercialization."

With its expertise in connectivity and compute, Qualcomm Technologies is well positioned to deliver the technologies needed in IoT, and has already brought Snapdragon embedded solutions to products as diverse as the Fujifilm Sonosite portable iViz ultrasound system and the Open-Q 410 Wearable Camera Reference Design from Intrinsyc targeting first responder use cases. More information: https://www.qualcomm.com/products/snapdragon/embedded-computing

Mesh Networking Module from Silicon Labs Simplifies Thread and ZigBee Connectivity

MGM111 Mighty Gecko Module with Best-in-Class Wireless Stacks and Software Tools Helps Developers Get to Market Quickly

[+] Enlarge Picture

AUSTIN, Texas--(BUSINESS WIRE)--Sep 28, 2016--Silicon Labs (NASDAQ: SLAB) has introduced a new family of Wireless Gecko modules focused on mesh networking applications with support for best-in-class ZigBee® and Thread software. Silicon Labs' new MGM111 module is the first in this comprehensive family of multiprotocol modules based on the Mighty Gecko system-on-chip (SoC) device. The MGM111 module is supported by Silicon Labs' reliable, secure and flexible mesh protocol stacks and the industry's most advanced wireless software development tools. The module's combination of onboard stacks, antenna options and RF regulatory certifications helps developers reduce cost, complexity and time to market for an array of mesh networking applications including home and building automation, connected lighting, smart metering, security systems and other IoT platforms.

Get all the details about Silicon Labs' MGM111 Mighty Gecko module including pricing and availability, protocol stacks, development tools, technical specifications and worldwide certifications at www.silabs.com/mightygeckomodule

SILICON LABS

Gemalto enters IoT alliance with Huawei

December 08, 2016 TA http://www.telecomasia.net/

Gemalto has teamed up with Huawei to integrate its LinqUs On-Demand Connectivity (ODC) solution with Huawei's OceanConnect IoT platform.

Under an agreement signed at Huawei Connect Europe 2016, the companies agreed to collaborate to realize the IoT visions of each company. Through integration with LinqUs, Huawei's customers and partners will be able to connect to any mobile operator of their choice, anytime and anywhere in the world.
This partnership will help accelerate service rollout, reduce integration cost, and increase revenue for businesses looking to adopt enterprise or consumer IoT applications, such as those used in smart cities, connected cars, and intelligent homes.

Gartner predicts that the IoT ecosystem is growing by leaps and bounds, with 6.4 billion objects to be connected in 2016, and hitting 20.8 billion in 2020. On 1st September, 2016, Huawei launched its OceanConnect IoT platform and is now poised to contribute to this ever-growing trend.

"Huawei is accelerating growth at full throttle in the cloud and IoT space. We have innovated and adopted various IoT solutions for multiple sectors, including smart homes, automotive, public utilities as well as oil and gas energy," said Zhang Qin, President of Huawei Cloud Core Network Marketing Execution at Huawei.
"With Gemalto's LinqUs On-Demand Connectivity integrated to Huawei's OceanConnect IoT platform, we will be able to fulfill the commitment of providing flexible, scalable IoT services to all our customers worldwide."
"Similar to Huawei, IoT is one of Gemalto's top priorities as we move further into the digital age. We believe the partnership will open a new chapter of close collaboration and knowledge exchange between the two companies," said Suzanne Tong-Li, President, Greater China & Korea at Gemalto.

IoT sensor market on track to reach $38b by 2022

... says TA September 21, 2016 http://www.telecomasia.net/

The global IoT sensors market is on track to grow at a CAGR of 42% between this year and 2022, reaching $38.41 billion, according to Research and Markets.

Growth is being propelled by the development of cheaper, smarter, and smaller sensors, the expanding market for smart devices and wearables, the need for real-time computing of applications, and increase in demand for IoT sensors in various applications.

The market is further being driven by supportive government initiatives, deployment of IPv6, and the emerging sensor fusion concept in the IoT sensors market.

Gyroscopes are increasingly being used in various industries such as automotive, industrial, healthcare and consumer electronics sectors. The gyroscopes are very reliable sensors and provide accurate information about the product. This sensor is an important tool in portable instruments as it allows a device's motion to be tracked independently of GPS or other external location measurements.

Asia Pacific is expected to be the fastest-growing market for IoT sensors. The region is a major market for various sectors such as consumer electronics devices and appliances, automobiles and healthcare, among others.

Qualcomm to support Google's Android Thing IoT platform

Fiona Chau - December 19, 2016 - TA http://www.telecomasia.net/

Qualcomm announced that it plans to work with Google to add support for the search giant's new IoT operating system, Android Things, in its Snapdragon processors.

In a statement released Wednesday, Qualcomm said the collaboration with Google will focus on developing both "consumer and industrial applications" and the initiative would help a vast number of developers participate in the IoT opportunity.

Although Android Things is currently in a developer preview stage, Qualcomm noted the platform is expected to be released more broadly on Snapdragon processors next year.

In a blog post on the Android Developers' Blog, Google said Android Things incorporates feedback received on its Project Brillo IoT OS and will include tools such as Android Studio, the Android Software Development Kit, Google Play Services, and Google Cloud Platform.

Google will also offer Developer Preview updates in the coming months to provide the infrastructure necessary to securely push OS patches, security fixes, a developer's own updates, built-in Weave connectivity and more, the search giant added. Google is also updating its IoT communication platform Weave to help facilitate cloud connectivity for all types of devices so they can interact with services like Google's Assistant.
"This is just the beginning of the IoT ecosystem we want to build with you," Google developer advocate Wayne Piekarski wrote in the blog post.

NXP Introduces Industry's Lowest Power ARM Cortex-A7 Based Processor to Fuel Growth of the Internet of Things

New addition to the successful i.MX 6 series provides exceptional power and performance features at breakthrough prices

SHENZHEN, China, Sept. 26, 2016 (GLOBE NEWSWIRE) -- (NXP FTF CHINA) -- At NXP FTF China today, NXP Semiconductors N.V. (NASDAQ:NXPI), officially announced the i.MX 6ULL applications processor which delivers up to 30 percent more power efficiency than its nearest competitors. The i.MX 6ULL was specifically designed for value-conscious engineers and developers working on cost-effective solutions for the growing IoT consumer and industrial, mass markets. The processor features secure encryption, advanced implementation of a single ARM® Cortex®-A7 core, provides various memory interfaces and includes an integrated power management module to reduce complexity.

"i.MX 6ULL maximizes cost efficiency, ease of use and low power – all of which are essential for innovative Internet of Things applications," said Geoff Lees, senior vice president and general manager of the microcontroller business line at NXP. "The combination of better performance with aggressive pricing allows customers to deliver better digital interface experiences."

i.MX 6ULL Features

This latest addition to the i.MX 6 series introduces a single Cortex-A7 processor core running up to 528 MHz with 128 KB of L2 cache and 16-bit DDR3/LPDDR2 support. Its integrated power management, security unit and wide range of connectivity interfaces, provides new ways to address performance scalability and low power for secure IoT applications. The i.MX 6ULL processor has compatible and scalable package options including the **14 x 14mm**, ideal for simple and low-cost PCB design, and the **9 x 9mm**, offering a smaller form factor for space-constrained applications.

"This product provides a natural upgrade from the previous ARM7 and ARM9 based architecture to a more power efficient, Cortex-A class core," said George Zhou, President of ZLG Electronics Corporation. "The feature set, price point and power efficiency of i.MX 6ULL will enable us to develop the next generation smart grid monitoring system for all of China."

Pricing and Availability

The i.MX 6ULL applications processor will start at $3.50 USD in 10,000 unit quantities. The i.MX 6ULL applications processor is sampling now and is expected to be in full production in October 2016 along with the GA release of the Linux BSP. The i.MX 6ULL processor is supported by the i.MX 6ULL evaluation kit that includes a CPU module and a base board. A training class and demonstration of the i.MX 6ULL processor and EVK will be given during NXP FTF China. For more information, please visit www.nxp.com/iMX6ULL

i.MX 6 Series Applications Processors

The i.MX 6 series of applications processors is a feature and performance scalable multicore platform that includes single-, dual- and quad-core families based on the ARM® Cortex® architecture, including Cortex-A9, combined Cortex-A9 + Cortex-M4 and Cortex-A7 based solutions up to 1.2 Ghz.
The series combines broad levels of integration and power-efficient processing capabilities all the way up to 3D and 2D graphics, as well as high-definition video and targets consumer, industrial and automotive applications.

MCIMX6ULL-EVK: Evaluation kit for the i.MX 6ULL Applications Processor

About NXP

NXP Semiconductors N.V. (NASDAQ:NXPI) enables secure connections and infrastructure for a smarter world, advancing solutions that make lives easier, better and safer. As the world leader in secure connectivity solutions for embedded applications, NXP is driving innovation in the secure connected vehicle, end-to-end security & privacy and smart connected solutions markets. Built on more than 60 years of combined experience and expertise, the company has 44,000 employees in more than 35 countries and posted revenue of $6.1 billion in 2015. **Find out more a**t www.nxp.com

Three operator IoT strategies emerging, Vodafone still top of the pile

Reported by: European Communications

An annual benchmark of IoT capabilities has shown that Vodafone has maintained its position as the leading operator in the field, but that strategies are starting to diversify.

Machina Research ranks operators for their ability to take advantage of the global IoT market opportunity, which last month it forecast to hit $3 trillion in 2025.

Vodafone leads the field ahead of AT&T, Verizon, Deutsche Telekom, Sprint/Softbank, Telefonica, Orange and Telenor.

The research firm said all of the operators continue to look at ways to move up the value chain and sell more than just connectivity.

This requires them to offer solutions that are "end-to-end" and come up with services such as security, analytics, data storage and brokerage, business consulting and systems integration.

As operators invest heavily in their IoT businesses to achieve this goal and chase revenues, three distinct strategies are emerging.

Some, like Verizon, are focusing on offerings through verticals, while others, such as Tele2, major on horizontal connectivity and associated services.

Some smaller operators, meanwhile, are "surrendering" control over their IoT roadmaps to a third party, such as another operator or an MVNO.

Machina Research's Godfrey Chua said: "[Operators] are investing billions into technology and capabilities that enable them to take sales conversations beyond connectivity into discussions that focus on solutions that solve customer business problems.

"Global leaders like Vodafone, AT&T and other top tier global players are doing this and as a consequence starting to capture a greater portion of the IoT opportunity.

"They are certainly early in this journey, however the potential is huge and can mean as much as ten-times greater revenue capture in IoT than what connectivity alone would deliver.

"What will be critical for operators to consider is finding that right balance between vertical and horizontal approaches, as well as the key areas, be it a specific vertical or service segment, to focus their finite resources on.

"At the end of the day, one-size does not fit all when it comes to [operator] strategy in IoT.

"Market conditions, geographic scope and scale of operations, and investment and risk appetite are among the key factors CSPs should take into consideration."

Please visit http://eurocomms.com/ for more news

Akamai Acquires Data Processing Provider Concord

CAMBRIDGE, Mass., Sept. 28, 2016 /PRNewswire/ -- Akamai Technologies, Inc. (NASDAQ: AKAM) announced today that it has acquired Concord Systems, Inc., a provider of technology for the high performance processing of data at scale, in an all cash transaction. The acquisition is expected to complement Akamai's existing platform data processing capabilities and augment the Company's **product roadmap for supporting customers leveraging Internet of Things (IoT) technologies.**

Data collection and processing from many sources back to an origin requires scale and reliability across the Internet. Concord software provides a unique framework for data aggregation, filtering, and analysis of highly-distributed big data use cases.

"Concord brings a fresh, innovative and modern approach to some of the challenges and hard problems related to processing big data," said Ash Kulkarni, senior vice president of Akamai's Web Experience Division. "Their team has developed critical software that enables the dynamic deployment of customer logic at scale. Together, their expertise will be a strong complement to Akamai, and we believe their technology is applicable across a number of different use cases."

Concord Systems, headquartered in New York City and established in 2014, is a privately-funded company. The acquisition is not material to Akamai's financials.

About Akamai®
As the global leader in Content Delivery Network (CDN) services, Akamai makes the Internet fast, reliable and secure for its customers. The company's advanced web performance, mobile performance, cloud security and media delivery solutions are revolutionizing how businesses optimize consumer, enterprise and entertainment experiences for any device, anywhere. **MORE:** www.akamai.com

SAP IoT Connects the World to Enable Live Business

September 28, 2016 by SAP News

WALLDORF — SAP SE (NYSE: SAP) today announced investment plans of €2 billion over five years to help business and government entities benefit from the proliferation of sensors, smart devices and Big Data that is transforming business with the Internet of Things (IoT).

SAP Announces €2 Billion Investment Plan, New Innovations, Acquisitions and Network of SAP IoT Labs to Unlock Next Wave of Value from the Internet of Things

SAP plans to accelerate innovation in its IoT solution portfolio, increase sales and marketing, scale service, support and co-innovation, and grow its ecosystem of partners and startups in the IoT market, which is estimated to reach €250 billion by 2020.

"With billions of connected devices, we now have the potential to reshape society, the economy and the environment," said Bill McDermott, CEO of SAP. "SAP HANA is the data platform we knew would unlock the Internet of Things. Today SAP is making another bold investment to help our customers seize the benefits of live business. Only SAP empowers businesses to innovate from the core to the edges to the networks."

SAP IoT: From Information to Insights, Action and Live Business
While business and public sector entities have unprecedented access to more information and real-time feeds, they still have difficulty tying it all together across operating locations, business units and functional teams. SAP IoT aims to make sense of Big Data from the multitude of things through IoT solutions that apply machine learning and integrate with the core business applications of SAP S/4HANA. SAP IoT includes solutions connecting people, partners, things and the physical environment, enabling organizations to extend and enrich business processes with real-time, live intelligence so that they can see where opportunities exist, achieve new operational efficiencies, and reimagine business models, products and services to deliver more immediate customer and stakeholder value. SAP IoT seeks to enable connected business and connected society, addressing urban and rural areas and spanning agribusiness, infrastructure and energy, health, defense, manufacturing, consumer and transportation industries.

Innovation in New Solutions: Industry 4.0 Solution Packages
SAP is introducing Industry 4.0 packages that feature IoT solutions to enable customers' digital business strategies. The jump-start package is designed to initiate operational and business system connectivity as a foundation to monitor equipment effectiveness and provide insight into shop floor operations. The accelerator package also has this functionality, and adds an automated, paperless, manufacturing execution and control environment by supporting manufacturing planning and execution, performance analytics and advanced plant maintenance. Both packages are complemented by the SAP Distributed Manufacturing application for additive manufacturing 3D printing services. The jump-start and accelerator packages are available immediately. SAP plans to introduce the third Industry 4.0 solution package, the "advanced" package, at a later date to provide advanced manufacturing insight and controls, machine learning functionality and predictive analysis for quality and maintenance operations. SAP also plans IoT package solutions to address the unique digital operations of cities, agriculture and energy industries.

Innovation in the IoT: PLAT.ONE, Fedem
SAP IoT provides a comprehensive, integrated technology stack from connectors to the IoT foundation and applications, business network and business process layer, enhanced by machine learning and predictive analytics. SAP has acquired PLAT.ONE, an enterprise-grade IoT provider that simplifies the process of creating, deploying and managing complex IoT solutions. Founded in northern Italy, PLAT.ONE provides expertise and technology to accelerate the availability of key IoT capabilities in SAP HANA Cloud Platform, such as advanced lifecycle management for IoT devices, broad device connectivity, strong IoT edge capabilities that work seamlessly with a cloud back end, end-to-end role-based security and rapid development tools for IoT applications.
SAP has also recently **acquired Fedem Technology**, a Norwegian company specializing in advanced engineering analysis and building software for multibody dynamic simulation and lifetime calculation of structures and mechanical systems under the influence of complex loads. With this acquisition SAP plans to build an end-to-end IoT solution in which a digital avatar continuously represents the state of operating assets through feeds from sensors, replacing the need for physical inspection with a "digital inspection." Additionally, the solution is intended to consider complex forces in play and detect both instantaneous consequences of one-off events and long-term health effects of cyclic loads, making possible accurate monitoring of maintenance requirements and remaining-life prediction for assets.

SAP IoT Labs: Enabling Global IoT Transformation Across the Globe
SAP plans to establish locations around the world to collaborate on Industry 4.0 and the IoT with customers, partners and startups. SAP IoT labs are intended as lighthouse locations and primary access points for IoT research, development, proof-of-concept modeling and incubation, with IoT showcases, thought leadership, expertise and infrastructure for strategy and product co-innovation. SAP plans to increase investment in consulting and knowledge transfers with dedicated innovation adoption consulting and IoT universities at the sites. Planned locations include Berlin, Johannesburg, Munich, Palo Alto, São Leopoldo and Shanghai, with SAP and partner experts in areas of specific IoT focus native to each region, such as Industry 4.0, logistics, cities and digital farming. The labs are intended to provide customers with access to co-innovation resources including design thinking experts and workshops, and interactive demos of IoT-related technology including autonomous systems (such as drones and robotics), IoT security, machine learning and 3D printing.

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