

# SESSIONS

2018 AGENDA AT A GLANCE -

Internet of Things World 2019 | World's Largest IoT Conference & Expo

May 13 - 16, 2019  
Santa Clara Convention Center  
CA, USA

## Monday, May 14: Pre-Conference Workshops

9:30am - 5:30pm

9.30 am - 5.30 pm: [AI for the Internet of Things Workshop](#) (Ajit Jaokar, Author & Data Scientist, Futuretext)

9.30 am - 5.30 pm: [Blockchain Technology & Application Workshop](#) (Jean-Luc Verhelst, author of Bitcoin - The Blockchain and Beyond)

9.30 am - 5.30 pm: [Project Kairos Founders Day](#) (Startup Focus)

9.30 am - 5.30 pm: [Eclipse IoT Developers Day](#) (Hosted by Eclipse IoT)

9.30 am - 5.30 pm: [IoT in the Channel](#) (Hosted by Channel Partners)

9.30 am - 5.30 pm: [IoT Saving Lives - IoT for the First Responder](#) (Hosted by IWCE)

[VIEW THE FULL DAY AGENDA](#)

## Tuesday, May 15: Executive Keynote Day

7:30am - 9:00pm

8.30 am - 8.40 am **Pre-Keynote Briefing:** IoT in Asia - the Calm Before the Storm

8.40 am - 4.00 pm **Executive Keynotes:**

- Avnet
- Boeing
- Software AG
- UPS
- Verizon
- Microsoft
- SAP
- The US Smart Cities Challenge Panel
- Real Life-Saving Lessons on how IoT aided Natural Disaster Warning & Recovery Panel
- ST Microelectronics
- Itron
- NIST
- IoT Security Panel
- T-Mobile

4.00 pm - 6.00 pm Expo Opens & Drinks Reception

6.00 pm - 9.00 pm VIP Party at Levi's Stadium (VIPs & Speakers Only)

[VIEW THE FULL DAY AGENDA](#)

## Wednesday, May 16: Keynotes & 10 Conference Tracks

7:30am - 9:00pm

7.30 am - 8.30 am **Analyst Breakfast Briefings:** Ovum, IHS Markit, Harbor Research, Compass Intelligence

8.30 am - 10.30 am **Keynotes:** OVG Real Estate, Itron, Mastercard, Google Cloud, IT & OT in IoT Deployments Panel

### Conference Tracks:

11.30 am - 5.00 pm **Track 1: LeadersIn IoT (CxO invite only)**

11.30 am - 5.00 pm **Track 2: Industrial & Manufacturing**

11.30 am - 5.00 pm **Track 3: Smart Cities**

11.30 am - 5.00 pm **Track 4: Energy & Utilities**

11.30 am - 5.00 pm **Track 5: Smart Home**

11.30 am - 5.00 pm **Track 6: Smart Construction**

11.30 am - 5.00 pm **Track 7: Data Infrastructure II - Edge Computing**

11.30 am - 5.00 pm **Track 8: Developers Conference - Build & Deploy I**

11.30 am - 5.00 pm **Track 9: Developers Conference - Data, Security & AI**

9.00 am - 5.00 pm **Track 10: Co-located Event: Connected & Autonomous Vehicles**

6.00 pm - 9.00 pm **Networking Party at the Hyatt Pool**

### Expo Hall:

10.00 am - 6.00 pm **Exhibition Open Hours**

10.30 am - 5.30 pm **Ecosystem Stage** (Free to attend)

10.30 am - 5.30 pm **Futurist Stage** (Free to attend)

10.30 am - 5.30 pm **Project Kairos Start Up Pitch-Off Stage** (Free to attend)

9.00 am - 6.00 pm **Hackathon** Sponsored by Google Cloud

[VIEW THE FULL DAY AGENDA](#)

## Thursday, May 17: Keynotes & 10 Conference Tracks

7:30am - 5:30pm

7.30 am - 8.30 am **Analyst Breakfast Briefings:** Tractica, IHS Markit, James Brehm & Associates, RVA

8.30 am - 10.30 am **Keynotes:** Kroger, Sutter Health, Avnet, IoT in Banking Panel, Sanmina, Developing the IoT Workforce Panel

### Conference Tracks:

11.30 am - 5.00 pm **Track 1: LeadersIn IoT (CxO invite only)**

11.30 am - 5.00 pm **Track 2: Industrial & Manufacturing**

11.30 am - 5.00 pm **Track 3: Smart Cities**

11.30 am - 5.00 pm **Track 4: Energy & Utilities**

11.30 am - 5.00 pm **Track 5: Smart Home**

11.30 am - 5.00 pm **Track 6: Smart Buildings**

11.30 am - 5.00 pm **Track 7: Data Infrastructure II - Mobile IoT**

11.30 am - 5.00 pm **Track 8: Developers Conference - Build & Deploy II**

11.30 am - 5.00 pm **Track 9: Developers Conference - Connectivity & Networking**

9.00 am - 5.00 pm **Track 10: Co-located Event: Connected & Autonomous Vehicles**

### Expo Hall:

10.00 am - 4.00 pm **Exhibition Open Hours**

10.30 am - 4.00 pm **Ecosystem Stage** (Free to attend)

10.30 am - 4.00 pm **Futurist Stage** (Free to attend)

10.30 am - 4.00 pm **Project Kairos Start Up Pitch-Off Stage** (Free to attend)

9.00 am - 3.00 pm **Hackathon** Sponsored by Google Cloud

[VIEW THE FULL DAY AGENDA](#)

# SCHEDULE

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TIME	
9:00AM	9:30am - Monday, May 14: Pre-Conference Workshops
8:00AM	
7:00AM	7:30am - Tuesday, May 15: Executive Keynote Day 7:30am - Wednesday, May 16: Keynotes & 10 Conference Tracks 7:30am - Thursday, May 17: Keynotes & 10 Conference Tracks

## Blockchain: Technology & Applications

9:30am - 5:00pm

Workshop : Blockchain Technology & Applications

### COURSE OVERVIEW:

The invention of the blockchain is democratising trust by creating open, distributed databases where consensus is the product of the decentralised participation of nodes anywhere on the Internet.

This workshop takes a high-level look at the concept of a blockchain, explores in detail how a blockchain works to provide the trust at the heart of a digital ledger in the case of a digital currency, considers the introduction of smart contracts as an innovation on the blockchain and explores a diverse set of real-world scenarios where blockchain and smart contract adoption is being explored. Finally, the leading commercially applicable blockchain platforms and possible applications thereof are explored.

### WHAT WILL YOU LEARN:

- Effectively engage with the concept of a blockchain and the disruptive potential thereof
- Consider the blockchain as a distributed ledger behind a digital currency like Bitcoin
- Understand the role of cryptography in securing blockchain implementation
- Effectively discuss and debate the blockchain and its disruptive potential in the context of your organisation and industry
- Explore several real-world scenarios where blockchains, smart contracts or other technology derived from blockchains is being explored or has already been implemented
- Consider the leading commercial blockchain solutions and be able to select and motivate for the platform most applicable to your industry and organisation
- Consider the introduction of a blockchain project in your organisation to empower your teams to better explore the disruptive potential

Location: Grand Ballroom C

### Participants

**Jean-Luc Verhelst** - author, Bitcoin - The Blockchain and Beyond

## AI for the Internet of Things

9:30am - 5:00pm

Workshop : AI for the Internet of Things

Aimed at technology conversant executives and senior managers, this workshop explores AI and how it should be applied to IoT. The workshop takes a use case driven approach i.e. examples of how AI is being applied for IoT datasets and how processes and value chains could change as a result of doing so

### Concepts

What is Machine Learning, Deep Learning and AI

Understanding is IoT from a Data Science perspective

The end to end flow of data for an IoT application

The role of AI and Machine Learning in IoT

Digital Twin and AI

### Data Science for IoT – A black box approach

- Taking a black box approach
- What is the current state of the art of prediction?
- Core elements: time series and image detection
- Deep learning applied to IoT: LSTMs modelling
- Time series analysis (mono and Multivariate)

### Technical Considerations for AI and IoT

Feature engineering for IoT datasets

Edge computing

Complex event processing

Streaming analytics

### Problem solving for IoT

Overview of the problem solving approach

An end to end problem solving approach for AI and IoT problems

### Deployment considerations

Data Ingestion requirements and a comparison of Data ingestion frameworks

Example: IoT Data ingestion with Kafka

Architecture concepts and tools (lambda, edge, nosql, streaming, data lake, etc.)

Deployment considerations: DevOps in DSIIOT, microservices, containers, etc.

Distributed models

Hardware acceleration

### Implementation use cases

Consumer IoT vs. Industrial IoT

Industrial IoT

Enterprise AI

Location: Grand Ballroom D

### Participants

**Ajit Jaokar** - Author & Data Scientist, Futuretext

# SESSIONS

IoT WORLD PRE-CONFERENCE DAY - 14/  
05/2018

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## Project Kairos: Startup Founders' Day

9:30am - 5:00pm

Workshop: Startups - Project Kairos Founders' Day

An exclusive day for founders to network with their peers and investors.

Investors, startup accelerators, and successful entrepreneurs will share their experiences and deliver actionable advice on how to maximize a startup's success.

Invitation to attend included in the Project Kairos Startup Pack, or through standard registration - subject to qualification.

WHAT YOU WILL LEARN:

Below is a sampling of discussion topics moderated by our Chairman *Gerard van der Hoeven, Managing Partner, DigiGurus*:

- **9:30am Chairman's Opening Remarks**
- *Gerard van der Hoeven, Managing Partner, DigiGurus*
  
- **9:40am How has the 2017 winner of the Innovation of Things Award Reality AI grown over the last year**
- *Nalin Balan, Director Business Development, Reality AI*
  - Challenges and pitfalls
  - Successes
  - Plans for continued growth
  
- **10:10am The Most Common 4 Mistakes of Going Global**
- *Philippe Cases, CEO, ReadWrite; Kyle Ellicott, Founder, Chief Labs Officer, ReadWrite*
  - "One size fits all": Technology is global but products are local. In a very few cases, one product is going to be adapted to another market without major changes in addition to localization needs.
  - "Going Global to Be Global": Increases the complexity of a business by an order of magnitude
  - "Being Overconfident": Penetrating a new market requires opportunities. You may not be successful in another market simply because you have been successful in one. You need a key to penetrate the market.
  - "Robbing Peter to Pay Paul": Pay attention to your existing markets and make sure those businesses are funded and staffed properly.
  
- **10:40 - 11:40am Networking Coffee Break**
  
- **11:40am Avoiding the "Wrong" Paid Pilot**
- *Matt Oberdorfer, Chief Technology Officer, Executive Ventures*

- Great! You have a pilot paid for by your customer and startup is validated. Nothing can go wrong now!
- But wait - your pilot is never-ending and resource devouring. Now what?
- This presentation will discuss how to spot and avoid the 'wrong' paid pilot and turn it into an actual contract with meaningful revenue.

### • 12:10 - 1:30pm Lunch

### • 1:30pm Understanding when to pivot

- *Ricardo Berrios, Managing Partner, Natural Bridges Ventures*

- How does a startup understand the different drivers in industry verticals (ex: energy vs healthcare)?
- Having a great idea isn't enough – startups need to recognize when they are focusing on the wrong vertical for their solution
- What is the best way to create a plan to determine whether or not you are in the correct vertical? How do you set your timeline and what should you complete within that time frame to make your determination

### • 2:00pm Going Public vs Being Acquired

- *Saliq Khan, Vice President, Imperial Capital LLC*
  - Cash flows, valuation, and restrictions on sales of stock
  - Using stock as currency vs mitigating market risk
  - Creating liquidity for founders, investors, and employees vs avoiding regulatory and administrative burdens (disclosures, forecasts, shareholders, analyst calls, etc)

### • 2:30 - 3:30pm Networking Coffee Break

### • 3:30pm Pitfalls to avoid for achieving success in the IoT startup landscape

- *Ilya Pavlov, Venture Partner, Bright Capital, Managing Director, Stanislavsky Ventures*
  - Everyone is the same, only different: What does it mean to be an IoT startup?
  - Creative ways to attract attention: Why just being an IoT startup is not enough to attract capital and customers

### • 4:00pm IoT Scaleup Issues and Experiences

- *Gerard van der Hoeven, Managing Partner, DigiGurus*
  - Shared experience from a scale-up CEO in IoT
  - International sales, deals and culture
  - Scaling Manufacturing

Location: Grand Ballroom F

## Participants

**Speaker: Philippe Cases** - CEO, ReadWrite

**Speaker: Kyle Ellicott** - Founder, Chief Labs Officer, ReadWrite

**Speaker: Saliq Khan** - Vice President, Imperial Capital, LLC

**Speaker: Ricardo Berrios** - Managing Partner, Natural Bridges Ventures

**Speaker: Nalin Balan** - Director Business Development, Reality AI

**Speaker: Ilya Pavlov** - Venture Partner at Bright Capital, Managing Director, Stanislavsky Ventures

**Speaker: Matt Oberdorfer** - Chief Technology Officer, Executive Ventures

**Speaker: Gerard Van Der Hoeven** - Managing Partner, DigiGurus BV

## IoT in the Channel

9:30am - 9:40am

Workshop: Channel Partners: IoT in the Channel

### Course Overview:

Millions of smart devices aren't going to distribute, connect and secure themselves. Channel partners understand how to get sensor hardware into customer sites; link it using a variety of connectivity options; and then help collect, store, secure and analyze massive amounts of data. In this IoT World Preconference Workshop, we'll present a master class on working with a variety of partners to get real-world results with IoT.

This precon will have content for suppliers looking to launch or improve their partner programs, end customers looking to understand what the channel can do for their businesses and partners who want to improve their IoT practices.

Location: Grand Ballroom E

## Participants

**Lorna Garey** - Editor in chief, Channel Partners

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## Welcome Remarks

9:30am - 9:35am

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder

In this one-day event, take a look into the vast array of the Internet of Life Saving Things that interface with public safety operations, including smart devices, applications, disaster relief, virtual reality, artificial intelligence, GIS/GPS/location services, mission-critical push-to-talk (MCPTT) and enhanced PTT over cellular (PoC), cloud computing, cybersecurity and even smart cities. Also, examine how FirstNet will interact with the IoT environment to support public safety, and discuss the operational requirements and considerations for public safety agencies as they implement IoT sensors and devices.

Location: Grand Ballroom B

## Participants

**Stephanie McCall** - Show Director, IWCE

## Welcome

9:30am - 9:40am

Workshop: Eclipse IoT Developers' Day

Location: Grand Ballroom G

## Keynote Address: Defining IoLST

9:35am - 10:00am

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder

Whether it's called the "Internet of Life Saving Things" or the "Internet of First Responders Things," gain an understanding of the devices, sensors and controls being deployed as to protect the safety of first responders, people and property.

Location: Grand Ballroom B

## Participants

**Bill Schrier** - Senior Advisor, FirstNet

## Welcome and "Channel 101"

9:40am - 10:00am

Workshop: Channel Partners: IoT in the Channel

What is the indirect ICT channel? What's the difference between a VAR, an MSP and an agent? What's the two-tier model? We'll set the foundation for the day's program.

Location: Grand Ballroom E

## Participants

**Terra Bastolich** - VP of North America, GetWireless

## Eclipse IoT for Industry 4.0

9:40am - 10:10am

Workshop: Eclipse IoT Developers' Day

An industrial environment is a perfect example of variety of data in terms of structure, volume, frequency, format, sources. Collecting data from a manufacturing area in an efficient way means to have the capability to communicate with "things", understand the content, process locally when time critical and stream the data to a storage where enterprise IT applications can transform data into information and consume it for prediction, analysis and fast decision taking.

In this talk we will present a solution deployed in a manufacturing environment using an end-to-end open source IoT integration framework (based on Eclipse IoT technologies and other open source projects), and taking into account the typical industrial constraints for protection and security. We will put a particular focus on how this has allowed us to interface with an existing IT landscape of corporate tools.

Location: Grand Ballroom G

## Participants

**Vito De Gaetano** - Industrial IoT architect, Bosch

## Session 1: Ecosystem Overview

10:00am - 10:50am

Workshop: Channel Partners: IoT in the Channel

In this session, we'll explain why partners are vital connectors between IoT vendors and their customers. We'll cover the integration and consultative capabilities partners bring to bear and address how partners make money on IoT, what they want from suppliers, and why businesses should work with them.

Location: Grand Ballroom E

## Participants

**Speaker: Colin Blair** - Vice President, Data Analytics and Internet of Things (IoT), Tech Data

## What Connectivity is Needed for True IoLST?

10:00am - 11:15am

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder

To assure that the life-saving part of IoLST is always available, your connectivity needs to be always on, always available. As we move from private, secured networks to operating over the commercially available – and very congested – Internet, the cost of dropping a call or connection is raised exponentially when dealing with life threatening situations. How do we assure that our networks and devices are always connected?

Location: Grand Ballroom B

## Participants

**Moderator: Earl Lum** - President, EJI Wireless Research

**Ben Posthuma** - Senior Solutions Engineer, Kymeta Corp.

**Joseph Sheppard** - Co-Founder, Focused Mission Inc.

**Dean Skidmore** - Principal Consultant, IoT+LTE Consulting Group, NPSTC, Vice Chair, PS IoT Workgroup

## Pushing IoT Analytics to the Edge

10:10am - 10:40am

Workshop: Eclipse IoT Developers' Day

As IoT Architectures mature and evolve the ability to both collect and analyze sensor data has become a mission critical. But forwarding all data to a central repository – be it on-premise or cloud-based – becomes more and more impractical as the number of sensors and the amount of data grow. Pushing data collection and analysis further to the edge is becoming a requirement for IoT deployments.

With most data platforms, it simply isn't practical, or even possible, to push collection AND analytics to the edge. In this talk I'll show how I've done exactly this with a combination of open source hardware – Pine64 – and open source software – InfluxDB – to build a practical, efficient and scalable data collection and analysis gateway device for IoT deployments.

Location: Grand Ballroom G

## Participants

**David Simmons** - Senior Developer Evangelist, Influx Data

### Session 2: Connectivity Overview

11:00am - 12:00pm

Workshop: Channel Partners: IoT in the Channel

Carriers including AT&T and Verizon as well as cablecos and wireless specialists like ViaSat are looking to connect a range of sensors to edge and core networks using a variety of protocols. After all, if you can't get data to an analytics engine, why bother collecting it? We'll discuss how partners set up dependable, cost-effective links and what options are available to sensor providers.

Location: Grand Ballroom E

#### Participants

**Moderator: Natasha Royer Coons** - Managing Director, TeraNova Consulting Group

**Panelist: Maureen Donovan** - EVP of Sales and Marketing, Broad Sky Networks

**Panelist: Michael Finegan** - Director of IoT Business Development, MultiTech Systems

### Remote software updates for IoT devices with Eclipse hawkBit

11:10am - 11:40am

Workshop: Eclipse IoT Developers' Day

In the past embedded software updates have often been based on custom software, but now several open source frameworks are emerging as community based software components to build configurable, scalable and robust update platforms.

This talk will show how to build a remote software update management platform to transparently manage an heterogeneous set of devices (embedded Linux and Android).

For the remote software update management platform the Eclipse hawkBit software will be presented, showing its architecture, security model and use cases.

For the IoT device hawkBit client two heterogeneous solutions will be presented: a SWUpdate based Linux client and an open source DDI service Android app. The SWUpdate Linux client will be configured in a two phase Android-style approach separating the installation of the update files in a single purpose recovery OS.

Location: Grand Ballroom G

#### Participants

**Nicola La Gloria** - Co-founder and CEO, Kynetics

### Networking with Sponsors

11:15am - 11:30am

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder

### The Internet of Life Saving Things Ecosystem

11:30am - 12:40pm

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder

The expansion of Internet of Things into the world of public safety offers opportunities but also creates challenges. Explore the sensors and devices, location services, applications and analytics, that will create the ecosystem of IoLST, and of course the way the Internet changes how they interact. Examine all the "things" that can - and will be - connected that may lead to life-saving technological advancements, and examine the concerns that arise when you rely on machines for life care.

Location: Grand Ballroom B

#### Participants

**Moderator: Ray Lehr** - Senior Consultant, The Lafayette Group

**Panelist: Victoria Lee** - Vice President, The Public Safety Network, LLC

**Panelist: Kevin McGinnis** - Communications Technology Advisor, National Association of State EMS Officials (NASEMSO)

**Ben Posthuma** - Senior Solutions Engineer, Kymeta Corp.

### Where Next for MQTT?

11:50am - 12:20pm

Workshop: Eclipse IoT Developers' Day

The OASIS standardization process for MQTT 5.0, the follow on to 3.1.1, is coming to an end. I will describe the improvements that have been made between these versions, illustrated with the implementations that already exist in the Eclipse Paho project.

I will show how you can experiment with MQTT 5.0 right now, and how it can be used in your IoT projects. I will also touch on the work we have done in Paho, and are considering in OASIS, to apply MQTT to non TCP transports, based on IBM's existing MQTT-SN specification.

Location: Grand Ballroom G

#### Participants

**Ian Craggs** - Software Engineer, UK

### Networking Lunch

12:00pm - 1:00pm

Workshop: Channel Partners: IoT in the Channel

### Lunch

12:20pm - 2:00pm

Workshop: Eclipse IoT Developers' Day

### Lunch and Network with Sponsors

12:40pm - 1:45pm

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder

### Session 3: Security Overview

1:00pm - 1:50pm

Workshop: Channel Partners: IoT in the Channel

This market segment is almost as complicated as platforms - offerings range from endpoint management to application security to compliance, threat monitoring and more. The threat we're protecting against? IoT-based DDoS attacks are old school. The latest is that connected devices are being used for crypto-mining. We'll discuss how partners choose and vet security providers and how suppliers and customers can select partners with the expertise to really deliver on security for customers.

Location: Grand Ballroom E

#### Participants

**Michael Davis** - CTO, CounterTack

### Managing the Data Tsunami in an IoLST World

1:45pm - 3:00pm

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder

The sheer amount of data that may be created from sensors, video systems, monitors and other IoT devices could be staggering. Organizing all that data needs software, interoperability, analytics and storage. In addition, training will be necessary for the end user to interpret the data, and policies are necessary for who gets to see the data. Examine these extremely important considerations as is the aggregation of large amounts of data will be passed along to first responders, and how analytics need to match it to other data, and provide the information in a usable, actionable, easy to digest format.

Location: Grand Ballroom B

#### Participants

**Moderator: Alan Tilles** - Partner, Shulman Rogers Gandal Pordy & Ecker, P.A.

**Scott Edson** - Executive Director, LA-RICS

**Paul Troxel** - 9-1-1 Program Management Division Chief, CA 9-1-1 Emergency Communications Branch, California Governor's Office of Emergency Services

**Susan Metcalf** - Partner, Duane Morris LLP

## Session 4: Platform Overview

2:00pm - 2:50pm

Workshop: Channel Partners: IoT in the Channel

In this session, we'll discuss factors partners take into consideration when advising customers on IoT platform selection. There are hundreds of options, and it's a high-stakes decision: open or proprietary? Vertical or general purpose? What hosting model is best, and are required sensor support, analytics and other tools available? And perhaps most important, Will this supplier be around for the long haul? As a platform vendor, you need the right answers to attract top partners.

Location: Grand Ballroom E

### Participants

**Speaker: Terra Bastolich** - VP of North America, GetWireless

**Speaker: Steve Brumer** - Partner, 151 Advisors

## The Open IoT Stack: Architecture and Use Cases

2:00pm - 2:30pm

Workshop: Eclipse IoT Developers' Day

Whether you are developing smart products, enabling new connected services, or instrumenting factory production lines you face the challenges of designing, building, and deploying an IoT solution.

This session will first summarize the leading reference architectures and blue prints for Industrial IoT and then, it will map those architectural components onto the activities of the Eclipse IoT community. The result is an Open, Integrated and Managed IoT Foundation where the ready-to-use Eclipse IoT projects can provide the building blocks necessary to dramatically accelerate the time to market of IoT projects as illustrated in the presented use cases.

Location: Grand Ballroom G

### Participants

**Dave Woodward** - Senior Software Engineer, EuroTech

## Full-Scale Edge Computing with Eclipse ioFog: A Case Study

2:40pm - 3:10pm

Workshop: Eclipse IoT Developers' Day

Edge computing comes with unique challenges at scale. Beyond the proof-of-concept phase, it is important to address solution management, security, and data provenance.

This talk illustrates how these challenges are overcome through the use of Eclipse ioFog by walking through a real implementation with a customer.

Location: Grand Ballroom G

### Participants

**Kilton Hopkins** - Co-founder and CEO, Edgeworx

## Session 5: Real-World Projects Panel

3:00pm - 3:50pm

Workshop: Channel Partners: IoT in the Channel

For this panel we'll bring channel-focused suppliers together to discuss what it takes to execute a successful, channel-facilitated IoT project. We'll ask about lessons learned working with partners and get tips for building a successful channel program.

Location: Grand Ballroom E

### Participants

**Moderator: Natasha Royer Coons** - Managing Director, TeraNova Consulting Group

**Panelist: Steve Haddock** - VP of Strategic Channels and Business Development, Webbing Inc.

**Panelist: Frank Schneider** - Director of Product Management, CalAmp

**Panelist: Tiffany Wolf** - VP of Sales Operations, Telarus

## Cybersecurity Considerations for IoLST

3:00pm - 4:00pm

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder

From devices to networks, the entire run of communications needs to be secure, especially when you're dealing with saving lives. Closed networks for public safety are not always closed, and NG911 is an all-IP network but is it more vulnerable? Addressing eavesdropping, DDoS attacks, advanced persistent threat (APT), malware/ransomware are encryption and firewalls. Is it enough? Examine cybersecurity options from device to end point, and learn how public safety agencies can trust IoT data coming in to them.

Location: Grand Ballroom B

### Participants

**Moderator: Donny Jackson** - Editor, IWCE's Urgent Communications

**Panelist: Alan Tilles** - Partner,, Shulman Rogers Gandal Porty & Ecker, P.A.

**Panelist: Gema Howell** - IT Security Engineer/NIST Information Technology Laboratory (ITL)/PSCR, National Institute of Standards and Technology

## Web of Things @ Siemens

3:40pm - 4:10pm

Workshop: Eclipse IoT Developers' Day

Corporate Technology (CT), a central research department at Siemens, is highly engaged in W3C's Web of Things (WoT) standardization activities. While Siemens CT sees a big potential in the WoT methodology, it is only of value for the whole company if the business units driving product development, marketing, and sales can be convinced of really applying WoT methodology.

This talk gives an overview of current Siemens WoT activities, our engagement in W3C and Eclipse, and our contributions to funded research projects.

Location: Grand Ballroom G

### Participants

**Christian Glomb** - Research Scientist, Siemens

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## Session 6: Vertical View

4:00pm - 4:50pm

Workshop: Channel Partners: IoT in the Channel

Industry-specific specialization by partners can pay off for customers and suppliers. We'll focus on how suppliers can identify partners skilled in serving customers in verticals such as retail, smart cities, education and manufacturing.

Location: Grand Ballroom E

### Participants

**Speaker: Greg Dixon** - Chief Technology Officer, ScanSource

**Speaker: Rich Lechner** - Partner, LT & Associates

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## Networking with Sponsors

4:00pm - 4:15pm

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder

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## Closing Panel: What Do NG911, FirstNet and Smart Cities Mean to the Idea of the IoLST?

4:15pm - 5:30pm

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder

As FirstNet and NG911 continue to make strides in advancing their networks, they will likely become the backbone for the Internet of Life Saving Things. But together will all of these connected networks become the backbone for a greater smart city ecosystem? Rather than reinvent the wheel, review what the industry as a whole as already put in place. Join us for an in-depth view of how these technologies across public safety, utilities, transportation, NG911, and more, are driving the convergence of smart cities and public safety, and defining city, regional and statewide roadmaps for smarter, safer and more refined communication solutions.

Location: Grand Ballroom B

### Participants

**Moderator: Bill Schrier** - Senior Advisor, FirstNet

**Stephanie Hayden** - Co-founder, Executive Director, SmartOakland.org

**Corey Reynolds** - Regional Project Manager, Bay Area UASI Security Initiative

**Michael Marusich** - Senior Program Manager, Washington Technology Solutions (WaTech)

**Francella Ochillo** - Director, Government & Legal Affairs, National Hispanic Media Coalition

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## Eclipse Cyclone DDS: Data Sharing in the IoT Age

4:20pm - 4:50pm

Workshop: Eclipse IoT Developers' Day

Making the right data available at the right time, at the right place, securely, efficiently, whilst promoting interoperability, is a key need for virtually any IoT application. After all, IoT is about leveraging access data – that used to be unavailable – in order to improve the ability to react, manage, predict and preserve a cyber-physical system.

The Data Distribution Service (DDS) is a standard for interoperable, secure, and efficient data sharing, used at the foundation of some of the most challenging Consumer and Industrial IoT applications, such as Smart Cities, Autonomous Vehicles, Smart Grids, Smart Farming, Home Automation and Connected Medical Devices.

In this presentation we will (1) introduce the Eclipse Cyclone DDS project, (2) provide a quick intro that will get you started with Cyclone DDS, (3) present a few Cyclone DDS use cases, and (4) share the Cyclone DDS development road-map.

Location: Grand Ballroom G

### Participants

**Angelo Corsaro** - Chief Technology Officer, ADLINK Technology

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## When IoT Really Is a Challenge

5:00pm - 5:30pm

Workshop: Eclipse IoT Developers' Day

Open source hardware, rapid prototyping, public code repositories and enthusiastic engineers are crucial for the evolution of the Internet of Things.

Challenges approached from a different perspective can bring innovative solutions that improve efficiency of industries and enhance our quality of life.

The Eclipse Open IoT Challenge is an initiative that encourages this innovation, by looking for new ideas and concepts around the world.

I decided to take part in the competition just a few hours before the deadline. With little knowledge about electronics and hardware prototyping, I started the implementation of my project... This talk presents the IoT journey of someone who entered the Open IoT Challenge as a complete IoT "newbie", and how open source and open standards helped me along the way—I won the contest!

### Participants

**Martin Alvarez-Espinar** - CTIC Technology Centre, CTIC Technology Centre

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## Networking Reception

5:30pm - 6:30pm

Workshop: IWCE: IoT Saving Lives - IoT for the First Responder



# SCHEDULE

IoT WORLD PRE-CONFERENCE DAY - 14/05/2018

Internet of Things World 2019 | World's Largest IoT Conference & Expo

May 13 - 16, 2019  
Santa Clara Convention Center  
CA, USA

TIME	WORKSHOP : AI FOR THE INTERNET OF THINGS	WORKSHOP : BLOCKCHAIN TECHNOLOGY & APPLICATIONS	WORKSHOP: STARTUPS - PROJECT KAIROS FOUNDERS' DAY	WORKSHOP: CHANNEL PARTNERS: IOT IN THE CHANNEL	WORKSHOP: ECLIPSE IOT DEVELOPERS' DAY	WORKSHOP: IWCE: IOT SAVING LIVES - IOT FOR THE FIRST RESPONDER
<b>9:00AM</b>	<b>9:30am</b> - AI for the Internet of Things	<b>9:30am</b> - Blockchain: Technology & Applications	<b>9:30am</b> - Project Kairos: Startup Founders' Day	<b>9:30am</b> - IoT in the Channel <b>9:40am</b> - Welcome and "Channel 101"	<b>9:30am</b> - Welcome <b>9:40am</b> - Eclipse IoT for Industry 4.0	<b>9:30am</b> - Welcome Remarks <b>9:35am</b> - Keynote Address: Defining IoLST
<b>10:00AM</b>				<b>10:00am</b> - Session 1: Ecosystem Overview	<b>10:10am</b> - Pushing IoT Analytics to the Edge	<b>10:00am</b> - What Connectivity is Needed for True IoLST?
<b>11:00AM</b>				<b>11:00am</b> - Session 2: Connectivity Overview	<b>11:10am</b> - Remote software updates for IoT devices with Eclipse hawkBit <b>11:50am</b> - Where Next for MQTT?	<b>11:15am</b> - Networking with Sponsors <b>11:30am</b> - The Internet of Life Saving Things Ecosystem
<b>12:00PM</b>				<b>12:00pm</b> - Networking Lunch	<b>12:20pm</b> - Lunch	<b>12:40pm</b> - Lunch and Network with Sponsors
<b>1:00PM</b>				<b>1:00pm</b> - Session 3: Security Overview		<b>1:45pm</b> - Managing the Data Tsunami in an IoLST World
<b>2:00PM</b>				<b>2:00pm</b> - Session 4: Platform Overview	<b>2:00pm</b> - The Open IoT Stack: Architecture and Use Cases <b>2:40pm</b> - Full-Scale Edge Computing with Eclipse ioFog: A Case Study	
<b>3:00PM</b>				<b>3:00pm</b> - Session 5: Real-World Projects Panel	<b>3:40pm</b> - Web of Things @ Siemens	<b>3:00pm</b> - Cybersecurity Considerations for IoLST

# SCHEDULE

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TIME	WORKSHOP : AI FOR THE INTERNET OF THINGS	WORKSHOP : BLOCKCHAIN TECHNOLOGY & APPLICATIONS	WORKSHOP: STARTUPS - PROJECT KAIROS FOUNDERS' DAY	WORKSHOP: CHANNEL PARTNERS: IOT IN THE CHANNEL	WORKSHOP: ECLIPSE IOT DEVELOPERS' DAY	WORKSHOP: IWCE: IOT SAVING LIVES - IOT FOR THE FIRST RESPONDER
4:00PM				4:00pm - Session 6: Vertical View	4:20pm - Eclipse Cyclone DDS: Data Sharing in the IoT Age	4:00pm - Networking with Sponsors 4:15pm - Closing Panel: What Do NG911, FirstNet and Smart Cities Mean to the Idea of the IoLST?
5:00PM					5:00pm - When IoT Really Is a Challenge	5:30pm - Networking Reception

# SESSIONS

IoT WORLD DAY ONE: EXECUTIVE KEYNOTE DAY  
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## Pre-Keynote Briefing: IoT in Asia - The Calm Before the Storm

8:00am - 8:40am

The size and scale of the IoT opportunity in Asia Pacific is staggering. Not only is it home to 4.5 Billion people, but it also has an emerging middle class of nearly 1 Billion people. Why is this important? Because it means that opportunities abound. In Asia, we are not just leveraging the latest technologies and solutions to progress the advanced markets like Japan, Korea and Singapore, we also leverage proven technologies and solutions to help countries in emerging markets digitize their society and reach their full potential.

In this presentation we:

- examine the latest industry trends to describe both the opportunities and challenges the IoT ecosystem faces when engaging with the region's IoT decision makers,
- explain how new business, operational and financial models are required to drive IoT adoption, and
- provide "best practice" examples of how innovative, cross-industry collaborations can deliver digital transformation and business value.

*Location: Mission City Ballroom*

### Participants

**Charles Anderson** - Founder, Charles Reed Anderson & Associates

## Chairman's Introduction

8:40am - 8:50am  
Keynotes

*Location: Mission City Ballroom*

## Knowles Intelligent Audio Conference

8:40am - 9:50am  
Knowles Intelligent Audio Conference

8:00 am - 9:00 Breakfast

Focused on business and technical developments in connected audio and edge processing for cloud.

9:00 am-9:30 am The Importance of Audio for IoT Applications

Knowles, Alexis Bernard, CTO

9:30 am-10:00am From IoT to AI - Connected to Intelligent

Alibaba Cloud International, Kam He, Director of Solution and Consulting

10:00 am-10:30 am Building Smart Speakers for Music Lovers

Sonos, Klaus Hartung, Director, Smart Audio and Voice

## IoT in Action: De-risking IoT for Market Deployments

8:50am - 9:10am  
Keynotes

IoT enables businesses to transform, but we are still at the early stages of companies adopting IoT technology. As we start to see IoT deployed at scale, what lessons can we learn? How do we help businesses take the risk out of their IoT deployment and reap the true benefits of the technology? What is the role of the solutions provider in aligning the partner ecosystem for success in IoT?

*Location: Mission City Ballroom*

### Participants

**Lou Lutostanski** - Vice President, IoT, Avnet

## Industrial IoT is Taking Off – IoT for the Connected Aircraft

9:10am - 9:30am  
Keynotes

- Aerospace has been a key early adopter market for IoT
- What are the opportunities and challenges of integrated IoT throughout the aircraft maintenance life cycle?
- Given the complexity of a modern aircraft and the vast amounts of data generated, what is the best analytics approach?

*Location: Mission City Ballroom*

### Participants

**Russ Benson** - Vice President of IT Product Systems, Boeing

## Effective IoT Implementation: Three Essential Considerations

9:30am - 9:50am  
Keynotes

IoT adoption across many industries is accelerating rapidly as companies connect and analyze the physical world to drive efficiency or offer exciting new customer experiences.

What are the keys to quick & efficient IoT deployment? How do you find the right ecosystem partners? What selection criteria should you consider? With literally hundreds of choices to make, the right choice of strategy & partners is not easy.

Here are 3 essential considerations for effectively deploying IoT:

1. Rapid deployment: quickly get to a Minimum Viable Product
2. Open & Independent: seamlessly combining your IT/OT choices
3. Security: robust, proven, carrier grade

*Location: Mission City Ballroom*

### Participants

**Speaker: Bernd Gross** - SVP of IoT & Cloud, Software AG

## Networking Break

9:50am - 10:30am

### Case Study: IoT Enabling Business Decisions at UPS

10:30am - 10:50am

Keynotes

"The exponential growth of data made possible by connected devices and the industrial Internet is creating a society that is always on and always learning. These connections are transforming entire industries as companies leverage new technologies for greater efficiency, improved service and positive environmental impact."

Location: Mission City Ballroom

#### Participants

**Juan Perez** - Chief Information and Engineering Officer, UPS

### Knowles Intelligent Audio Conference

10:30am - 12:00pm

Knowles Intelligent Audio Conference

10:30 am-10:45 am Break

10:45 am-11:15 am Intelligent Audio Signal Processing in Consumer Devices

Waves Audio, Jack Joseph Puig, CTO

11:15 am-11:45 am Investor Panel - Trends in the Voice-Enabled Ecosystem

Samsung Catalyst Fund, Shankar Chandran, SVP and Managing Director

WRV Capital & Walden PE, Steve Fu, Partner

SoundHound, Katie McMahon, Vice President & General Manager

BMO Capital Markets, Robert Lee; Managing Director, Technology M&A

Stifel, Joshua Epstein, Managing Director, Technology Investment Banking

11:45 am-12:15 pm Audio Intelligence in Mobile

Motorola Mobile Devices, Joel Clark, Sr. Director, Audio and Acoustic Technology

12:15 pm-12:30 pm Q&A

### IoT Deployment Experiences - Learning from Real World Case Studies

10:50am - 11:10am

Keynotes

Digital transformation is happening across industry and in every corner of the world. But what does success look like? And how can companies avoid common pitfalls. Our General Manager of IOT Customer Acceleration, Tony Shakib, will share insights from the trenches along with learnings from the real world, and how those insights are driving Microsoft's approach to the Internet of Things.

Location: Mission City Ballroom

#### Participants

**Tony Shakib** - General Manager, Internet of Things and Intelligent Cloud, Microsoft

### Keynote Panel: The US Smart Cities Challenge - a Catalyst for Change?

11:10am - 11:40am

Keynotes

In December 2015, The US Dept of Transportation launched the Smart City Challenge, asking mid-sized cities across America to develop ideas for an integrated, first-of-its-kind smart transportation system that would use data, applications, and technology to help people and goods move more quickly, cheaply, and efficiently.

This unique panel brings together some of the leading finalists for the Challenge to review how the process helped the focus on the smart city opportunity, lesson learned and how rapidly they have progressed since the competition.

Location: Mission City Ballroom

#### Participants

**Moderator: Greg Kahn** - President & CEO, Internet of Things Consortium (IoTC)

**Panelist: Bob Bennett** - Chief Innovation Officer, City of Kansas City, Missouri

**Panelist: Maurice Henderson** - Chief-of-Staff and Director of Strategic Initiatives, City of Portland

**Panelist: Linda Gerull** - CIO, Executive Director Technology Department, City and County of San Francisco

### Connecting the Internet of Everything at the Edge

11:40am - 12:00pm

Keynotes

- The network is the key enabler for IoT and is rapidly evolving to support the growth in IoT services
- Why is the intelligent edge so important in the development of the network, and what role does it play in enhancing network performance?
- What is the role of LPWAN and 5G in enhancing IoT services

Location: Mission City Ballroom

#### Participants

**Steve Szabo** - Global Head of IoT, Verizon

### Executive Lunch Break

12:00pm - 1:40pm

### Business Outcomes in a Connected World

1:40pm - 2:00pm

Keynotes

The unique blend of IoT, analytics, blockchain, machine learning and big data help enterprises optimize their business by solving their biggest problems. Running a live business requires extending and enriching your existing business processes to the edge. How can you rapidly develop IoT applications and provide a secure edge to enterprise IoT infrastructure to deliver faster innovation with less risk? Join Mala Anand, President of SAP Leonardo, to find out how customers are rapidly innovating, scaling new business models, and actively addressing their most compelling organizational challenges to achieve success.

Location: Mission City Ballroom

#### Participants

**Mala Anand** - President, SAP Leonardo + Analytics

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## Knowles Intelligent Audio Conference

1:40pm - 4:00pm

Knowles Intelligent Audio Conference

12:30 pm-1:30 pm Lunch and Open Demos

Demos & product walk-throughs by ecosystem partners.

1:30 pm-2:00 pm Introducing Knowles' Intelligent Audio Solutions

Knowles, Mike Adell, VP, Intelligent Audio and Emerging Technologies

Knowles, Matt Cowan, Sr. Director, Solutions and Ecosystems

2:00 pm-2:30 pm Voice UI Without Pain

DSP Concepts, Paul Beckmann, CTO

2:30 pm-2:55 pm Always-Listening Voice Recognition in Low-Power Applications

Sensory, Locke Chastaine, Director of Licensing & Corporate Counsel

2:55 pm-3:05 pm Break

3:05 pm-3:30 pm Giving Machines the Sense of Hearing

Audio Analytic, Dr. Chris Mitchell, CEO and Founder

3:30 pm-4:00 pm From Professional-Level Audio Experiences to Smart Devices

Waves Audio, Yuval Weinreb, Director of Global Sales

4:00 pm-6:00 pm Hosted drinks and appetizers, open demo room

## IoT Saving Lives: Real Life Lessons on How IoT has Aided Natural Disaster Warning and Recovery

2:00pm - 2:30pm

Keynotes

Global warming is causing an ever increasing regularity of natural disasters. How can IoT aid in the recovery process?

- Leverage existing GPS stations and sensors to build early warning systems for an array of possible hazards
- See how the role of drones and blockchain are paramount to natural disaster recovery from assessing exit routes through to deploying insurance / rebuild schemes sooner
- Assess the relevant sensors to deploy e.g. water gauges and how open data centers provide up to date, accurate information to locals about the rapidly changing conditions

*Location: Mission City Ballroom*

### Participants

**Panelist: Kevin Burns** - Chief Information Officer from Innovation, City of Miami

**Panelist: Erik Caldwell** - Director, Economic Development Department, City of San Diego

**Moderator: Daniel Obodovski** - CEO, The Silent Intelligence

**Panelist: Ilkay Altintas** - Chief Data Science Officer, Supercomputer Center, UC San Diego

## Lightning Talk: Semiconductors Accelerate IoT Growth

2:30pm - 2:40pm

Keynotes

*Location: Mission City Ballroom*

### Participants

**Tony Keirouz** - VP IoT Strategy, Ecosystem and Partnerships, STMicroelectronics

## Lightning Talk: Driving IIoT Innovation

2:40pm - 2:50pm

Keynotes

What do you get when you combine a world-leader in energy and water solutions with a leading provider of critical infrastructure and smart city solutions? A global leader in Industrial IoT (IIoT). During this fast-paced lightning talk, hear how Itron is driving innovation and delivering value for utilities and cities around the world with killer apps and connected streetlights on its network platforms.

*Location: Mission City Ballroom*

### Participants

**Sharelynn Moore** - Senior Vice President, Networked Solutions, Itron

## Industry Collaboration & the Cybersecurity Framework

2:50pm - 3:10pm

Keynotes

Recognizing that the national and economic security of the United States depends on the reliable functioning of critical infrastructure

*Location: Mission City Ballroom*

### Participants

**Speaker: Walter Copan** - Under Secretary of Commerce for Standards and Technology and NIST Director, NIST

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## Key Challenge Panel: IoT Security in the Real World

3:10pm - 3:40pm  
Keynotes

In the Key Challenge Panel series, the IoT World Keynotes discuss some of the key issues affecting the effective widespread adoption of IoT.

Building confidence in the security of IoT is whole industry challenge, and one which must be overcome for IoT to realize its full market potential

Drawing on real world experiences and examples from across the ecosystem, this panel examines how security is implemented at various levels and in a variety of services and devices to enable a robust level of confidence.

*Location: Mission City Ballroom*

### Participants

**Moderator: Greg Kahn** - President & CEO, Internet of Things Consortium (IoTC)

**Panelist: Justin Blair** - Executive Director, Business Products Global Products and Solutions, Verizon

**John Horn** - IoT Executive, Independent

**Michaelene Holder-March** - Healthcare & Information Executive, UK National Health Service

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## Time to Connect with IoT

3:40pm - 4:00pm  
Keynotes

*Location: Mission City Ballroom*

### Participants

**Balaji Sridharan** - VP, IoT & M2M, T-Mobile

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## Expo Opens and Pub Crawl

4:00pm - 6:00pm

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## INVITE ONLY: VIP Party held at Levi's Stadium Museum

6:00pm - 9:00pm

# SCHEDULE

Internet of Things World 2019 | World's Largest IoT  
Conference & Expo

IoT WORLD DAY ONE: EXECUTIVE KEYNOTE DAY  
- 15/05/2018

May 13 - 16, 2019  
Santa Clara Convention Center  
CA, USA

TIME	KEYNOTES	KNOWLES INTELLIGENT AUDIO CONFERENCE
<b>8:00AM</b>	<b>8:00am</b> - Pre-Keynote Briefing: IoT in Asia - The Calm Before the Storm <b>8:40am</b> - Chairman's Introduction <b>8:50am</b> - IoT in Action: De-risking IoT for Market Deployments	<b>8:00am</b> - Pre-Keynote Briefing: IoT in Asia - The Calm Before the Storm <b>8:40am</b> - Knowles Intelligent Audio Conference
<b>9:00AM</b>	<b>9:10am</b> - Industrial IoT is Taking Off – IoT for the Connected Aircraft <b>9:30am</b> - Effective IoT Implementation: Three Essential Considerations <b>9:50am</b> - Networking Break	<b>9:50am</b> - Networking Break
<b>10:00AM</b>	<b>10:30am</b> - Case Study: IoT Enabling Business Decisions at UPS <b>10:50am</b> - IoT Deployment Experiences - Learning from Real World Case Studies	<b>10:30am</b> - Knowles Intelligent Audio Conference
<b>11:00AM</b>	<b>11:10am</b> - Keynote Panel: The US Smart Cities Challenge - a Catalyst for Change? <b>11:40am</b> - Connecting the Internet of Everything at the Edge	
<b>12:00PM</b>	<b>12:00pm</b> - Executive Lunch Break	<b>12:00pm</b> - Executive Lunch Break
<b>1:00PM</b>	<b>1:40pm</b> - Business Outcomes in a Connected World	<b>1:40pm</b> - Knowles Intelligent Audio Conference
<b>2:00PM</b>	<b>2:00pm</b> - IoT Saving Lives: Real Life Lessons on How IoT has Aided Natural Disaster Warning and Recovery <b>2:30pm</b> - Lightning Talk: Semiconductors Accelerate IoT Growth <b>2:40pm</b> - Lightning Talk: Driving IIoT Innovation <b>2:50pm</b> - Industry Collaboration & the Cybersecurity Framework	
<b>3:00PM</b>	<b>3:10pm</b> - Key Challenge Panel: IoT Security in the Real World <b>3:40pm</b> - Time to Connect with IoT	
<b>4:00PM</b>	<b>4:00pm</b> - Expo Opens and Pub Crawl	<b>4:00pm</b> - Expo Opens and Pub Crawl
<b>5:00PM</b>		
<b>6:00PM</b>	<b>6:00pm</b> - INVITE ONLY: VIP Party held at Levi's Stadium Museum	<b>6:00pm</b> - INVITE ONLY: VIP Party held at Levi's Stadium Museum

# SESSIONS

IoT WORLD DAY TWO - 16/05/  
2018

Internet of Things World 2019 | World's Largest IoT Conference &  
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## Analyst Breakfast Briefings

7:30am - 8:30am  
Analyst Breakfast Briefings

Please join us in our Annual Analyst Breakfast Briefings. The following topics will be covered during the Round Table Sessions:

**Stephanie Atkinson from Compass Intelligence:** Creating Value Leveraging IoT, AI, and AR in Smart City Solutions.

**Alex Glaser from Harbor Research:** Ecosystem Design and Embracing Strange Bedfellows in Digital Transformation.

**Matt Short from IHS Markit:** What are the Cyber Security Challenges with IoT?

**Mike Sapien from Ovum:** Successful, large scale IoT deployments – where are they? What seems to be the main catalysts and elements of large scale deployments?

**W. Douglas Maughan and Patrick J. Massey from Department of Homeland Security:** Re-inventing R&D to Deliver Secure Cyber Systems, through Public - Private Partnerships

*Location: Mission City Ballroom M1*

## Participants

**Roundtable Leader: Stephanie Atkinson** - CEO & Principal Analyst, Compass Intelligence, LLC

**Roundtable Leader: Mike Sapien** - VP & Chief Analyst US, Enterprise Services, Ovum

**Roundtable Leader: Alex Glaser** - Vice President, Harbor Research

**Roundtable Leader: Matt Short** - Director, IoT, IHS Markit

**Roundtable Leader: W. Douglas Maughan** - Cyber Security Division Director Science & Technology Directorate, Department of Homeland Security

**Roundtable Leader: Patrick J. Massey** - Regional Director for the DHS Office of Infrastructure Protection, Region 10 office in Seattle, Department of Homeland Security

## SAP Learning Session - 8.00 AM - 11.00 PM - Grand Ballroom G

8:00am - 8:30am  
SAP Learning Session

Accelerate Your IoT Journey with Technology and Design-Led Innovation

Building Custom IoT Applications

Hear how companies process data captured on edge devices, manage those devices and ingest data into a central platform, as well as leverage development tools to build custom IoT applications.

Attain Business Value Through Commercial Applications

Learn of readily-available applications which can be leveraged for target use cases, such as telematics & connected vehicles, asset management, and connected products.

Breakout 1: IoT Reference Architecture Deep Dive

Choose to join our technical experts for additional details and question & answer on core architecture considerations, including Cloud Platform, Edge processing, device protocols and security.

Breakout 2: Enabling Your Innovation Journey

Enabling Your Innovation Journey: alternatively, attend this deeper discussion on the recommended Design Thinking approach to start your own journey to achieve digital transformation.

## Chairman's Opening Remarks

8:30am - 8:40am  
Keynotes

*Location: Mission City Ballroom*

## Case Study: Creating "The Edge", The World's Smartest Building

8:40am - 9:00am  
Keynotes

"It knows where you live. It knows what car you drive. It knows who you're meeting with today and how much sugar you take in your coffee. (At least it will, after the next software update.) This is the Edge, and it's quite possibly the smartest office space ever constructed" Bloomberg

This talk examines The Edge, in Amsterdam, as a case study in creating with world' smartest and greenest building, presented by the CTO of the developer of the building.

*Location: Mission City Ballroom*

## Participants

**Erik Ubels** - Chief Technology Officer, OVG Real Estate

## One Size Does Not Fit All: Delivering a Multi-Application IIoT Network

9:00am - 9:20am  
Keynotes

Building an Industrial IoT (IIoT) network is anything but simple. With harsh conditions, long lifecycles and multiple applications, utilities and cities have a lot to consider. The key question is: What problems are you trying to solve with your IIoT network? From smart energy and water management to smart city applications, like air quality sensing, smart street lighting and methane detection, the options are seemingly endless. By applying the right technology for the need, smart communities can get the most of out their IIoT network.

*Location: Mission City Ballroom*

## Participants

**Philip Mezey** - Chief Executive Officer, Itron



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## The Evolving Role of Payments in the Internet of Everything

9:20am - 9:40am

Keynotes

- The world around is growing ever more connected, with interfaces and devices evolving rapidly. How will the role of payment evolve in an environment of voice interfaces, wearables, AI and connected devices?
- How will this new environment enable new enterprise and ecosystem partnerships?
- What new challenge for trust and security will be created, and how should these be addressed?

*Location: Mission City Ballroom*

### Participants

**Kiki Del Valle** - SVP, Commerce for Every Device, Mastercard

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## Intelligent Internet of Things: Start Analyzing Your Global Device Data for Real-Time Insights

9:40am - 10:00am

Keynotes

Though devices today can be connected to a network, building and managing such networks securely – while extracting data for analysis – can be complicated and time-consuming. Learn how Google Cloud IoT platform accelerates digital transformation by helping you manage your globally dispersed devices, and enabling you to uncover actionable insights real time using new operational data sources.

*Location: Mission City Ballroom*

### Participants

**Jen Bennett** - Technical Director, Office of the CTO, Google Cloud

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## Key Challenge Panel: Effective Integration of IT & OT in IoT Deployments

10:00am - 10:30am

Keynotes

In the Key Challenge Panel series, the IoT World Keynotes discuss some of the key issues affecting the effective widespread adoption of IoT.

One of the characteristic features of IoT deployments a scale is that they require close interworking of OT (operational technology) with IT. A key challenge for many organizations will be management of IT/OT convergence projects because of inherent differences how their IT and OT groups see the problem and solution.

Benefits of IT/OT integration include reduced operating costs, shorter development time and common platforms, the extension policy and security across networks, and optimization of business processes.

But challenges include issues such as project ownership, communication between groups and with stakeholders, and adapting or harmonizing conflicting organization needs, process and policy into a single and common structure.

This panel discusses real market experience in bridging the IT/OT divide.

*Location: Mission City Ballroom*

### Participants

**Stephen DiFranco** - Principal, IoT Advisory Group

**JoAnna Sohovich** - CEO, The Chamberlain Group

**Dave Rauch** - Senior Vice President, Worldwide Manufacturing Operations, Western Digital

**Tony Shakib** - General Manager, Internet of Things and Intelligent Cloud, Microsoft

**Philippe Fremont** - Vice President of IoT, Europe, Avnet

**Aleksander Poniewierski** - Partner/Global IoT Leader, EY

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## Networking Refreshment Break & Exhibition Visit

10:30am - 11:30am

LeadersIn IoT (INVITE ONLY)

Network with your peers in the Industrial IoT Market at this informal networking session, location in the Networking Garden, Tosca Courtyard.

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## Networking Refreshment Break & Exhibition Visit

10:30am - 11:30am

Industrial IoT

Network with your peers in the Industrial IoT Market at this informal networking session, location in the Networking Garden, Tosca Courtyard.

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## Networking Refreshment Break & Exhibition Visit

10:30am - 11:30am

Smart Cities

Network with your peers in the Industrial IoT Market at this informal networking session, location in the Networking Garden, Tosca Courtyard.

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## Vertical Focus Networking: Energy & Utilities Networking Session in the Networking Garden

10:30am - 11:30am

Energy & Utilities

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## Networking Refreshment Break & Exhibition Visit

10:30am - 11:30am

Smart Construction

Network with your peers in the Industrial IoT Market at this informal networking session, location in the Networking Garden, Tosca Courtyard.

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## Networking Refreshment Break & Exhibition Visit

10:30am - 11:30am

Smart Home

Network with your peers in the Industrial IoT Market at this informal networking session, location in the Networking Garden, Tosca Courtyard.

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## Networking Refreshment Break & Exhibition Visit

10:30am - 11:30am

Data Infrastructure: Edge Computing

Network with your peers in the Industrial IoT Market at this informal networking session, location in the Networking Garden, Tosca Courtyard.

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## Networking Refreshment Break & Exhibition Visit

10:30am - 11:30am

Developers Conference: Build & Deploy

Network with your peers in the Industrial IoT Market at this informal networking session, location in the Networking Garden, Tosca Courtyard.

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## Networking Refreshment Break & Exhibition Visit

10:30am - 11:30am  
Developers Conference: Security, Data & AI

Network with your peers in the Industrial IoT Market at this informal networking session, location in the Networking Garden, Tosca Courtyard.

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## Networking Refreshment Break & Exhibition Visit

10:30am - 11:40am  
Co-Located Event: Connected and Autonomous Vehicles

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## Chairman's Opening

10:30am - 10:40am  
Futurist Stage (FREE TO ATTEND)

Location: Exhibit Hall Futurist Stage Booth #1360

## Participants

**Lorna Gary** - Editor in Chief, Channel Partners Online and Channel Futures

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## Chairman's Welcome

10:30am - 10:40am  
Ecosystem Center Stage (FREE TO ATTEND)

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

## Participants

**Tony Sklar** - Vice President of Digital, Far From TV

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## Pitch-off Opening Remarks

10:30am - 10:40am  
Project Kairos Pitchoff (FREE TO ATTEND)

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Project Kairos Pitchoff Stage, Startup City

## Participants

s: **Philippe Cases** - CEO, ReadWrite

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## Connected Healthcare: From Big Data to Big Impact: Redefining Type 2 Diabetes

10:40am - 11:00am  
Futurist Stage (FREE TO ATTEND)

The Low Carb Program is redefining chronic disease and wellness - with over 275,000 members and clinical evidence to demonstrate 40% of people eliminating a diabetes medication and 28% placing their type 2 diabetes into remission at 1-year, with a 70% engagement rate. Engagement is personalised to each patient, driven through real-time data feedback and insights.

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Futurist Stage Booth #1360

## Participants

**Arjun Panesar** - Co-Founder, Diabetes.co.uk

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## Scale IoT Profits not Costs. Scale Insights not IoT Infrastructure

10:40am - 11:00am  
Ecosystem Center Stage (FREE TO ATTEND)

Amazon are fond of saying 'Friends don't let friends build Datacentres'. That this mantra is self-serving doesn't make it any less true. In IoT terms, projects start out with good intentions but bloat grows quickly - dedicated VPNs, standalone silos.....what seemed like a quick hack to prove a concept quickly becomes tomorrow's legacy issue. This might be tolerable in isolation - but it's catastrophic at Asia-scale, where cities are being built Smart-first and infrastructure for over three billion people is being built by US, European and local companies. Join Asavie's Keith O'Byrne to find out how to scale your IoT projects profitably but avoid falling into the trap of uncontrolled infrastructure expansion. In this session you will learn how to empower your IoT strategy by:

- Aggregating secure IoT connectivity across multiple mobile network operators
- How a flexible network architecture is key to maintaining autonomy of your IoT strategy from edge to Cloud
- Why the public internet is NOT the best place for your IoT project
- How to achieve a multi-cloud strategy

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

## Participants

**Keith O'Byrne** - Head of Solutions, Asavie

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## Fireside Chat: What's Different About Being a Startup in the Internet of Things Market?

10:40am - 11:10am  
Project Kairos Pitchoff (FREE TO ATTEND)

- Challenges for working with industrial partners in the IoT arena
- Navigating the IoT startup flood - is everyone jumping on the bandwagon?
- Difficulties of manufacturing hardware rather than having only an online platform, etc

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Project Kairos Pitchoff Stage, Startup City

## Participants

**Moderator: Gené Teare** - Head of Content, Crunchbase

**Panelist: Chris Kocher** - Co-founder & Managing Director, Grey Heron Venture Consulting

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## Connected Healthcare: Consumer to Clinician Connection through the IoT

11:00am - 11:20am  
Futurist Stage (FREE TO ATTEND)

When talking about the importance of national health policies, the World Health Organization (WHO) criticises "fragmented health systems" and talks about how the mismatch between the performance of these systems and "rising expectations of society is becoming a cause of concern and internal pressure for health authorities and political leaders".

But really it should be a concern for us all. The WHO report, on how best to strengthen health systems, is titled Everybody's Business.

Location: Exhibit Hall Futurist Stage Booth #1360

## Participants

**Christian Rose** - IoT, MD, UCSF

# SESSIONS

IoT WORLD DAY TWO - 16/05/  
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Expo

May 13 - 16, 2019  
Santa Clara Convention Center  
CA, USA

## Morning Break Keynote: From Sensors to Cloud: The Case for a Complete Ecosystem for IoT Development

11:00am - 11:30am  
Ecosystem Center Stage (FREE TO ATTEND)

Building a successful IoT device always starts with a great idea. However, simply having that great idea isn't enough, and executing the idea presents an array of both hardware and software challenges. Developers need a vast array of hardware and software tools to support their development. Using a Case Study of the ST Development Ecosystem to illustrate the benefits of a complete ecosystem for overcoming development challenges, including:

- Shortening time from idea to product
- Critical building blocks for IoT device development
- Fast prototyping

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**Ernesto Manuel Cantone** - IoT Marketing Manager, STMicroelectronics

## Pitch-off: Consumer IoT - Smart Home, Healthcare, Wearables

11:10am - 12:10pm  
Project Kairos Pitchoff (FREE TO ATTEND)

Six startups in each category will face off and deliver their pitches to earn a spot in the finals. The final round of pitches will be delivered on the Executive Keynote Stage and startups will battle it out to win the prize package:

- 1 subscription to Ovum's Knowledge Center
- Opportunity to showcase at your choice of Internet of Things World 2019 or one of our Fall IoT events, includes:
  - Table top stand
  - 30-minute showcase within the conference
  - Pre-event and onsite interview
  - Featured article on IoT Institute (IoTi.com)
  - Promoted as 2017 Innovation of Things Award Winner
  - Travel stipend

[Go to the Project Kairos page to learn about additional perks, book your Startup Package, secure your spot and submit your entry to the competition.](#)

Location: Project Kairos Pitchoff Stage, Startup City

### Participants

**Speaker: Saliq Khan** - Vice President, Imperial Capital, LLC

**Speaker: Chris Kocher** - Co-founder & Managing Director, Grey Heron Venture Consulting

**Speaker: Kyle Ellicott** - Founder, Chief Labs Officer, ReadWrite

**Speaker: Aymerik Renard** - General Partner, Hardware Club

## Morning Break

11:20am - 11:50am  
Futurist Stage (FREE TO ATTEND)

## Chairman's Opening

11:30am - 11:40am  
LeadersIn IoT (INVITE ONLY)

About LeadersIn IoT - the CxO only Executive Summit:

LeadersIn IoT in the exclusive CxO - level track of IoT World, with content and format designed to maximize networking and learning for our Executive participants.

Leaders IoT is run to the Chatham House Rule, which dictates that the participants may use the information and ideas expressed during meetings, but only without attribution, enabling an openness within

Featuring CxO level presentations from leading IoT practitioners and extended sessions to allow opportunity for open discussion, LeaderIn IoT provides real actionable insights for the senior level IoT Executive.

Location: Magonlia (Hyatt)

### Participants

**co-moderator: Mike Sapien** - VP & Chief Analyst US, Enterprise Services, Ovum

**co-moderator: Stephen DiFranco** - Principal, IoT Advisory Group

## Chairman's Opening

11:30am - 11:40am  
Industrial IoT

The challenges and successes of Industrial IoT will be thoroughly addressed by an in depth two day track packed with end user case studies and technical insights.

The first day of this track, May 16th, focuses on the Industrial IoT Strategy.

Hear from experts representing Johnson & Johnson, Colgate Palmolive, Sigfox, Stanley Black & Decker and Lockheed Martin who will focus on the key themes of Industrial IoT: Capturing the value of Industrial IoT, Supply Chain Strategy and Business Models, the Digital Twin and Converging IT/OT to name a few.

Location: 2nd Floor Theater

### Participants

**Chairman: Steve Brumer** - Partner, 151 Advisors

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## Chairman's Opening

11:30am - 11:40am  
Smart Cities

The Smart Cities track will focus on moving from not only Smart but to Resilient; Hear from the leading cities who are implementing intelligent strategies and projects in every day life.

Day 1 will highlight cities such as San Francisco and Palo Alto that are diving into the right Smart Business Models, focusing on the challenges to build Smart Cities from the ground up. The audience will be able to engage with how data, regulations and standardization are key within IoT changing the Smart Cities Landscape.

Location: 2nd Floor Meeting Rooms 203/204

## Participants

Chairman: **Isabel Freire** - Principal Analyst, Ovum

## Chairman's Opening

11:30am - 11:40am  
Energy & Utilities

The Energy & Utilities sector - the heart of the new economy - reached a new era, and with that new challenges and opportunities arise for IoT. Let's discuss: Changing Global and Federal Policies, Preparing for and Rebuilding after Natural Disasters or War Zones, Security, Blockchain, Renewable Energy, and Aging Legacy Systems just to name a few.

The first day of this track, May 16th, focuses on Strategy, while May 17th, looks at the the Implementation and Operation of the Energy & Utilities sector.

Location: Grand Ballroom E

## Participants

Chairman: **Alex Glaser** - Vice President, Harbor Research

## Chairman's Opening

11:30am - 11:40am  
Smart Construction

Location: Grand Ballroom H

## Participants

Speaker: **Gerard Van Der Hoeven** - Managing Partner, DigiGurus BV

## Chairman's Opening

11:30am - 11:40am  
Smart Home

Location: Grand Ballroom G

## Participants

Ronan de Renesse - Practice Leader Consumer Technology, Ovum

## Chairman's Opening

11:30am - 11:40am  
Data Infrastructure: Edge Computing

Location: Grand Ballroom B

## Participants

Don DeLoach - President & COO, Centri Technology

## Chairman's Opening

11:30am - 11:40am  
Developers Conference: Build & Deploy

Location: Grand Ballroom C

## Participants

Ian Skerrett - Consultant, Independent

## Chairman's Opening

11:30am - 11:40am  
Developers Conference: Security, Data & AI

Location: Grand Ballroom D

## Participants

Cesare Garlati - Chief Security Strategist, prpl Foundation, prpl Foundation

## Low Power Wireless by ON Semiconductor

11:30am - 12:00pm  
Ecosystem Center Stage (FREE TO ATTEND)

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

## Participants

Speaker: **Pavan Mulabagal** - IoT Strategy and Marketing, ON Semiconductor

## Get Started With IoT: The Three Guiding Principles

11:40am - 12:10pm  
LeadersIn IoT (INVITE ONLY)

Getting started with IoT can seem like a monumental task for most businesses. Many IoT projects struggle to get off the ground as both IT and Business functions grapple with the far-reaching implications of the IoT on their organization.

Every instinct tells you to do it all - cram it all in. But doing too much too soon results in scope creep - maybe even project failure - and tough questions about ROI will soon follow.

Avoid the obstacles of IoT adoption by following these core principles:

- Start small, scale fast
- Failing fast is not failure.
- Prove value very very quickly

Location: Magonlia (Hyatt)

## Participants

Bernd Gross - SVP of IoT & Cloud, Software AG

## Why Are We Stuck in Pilot Purgatory?

11:40am - 12:00pm  
Industrial IoT

As members of the IoT ecosystem, the value of IoT is obvious to us, and we have a deep understanding on how to implement the technology. However, for end users that are not IoT experts, IoT is complicated. The value may seem evident, but in order for users to scale their IoT solution, they need quantifiable, relevant data. For B2B IoT to reach to the billions of connected objects analysts predict, we, as members of the IoT ecosystem, must all provide more than a solution, we must assume the role of coach to customers and end users at every phase of their journey, so we can together move from pilot purgatory to fully deployed solution providing valuable data.

In this keynote, Christian Olivier, President of Sigfox USA, will talk about the customer journey, opportunities for end user education, helping customers walk before they run, defining project's value, and the invaluable role of the ecosystem.--

Location: 2nd Floor Theater

## Participants

Speaker: **Christian Olivier** - President Sigfox USA, Sigfox USA

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## IoT for a Competitive Advantage? Strategic Networking Considerations to Accelerate Time-to-Value

11:40am - 12:00pm  
Smart Cities

Are you deploying IoT as a science project or for a competitive cost or revenue advantage? Join Ken Hosac, VP of IoT Strategy and Business Development as he shares strategic networking considerations to help organizations spend more time "consuming" technology and less time building it – greatly improving their time-to-value. Software-Defined technologies, elastic gateways, and 5G are among those strategic choices that could be the difference between a competitive advantage and a resource drain.

Location: 2nd Floor Meeting Rooms 203/204

### Participants

**Speaker: Ken Hosac** - Vice President, IoT Strategy, Cradlepoint

## Distributed Energy Resources and Cloud Based Asset Management: How Local and State Policies are Reinventing the Utility Grid

11:40am - 12:00pm  
Energy & Utilities

This presentation will highlight the City and County of San Francisco's work on DERs and related policies, and how local government initiatives support State goals. The goal of the presentation will be to provide attendees with a landscape review of local government DER policies to have a better understanding of 1) how integral local government policy is to reinventing the way we live, and 2) how technology companies can support the transition from a centralized utility grid to one based on local, DERs.

Location: Grand Ballroom E

### Participants

**Jessie Denver** - Energy Program Manager, San Francisco Department of the Environment

## Construction's Shift Toward Technology Integration

11:40am - 12:00pm  
Smart Construction

- Current areas within the construction process ready to be disrupted by technology
- Integration challenges for companies and jobsites
- Current state of product/service solutions
- Future outlook with key milestones to get improved construction efficiency

Location: Grand Ballroom H

### Participants

**Eli Share** - Head of IoT and Mobile, Bosch Tool Corporation

## Smart Home Case Study: UL

11:40am - 12:00pm  
Smart Home

Location: Grand Ballroom G

### Participants

**Speaker: Paul Blackett** - Business Development Manager, Consumer Technology, UL LLC

## IoT: Pushing Computing to the Edge

11:40am - 12:00pm  
Data Infrastructure: Edge Computing

The intelligent edge will dramatically open the number of scenarios that the Internet of Things will solve. In this track, we'll hear how the edge, and its relationship to hybrid and cloud, will transform IoT.

Location: Grand Ballroom B

### Participants

**Tom Davis** - Director, Azure IoT, Microsoft

## Easily Deploy Simple IoT Devices and Trigger Actions

11:40am - 12:10pm  
Developers Conference: Build & Deploy

In this session, see how easy it is to use IoT. With AWS IoT 1-Click, cloud-ready simple devices can be integrated and deployed securely, right out of the box without writing device-specific code. AWS IoT 1-Click enables you to group, identify, and track your IoT deployments giving you full visibility into device utilization and health. Come learn how AWS IoT 1-Click can help manufacturers build, and developers integrate, ready-to-use simple devices into their cloud applications.

Location: Grand Ballroom C

### Participants

**Shyam Srinivasan** - Senior Product Manager, Amazon Web Services

## Panel: Minimize Cybersecurity Risks in the Development of IoT Solutions

11:40am - 12:10pm  
Developers Conference: Security, Data & AI

- How IoT solution providers, IoT product manufacturers can work to minimize risk
- Best practices for product operations
- Cybersecurity concerns and improvement in manufacturing facilities and engineering processes
- How Blockchain, AI and other emerging technologies can create more secure systems and IoT solutions

Location: Grand Ballroom D

### Participants

**Moderator: Matt Short** - Director, IoT, IHS Markit

**Panelist: Steve Griffith** - Industry Director NEMA's Transportation Systems Division, NEMA

**Panelist: Michael Reese** - CIO, DSA Technologies, Inc. USA Properties Fund (ITO)

**Panelist: Partha Srinivasan** - Principal Marketing Manager, CA Technologies, Chief Marketing Office, KnowThings.io, a CA startup accelerator project

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## Fireside Chat: Can Local Governments Really Innovate?

11:40am - 12:00pm  
Co-Located Event: Connected and Autonomous Vehicles

Join Scott Belcher, former CEO of both ITS America and the Telecommunications Industry Association, as he discusses government innovation with Randy Iwasaki, Executive Director of the Contra Costa Transportation Authority and former Director of Caltrans.

- Hear how Randy has been able to innovate at both large and small public agencies and survive to talk about it
- Learn how you can get the public agencies that you are working with to take risks and innovate
- Hear how GoMentum Station has been able to compete with other more generously funded U.S. DOT Designated Proving Ground Pilot Sites for autonomous vehicles

Location: Grand Ballroom F

### Participants

**Moderator: Scott Belcher** - President & CEO, SFB Consulting

**Panelist: John Delaney** - Congressman - Head of the AI Caucus (Officially Invited), US House of Representatives

## Smart Communities Panel: IoT Best Practices for Smart Communities

11:50am - 12:30pm  
Futurist Stage (FREE TO ATTEND)

The Wireless SuperCluster from the NIST Global City Teams Challenge program shares its thoughts on emerging IoT networks and use cases for smart cities and counties and dissects best practices for deployment, procurement, and cybersecurity.

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Futurist Stage Booth #1360

### Participants

**Jon Walton** - CIO/Director, County of San Mateo

**David Witkowski** - Co-Chair of the GCTC Wireless SuperCluster, NIST

**Tony Batalla** - Head of Information Technology, City of San Leandro, CA

## Capture the Value of Industrial IoT - Shaping the Future for the Industrial Digital Revolution

12:00pm - 12:40pm  
Industrial IoT

- Understand IoT projects and moving beyond proof of concept
- Enhancing user experience and meeting the customer's needs with IoT
- Ensure business are going to see the ROI on IoT for all industries
- How to innovate, pushing digital transformation initiatives forward while addressing short-term stakeholder's interests

Location: 2nd Floor Theater

### Participants

**Panelist: John Hajdukiewicz** - Director, User Experience, Honeywell

**Moderator: James Brehm** - Founder & Chief Technology Evangelist, James Brehm & Associates

**Panelist: Erik Josefsson** - Head of Advanced Industries IoT, Ericsson

**Panelist: Gaurav Malhotra** - Principal, Digital Supply Chain & Operations, Supply Chain Blockchain Leader, EY

**Panelist: Ravi Arikapudi** - Global Program Manager, Abbott Laboratories

## Engaging in the Smart Cities Journey - Innovation from Pilot to Deployment

12:00pm - 12:40pm  
Smart Cities

- How to coordinate silos and develop and overall Smart City plan for a community, creating smarter business models
- Cities opening data and having the private sector bring in their data within the marketplace
- Sustainability and resistance: connectivity between making a smart city and resilient economy when facing downturn
- How cities are working with companies and their procurement leadership to speed up technology projects that move us toward Smart Cities

Location: 2nd Floor Meeting Rooms 203/204

### Participants

**Moderator: Andrew Watkins** - President and COO, Marketplace.city

**Panelist: Dan Evans** - Senior Director, Smart Cities and Smart Lighting, Itron, Inc.

**Panelist: Jennifer Sanders** - Executive Director, Dallas Innovation Alliance, City of Dallas

**Panelist: Lee Farrell** - Manager, Frontline Services, City of Ottawa

**Panelist: Mobeen Khan** - AVP, AT&T IoT Solutions - AT&T Business Solutions, AT&T

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## Panel: How Legislation, Policy and the Political Environment affect IoT Initiatives in the Energy/Utility Sectors

12:00pm - 12:40pm  
Energy & Utilities

How are the new US administration's policies affecting the energy and utility market?

How does new regulation effect IoT sensor, device, and network manufacturers?

What are the new revenue opportunities in the new era?

How will the proposed funding cuts, If approved, affect Department of Energy (DOE) programs including Resilient Distribution Systems, formerly Smart Grid Research and Development. Many in the electric utility and data systems industry are anticipating what these proposed changes will mean for the grid

Preparing for energy regulations through effective demand side management in order to balance new investment in 'smart' infrastructure

*Location: Grand Ballroom E*

### Participants

**Panelist: Karen Caraway** - Internet of Things Community of Practice Leader, MITRE

**Panelist: Jessie Denver** - Energy Program Manager, San Francisco Department of the Environment

**Panelist: Bruce Edelston** - Vice President, Energy Policy, Southern Company

## Using IoT to Streamline the Construction Process

12:00pm - 12:40pm  
Smart Construction

- Introducing new technologies that provide real-time visibility across all trades within the building project
- Breaking the language barrier: new technologies and ways of doing things require new terminology to maintain smooth communication between the trades
- How the Internet of Things and data capture can become the ultimate tools for managing worksites and tasks and improving safety and accuracy

*Location: Grand Ballroom H*

### Participants

**Panelist: Gerard Van Der Hoeven** - Managing Partner, DigiGurus BV

**Panelist: Misha Nikulin** - Head of IT Innovation & Emerging Technology, Bechtel

**Panelist: Nate Fuller** - Innovation Implementation Manager, Bechtel

**Panelist: Chris Hansen** - Director R&D US, Nordic Semiconductor

**Panelist: Matthew Rosenberg** - Founder + CEO, M-Rad Architecture

## Integrating Voice Control and Voice Activation into Smart Homes

12:00pm - 12:40pm  
Smart Home

- How is voice activation being incorporated into and transforming homes?
- What design considerations must be taken into account?
- What is involved in securing voice-activated devices?
- What are the roadblocks for natural language processing and voice recognition?

*Location: Grand Ballroom G*

### Participants

**Moderator: Ronan de Renesse** - Practice Leader Consumer Technology, Ovum

**Panelist: Sean Newton** - Applications Engineering Manager, STMicroelectronics, Inc

**Panelist: Jeff Patton** - General Manager, Connected Home Products, GE Lighting

**Panelist: Casey Newton** - Global Head of Business Development, Logitech

**Panelist: Chris Kocher** - Co-founder & Managing Director, Grey Heron Venture Consulting

## How Edge Computing is Driving IoT Adoption

12:00pm - 12:40pm  
Data Infrastructure: Edge Computing

As the number of inter-connected devices grows, so does the mountains of data to mine and analyze. Transferring data to cloud for analysis means increased latency and cost: Edge computing shifts data to servers at the edge and onto the device, speeding up applications that require real-time analytics, enabling data-throttling and low latency to improve network efficiency, while reducing costs. Join us for a discussion of how edge computing is benefiting IoT initiatives in industrial IIoT, Healthcare, Energy and emerging technologies. Topics of discussion will include:

- What's the optimal balance between edge and central processing and how it varies depending on applications.
- Real-world perspectives from industrial, healthcare, energy sector representatives
- A comparison of best-in-class edge computing platforms: Google IoT Cloud, Azure Edge IoT, AWS Greengrass, Cisco Kinetic
- Future state: Emerging use cases for edge computing

*Location: Grand Ballroom B*

### Participants

**Panelist: Christos Koliass** - Principal Research Scientist and Orange Expert, Orange

**Panelist: Hamid Montazeri** - Director of IoT Architecture and Software Engineering, Stanley Black & Decker

**Panelist: Ken Hosac** - Vice President, IoT Strategy, Cradlepoint

**Panelist: Stephen Goldberg** - CEO, HarperDB

**Moderator: Jo Peterson** - Vice President, Cloud Services, Clarify360

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## Re-defining Automotive Luxury

12:00pm - 12:20pm

Co-Located Event: Connected and Autonomous Vehicles

Auto tech innovation usually trickled down from premium segments. Connected cars disrupted that model. Autonomy and shared mobility may catch out luxury OEMs again, unless they re-define themselves and their customer experience.

- Understand the opportunities to transform automotive luxury beyond features and technologies, and into new experiences as part of the mobility world
- Watch video interviews with premium and luxury car buyers, and what matters to them (and what doesn't) when choosing a brand or model
- Hear first-hand from the big names in the luxury auto market on their visions for future driving luxury

Location: Grand Ballroom F

### Participants

**Francesco Zappacosta** - Managing Director, Pagani Automobili

## IoT, Friend or Foe

12:00pm - 12:20pm

Ecosystem Center Stage (FREE TO ATTEND)

IoT brings many benefits but also along with a plethora of security issues. Leveraging real world data from large deployments, Zingbox will demonstrate the key challenges in today's IoT. Using healthcare as an example, IoT can increase efficiency and quality of patient care, but a compromised IoT can also be lethal to a patient. In this session, we will provide practical guidance on how to address inventory, security, and operation of IoT devices to make IoT our friend instead of foe.

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**May Wang** - CTO, EdgeX Foundry | Zingbox

## Re-inventing R&D to Deliver Secure Cyber Systems, through Public - Private Partnerships

12:10pm - 12:40pm

LeadersIn IoT (INVITE ONLY)

In this digital age, where people and technology are increasingly connected, our security community is experiencing sweeping change. This calls for new thinking about how we invest in secure, private, and trustworthy solutions to secure our nation. Come hear how DHS Science and Technology (S&T) Cybersecurity is mobilizing innovation to drive-down risks and improve decision-making across homeland security operations. If you are thinking differently about public-private partnerships and how to prepare the country for a hyper-connected future, S&T wants to work with you to build more resilience for our nation. Please join DHS staff for an engaging discussion on how people, technology, and capital can offer high impact solutions to hometown security challenges, and how innovations in procurement are accelerating new technology applications into DHS security operations.

Location: Magonia (Hyatt)

### Participants

**W. Douglas Maughan** - Cyber Security Division Director Science & Technology Directorate, Department of Homeland Security

**Patrick J. Massey** - Regional Director for the DHS Office of Infrastructure Protection, Region 10 office in Seattle, Department of Homeland Security

## Zen and the Art of Predictive Maintenance

12:10pm - 12:40pm

Developers Conference: Build & Deploy

Failing costs a lot. This is true across software, industrial manufacturing, medical care and more. But the question asks itself: How can we make production cheaper and safer by predicting failures before there's even a problem at all? Software development has compilers, unit tests, functional tests and logging/monitoring tools, but how can we guarantee the same levels of safety, especially when everything runs in production? This is particularly important given that failure in industrial or medical manufacturing may mean severe consequences, which can easily include death. We've reached a tipping point where computers, and more specifically, microcontrollers, have gotten powerful enough and small enough that they can be integrated into hardware to communicate when hardware shows signs of failure long before it fails. Connect these mini computers to more powerful machines or the Cloud and you've got a framework to prevent catastrophic failure. Come to this talk to learn the pieces involved and how to set them all up into a real world predictive maintenance framework.

Location: Grand Ballroom C

### Participants

**Gabe Weiss** - Developer Advocate, Google

## Surviving the IoT Device Security Wild West

12:10pm - 12:40pm

Developers Conference: Security, Data & AI

Delivering on the promise of IoT, necessitates trusted relationships between secure devices and cloud services. Secure devices will bring confidence throughout the IoT value chain, enabling the vision of IoT scaling to trillions of connected devices. However, understanding how to develop secure IoT devices and data throughout their lifecycle, often feels like surviving the 'wild west' due to inconsistent approaches and standards. This presentation will look at the type of security technology available and how this can be designed-in to achieve the right level of security for given applications. The presentation will then look at the needs for an industry-wide, common foundation for security, and how such a solution can help set the course for a scalable IoT built on a foundation of trust.

Location: Grand Ballroom D

### Participants

**Rhonda Dirvin** - Director, IoT and Embedded, Arm



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## Networking Refreshment Break & Exhibition Visit

12:10pm - 12:40pm  
Project Kairos Pitchoff (FREE TO ATTEND)

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

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## TomTom Maps the Road to Autonomous Driving

12:20pm - 12:40pm  
Co-Located Event: Connected and Autonomous Vehicles

- Delve into Map Making, Maintenance and Delivery
- Get to grips with the role of HD maps for autonomous driving

Location: Grand Ballroom F

### Participants

**Paul Hohos** - Managing Director, TomTom Automotive North America

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## The Age of Analytical Marketing

12:20pm - 12:40pm  
Ecosystem Center Stage (FREE TO ATTEND)

- The New Market Landscape
- Analytical Marketing, the Future of Personalization
- Experience in AI, Big Data, Edge Computing, RFID & IoT?
- Marketing Across the Buying Journey
- What is your IoT Strategy?
- What Industry Sectors are you Targeting?
- Do your Go-to-Market Research
- Categorize & Prioritize Markets
- Use the Right Marketing Mix
- Learn from Marketing Metrics & IoT Data Analytics

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**Johannes Beekman** - Managing Director, IoT Marketing

**Cynthia Baker** - CEO, IoT Sales Channels

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
LeadersIn IoT (INVITE ONLY)

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## Vertical Focus Networking: Industrial IoT Networking Lunch in the Networking Garden

12:40pm - 1:40pm  
Industrial IoT

Join us to network with your peers in the informal setting on the IoT World Networking Garden situated in the Tusca Courtyard.

Open to all conference pass holders.

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Smart Cities

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Energy & Utilities

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Smart Construction

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Smart Home

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Data Infrastructure: Edge Computing

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Developers Conference: Build & Deploy

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Developers Conference: Security, Data & AI

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Co-Located Event: Connected and Autonomous Vehicles

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## Pitch-off: Enterprise Innovation & Digital Transformation

12:40pm - 1:40pm  
Project Kairos Pitchoff (FREE TO ATTEND)

Six startups in each category will face off and deliver their pitches to earn a spot in the finals. The final round of pitches will be delivered on the Executive Keynote Stage and startups will battle it out to win the prize package:

- 1 subscription to Ovum's Knowledge Center
- Opportunity to showcase at your choice of Internet of Things World 2019 or one of our Fall IoT events, includes:
  - Table top stand
  - 30-minute showcase within the conference
  - Pre-event and onsite interview
  - Featured article on IoT Institute (IoTi.com)
  - Promoted as 2017 Innovation of Things Award Winner
  - Travel stipend

[Go to the Project Kairos page to learn about additional perks, book your Startup Package, secure your spot and submit your entry to the competition.](#)

Location: Project Kairos Pitchoff Stage, Startup City

### Participants

**Speaker: Saliq Khan** - Vice President, Imperial Capital, LLC

**Speaker: Philippe Cases** - CEO, ReadWrite

**Panelist: Jennifer Vancini** - Partner, Mighty Capital

**Panelist: Ajay Sharma** - Investment Principal, JetBlue Technology Ventures

**Panelist: Ben Luntz** - Co-founder and General Partner, Indicator Ventures

**Panelist: Rahul Ajith** - Investment Associate, Bay Angels

# SESSIONS

IoT WORLD DAY TWO - 16/05/  
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CA, USA

## Hands-On Training: How to connect to AWS IoT Core using Amazon FreeRTOS for embedded devices – Hands-on workshop using STM32L4 Discovery Kit IoT Node

12:40pm - 3:40pm  
Insider Session (FREE TO ATTEND)

This hands-on workshop will use an STM32L4 Discovery Kit IoT Node to demonstrate how to use Amazon FreeRTOS to securely connect a constrained, low-power embedded device to AWS cloud services like AWS IoT Core and enable you to start exploring your own innovative ideas! The kit features an array of sensors and Wi-Fi to showcase cloud connectivity features.

The hands-on training is a working session – attendees must have a laptop: Windows® Laptop (Windows 7, Windows8 or Windows 10) or MacBook running Windows (Parallels, VM Fusion, etc). Note: Administrator rights is needed for software and driver installation.

ST will provide the required STM32L4 Discovery Kit IoT Node and software. Kits and seating are limited, first-come, first serve.

*Location: 2nd Floor Meeting Room 209/210*

### Participants

**Slim Jallouli** - Microcontroller Applications Staff Engineer, Americas Region, STMicroelectronics, Inc.

### Break

12:50pm - 1:30pm  
Futurist Stage (FREE TO ATTEND)

## Lunch Keynote: IoT Reality Check: Lone Wolves Don't Win

1:00pm - 1:30pm  
Ecosystem Center Stage (FREE TO ATTEND)

After getting past the hype of billions of connected devices, trillions in economic opportunity, and petabytes of data overflows, there are tens of thousands of real-world, success stories. There are also many untold implementation failures. A recent Cisco study found that 60 percent of IoT initiatives stalled at the Proof of Concept stage, and only 26 percent of companies considered their IoT projects a complete success. Nonetheless, this year 60 percent of global organizations still plan to adopt IoT projects. What separates successes from failures?

In this session from the New York Times bestselling author of, "Building the Internet of Things" and Cisco executive, Maciej Kranz underscores the critical importance of ecosystems in planning, executing, and scaling IoT projects. His mantra? "Don't be a lone wolf!" It takes a best-of-breed, ecosystem approach – both internally and externally – to mount successful IoT projects and capture their full potential for transformational business value. In this session, you will learn everything you need to know about leading the next wave of the IoT revolution, including:

- How to galvanize a "coalition of the willing" within your own company and partner ecosystem across horizontal, vertical, and regional specialists
- Four fast paths to IoT payback with multi-industry examples
- Eight proven ingredients in any IoT recipe for success
- Key IoT technologies driving transformational rather than incremental value
- Common mistakes to avoid

*Location: Exhibit Hall Ecosystem Center Stage Booth #1052*

### Participants

**Maciej Kranz** - Vice President, Strategic Innovation, Cisco

### Lunch Break

1:30pm - 2:00pm  
Futurist Stage (FREE TO ATTEND)

[GET YOUR FREE EXPO PASS TO ATTEND](#)

## From Smart to Intuitive Buildings Enabled through Nano and Data Science Innovations

1:30pm - 1:50pm  
Ecosystem Center Stage (FREE TO ATTEND)

In professional buildings, the ratio of the "people cost" to "building cost" is estimated as 13:1. Consequently smart(er) buildings need to take a user-centric perspective and serve the comfort and efficiency of its occupants. In this talk, John will share the outlook on the latest imec IoT technologies for Intuitive and Healthy Spaces. Secure Proximity technology is developed to deliver the right service, to the right person, at the right location. New detection methods on top of radar devices provide non-intrusive people detection and health sensing. Finally, future buildings will rely on a massive amount of learning, be it local or in the cloud. Neural algorithms become the brains of the building, elegantly balancing personalized services and comfort levels, with an overall optimization of the building efficiency.

*Location: Exhibit Hall Ecosystem Center Stage Booth #1052*

### Participants

**John Baekelmans** - Vice President & Managing Director, imec

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## Case Study: Innovating Public Private Partnership with the San Francisco Fiber Project

1:40pm - 2:20pm  
LeadersIn IoT (INVITE ONLY)

To close the digital divide, and to provide more choice, competition, and affordable Internet service prices, the City of San Francisco is seeking to develop a citywide network that provides fiber-based Internet service directly to every home and business. This network will be both universal throughout the City - available to everybody in San Francisco, regardless of income - and open-access, so that any qualified entity who wants to provide service to residents and businesses should be able to do so. Additionally, the City anticipates that a subsidy to provide low-income San Franciscans with free or reduced-cost Internet will be necessary.

To make this highly innovative project a reality, the City has identified multiple ways to meet the stated project goals, including procuring a life-cycle, public-private partnership (P3) contract to design, build, finance, operate and maintain the citywide fiber network. This presentation will examine how the city innovated the structure of the P3 and discusses the implications for the city, its partners and the people of San Francisco.

*Location: Magonlia (Hyatt)*

### Participants

**Speaker: Linda Gerull** - CIO, Executive Director Technology Department, City and County of San Francisco

## The Connected Worker in the Factory of the Future

1:40pm - 2:00pm  
Industrial IoT

- Why is there a need to provide enhanced support for the factory floor?
- What are the most beneficial use cases for wearables and mobile devices ?
- Review Colgate-Palmolive use cases and devices including remote connectivity and Point of Interest job support
- What are some of the barriers to implementation?
- Presentation will include a live demo of a recently implemented wearable technology
- Future initiatives and Outlook

*Location: 2nd Floor Theater*

### Participants

**Speaker: Gary Binstock** - Director of Technology - Strategic Innovation & Technology Alliances, Colgate-Palmolive Company

## Can Blockchain Technology Save Our Cities?

1:40pm - 2:00pm  
Smart Cities

- Does technology hold the key to the future of our cities?
- How might blockchain technology play a role?
- What's the opportunity for all stakeholders

*Location: 2nd Floor Meeting Rooms 203/204*

### Participants

**Speaker: Jonathan Reichental** - Chief Information Officer, City of Palo Alto, California

## Smart and Secure Energy with IoT

1:40pm - 2:00pm  
Energy & Utilities

What are the key components in the platform end energy credit enabling IoT devices

How do sensors play a role in the wider ecosystem – connectivity

What are the peer-to-peer technical solutions to track and trace emissions?

How do we enable energy traders to react instantaneously to market opportunities, without exposing their organizations to undue legal or financial risk?

How do we improve forecasting, allows them to identify market irregularities, and helps detect fraudulent trading practices?

*Location: Grand Ballroom E*

### Participants

**Ahmed Banafa** - IoT Expert | Faculty | Author | Keynote Speaker, San Jose State University

## Case Study: AR in Construction

1:40pm - 2:00pm  
Smart Construction

*Location: Grand Ballroom H*

### Participants

**Speaker: Paul Chen** - Director, Product Management, DAQRI

## Fireside Chat: The Future of Smart Home and Shopping

1:40pm - 2:00pm  
Smart Home

Shopping is one of the most time consuming chores in our lives and some of the most exciting aspects of Smart Home center around how connected devices can automate such chores and share workloads, allowing us to spend more time enjoying life. Dean Seifert of Amazon Dash and Dash Replenishment Services will discuss this evolving aspect of the Smart Home market.

*Location: Grand Ballroom G*

### Participants

**Moderator: Ronan de Renesse** - Practice Leader Consumer Technology, Ovum

**Panelist: Dean Seifert** - General Manager, Amazon Dash, Amazon

## The Intelligent Edge - the next frontier of IoT Innovation

1:40pm - 2:00pm  
Data Infrastructure: Edge Computing

*Location: Grand Ballroom B*

### Participants

**Jesse DeMesa** - Strategy Partner: San Francisco, Momenta Partners

## From Ideation to Commercialization: Bringing an IoT Product to Life

1:40pm - 2:10pm  
Developers Conference: Build & Deploy

- Current opportunities and future trends in IoT and Smart Cities that are creating market opportunity for developers
- Leveling the IoT playing field with interoperable networks, development platforms, and vibrant developer communities
- From ideation to commercialization – successful use cases in IoT device & application development

*Location: Grand Ballroom C*

### Participants

**Todd Thayer** - Director Technical Enablement, Itron

**Mark Anderson** - Chief Technology Officer, Operational Technology Solutions (OTS)

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## Using Machine Learning to Drive Intelligence at the Edge

1:40pm - 2:10pm

Developers Conference: Security, Data & AI

The focus on IoT is moving increasingly to the edge. And the way to make the edge more intelligent is by building machine learning models in the cloud and pushing the models and learning back out to the edge. Join Dave Shuman, Industry Lead for IoT at Cloudera and Vito De Gaetano, Industrial IOT architect at Bosch, where they will showcase an end-to-end open source architecture for IoT that highlights pushing intelligence to the edge.

During this session, Dave will walk the audience through a roadmap for how organizations can utilize machine learning and effectively push intelligence out back to the edge.

Dave and Vito will also walk the audience through an end-to-end open source architecture for IoT based on Eclipse Kura, which is an open source stack for gateways and the edge, and Eclipse Kapua, an open source IoT cloud platform. They will highlight an end-to-end open source architecture that can enable:

- Capabilities to securely connect and manage millions of distributed IoT devices and gateways
- Machine learning and analytics capabilities with intelligence and analytics at the edge
- A centralized data management and analytics platform with the ability to build or refine machine learning models and push these out to the edge
- Application development, deployment and integration services

As part of this session, they will also showcase an Industry 4.0 demo that highlights how to ingest, process, analyze data coming off of factory equipment and how to enable machine learning on the edge using all of this data.

*Location: Grand Ballroom D*

### Participants

**Dave Shuman** - Industry Lead for IoT, Cloudera

**Vito De Gaetano** - Industrial IoT architect, Bosch

## Successfully Commercializing Connected Commercial Vehicles

1:40pm - 2:00pm

Co-Located Event: Connected and Autonomous Vehicles

- Get to grips with how to successfully monetize a connected product and build a successful ecosystem around commercial vehicles
- Discover the journey of one of the leading commercial OEMs from telematics to the selected few to services for all vehicle users

*Location: Grand Ballroom F*

### Participants

**Fredrik Callenryd** - Head of Strategies & Product planning for Connected Services, Scania

## Doing Business with DHS: Understanding best practices for working with the DHS Silicon Valley Innovation Program

1:40pm - 2:10pm

Project Kairos Pitchoff (FREE TO ATTEND)

The IoT marketplace is poised to provide enhanced security capabilities for GOV, particularly in priority areas like biometrics, robotics and autonomous systems, situational awareness, credentialing, and automated vetting. This panel is for those startups asking what it's like to work with GOV. The DHS Silicon Valley Innovation Program (SVIP) is collaborating with startups who have recently worked with S&T to develop and adapt tech solutions in areas of IoT, K-9 wearables, drones, and fintech cyber security. Hear directly from SVIP startups on how the S&T's innovative procurement process works, what use cases matter most, and what these startups are doing today after working with GOV. If you're interested in applying your solution on behalf of agents, officers, and critical infrastructure operators, don't miss this opportunity to learn how SVIP is a reliable industry partner for accelerating transition-to-market solutions.

*Location: Project Kairos Pitchoff Stage, Startup City*

### Participants

**Speaker: Melissa Ho** - Managing Director, Department of Homeland Security (DHS) Science & Technology Directorate (S&T)

**Speaker: Jonathan Butts** - PhD, Founder, QED Secure Solutions

**Speaker: Jim Wressell** - Director of Field Operations, Bastille

## From Prototype to Production: How to take the leap in IoT... and stick the landing

1:50pm - 2:20pm

Ecosystem Center Stage (FREE TO ATTEND)

A field-tested, production-ready IoT prototype is both an enormous milestone and the beginning of a brand new challenge, one that requires new skills, new tools, new partners, and a keen eye for both danger and opportunity. As CTO of cloud-connectivity pioneer Soracom, Kenta Yasukawa has helped customers around the world manage the tricky transition from prototype to production. This session will examine real-world use cases across industries to show how to achieve success at scale. From managing certificates in Shenzhen to capping connectivity cost in California, today's cloud offers more opportunities than ever to break through the hardware, software and connectivity dependencies unique to IoT.

[GET YOUR FREE EXPO PASS TO ATTEND](#)

*Location: Exhibit Hall Ecosystem Center Stage Booth #1052*

### Participants

**Kenta Yasukawa** - CTO and co-founder, Soracom

## Fault Prediction with Vibration Monitoring

2:00pm - 2:20pm

Industrial IoT

Fault Prediction (or Predictive Maintenance) reduces down time and maintenance costs; increases safety and monitors equipment health. Discussion will include:

- Solutions for sensing, processing, connectivity and Security
- HW/SW for evaluation boards, low level drivers, middle ware libraries, SW functional packs
- Latest developments in MEMS based sensors, Arm Cortex based STM32s and connectivity.

*Location: 2nd Floor Theater*

### Participants

**Vipin Bothra** - Director, Market Development, STMicroelectronics, Inc.

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## Securing Smart Cities at Scale with A New Paradigm

2:00pm - 2:20pm  
Smart Cities

As you envision taking your Smart City vision to reality, moving from early experimentation to at-scale deployment, are you ready to protect against emerging security threats? Join Mike Marcellin, Senior Vice President and Chief Marketing Officer at Juniper Networks as he shares why a new security paradigm is needed and how your organization can make the transition smoothly.

- What are the security challenges as smart cities scale?
- What kind of new capabilities must you have to solve emerging security threats?
- How to evolve to a new security paradigm that leverages big data, machine learning and automation to protect everything, everywhere, in real time?

Location: 2nd Floor Meeting Rooms 203/204

### Participants

**Speaker: Mike Marcellin** - Chief Marketing Officer, Juniper Networks

## Transforming Energy & Utility Industry with Intelligent Predictive Maintenance Solutions

2:00pm - 2:20pm  
Energy & Utilities

Analyzing device sensor data lets you manage and monitor globally dispersed devices as a single system in real time to improve operational efficiency. In this session we demonstrate how you can do maintenance proactively (and in some cases, automatically), and reduce repair costs by capturing real-time device status and applying AI, prior to deploying staff and resources. You can also understand how different Google Cloud IoT platform components interact and can be integrated to design more efficient and durable predictive maintenance systems.

Location: Grand Ballroom E

### Participants

**Indranil Chakraborty** - Product Management & Strategy, Google Cloud

**Prashant Dhingra** - Lead, Machine Learning, Google Cloud

## Demystifying Technology Adoption in the Construction Industry

2:00pm - 2:20pm  
Smart Construction

- Strategies for sifting through the wave of new innovation hitting the AEC industry
- Best Practices on tech deployment as executed by the world's largest contractors
- Behind-the-scenes perspective on innovation companies and why they build products the way they do

Location: Grand Ballroom H

### Participants

**Speaker: Brian Saab** - Founder & CEO, Uneath Technologies, Inc

## Case Study: ON Semiconductor

2:00pm - 2:20pm  
Smart Home

Location: Grand Ballroom G

### Participants

**Speaker: Guy Nicholson** - Marketing Director of Consumer Solutions Division, ON Semiconductor

## Security at the Edge of IoT

2:00pm - 2:20pm  
Data Infrastructure: Edge Computing

- Exponential growth of connected devices operating at the edge of the network requires new approach to security. Traditional security model no longer works. Need a security model for computing that distributes resources, services and data close to end users
- Security /latency requirement for mission critical systems.
- Examples from industrial control systems, connected vehicles etc.
- How to overcome bandwidth constraints for cloud-based security services.

Location: Grand Ballroom B

### Participants

**Aaron Allsbrook** - CTO, ClearBlade

## Machine Learning In Manufacturing For A More Reliable Car

2:00pm - 2:20pm  
Co-Located Event: Connected and Autonomous Vehicles

Location: Grand Ballroom F

### Participants

**Michael Schuldenfrei** - Corporate Technology Fellow, Optimal+

## The Augmented Human by Paramount Pictures

2:00pm - 2:30pm  
Futurist Stage (FREE TO ATTEND)

### Participants

**Ted Schilowitz** - Futurist, Paramount Pictures

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## Embedded Systems Development Using Modern Software Practices

2:10pm - 2:40pm

Developers Conference: Build & Deploy

Ever see a cobweb and wonder how it was created so quickly? Similar to that cobweb, embedded systems and resulting software are growing exponentially. The advancement in hardware unleashed ample potential in software coding. It is of utmost importance to ensure that code is of highest quality. Lives depend on it. A known challenge for autonomous vehicle development is system integration and validation techniques to ensure quality code.

Traditional product development stems from a physical hardware point of view then adds the software layer. With the tide changing with complexity, companies must drive development with software.

Companies with software in their core that are now moving towards product development in the physical world are able to accomplish speed to market faster than the spider that made that web. How? By driving development with modern software practices such as test driven development and continuous integration.

But how do we apply these practices in an embedded world?

In this session we'll discuss how to use modern software practices within embedded systems development resulting in fast scalable embedded systems development and reduced cost, and happy developers.

- Learn how to test drive an embedded component.
- Learn how to mock out/simulate an unavailable component.
- Learn how to apply Test Driven Development (TDD), Continuous Integration (CI) and Mocking to achieve a scalable software process on an embedded project.

Location: Grand Ballroom C

### Participants

Kimberly Clavin - VP of Engineering, LOOP by Pillar

## The Inadvertent IoT Platform: PostgreSQL

2:10pm - 2:40pm

Developers Conference: Security, Data & AI

It's no secret that the so-called "Internet of Things" is less about the Things, but the data. And it is a lot of data. Every day, more of the physical world's manufacturing operations, food production systems, trains we commute on— connected to the Internet and automated, creating more and more streams of sensor data.

Multiply the millions of things by the amount of data per device, and you get an exponentially growing torrent of information being used to make better business decisions, provide better end user experiences, and produce more while wasting less.

Most engineering teams (including ours, early on in our company history) working on these initiatives end up storing all of this data in a "platform" or in multiple databases connected with different queues and pipelines, with metadata in a relational database and time-series data in a NoSQL store. Yet each of these databases operate differently; running a polyglot database architecture adds operational and application complexity that's unnecessary and relying on 3rd party platforms can be limiting and expensive. You don't need to do this.

In this talk, I'll show you how to keep all of your IoT relational and time-series data together in PostgreSQL (yes, even at scale), and how that leads to simpler operations, more useful contextualized data, and greater ease of use. We'll also highlight other awesome PostgreSQL features relevant to IoT, like query power, flexible data types, geospatial support, and a rich ecosystem of tools and connectors, which basically allow you to roll your own IoT data platform.

Location: Grand Ballroom D

### Participants

Ajay Kulkarni - CEO and Co-Founder, TimescaleDB

## Networking Coffee Break

2:10pm - 2:30pm

Project Kairos Pitchoff (FREE TO ATTEND)

## Leveraging IoT as a Strategic Tool to Advance your Business Model

2:20pm - 2:40pm

LeadersIn IoT (INVITE ONLY)

The Internet of Things will represent a strategic inflection point for many companies across a broad cross section of industries. For many companies, it will represent an opportunity to expand their business models or drive enhanced process efficiency. Smart companies are strategically positioning themselves to capitalize on this opportunity. Many will use M&A as a tool to enhance their strategic position. As with this strategic inflection point, insightful companies will leverage the Internet of Things to reinvent themselves fueling growth and gaining market share; others will lose their way, and new leaders will emerge. Greg will share how companies can benefit from the major inflection point represented by Internet of Things – from positioning themselves better to capturing new revenue streams or driving greater process efficiencies. He will discuss how companies are using M&A as a strategic tool to gain competitive advantage.

Location: Magonlia (Hyatt)

### Participants

Greg Mischou - Senior Partner & Managing Director, Woodside Capital Partners

## Industrial IoT - Three Strategic Insights

2:20pm - 2:40pm

Industrial IoT

- 1. Where do we create value? Value Chain Participation Strategy: Value chain selection and eco system partnering
- 2. What value is created? Value Creation Strategy: Move from POC to Mass Value Creation
- 3. How Effective the value creation is done? Value Sustenance Strategy: Profitability, Security, Customer experience

Location: 2nd Floor Theater

### Participants

Speaker: Aru Bala - President, Innovation Businesses, Stanley Black & Decker

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## A New Way to Fund Smart City Initiatives: the KCMO P3 Opportunity

2:20pm - 2:40pm  
Smart Cities

- Process to look for the right partners
- Opportunities for all

*Location: 2nd Floor Meeting Rooms 203/204*

### Participants

**Speaker: Bob Bennett** - Chief Innovation Officer, City of Kansas City, Missouri

## Repurposing Older Technology for a New Era

2:20pm - 2:40pm  
Energy & Utilities

While many technologies become irrelevant as new technologies emerge, there are some technologies that reinvent themselves and can complement the changing technology landscape. ZigBee technology has been around for over 15 years, but recent interest in vehicle data and integration of that data to broader applications has created new opportunities for ZigBee. At BP we created a local area network using ZigBee receivers and OBD devices to capture data using a collection of our BP retail gas stations. In the session you'll learn about how we developed the pilot, what data was transmitted and collected, hear about the future potential of local area ZigBee networks.

*Location: Grand Ballroom E*

### Participants

**Dave Berlin** - Director, Digital Business Development, BP Lubricants

## The Connected Jobsite - Implementation Challenges and Opportunities in the Commercial Construction Industry

2:20pm - 2:40pm  
Smart Construction

- A Day in the Life - A Future Vision of a Connected Jobsite
- Key Challenges to Implementation - People, Processes, Technology
- Strategies (or 'A Roadmap') for navigating IoT solution development

*Location: Grand Ballroom H*

### Participants

**David Burns** - Director of Innovation and Field Applications, McCarthy Building Companies, Inc

## Panel: The Power of Voice: The Impact of Smart Speakers on Consumer Behavior and the Smart Home

2:20pm - 3:00pm  
Smart Home

- Survey from NPR and Edison Research confirms rapid increases in ownership of voice-activated smart speakers
- The devices open up the consumer to much broader market interaction than ever before
- Interaction between consumers and the Smart Home market is becoming much more targeted and personalized through the use of smart speakers

*Location: Grand Ballroom G*

### Participants

**Moderator: Meg Goldthwaite** - Chief Marketing Officer, NPR

**Panelist: Tom Webster** - Senior Vice President, Strategy and Marketing, Edison Research

**Panelist: Micah Collins** - Director, Product Management - Home Hardware, Google

**Panelist: Ryan Higbie** - Vice President of Sales & Business Development, XAPPmedia

## IoT Context Versus Content: Strategies for Extracting Insights from a Data-Centric World

2:20pm - 2:40pm  
Data Infrastructure: Edge Computing

As IoT kicks into high gear across industries, the ever-increasing volume and velocity of raw data being generated by all of the new connected things can at times seem overwhelming. IDC estimates that the amount of data created and copied annually will reach 180 Zettabytes in 2025, up from less than 10 Zettabytes in 2015. With machine learning, this abundance of data from constantly-streaming connected machines and sensors offers huge potential to provide intelligence and value that can improve operational efficiencies, foresee maintenance requirements, and deliver smarter and faster business decisions. But most of it will be somewhat wasteful, not that interesting, and certainly not worth saving for any extended periods of time. With zettabytes of data flowing through IoT systems, the question becomes: How do you wade through this ocean of data to extract the value and intelligence needed to operate in a data-centric world?

This session will share strategies for understanding the difference in data between content and context in an IoT environment, and how to unlock the value of data through edge-to-cloud digital storage environments. As a data storage solutions leader, Western Digital Corporation is focused on creating environments for data to thrive wherever that data lives. Providing real-world examples, Vice President Christopher Bergey will explore how data-intensive applications across connected automotive, IIoT and smart surveillance can maximize the potential for Fast Data insights and critical real-time responsiveness at the edge and avoid Big Data paralysis.

*Location: Grand Ballroom B*

### Participants

**Christopher Bergey** - Vice President of Embedded and Integrated Solutions, Western Digital

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## The Connected Car and IoT. How Linking Telematics and IoT Drives Exceptional Customer Experiences

2:20pm - 3:00pm

Co-Located Event: Connected and Autonomous Vehicles

- Join our distinguished panel of experts as they share how leading enterprises are leveraging IoT device data combined with connected vehicle telemetry to identify issues as they occur while streamlining core business processes in real time.
- Leverage digital transformation to drive customer experiences and engagement and those looking to the cloud and CRM based platforms to enable change.

### Participants

**Panelist: Steve London** - Senior Manager, Business Development, Global Connected Consumer, General Motors

**Panelist: Charlie Isaacs** - CTO for Customer Connection, Salesforce

**Panelist: Brian Bachofner** - Chief Marketing Officer, Map Anything

**Moderator: Blake Morgan** - Customer Experience Futurist, Author of "More Is More"

## Bridging the Physical and Blockchain World

2:20pm - 2:40pm

Ecosystem Center Stage (FREE TO ATTEND)

We're over a decade into the era of the IoT and it's still broken. People have great ideas for making the world a better place with more connected devices, but they still can't turn their ideas into reality with all of the obstacles surrounding large deployments, from data privacy, data ownership, network coverage & access, and hardware costs to name a few. We're sick of waiting and have decided to take a radical new approach at Helium: build a decentralized machine network powered by blockchain and give it to the world as open hardware and software; no royalties, no patent licenses, no strings attached. By achieving our audacious dream, the industry will be unleashed and experience an exponential boost in innovation as the complexities and costs of connectivity diminish.

*Location: Exhibit Hall Ecosystem Center Stage Booth #1052*

### Participants

**Amir Haleem** - CEO, Helium

## Smart Cities Workshop: Enabled Smart City Use Cases

2:30pm - 3:00pm

Futurist Stage (FREE TO ATTEND)

Smart Cities have been identified as a promising potential application domain for the information and communication technologies (ICT) and the Internet of Things (IoT) with a wide range of possible services that can benefit City Administration/Municipal Governance. Municipal governments around the globe are employing big data and Internet-of-Things applications to improve many aspects of daily life. Information and communication technology (ICT) is used to enhance quality, performance and interactivity of urban services, to reduce costs and resource consumption and to improve contact between citizens and government. Participants will learn to design and analyze Smart City. The learning model includes sensors, hardware platform and cloud. Sensors related to Smart City such as Environmental Monitoring, e-Government, Waste Management, the session outlines the usage of Cloud platform for IoT applications. The presenter will share few of the proto case designed for Global city team challenge CTC initiated by NIST.

*Location: Exhibit Hall Futurist Stage Booth #1360*

### Participants

**Shivakumar Mathapathi** - Co-Founder and CTO, Dew Mobility

## machineQ and LoRaWAN: How connectivity options are helping IoT solution providers

2:30pm - 2:40pm

Project Kairos Pitchoff (FREE TO ATTEND)

*Location: Project Kairos Pitchoff Stage, Startup City*

### Participants

**Speaker: Lalit Kalani** - Director of Ecosystem Development, machineQ

## Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden

2:40pm - 3:40pm

LeadersIn IoT (INVITE ONLY)

WITI (Women in Technology International) and IoT World are proud to host The Women in Technology Speed Networking event. As the Internet of Things expands globally, it is bringing this technology to practically every industry. Expanding your network now is critical. Relationships built through networking can lead to finding a Mentor or Mentee, building your brand, closing your next deal or getting your next promotion or Job. Bring more than a handful of business cards to this limited seating engagement. Women attending IoT World from around the globe - all interested in connecting with YOU!

Be prepared to give your "elevator pitch" during the three-minute networking intervals.

Hosted by Women in Technology International

Sponsored by IoT World Today

## Equipment Connectivity for Digital Factory Transformation - Simplifying IIoT Deployments

2:40pm - 3:00pm

Industrial IoT

Factory managers and executives know they want to begin a digital factory transformation, but often, a daunting first step is to connect scanners, factory equipment and test equipment to your digital factory software solution. In this presentation, you will see what others have done to simplify the process of connecting a wide variety of equipment to a cloud factory transformation solution. Case studies will also be presented on the benefits of digital factory transformation, including:

- Real time data analytics and control of high technology medical and automotive "lights out" production lines.
- Global factory and supply chain (remote) visibility. Real time visibility of KPI's, and real time alerts for WIP, yield, throughputs on hundreds of production lines worldwide.
- How equipment connectivity automates quality records and "forces" day to day regulatory compliance management.
- The ROI and value for these case studies.

*Location: 2nd Floor Theater*

### Participants

**Speaker: Wellington Giolo** - Sr. Director, IT GBS, 42-Q



# SESSIONS

IoT WORLD DAY TWO - 16/05/  
2018

Internet of Things World 2019 | World's Largest IoT Conference &  
Expo

May 13 - 16, 2019  
Santa Clara Convention Center  
CA, USA

## The Technology Driving NYC's Smart City Future

2:40pm - 3:00pm  
Smart Cities

Location: 2nd Floor Meeting Rooms 203/204

### Participants

**Eric Simone** - CEO, ClearBlade, Inc.

## The new world of distributed energy needs IoT - here's why from solar to storage

2:40pm - 3:00pm  
Energy & Utilities

The energy landscape is becoming ever more complex as systems combine distributed resources like solar together with storage, baseload power and virtual power capabilities like demand response. Operating assets in an energy landscape that relies on a variety of energy sources requires IoT technology to unearth data from new sources and aggregate data across these previously siloed systems for streamlined asset and broader grid function.

We will explore on-the-ground the challenges faced by asset operators, trends that will complicate the future, and how IoT can be used together with other technologies to change how energy assets are managed and operated.

Location: Grand Ballroom E

### Participants

**Dave Sheehan** - Director, Corporate Strategy, Infiswift Solutions

## Creating a flexible, rugged and secure Asset Management Solution

2:40pm - 3:00pm  
Smart Construction

- Creating a secure, flexible, and rugged end-to-end solution for use in any environment, across multiple applications
- Identifying technical challenges for both hardware and software: Environmental, Security, Size, Cost, Software, Cloud, GUI, Security and others
- A look at the results: hardware architecture, tests, reference customers, and continuous developments

Location: Grand Ballroom H

### Participants

**Speaker: Bram Geene** - Product Manager, Asset Management Products, Prodrive Technologies

## Architecting Edge Cloud Infrastructure Ready for IoT at Scale

2:40pm - 3:00pm  
Data Infrastructure: Edge Computing

Is your network infrastructure ready to take advantage of both edge computing and cloud for IoT implementation at scale? Join Kevin Hutchins, Senior Vice President of Strategy and Product Line Management at Juniper Networks as he shares what strategic principles to consider and the how-to, when planning for an edge cloud infrastructure that will support diverse IoT use cases that have different requirements.

- What is Edge Cloud? How does it enable edge computing and more?
- How to decide where to deploy Edge Cloud?
- How to architect an edge cloud infrastructure that is ready for IoT at scale? What capabilities are important to have?
- Customer use case examples

Location: Grand Ballroom B

### Participants

**Speaker: Kevin Hutchins** - SVP, Strategy and Product Line Management, Juniper Networks

## Design to Deploy: IoT Product from Inception to Production

2:40pm - 3:10pm  
Developers Conference: Build & Deploy

It takes a well thought-out and documented plan to bring a smart, connected product into the market. We'll discuss the key steps from ideation to design, development, and delivery of a product. Learn how combining hardware with associated cloud services and IoT applications leads to a more robust product offering. Key services from solutions providers like Avnet can support end-end solution design and deployment helping to reduce costs, reduce time to market and return increased revenue for companies.

Location: Grand Ballroom C

### Participants

**Vandana Lokeshwar** - Director, IoT Design and Partner Ecosystem, Avnet

## Static Analysis for Source and Binary: Improving Security While Reducing Time-to-Market

2:40pm - 3:10pm  
Developers Conference: Security, Data & AI

Being able to deliver secure code repeatedly and efficiently is a driving factor for software engineering teams. Security of an IoT device depends heavily on the software that drives the device. Even small mistakes in the source code can lead to disastrous consequences. Static analysis helps to find these mistakes early in the development cycle and is a great way to help software teams deliver better code faster. Static analysis uncovers traditional vulnerabilities such as buffer overruns and uninitialized variables. It also tracks tainted data, data that enters the system through network connections, or user input and makes sure that it is properly assessed before being used. Lastly it can find malicious code that has been added into the project that may try to execute commands, load libraries or create wayward processes.

In this session we will look at how static analysis helps improve security at the source while delivering greater development efficiency.

Location: Grand Ballroom D

### Participants

**Mark Hermeling** - Senior Director of Product Marketing, GammaTech

## Blockchain: Hashgraph for IoT Explained

2:40pm - 3:00pm  
Ecosystem Center Stage (FREE TO ATTEND)

Hashgraph is a new consensus protocol that has garnered attention lately by being projected as a technology that will make blockchains obsolete. According to Hashgraph's website, it is claimed that Hashgraph has the following properties:

Fast: 250,000+ Transactions Per Second  
Fair: Mathematically-Proven Fairness (via Consensus Time Stamping)  
Secure: Bank-Grade Security (Asynchronous Byzantine Fault Tolerant)

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**David Allen Cohen** - Advisor, Hashgraph

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## Pitch-off: Sponsored by machineQ: IoT Solutions Providers

2:40pm - 3:40pm  
Project Kairos Pitchoff (FREE TO ATTEND)

Suggested solutions for Agriculture, Smart Cities, Smart Transportation, Smart Building

Six startups in each category will face off and deliver their pitches to earn a spot in the finals. The final round of pitches will be delivered on the Executive Keynote Stage and startups will battle it out to win the prize package:

- 1 subscription to Ovum's Knowledge Center
- Opportunity to showcase at your choice of Internet of Things World 2019 or one of our Fall IoT events, includes:
  - Table top stand
  - 30-minute showcase within the conference
  - Pre-event and onsite interview
  - Featured article on IoT Institute (IoTi.com)
  - Promoted as 2017 Innovation of Things Award Winner
  - Travel stipend

[Go to the Project Kairos page to learn about additional perks, book your Startup Package, secure your spot and submit your entry to the competition.](#)

Location: Project Kairos Pitchoff Stage, Startup City

## Participants

**Panelist: Lalit Kalani** - Director of Ecosystem Development, machineQ

**Panelist: Kyle Ellicott** - Founder, Chief Labs Officer, ReadWrite

**Panelist: Brad McManus** - Managing Director, Motorola Solutions Venture Capital

## Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden

3:00pm - 4:00pm  
Industrial IoT

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Be prepared to give your "elevator pitch" during the three-minute networking intervals.

Hosted by Women in Technology International

Sponsored by IoT World Today

## Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden

3:00pm - 4:00pm  
Smart Cities

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Hosted by Women in Technology International

Sponsored by IoT World Today

## Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden

3:00pm - 4:00pm  
Energy & Utilities

WITI (Women in Technology International) and IoT World are proud to host The Women in Technology Speed Networking event. As the Internet of Things expands globally, it is bringing this technology to practically every industry. Expanding your network now is critical. Relationships built through networking can lead to finding a Mentor or Mentee, building your brand, closing your next deal or getting your next promotion or Job. Bring more than a handful of business cards to this limited seating engagement. Women attending IoT World from around the globe - all interested in connecting with YOU!

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Sponsored by IoT World Today

## Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden

3:00pm - 4:00pm  
Smart Construction

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Hosted by Women in Technology International

Sponsored by IoT World Today

## How Location-Based APIs are Helping Streamline Home Automation

3:00pm - 3:20pm  
Smart Home

- Allow developers to build skills that use real-time, user location data and tailor it to users' exact location
- How 'geofencing' can alert homeowners when their children return from school, remind them to pick up a loaf of bread on the way home from work, and fire up thermostats, lights, and appliances before they walk through the front door.

Location: Grand Ballroom G

## Participants

**Speaker: Arnold Meijer** - Strategic Business Development Manager, TomTom

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## Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden

3:00pm - 4:00pm  
Data Infrastructure: Edge Computing

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Be prepared to give your "elevator pitch" during the three-minute networking intervals.

Hosted by Women in Technology International

Sponsored by IoT World Today

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## Afternoon Networking Break

3:00pm - 4:00pm  
Co-Located Event: Connected and Autonomous  
Vehicles

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## The Cloud, The Fog, and the Edge10 Steps to Developing an IoT Strategy that Pays Off

3:00pm - 3:30pm  
Futurist Stage (FREE TO ATTEND)

*Location: Exhibit Hall Futurist Stage Booth #1360*

### Participants

**Jo Peterson** - Vice President, Cloud Services,  
Clarify360

**Michelle Ruyle** - CEO, Optimized Channel

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## Blockchain: Using blockchain to improve security and reduce OPEX

3:00pm - 3:30pm  
Ecosystem Center Stage (FREE TO ATTEND)

More and more companies are using connected devices to build specific products and services, which in

- How are IoT vendors looking at blockchain, what are the use cases
- How startups should think of a strategically about build a solution to solve IoT security challenges
- What risks and benefits does blockchain implementation pose

[GET YOUR FREE EXPO PASS TO ATTEND](#)

*Location: Exhibit Hall Ecosystem Center Stage Booth #1052*

### Participants

**Tom Plunkett** - Consulting Solutions Director, Oracle  
Consulting

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## Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden

3:10pm - 4:10pm  
Developers Conference: Build & Deploy

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Hosted by Women in Technology International

Sponsored by IoT World Today

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## Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden

3:10pm - 4:10pm  
Developers Conference: Security, Data & AI

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Hosted by Women in Technology International

Sponsored by IoT World Today

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## Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden

3:20pm - 3:50pm  
Smart Home

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Hosted by Women in Technology International

Sponsored by IoT World Today

Open to all who identify as female

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## Building an IoT Industrial Base through Investor Transition Partners.

3:30pm - 4:00pm  
Futurist Stage (FREE TO ATTEND)

For homeland security operational relevance, collaboration with industry is essential. We hear you – a key to keeping our nation safe is truly making the most of IoT. Think about it, through technology, our financial centers connect with cities world-wide, who connect with GOV, first responders and critical infrastructure operators, who then connect with you – citizens – 24/7/365. You drive innovation and we see many opportunities for you to realize and pursue. This interactive discussion will highlight where S&T's Cyber Security Division (CSD) seeks transition partners to secure the future of smart cities and blockchain. Did you know, S&T is working with industry and smart cities communities nationwide to build resilience capacity and ensure future technology solutions are embedded with security, trust, and privacy at the outset? Don't miss this unique opportunity to hear how DHS is preparing for the future by building an industrial base through industry partners.

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Futurist Stage Booth #1360

### Participants

**W. Douglas Maughan** - Cyber Security Division Director  
Science & Technology Directorate, Department of  
Homeland Security

**Linh Huynh** - Business Development, SecureKey

**Scott Kosits** - Director of Field Engineering, Bastille

## Blockchain & IAM for IoT: Edge Authentication

3:30pm - 3:50pm  
Ecosystem Center Stage (FREE TO ATTEND)

More and more companies are using connected devices to build specific products and services, which in most cases rely on a new concept of identity. Security, costs and experience itself are based on this new identity.

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**Sesh Raj** - President, DSAPPS

## The Path from Product to Service – One company's Journey

3:40pm - 4:10pm  
LeadersIn IoT (INVITE ONLY)

- How will algorithms will be needed to keep up with the rising sums of data generated by devices
- How should the industry expanding the scope of the IoT
- How will we monetize machine generated data

Location: Magonlia (Hyatt)

### Participants

**Speaker: JoAnna Sohovich** - CEO, The Chamberlain Group

## Pitch-off: Connected Automotive

3:40pm - 4:40pm  
Project Kairos Pitchoff (FREE TO ATTEND)

Six startups in each category will face off and deliver their pitches to earn a spot in the finals. The final round of pitches will be delivered on the Executive Keynote Stage and startups will battle it out to win the prize package:

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  - 30-minute showcase within the conference
  - Pre-event and onsite interview
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  - Travel stipend

[Go to the Project Kairos page to learn about additional perks, book your Startup Package, secure your spot and submit your entry to the competition.](#)

Location: Project Kairos Pitchoff Stage, Startup City

### Participants

**Panelist: Brad McManus** - Managing Director,  
Motorola Solutions Venture Capital

**Panelist: Philippe Cases** - CEO, ReadWrite

**Panelist: Chad Bailey** - Associate, NGP Capital

**Panelist: Jordan Wahbeh** - Managing Director, Bay Angels

**Panelist: Ann Shin** - D.Ed., Fenox Venture Capital

**Panelist: Rahul Ajith** - Investment Associate, Bay Angels

## An IoT Success Story: CableLabs and Smart Homes

3:50pm - 4:10pm  
Smart Home

Location: Grand Ballroom G

### Participants

**Speaker: Geoff Noakes** - VP of IoT Business Development, DigiCert

## The Digital Thread and Industry 4.0

4:00pm - 4:20pm  
Industrial IoT

- The Aerospace industry has utilized the digital thread to improve the design, manufacturing, and sustainment development processes and enable increased automation.
- More recently we have provided digital information directly to mechanics on the shop floor, as well as validating the as-designed to the as-built configuration.
- The industry is now tying equipment to this digital thread to increase utilization and improve maintenance.
- Moreover, the burgeoning connections between the major IT systems (ERP, PLM, MES, etc.) is seen as a foundational element of Industry 4.0 transformation - the industrial revolution of data.

Location: 2nd Floor Theater

### Participants

**Dr. Don Kinard** - Senior Fellow, Lockheed Martin Aeronautics

## Autonomous Vehicles, The San Jose Way

4:00pm - 4:20pm  
Smart Cities

San Jose recently released an Autonomous Vehicle RFI (Request for Information). We are looking to lean forward, work with and partner with vendors to solve real city problems.

Location: 2nd Floor Meeting Rooms 203/204

### Participants

**Speaker: Chris Mills** - IT Lead | Technology Innovation Lead - Transportation, City of San Jose

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## Modernizing Energy & Utilities: AI & ML revolution in producing, transmitting, and consuming energy

4:00pm - 4:20pm  
Energy & Utilities

- Computing power, data collection, and storage capabilities scale exponentially
- AI limiting power of the industry's environmental impact
- As three separate U.S. grids produce and transmit power under the mandate to provide low-cost, reliable energy as a public good
- How to avoid and mitigate blackouts with AI

Location: Grand Ballroom E

### Participants

**Josh Gould** - Department Manager, Utility of the Future, Con Edison

## Drones in Construction: Automated Data Capture

4:00pm - 4:20pm  
Smart Construction

- Compare site conditions against design documents
- Verify work in place
- Track progress over time

Location: Grand Ballroom H

### Participants

**Speaker: Bill Bennington** - National Quality Manager, PCL Construction Enterprises, Inc.

## IoT Edge-as-a-Service: A Cost-Optimized Model for Connectivity & Computing at Scale

4:00pm - 4:20pm  
Data Infrastructure: Edge Computing

Leading-edge companies are eager and ready today to deploy hundreds of thousands, if not even millions, of edge-connected gateways, wireless sensors, and connected devices. In the Commercial IoT space, smart buildings, asset tracking, and connected retail are just some of the use cases seeing real benefits through implementing IoT solutions.

Swift adoption of a secure, scalable, and cost-effective model is critical for success. However, building the IoT infrastructure is often a major obstacle, as the process is not only complex and resource-expensive, but also requires keeping up with rapidly-evolving technology.

Based on their experience providing edge solutions to more than 250 global customers and 5 million devices, Rigado will share best practices for architecting, securing and managing large-scale edge infrastructures.

Location: Grand Ballroom B

### Participants

**Kevin Tate** - Chief Revenue Officer, Rigado

## Smart Cities and the Autonomous Vehicle

4:00pm - 4:40pm  
Co-Located Event: Connected and Autonomous Vehicles

Location: Grand Ballroom F

### Participants

**Moderator: Mike Harrigan** - Senior Program Manager, Prospect Silicon Valley

**Panelist: Ryan Snyder** - Principal, Transpogroup

**Panelist: Cletus Nunes** - Director of Sales, Octo Telematics North America

**Panelist: Peter Kozinski** - Director - RoadX Program, Colorado Department of Transportation

**Panelist: Magnus Gunnarsson** - Head of Strategy, Portfolio and Business Development, Ericsson

## ON Semiconductor Case Study: Digital Farming

4:00pm - 4:20pm  
Futurist Stage (FREE TO ATTEND)

Location: Exhibit Hall Futurist Stage Booth #1360

### Participants

**Speaker: Doug Seitz** - Product Marketing Manager, ON Semiconductor

## Smart Cities: IoT in Context on a Massive Scale

4:10pm - 4:40pm  
LeadersIn IoT (INVITE ONLY)

The emergence of Smart Cities has recently and rapidly captured the imagination of the world. The collision of the Technology and Real Estate Industries is creating opportunities and hazards that we can only imagine today. But what does a Smart City mean for you and your business? Smart Cities is a term that defines the convergence of new government policies, emerging innovations and a rethinking of the implementation of IoT in today's urban environments. The touch points of these three elements are creating meaningful, exciting and lucrative opportunities for all of us. Join us for an exploration of real world Smart Cities projects around the world that are challenging our traditional processes and expectations of acceptable practices, processes and deliverables.

Location: Magonlia (Hyatt)

### Participants

**Paul Doherty** - President & CEO, The Digit Group

## Fireside Chat: The Rise of Subscription Models for Smart Objects and Connected Devices in Homes

4:10pm - 4:30pm  
Smart Home

- The meaning of service in the DIY and device-centric world
- Curating packages of interoperable devices for different price points, lifestyles, and needs
- Managing Smart Home systems that adapt as lives and needs change
- Servicing consumers' existing devices versus helping them to grow their device ecosystem
- Balancing business model evolution with consumer needs in areas like installation and tech support

Location: Grand Ballroom G

### Participants

**Moderator: Saliq Khan** - Vice President, Imperial Capital, LLC

**Panelist: Robin Stennet** - Vice President, Emerging Markets Strategy, ADT Security

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## Build Complex Things, Simply

4:10pm - 4:40pm

Developers Conference: Build & Deploy

Why is making hardware so hard? First, the total time and cost to launch a differentiated product is prohibitively high because of expensive and iterative design, manufacturing and testing. Second, system form factors aren't flexible – connected things require richer features and/or smaller sizes. And finally, there's unnecessary complexity in the manufacturing and component supply chain. Unlike software development, hardware design is slow, cumbersome, and not fun for designers. The result is continued proliferation of mass-produced, "one size fits all" solutions versus a wide range of cost effective solutions that support empowered individual choice.

The solution? The zGlue ZiPlet Store – a unique platform where users can build complex things as simply as stacking blocks. The zGlue Integrated Platform (ZiP) simplifies designing and manufacturing devices for IoT systems by providing seamless integration of both hardware and software on a modular platform.

Using specific customer examples (ranging from BOE Technologies Group, a leading supplier of displays and intelligent interface products and services to several innovative start-ups), Zhang will explain how this new platform accelerates product development and helps customers to quickly develop differentiated prototypes, while also reducing time to market, cost, system form factor, and design complexity. The platform is suitable for both high-growth consumer and high-volume industrial markets.

*Location: Grand Ballroom C*

### Participants

**Ming Zhang** - Co-founder and CEO, zGlue

## Apache Spark and Apache Ignite: Where Fast Data Meets the IoT

4:10pm - 4:40pm

Developers Conference: Security, Data & AI

It is not enough to build a mesh of sensors or embedded devices to obtain more insights about the surrounding environment and optimize your production systems. Usually, your IoT solution needs to be capable of transferring enormous amounts of data to storage or the cloud where the data have to be processed further. Quite often, the processing of the endless streams of data has to be done in real-time so that you can react on the IoT subsystem's state accordingly.

This session will show attendees how to build a Fast Data solution that will receive endless streams from the IoT side and will be capable of processing the streams in real-time using Apache Ignite's cluster resources.

Attendees will learn about data streaming to an Apache Ignite cluster from embedded devices and real-time data processing with Apache Spark.

*Location: Grand Ballroom D*

### Participants

**Denis Magda** - Director of Product Management, GridGain

## Sensors to Smart Phones: The Rise of Digital Agriculture

4:20pm - 4:40pm

Industrial IoT

Mark Young, CTO of The Climate Corporation, will explain the growth of digital agriculture and how connected equipment is starting to show up in large commercial farming operations (drones, sensors, farm robots) as well as in smallholder farming operations in developing nations. Then, given that IoT World 2018 falls within planting season for farmers, we can Skype in Kyler Laird, a next-level farmer that can share his insights on the value that continued, major IoT advancements and automation will have on farmers.

*Location: 2nd Floor Theater*

### Participants

**Mark Young** - Chief Technology Officer, The Climate Corporation

**Kyler Laird** - Managing Member, Lairdscape LLC

## Beyond the Smart City – Building the First Connected Place in Greater Phoenix

4:20pm - 5:00pm

Smart Cities

Do you want the benefits of your Smart City initiative to end at the border of your City? Come and learn how a bold vision, a path to bring people together from diverse backgrounds for civic collaboration (i.e. politicians, corporate business leaders, builders, architects, entrepreneurs, citizens, technologists, legal counsel...), and a nucleus of Arizona State University action showing a path towards implemented solutions are defining the Connected Place. Our region's approach to connectivity extends beyond the fabric of our community. As a region, we're on a relentless pursuit of innovation and technology companies here are committed to changing the game. To us, connectivity is about our region's legacy businesses joining forces with emerging disruptors. It's about our educational institutions working together to produce talent that is job ready and entrepreneurial in spirit. It's about community organizations listening to our residents and responding in kind. It's about the internet of things being THE thing in Greater Phoenix. We're in this together.

*Location: 2nd Floor Meeting Rooms 203/204*

### Participants

**Speaker: Chris Richardson** - AVP - IT Development, Arizona State University

**Speaker: Dominic Papa** - Executive Director, Institute for Digital Progress

**Speaker: Stephane Frijia** - Senior Vice President, Strategy & Research, The Greater Phoenix Economic Council

## Connected Devices and IoT: Improved Response to Addressing Natural Disasters

4:20pm - 4:40pm

Energy & Utilities

How can legacy utility providers improve their incident response strategy of aging system infrastructure via IoT

Clustering algorithms help to determine the probability of where natural disaster would occur, and allows agencies to devise a set of recommendations for evacuation routes, resource staging, and the identification of locations for shelters along these routes

*Location: Grand Ballroom E*

### Participants

**Nancy Ross** - Internet of Things Line of Business Leader, MITRE

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## Case Study: Stanley Black & Decker

4:20pm - 4:40pm  
Smart Construction

Location: Grand Ballroom H

### Participants

**Speaker: Hamid Montazeri** - Director of IoT Architecture and Software Engineering, Stanley Black & Decker

## Edge Interoperability & Ecosystem Collaboration

4:20pm - 5:00pm  
Data Infrastructure: Edge Computing

- Rapidly evolving market means edge devices/ technology being developed on multiple standard and platforms
- Issues with interoperability
- What are the roles of various standards bodies and how do they work together
- Creating flexible architecture to interoperate with various standards/frameworks

Location: Grand Ballroom B

### Participants

**Panelist: Suresh Karri** - Senior Director, Market and Network Integration, Sunverge Energy

**Panelist: Matt Vasey** - Co-Founder and Board Member, OpenFog Consortium

**Panelist: May Wang** - CTO, EdgeX Foundry | Zingbox

**Moderator: Ed Naef** - Partner, CMA Strategy Consulting

## Smart Agriculture: How to Start in Agriculture IoT

4:20pm - 4:40pm  
Futurist Stage (FREE TO ATTEND)

Smart farming is a capital-intensive and hi-tech system of growing food cleanly and sustainable for the masses. It is the application of modern ICT (Information and Communication Technologies) into agriculture.

In IoT-based smart farming, a system is built for monitoring the crop field with the help of sensors (light, humidity, temperature, soil moisture, etc.) and automating the irrigation system. The farmers can monitor the field conditions from anywhere. IoT-based smart farming is highly efficient when compared with the conventional approach.

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Futurist Stage Booth #1360

### Participants

**Francesco Radicati** - Analyst, Independent Analyst

## How Utility Service Platforms Can Lead the Way in Providing Actionable Insight into Resource Usage for Consumers

4:30pm - 4:50pm  
Smart Home

- Quicker, more streamlined data collection system to better understand consumer water use
- Online platform available where consumers can view water use and make decisions
- Ability to recognize and monitor unusual or constant usage - for single family homes as well as multi-dwelling properties
- Up and down sides: Ability to detect unusual or constant usage can be difficult in multi-dwelling properties; difficulties in pinpointing sources; difficulties in determining across billions of data points what is useful data that should be shared on the platform

Location: Grand Ballroom G

### Participants

**Heather Pohl** - Project manager, Technology Implementation & Business Process Improvement, San Francisco Public Utilities Commission - SF Water, Power, Sewer

**Julie Ortiz** - Water Conservation Manager, San Francisco Public Utilities Commission - SF Water, Power, Sewer

## IoT Security in Manufacturing & Supply Chain

4:40pm - 5:00pm  
Industrial IoT

As the number of IoT devices grows exponentially, so do the cybersecurity risks. While these can occur at any layer, the earlier we address them in the product lifecycle, the easier and more cost-effective it is. This talk, targeted at device makers and designers, focuses on ensuring the authenticity and security of your IoT devices during manufacturing and through the supply chain. See how best practices and simple security technologies can be implemented by IoT device makers.

Location: 2nd Floor Theater

### Participants

**Speaker: Nisarg Desai** - Director of Product Management, IoT, GlobalSign

## Analyzing the Policy Implications of IoT for Energy Companies

4:40pm - 5:00pm  
Energy & Utilities

These example policy considerations touch consumer issues, social change, and industry:

- Cybersecurity: such as balancing privacy rights with data security requirements.
- Communications: such as assuring market competition while providing access to spectrum that encourages innovation from new entrants or meets non-commercial social goals, such as public safety.
- Investment in Infrastructure: such as identifying public sector and commercial strategies to encourage investment in long-term projects with diversely distributed benefits.
- Employment and training: such as anticipating the new skills needed to further the Internet of Things and preparing to offset potential job loss from shifts in employment needs

Location: Grand Ballroom E

### Participants

**Bruce Edelston** - Vice President, Energy Policy, Southern Company

# SESSIONS

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## Case Study: Implementing AR & IoT into Construction

4:40pm - 5:00pm  
Smart Construction

- Tying VR/AR and IoT together from office to jobsite and back
- Enhancing efficiency in the design and build process
- Usecases for IoT in the ACE industry
- Challenges and lessons learned

Location: Grand Ballroom H

### Participants

Speaker: **Cody Nowak** - Founder, DisruptAEC

## Developer Case Study: IoT Product Development at Warp Speed

4:40pm - 5:10pm  
Developers Conference: Build & Deploy

IoT Product Development at Warp Speed

The design and productization of state-of-the-art electronic products is not easy, taking a well coordinated effort between hardware and software engineering. Making those products internet and cloud connected is even harder. So in this exciting and fast-paced world of IoT, how can companies with small teams, limited budgets, and tight timeframes create innovative and compelling products?

In this seminar, Mr. Demin will discuss the various hardware and software components of IoT products today, and present a methodology for rapid development with minimal engineering resources. As part of this, he will walk through a recent Onion Corporation project: Oboo Smart Clock - an Internet connected smart alarm clock. Oboo was developed in nearly 3 months with a team of just 3 engineers. Now in pre-production, Oboo is scheduled to start shipping to Kickstarter backers in June.

Location: Grand Ballroom C

### Participants

Speaker: **Lazar Demin** - CTO, Onion Corporation

## Internet of Things (IoT) Edge Analytics: Do's and Don'ts

4:40pm - 5:10pm  
Developers Conference: Security, Data & AI

Analytics is an overloaded word in the IoT world. Based on my extensive experience in IoT Edge platform development which includes edge analytics, would like to talk about "Implementing Edge Analytics: Dos and Dont's". Will start with an overview of what edge analytics means and will describe the benefits of implementing edge analytics. Will define a complexity model for edge analytics and describe the best practices including architecture considerations, identifying the algorithms and models involved and tuning the models for a successful implementation. Will describe the pitfalls and challenges that developers might face when implementing edge analytics. The talk will be very useful for architects, developers and leaders in the area of IoT and edge analytics.

Location: Grand Ballroom D

### Participants

Speaker: **Suhas Joshi** - Director, Enterprise Architecture and Honeywell Senior IT Fellow, Honeywell

## Fireside Chat: The Global Implications of GDPR

4:40pm - 5:00pm  
Co-Located Event: Connected and Autonomous Vehicles

- Privacy by design - get to grips with the considerable vendor risk around data privacy. Can you guarantee the security design of all your components?
- As artificial intelligence continues expediting processes, discuss how GDPR will cope with innovation and automation
- Understand the evolution of data subject rights under GDPR. How will this be applied to data incoming from the vehicle? How will this legislation effect the US mark

Location: Grand Ballroom F

### Participants

Moderator: **Gail Gottehrer** - Partner, Akerman

Speaker: **Amie Taal** - CEO & Founder, Stratagem Tech Solutions

## Smart Agriculture: The Internet of Trees - Lessons from a Greenfields IoT Deployment

4:40pm - 5:00pm  
Futurist Stage (FREE TO ATTEND)

Using Big Data and Machine Learning to Improve the Fruits and Nuts You Eat

- Network decisions shape the company growth
- Tradeoffs and learning from the largest IoT network in ag.
- Location, location, location - why the sensor itself doesn't really matter.- Information overload
- Machine learning making sense of data at scale.- Focus on value - prioritizing projects and resources in a world of opportunity

Location: Exhibit Hall Futurist Stage Booth #1360

### Participants

Speaker: **Tess Trethewey** - Director Of Strategic Partnerships, Semios

## Session: Get the most out of your incubator experience

4:40pm - 5:00pm  
Project Kairos Pitchoff (FREE TO ATTEND)

As a founder, there is never enough time.

- What resources are currently available to help a founder maximize their day and their dollars?
- How can startups use incubators to be more efficient?
- Networking tips to be productive and have the greatest chance to get to the next level

[BOOK YOUR FREE PASS TO ATTEND](#)

Location: Project Kairos Pitchoff Stage, Startup City

### Participants

Speaker: **Shawn Flynn** - Senior Business Developer, Techcode



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## A Seat at the Table – Service Providers, Device Designers, and Consumers Collaborating in the Internet of Things

4:50pm - 5:30pm  
Smart Home

- How do service providers, device designers, and consumers all make use of the data generated by smart devices?
- How do all the players in the market make sure devices are offered that consumers actually want?
- How can the information generated be made easily understood with clear actions for consumers to take to generate desired results?
- The importance of trust – providing clear value to consumers who share device-generated information

*Location: Grand Ballroom G*

### Participants

**Moderator: Jessica Groopman** - Industry Analyst & Founding Partner, Kaleido Insights

**Panelist: Mariel Devesa** - Head of Corporate Development and Innovation, formerly, Farmers Insurance

**Panelist: Brett Jurgens** - Cofounder and CEO, Notion

**Panelist: Ryan Kim** - CEO, Phyn

**Panelist: Patrice Slupowski** - Vice-President Digital Innovation, Orange

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## Networking Break & Exhibition Visit

5:00pm - 6:00pm  
Data Infrastructure: Edge Computing

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## ADASMark: Evaluating the Performance of ADAS Heterogeneous Compute Architectures

5:00pm - 5:20pm  
Co-Located Event: Connected and Autonomous Vehicles

The sudden popularity of ADAS has driven a surge of demand for high-performance CPU and GPU hardware in automobiles, creating problems for Tier 1 manufacturers and OEMs.

- What is the best way to balance cost and design complexity against this enormous need for compute power never before seen in conventional cars?
- Discuss how to provide benchmarks and analysis tools for systems like these, and analyze the ubiquitous ADAS task: real-time image classification.
- Get to grips with image processing and CNN classification elements which can be arranged in a directed acyclic graph (DAG) to characterize the performance of heterogeneous architectures seen in many ADAS platforms

*Location: Grand Ballroom F*

### Participants

**Peter Torelli** - President, EEMBC

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## End of Tracks and Networking Exhibition Visit

5:10pm - 6:00pm  
Developers Conference: Build & Deploy

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## End of Tracks and Networking Exhibition Visit

5:10pm - 6:00pm  
Developers Conference: Security, Data & AI

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## Vehicles and Edge Computing: Processing Power And Algorithms

5:20pm - 5:40pm  
Co-Located Event: Connected and Autonomous Vehicles

Autonomous vehicles (level 5) will produce a phenomenal amount of data. The industry needs to find the best ways of storing, processing and analyzing these data sets.

- On Board vs Edge vs Cloud -Debate where the processing should happen and work out where each data sets need to be stored in order of importance
- Develop algorithms to overcome distortion of perception for both inside(i.e. facial recognition) and outside the vehicle (i.e. overcoming weather distortion)
- How can we reduce the cost of chips? Overcome the cost barrier by creating a cost effective chip sets which meets the needs of the autonomous vehicle

*Location: Grand Ballroom F*

### Participants

**Bhaskar Krishnamachari** - Professor, Electrical Engineering, USC

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## Networking Break & Exhibition Visit

5:40pm - 6:00pm  
Co-Located Event: Connected and Autonomous Vehicles

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## IoT World Conference Networking Party

6:00pm - 9:00pm  
Join us at the Hyatt Pool for an evening of fun and networking.

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7:00AM	7:30am - Analyst Break- fast Briefings																		
8:00AM											8:30am - Chair- man's Opening Remarks  8:40am - Case Study: Creating "The Edge", The World's Smartest Build- ing		8:00am - SAP Learning Session - 8.00 AM -11.00 PM - Grand Ball- room G						

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9:00AM											<p><b>9:00am</b> - One Size Does Not Fit All: Delivering a Multi-Application IIoT Network</p> <p><b>9:20am</b> - The Evolving Role of Payments in the Internet of Everything</p> <p><b>9:40am</b> - Intelligent Internet of Things:</p>							

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											Start An- alyzing Your Global Device Data for Real- Time In- sights							

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10:00AM		10:30am - Networking Refreshment Break & Exhibition Visit	10:30am - Networking Refreshment Break & Exhibition Visit	10:30am - Networking Refreshment Break & Exhibition Visit	10:30am - Networking Refreshment Break & Exhibition Visit	10:30am - Chairman's Welcome  10:40am - Scale IoT Profits not Costs. Scale Insights not IoT Infrastructure	10:30am - Vertical Focus Networking: Energy & Utilities Networking Session in the Net-working Garden	10:30am - Chairman's Opening  10:40am - Connected Healthcare: From Big Data to Big Impact: Redefining Type 2 Diabetes	10:30am - Networking Refreshment Break & Exhibition Visit		10:00am - Key Challenge Panel: Effective Integration of IT & OT in IoT Deployments	10:30am - Networking Refreshment Break & Exhibition Visit	10:30am - Pitch-off Opening Remarks  10:40am - Fire-side Chat: What's Different About Being a Startup in the Internet of Things Market?		10:30am - Networking Refreshment Break & Exhibition Visit	10:30am - Networking Refreshment Break & Exhibition Visit	10:30am - Networking Refreshment Break & Exhibition Visit

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11:00AM		<p>11:40am - Fireside Chat: Can Local Governments Really Innovate?</p>	<p>11:30am - Chairman's Opening</p> <p>11:40am - IoT: Pushing Computing to the Edge</p>	<p>11:30am - Chairman's Opening</p> <p>11:40am - Easily Deploy Simple IoT Devices and Trigger Actions</p>	<p>11:30am - Chairman's Opening</p> <p>11:40am - Panel: Minimize Cybersecurity Risks in the Development of IoT Solutions</p>	<p>11:00am - Morning Break</p> <p>Keynote: From Sensors to Cloud: The Case for a Complete Ecosystem for IoT Development</p> <p>11:30am - Low Power Wireless by ON Semiconductor</p>	<p>11:30am - Chairman's Opening</p> <p>11:40am - Distributed Energy Resources and Cloud Based Asset Management: How Local and State Policies are Reinventing the Utility Grid</p>	<p>11:00am - Connected Healthcare: Consumer to Clinician Connection through the IoT</p> <p>11:20am - Morning Break</p> <p>11:50am - Smart Communities Panel: IoT Best Practices for Smart</p>	<p>11:30am - Chairman's Opening</p> <p>11:40am - Why Are We Stuck in Pilot Purgatory?</p>		<p>11:30am - Chairman's Opening</p> <p>11:40am - Get Started With IoT: The Three Guiding Principles</p>	<p>11:10am - Pitch-off: Consumer IoT - Smart Home, Healthcare, Wearables</p>		<p>11:30am - Chairman's Opening</p> <p>11:40am - IoT for a Competitive Advantage? Strategic Networking Considerations to Accelerate Time-to-Value</p>	<p>11:30am - Chairman's Opening</p> <p>11:40am - Construction's Shift Toward Technology Integration</p>	<p>11:30am - Chairman's Opening</p> <p>11:40am - Smart Home Case Study: UL</p>	

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12:00PM		<p>12:00pm - Rethinking Automotive Luxury</p> <p>12:20pm - TomTom Maps the Road to Autonomous Driving</p> <p>12:40pm - Networking Lunch &amp; Exhibition Visit</p>	<p>12:00pm - How Edge Computing is Driving IoT Adoption</p> <p>12:40pm - Networking Lunch &amp; Exhibition Visit</p>	<p>12:10pm - Zen and the Art of Predictive Maintenance</p> <p>12:40pm - Networking Lunch &amp; Exhibition Visit</p>	<p>12:10pm - Surviving the IoT Device Security Wild West</p> <p>12:40pm - Networking Lunch &amp; Exhibition Visit</p>	<p>12:00pm - IoT, Friend or Foe</p> <p>12:20pm - The Age of Analytical Marketing</p>	<p>12:00pm - Panel: How Legislation, Policy and the Political Environment affect IoT Initiatives in the Energy/Utility Sectors</p> <p>12:40pm - Networking Lunch &amp; Exhibition Visit</p>	<p>12:50pm - Break</p>	<p>12:00pm - Capture the Value of Industrial IoT - Shaping the Future for the Industrial Digital Revolution</p> <p>12:40pm - Vertical Focus Networking: Industrial IoT Networking Lunch in the Net-</p>	<p>12:40pm - Hands-On Training: How to connect to AWS IoT Core using Amazon FreeRTOS for embedded devices - Hands-on workshop using STM32L4 Discovery Kit IoT Node</p>		<p>12:10pm - Re-inventing R&amp;D to Deliver Secure Cyber Systems, through Public - Private Partnerships</p> <p>12:40pm - Networking Lunch &amp; Exhibition Visit</p>	<p>12:10pm - Networking Refreshment Break &amp; Exhibition Visit</p> <p>12:40pm - Pitch-off: Enterprise Innovation &amp; Digital Transformation</p>		<p>12:00pm - Engaging in the Smart Cities Journey - Innovation from Pilot to Deployment</p> <p>12:40pm - Networking Lunch &amp; Exhibition Visit</p>	<p>12:00pm - Using IoT to Streamline the Construction Process</p> <p>12:40pm - Networking Lunch &amp; Exhibition Visit</p>	<p>12:00pm - Integrating Voice Control and Voice Activation into Smart Homes</p> <p>12:40pm - Networking Lunch &amp; Exhibition Visit</p>



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1:00PM		1:40pm - Successfully Commercializing Connected Commercial Vehicles	1:40pm - The Intelligent Edge - the next frontier of IoT Innovation	1:40pm - From Ideation to Commercialization: Bringing an IoT Product to Life	1:40pm - Using Machine Learning to Drive Intelligence at the Edge	1:00pm - Lunch Keynote: IoT Reality Check: Lone Wolves Don't Win  1:30pm - From Smart to Intuitive Buildings Enabled through Nano and Data Science Innovations  1:50pm - From	1:40pm - Smart and Secure Energy with IoT	1:30pm - Lunch Break	1:40pm - The Connected Worker in the Factory of the Future			1:40pm - Case Study: Innovating Public Private Partnership with the San Francisco Fiber Project	1:40pm - Doing Business with DHS: Understanding best practices for working with the DHS Silicon Valley Innovation Program		1:40pm - Can Blockchain Technology Save Our Cities?	1:40pm - Case Study: AR in Construction	1:40pm - Fireside Chat: The Future of Smart Home and Shopping

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						Proto- type to Produc- tion: How to take the leap in IoT... and stick the landing												

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2:00PM		<p><b>2:00pm</b> - Machine Learning In Manufacturing For A More Reliable Car</p> <p><b>2:20pm</b> - The Connected Car and IoT. How Linking Telematics and IoT Drives Exceptional Customer Experiences</p>	<p><b>2:00pm</b> - Security at the Edge of IoT</p> <p><b>2:20pm</b> - IoT Context Versus Content: Strategies for Extracting Insights from a Data-Centric World</p> <p><b>2:40pm</b> - Architecting Edge Cloud Infrastructure</p>	<p><b>2:10pm</b> - Embedded Systems Development Using Modern Software Practices</p> <p><b>2:40pm</b> - Design to Deploy: IoT Product from Inception to Production</p>	<p><b>2:10pm</b> - The Inadvertent IoT Platform: PostgreSQL</p> <p><b>2:40pm</b> - Static Analysis for Source and Binary: Improving Security While Reducing Time-to-Market</p>	<p><b>2:20pm</b> - Bridging the Physical and Blockchain World</p> <p><b>2:40pm</b> - Blockchain: Hashgraph for IoT Explained</p>	<p><b>2:00pm</b> - Transforming Energy &amp; Utility Industry with Intelligent Predictive Maintenance Solutions</p> <p><b>2:20pm</b> - Repurposing Older Technology for a New Era</p> <p><b>2:40pm</b> - The new world of distrib-</p>	<p><b>2:00pm</b> - The Augmented Human by Paramount Pictures</p> <p><b>2:30pm</b> - Smart Cities Workshop: Enabled Smart City Use Cases</p>	<p><b>2:00pm</b> - Fault Prediction with Vibration Monitoring</p> <p><b>2:20pm</b> - Industrial IoT - Three Strategic Insights</p> <p><b>2:40pm</b> - Equipment Connectivity for Digital Factory Transformation - Simplifying IIoT</p>		<p><b>2:20pm</b> - Leveraging IoT as a Strategic Tool to Advance your Business Model</p> <p><b>2:40pm</b> - Networking Refreshment Break &amp; Exhibition Visit PLUS Women in IoT Speed Networking</p>	<p><b>2:10pm</b> - Networking Coffee Break</p> <p><b>2:30pm</b> - machineQ and LoRaWAN: How connectivity options are helping IoT solution providers</p> <p><b>2:40pm</b> - Pitch-off: Sponsored by ma-</p>		<p><b>2:00pm</b> - Securing Smart Cities at Scale with A New Paradigm</p> <p><b>2:20pm</b> - A New Way to Fund Smart City Initiatives: the KC-MO P3 Opportunity</p> <p><b>2:40pm</b> - The Technology Driving</p>	<p><b>2:00pm</b> - Demystifying Technology Adoption in the Construction Industry</p> <p><b>2:20pm</b> - The Connected Jobsite - Implementation Challenges and Opportunities in the Commercial</p>	<p><b>2:00pm</b> - Case Study: ON Semiconductor</p> <p><b>2:20pm</b> - Panel: The Power of Voice: The Impact of Smart Speakers on Consumer Behavior and the Smart Home</p>	

# SCHEDULE

IoT WORLD DAY TWO - 16/05/2018

Internet of Things World 2019 | World's Largest IoT Conference & Expo

May 13 - 16, 2019  
Santa Clara Convention Center  
CA, USA

TIME	ANALYST BREAK- FAST BRIEFIN- GS	CO- LOCATED EVENT: CON- NECTED AND AU- TONOMO US VEHI- CLES	DATA IN- FRA- STRUC- TURE: EDGE COM- PUTING	DEVEL- OPERS CONFER- ENCE: BUILD & DEPLOY	DEVEL- OPERS CONFER- ENCE: SECURI- TY, DATA & AI	ECOSYS- TEM CENTER STAGE (FREE TO ATTEND)	ENERGY & UTILI- TIES	FUTUR- IST STAGE (FREE TO ATTEND)	INDUS- TRIAL IoT	INSIDER SESSION (FREE TO ATTEND)	KEYNOT ES	LEADER- SIN IoT (INVITE ONLY)	PROJECT KAIROS PITCHOF F (FREE TO AT- TEND)	SAP LEARN- ING SES- SION	SMART CITIES	SMART CON- STRUC- TION	SMART HOME
			ture Ready for IoT at Scale				uted en- ergy needs IoT - here's why from so- lar to storage		Deploy- ments			Event in the Net- working Garden	chineQ: IoT Solu- tions Provider s		NYC's Smart City Fu- ture	Con- struction Industry  <b>2:40pm</b> - Creating a flexi- ble, rugged and se- cure As- set Man- agement Solution	

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3:00PM		3:00pm - Afternoon Networking Break	3:00pm - Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden	3:10pm - Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden	3:10pm - Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden	3:00pm - Blockchain: Using blockchain to improve security and reduce OPEX 3:30pm - Blockchain & IAM for IoT: Edge Authentication	3:00pm - Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden	3:00pm - The Cloud, The Fog, and the Edge10 Steps to Developing an IoT Strategy that Pays Off 3:30pm - Building an IoT Industrial Base through Investor Transition Partners.	3:00pm - Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden			3:40pm - The Path from Product to Service – One company's Journey	3:40pm - Pitch-off: Connected Automotive		3:00pm - Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden	3:00pm - Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking Event in the Networking Garden	3:00pm - How Location-Based APIs are Helping Streamline Home Automation 3:20pm - Networking Refreshment Break & Exhibition Visit PLUS Women in IoT Speed Networking

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																		Event in the Net- working Garden  3:50pm - An IoT Success Story: Cable- Labs and Smart Homes

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4:00PM		<p>4:00pm - Smart Cities and the Autonomous Vehicle</p> <p>4:40pm - Fireside Chat: The Global Implications of GDPR</p>	<p>4:00pm - IoT Edge-as-a-Service: A Cost-Optimized Model for Connectivity &amp; Computing at Scale</p> <p>4:20pm - Edge Interoperability &amp; Ecosystem Collaboration</p>	<p>4:10pm - Build Complex Things, Simply</p> <p>4:40pm - Developer Case Study: IoT Product Development at Warp Speed</p>	<p>4:10pm - Apache Spark and Apache Ignite: Where Fast Data Meets the IoT</p> <p>4:40pm - Internet of Things (IoT) Edge Analytics: Do's and Don'ts</p>		<p>4:00pm - Modernizing Energy &amp; Utilities: AI &amp; ML revolution in producing, transmitting, and consuming energy</p> <p>4:20pm - Connected Devices and IoT: Improved Response to Ad-</p>	<p>4:00pm - ON Semiconductor Case Study: Digital Farming</p> <p>4:20pm - Smart Agriculture: How to Start in Agriculture IoT</p> <p>4:40pm - Smart Agriculture: The Internet of Trees - Lessons from a</p>	<p>4:00pm - The Digital Thread and Industry 4.0</p> <p>4:20pm - Sensors to Smart Phones: The Rise of Digital Agriculture</p> <p>4:40pm - IoT Security in Manufacturing &amp; Supply Chain</p>			<p>4:10pm - Smart Cities: IoT in Context on a Massive Scale</p>	<p>4:40pm - Session: Get the most out of your incubator experience</p>		<p>4:00pm - Autonomous Vehicles, The San Jose Way</p> <p>4:20pm - Beyond the Smart City - Building the First Connected Place in Greater Phoenix</p>	<p>4:00pm - Drones in Construction: Automated Data Capture</p> <p>4:20pm - Case Study: Stanley Black &amp; Decker</p> <p>4:40pm - Case Study: Implementing AR &amp; IoT into Construction</p>	<p>4:10pm - Fireside Chat: The Rise of Subscription Models for Smart Objects and Connected Devices in Homes</p> <p>4:30pm - How Utility Service Platforms Can Lead the Way in Provid-</p>



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							dressing Natural Disas- ters  4:40pm - Analyz- ing the Policy Implica- tions of IoT for Energy Compa- nies	Green- fields IoT De- ploy- ment										ing Ac- tionable Insight into Re- source Usage for Con- sumers  4:50pm - A Seat at the Table - Service Provider s, Device Design- ers, and Con- sumers Collabo- rating in the Inter- net of Things

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5:00PM		<p>5:00pm - ADAS-Mark: Evaluating the Performance of ADAS Heterogeneous Compute Architectures</p> <p>5:20pm - Vehicles and Edge Computing: Processing Power And Algorithms</p>	5:00pm - Net-working Break & Exhibi-tion Visit	5:10pm - End of Tracks and Net-working Exhibi-tion Visit	5:10pm - End of Tracks and Net-working Exhibi-tion Visit													

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		5:40pm - Net- working Break & Exhibi- tion Visit															
6:00PM	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party	6:00pm - IIOT World Confer- ence Net- working Party

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## Analyst Breakfast Briefings

7:30am - 8:30am  
Analyst Breakfast Briefings

Please join us in our Annual Analyst Breakfast Briefings. The following topics will be covered during the Round Table Sessions:

James Brehm from James Brehm & Associates: IoT 101: From the Edge to the Enterprise- Functional Decomposition of the IoT Ecosystem

Sam Lucero from IHS Markit: Platforms, standards, and blockchains - How will the Internet of Things achieve a truly interconnected data infrastructure?

Michael Render from RVA LLC Market Research and Consulting: Smart Cities - How do we really impact citizen life and city costs?

Mark Beccue from Tractica: Smart Home Interfaces: Who Will Win?

Location: Mission City Ballroom M1

## Participants

**Roundtable Leader: James Brehm** - Founder & Chief Technology Evangelist, James Brehm & Associates

**Roundtable Leader: Michael Render** - CEO and Principal Analyst, RVA LLC Market Research and Consulting

**Roundtable Leader: Mark Beccue** - Principal Analyst, Tractica

**Roundtable Leader: Sam Lucero** - Sr. Principal Analyst, IoT, IHS Markit

## Keynote Case Study: Redefining Retail with the Internet of Everything

8:30am - 8:50am  
Keynotes

- IoT leveraging temperature monitoring
- Enhancing the User Perspective, and learn how Kroger manufactures and deploys their systems with IoT

Location: Mission City Ballroom

## Participants

**Brett Bonner** - Vice President, Research and Development, The Kroger Co.

## Can Information Technology Simultaneously Delight the Patient and Physician, Increase Access, Reduce Cost, and Improve Quality?

8:50am - 9:10am  
Keynotes

The most significant challenge in health care today is the demand to deliver on the quadruple aims of experience, access, quality and cost. Much of the demand falls to physicians and consistently achieving these aims is persistently beyond their reach. The current array of digital health tools available to physicians are inadequate - especially with the accelerating growth in medical knowledge and the amount of health care data doubling every two years. Keeping up with everyday practice demands alone is driving an epidemic of physician burnout. In this session we will focus on ambulatory care and describe digital health solutions designed to deliver on the quadruple aims in a financially sustainable practice where burnout risk is low.

Location: Mission City Ballroom

## Participants

**Chris Waugh** - VP, Chief Innovation Officer, Sutter Health

## Lightning Talk; When Stars Align: The Time for Transformation is Now

9:10am - 9:20am  
Keynotes

All the ingredients for successful IoT-driven transformation exists today! The innovators and technology, as well as business cases are already established; but the binding ingredient, alignment, is often overlooked. Alignment safeguards budgets, schedules, and expectations, and in this Lightning Talk we will discuss how to drive alignment that is not limited only to your organization, but across your entire IoT vendor network.

Location: Mission City Ballroom

## Participants

**Michael Lamp** - Director of Americas IoT Business Development, Avnet

## From the Edge to the Cloud: Deploy IoT Applications that Transform Your Business

9:20am - 9:40am  
Keynotes

Building IoT applications that increase operational efficiency and create net-new revenue streams requires the flexibility to collect data, compute, and analyze data in the cloud or wherever it is generated. During this keynote, we will discuss how to run IoT applications seamlessly across the cloud and edge devices so you respond quickly to local events, while still using the cloud for management, analytics, and durable storage. We will also discuss how to add machine learning to your IoT applications using managed cloud services to build and train machine learning models and options to run machine learning inference locally on devices. We will end with several case studies showing how AWS customers are using IoT to build new services and business models, improve products and services, and strengthen the customer experience.

Location: Mission City Ballroom

## Participants

**Mark Relph** - Head of Business Development - IoT and Emerging Technologies, Amazon Web Services

## Keynote Panel: How IoT Will Revolutionize Banking's Digital Future

9:40am - 10:00am  
Keynotes

- Enhancing customer's user experience and improving transaction efficiency
- Using big data, analytics and blockchain for applications and digital platforms
- Overcoming challenges of fraud and cyber security
- Saving costs and investments with fintech and agile delivery

Location: Mission City Ballroom

## Participants

**Moderator: John Horn** - IoT Executive, Independent

**Panelist: Ashish Tajpuria** - SVP, Emerging Payments and Commerce, Bank of America

**Panelist: Geng Lin** - Chief Development Officer & Head of Engineering, JPMorgan Chase

**Panelist: Marria Rhodriquez** - Vice President, Digital Product Management & Strategy, Wells Fargo

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## Digital Factory Transformation – What do you Get When you Connect 25,000 Pieces of Manufacturing Equipment to the Cloud?

10:00am - 10:30am  
Keynotes

Are Industry 4.0 and IIoT real or just hype, and do these technologies provide a measurable ROI or benefit? What are some forward thinking companies really doing today, with production deployments of:

- Real time data analytics and control of high technology medical and automotive “lights out” production lines.
- Cloud technology automatically tracking raw material levels at workstations, dispatching material via autonomous guided vehicles to replenish these workstations.
- Global factory and supply chain (remote) visibility. Real time visibility of KPI's, and real time alerts for WIP, yield, throughputs on hundreds of production lines worldwide.
- How equipment connectivity automates quality records and “forces” day to day regulatory compliance management.
- The ROI and value for these case studies.

Location: Mission City Ballroom

### Participants

**Gelston Howell** - Sr. Vice President, Sanmina Corporation

## Key Challenge Panel: Bridging the Skills Gap and Developing the IoT Workforce

10:30am - 10:50am  
Keynotes

In the Key Challenge Panel series, the IoT World Keynotes discuss some of the key issues affecting the effective widespread adoption of IoT

This panel addresses on of the fundamental challenges affecting IoT and digital transformation - the human element. How should organisations approach adjusting their skill sets to take advantage of the opportunities of IoT? What changes to training, culture and leadership are required?

Location: Mission City Ballroom

### Participants

**Trent Salvaggio** - Executive Director, Internet of Things Talent Consortium (IoTTC)

**Jennifer Waldo** - Chief Human Resource Officer, GE Digital

**Ohad Zeira** - Vice President, Fleet Ventures, Avis Budget Group

## Networking Refreshment Break & Exhibition Visit

10:50am - 11:30am  
LeadersIn IoT (INVITE ONLY)

## Networking Refreshment Break & Exhibition Visit

10:50am - 11:30am  
Industrial IoT

## Networking Refreshment Break & Exhibition Visit

10:50am - 11:30am  
Smart Cities

## Networking Refreshment Break & Exhibition Visit

10:50am - 11:30am  
Energy & Utilities

## Networking Refreshment Break & Exhibition Visit

10:50am - 11:30am  
Smart Building

Join us to network with your peers in the informal setting on the IoT World Networking Garden situated in the Tusca Courtyard.

Open to all conference pass holders.

## Networking Refreshment Break & Exhibition Visit

10:50am - 11:30am  
Smart Home

## Networking Refreshment Break & Exhibition Visit

10:50am - 11:30am  
Data Infrastructure: Mobile IoT: LPWAN & 5G

## Networking Refreshment Break & Exhibition Visit

10:50am - 11:30am  
Developers Conference: Build & Deploy (Architecture)

## Networking Refreshment Break & Exhibition Visit

10:50am - 11:30am  
Developers Conference: Connectivity & Networking

## Vertical Focus Networking: Connected & Autonomous Cars Networking Session in the Networking Garden

10:50am - 11:40am  
Co-Located Event: Connected and Autonomous Vehicles

### Break

10:50am - 11:00am  
Futurist Stage (FREE TO ATTEND)

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Futurist Stage Booth #1360

## Top 5 Killer Use Cases of IOT Analytics with Machine Learning at Scale

10:50am - 11:00am  
Ecosystem Center Stage (FREE TO ATTEND)

Does the thought of capturing massive volumes of streaming sensor data from your hundreds or thousands of connected assets give you heartburn? Perhaps you are considering how to implement analytics at the edge to relieve your data warehouse. Or, maybe you are storing time-series data in your Hadoop or S3 data lake as you build a solid IOT business case. No matter where you are on the IOT analytics maturity curve, join us to learn how the Vertica analytical database provides leading intelligent device manufacturers with the highest levels of query performance and massively scalable in-database Machine Learning and analytics to derive bottom-line business value from their IOT initiatives.

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**Jeff Healey** - Senior Director of Vertica Product Marketing, Micro Focus

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## The Impact of IoT on the Changing World of Retail

10:50am - 11:50am  
Insider Session (FREE TO ATTEND)

We live in a world where everyone – and everything – is becoming connected. As a result, we are rapidly expanding beyond a world where commerce happens in traditional environments –in-store and online– to one where commerce can happen anytime, anywhere across devices and channels. Join Stephane Wyper, SVP of New Commerce Partnerships at Mastercard and Greg Kahn, CEO of Internet of Things Consortium for a co-hosted panel conversation about the impact of IoT on the changing landscape of retail. Panelists from across the industry will share how they are evolving their business models to blend the online and offline worlds and drive a seamless blend of bricks and clicks.

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: 2nd Floor Meeting Room 210

## Consumer IoT: From Traditions in the Swiss Watch Valley to Open Innovation Human-Friendly IoT-Based Ecosystems in Western Europe

11:00am - 11:20am  
Futurist Stage (FREE TO ATTEND)

The project is coordinated by LIST. Alain Barbal, Chief Executive Officer at Coherent Streams, will present how 330+ years in precision-mechanics, so far mainly applied in the manufacturing of highly-precise-complicated watches have led to a dense and diversified industrial, scientific and academic fabric, which envisions a society in which the application of technologies and innovative new services and systems creates a stimulating playing field for many stakeholders, with regards to both the consumer markets and services provided to the public.

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Futurist Stage Booth #1360

### Participants

**Alain Barbal** - Director, Neuchatel Innohub, Switzerland

## Leveraging cloud technologies to build an effective IoT platform for Smart Manufacturing

11:00am - 11:20am  
Ecosystem Center Stage (FREE TO ATTEND)

The session will focus on a few specific use cases in the supply chain space and how one would go about implementing an IIoT solution to unlock and enable workflows and capabilities to reduce downtime and maximize efficiency thereby increasing revenue.

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**Speaker: Peri Subrahmanya** - Product Manager, IoT, Monsanto

## Pitchoff Opening Remarks

11:10am - 11:20am  
Project Kairos Pitchoff (FREE TO ATTEND)

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Project Kairos Pitchoff Stage, Startup City

### Participants

**Kyle Ellicott** - Founder, Chief Labs Officer, ReadWrite

## Learn How AWS IoT 1-Click Can Easily Execute Simple Action

11:20am - 11:40am  
Futurist Stage (FREE TO ATTEND)

In this session, see how easy it is to use IoT. With AWS IoT 1-Click, cloud-ready simple devices can be integrated and deployed securely, right out of the box without writing device-specific code. AWS IoT 1-Click enables you to group, identify, and track your IoT deployments giving you full visibility into device utilization and health. Come learn how AWS IoT 1-Click can help manufacturers build, and developers integrate, ready-to-use simple devices into their cloud applications.

Location: Exhibit Hall Futurist Stage Booth #1360

### Participants

**Richard Elberger** - Partner Solutions Architect, Amazon Web Services

## The Progression of IoT Maturity

11:20am - 11:40am  
Ecosystem Center Stage (FREE TO ATTEND)

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**Dave McCarthy** - Senior Director of Products, Bsquare Corporation

## Pitchoff: Industrial IoT

11:20am - 12:20pm  
Project Kairos Pitchoff (FREE TO ATTEND)

6 startups in each category will face off and deliver their pitches to earn a spot in the finals. The final round of pitches will be delivered on the Executive Keynote Stage and startups will battle it out to win the prize package:

- 1 subscription to Ovum's Knowledge Center
- Opportunity to showcase at your choice of Internet of Things World 2019 or one of our Fall IoT events, includes:
  - Table top stand
  - 30-minute showcase within the conference
  - Pre-event and onsite interview
  - Featured article on IoT Institute (IoTi.com)
  - Promoted as 2017 Innovation of Things Award Winner
  - Travel stipend

[Go to the Project Kairos page to learn about additional perks, book your Startup Package, secure your spot and submit your entry to the competition.](#)

Location: Project Kairos Pitchoff Stage, Startup City

### Participants

**Panelist: Brad McManus** - Managing Director, Motorola Solutions Venture Capital

**Panelist: Vikas Mehta** - Commercial Strategy Leader, Microsoft

**Panelist: Jordan Wahbeh** - Managing Director, Bay Angels

**Panelist: Ross Perich** - VP at 10Fold & GM, ProMotion Studios

**Panelist: Ilya Pavlov** - Venture Partner at Bright Capital, Managing Director, Stanislavsky Ventures

# SESSIONS

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## Optimizing your Business for Fast, Secure, Scalable IoT Deployments – lessons learned the Hard Way.

11:30am - 12:30pm  
LeadersIn IoT (INVITE ONLY)

The Internet of Things - everyone seems to be doing your business for fast, secure, scalable IoT deployments – lessons learned the hard way. g it, but no one seems to talk about the operational details of what it takes. Companies in almost every industry are using IoT to transform their businesses and gain competitive edge. From increasing net profits for an auto maker by \$350M over three years to enabling a manufacturer to reduce factory floor downtime by 21% - IoT services are delivering meaningful business results.

Cisco's IoT business group has helped over 16,000 companies launch, manage and monetize their IoT services around the world and across multiple industry sectors. Based on this experience, come join us in a discussion and debate around common factors of successful IoT deployments. Topics covered include security, data management and hidden operational costs. This session will break a variety of IoT uses cases into best practices you can use to build your own IoT strategy.

*Location: Magonlia (Hyatt)*

### Participants

**Theresa Bui Revon** - Director of IoT Strategy, Cisco

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## Chairman's Opening

11:30am - 11:40am  
Industrial IoT

Day 2 of Industrial, May 17th, looks at the the Implementation and Operation of IoT in the industrial and manufacturing environment.

Hear from companies such as Monsanto, Pfizer and Sigfox that have tested their deployments and hear their success stories as well as the operational challenges they faced when going through their IoT project.

*Location: 2nd Floor Theater*

### Participants

**Chairman: Stephanie Atkinson** - CEO & Principal Analyst, Compass Intelligence, LLC

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## Chairman's Opening

11:30am - 11:40am  
Smart Cities

Day 2 of Smart Cities will focus on cities implementing Smart Cities programs, with Public Safety, Urban Transportation, Sustainability/Infrastructure and Connected Cars & Mobility.

Hear experts from the City of Orlando, General Motors, Postmates discuss the operational challenges faced when making intelligent cities come to life to enhance the life of citizens.

*Location: 2nd Floor Meeting Rooms 203/204*

### Participants

**Chairman: Chris Davis** - Vice President, Smart Cities and Strategic Alliances, CIMCON Lighting

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## Chairman's Opening

11:30am - 11:40am  
Energy & Utilities

The Energy & Utilities sector - the heart of the new economy - reached a new era, and with that new challenges and opportunities arise for IoT. Let's discuss: Changing Global and Federal Policies, Preparing for and Rebuilding after Natural Disasters or War Zones, Security, Blockchain, Renewable Energy, and Aging Legacy Systems just to name a few.

The first day of this track, May 16th, focuses on Strategy, while May 17th, looks at the the Implementation and Operation of the Energy & Utilities sector.

*Location: Grand Ballroom E*

### Participants

**Noah Goldstein** - Director | Energy, Navigant

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## Chairman's Opening

11:30am - 11:40am  
Smart Building

*Location: Grand Ballroom H*

### Participants

**Chairman: Melanie Nutter** - Principal, Nutter Consulting

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## Chairman's Opening Remarks

11:30am - 11:40am  
Smart Home

*Location: Grand Ballroom G*

### Participants

**Speaker: Lindsey Turrentine** - Vice President, Editor in Chief, CNET.com

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## Chair's Opening

11:30am - 11:40am  
Data Infrastructure: Mobile IoT: LPWAN & 5G

*Location: Grand Ballroom B*

### Participants

**Alexandra Rehak** - Practice Leader, IoT, Ovum

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## Chairman's Opening

11:30am - 11:40am  
Developers Conference: Build & Deploy (Architecture)

*Location: Grand Ballroom C*

### Participants

**Ian Skerrett** - Consultant, Independent

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## Chairman's Opening

11:30am - 11:40am  
Developers Conference: Connectivity & Networking

*Location: Grand Ballroom D*

### Participants

**Chairman: Shivakumar Mathapathi** - Co-Founder and CTO, Dew Mobility

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## How IoT and Industry 4.0 Is Transforming Manufacturing of the Future

11:40am - 12:00pm  
Industrial IoT

Fifty-seven percent of IT leaders are planning to invest in IoT and connectivity by 2019. For manufacturers, this is critical to maintain pace with the growing number of connected devices and the increase in data they generate. Industry 4.0 initiatives are ushering in a complete transformation of how manufacturing of the future will operate. This session will explore the intersection points of these two initiatives and will touch on topics below:

- How manufacturers are strengthening their digital initiatives to access aggregated data, protect their network, and shift from preventative to predictive maintenance, and make their inbound and outbound processes more efficient
- Use cases of how the digital factory and fleets are benefiting from sensor-based data
- What blockchain, AI, 5G and other emerging technologies means for manufacturers in the future

Location: 2nd Floor Theater

### Participants

**Speaker: Mobeen Khan** - AVP, AT&T IoT Solutions - AT&T Business Solutions, AT&T

## Cloud module enable the Innovation of IoT industry

11:40am - 12:00pm  
Smart Cities

Location: 2nd Floor Meeting Rooms 203/204

### Participants

**Speaker: Jun Zou** - Chief Technology Officer, SUNSEA IoT Ltd.

## Connected Energy: Modernizing the energy sector & the national grid in the UK

11:40am - 12:00pm  
Energy & Utilities

- Process control systems (PCS / DCS)
- Protection / shutdown systems (ESD / ICSS)
- Pipeline control systems
- Fire and gas systems
- Telemetry, remote monitoring and SCADA systems
- Simulation and operator training (OTS)

Location: Grand Ballroom E

### Participants

**Thomas Olsen** - Managing Director, Lagoni

## The Interface Between the Smart Grid and Smart Buildings

11:40am - 12:00pm  
Smart Building

- The tech world is rapidly changing and has short life cycles vs. real estate, building automation projects as their assets and cycle are long term
- How have the project meeting the brief, facing challenges of landlords
- Distinguishing between the design and construct part of a life cycle – designers vs. operational departments

Location: Grand Ballroom H

### Participants

**Speaker: Michael Frost** - Vice President, CBRE Group, Inc

## Authentication of Things: Protecting Consumer Privacy While Seamlessly Provisioning Smart Home Devices

11:40am - 12:00pm  
Smart Home

With the emerging threats in IoT (which includes smart homes) and increased attack surfaces, end-to-end security is paramount. Along with security, privacy concerns are on the rise. In particular, seamless provisioning of IoT devices in smart homes while protecting consumer privacy is of utmost necessity. In order to address such concerns, we introduce AoT – a new suite of authentication and authorization protocols for the entire IoT device life-cycle. The foundation for any security solution relies on cryptographic primitives with policy enforcement. However, conventional cryptographic algorithms can be resource intensive and beckon the need for lightweight cryptography (symmetric and asymmetric key crypto). Hence, AoT incorporates lightweight and side-channel attack protected cryptography while ensuring seamless interoperability.

Location: Grand Ballroom G

### Participants

**Speaker: Harsh Kupwade Patil**, LG Electronics



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## Edge-to-cloud Connectivity and Virtualization for Efficiency

11:40am - 12:00pm

Data Infrastructure: Mobile IoT: LPWAN & 5G

Are Enterprises taking connectivity for granted in their IoT applications?

As the reach of these applications grows beyond borders, and with the alarming rate of cybersecurity breaches in the news, Enterprises are beginning to realize they have major IoT connectivity challenges on their hands. How do they manage the exploding complexity of multi-country global coverage? How do they protect the end points, the applications and the data between them? How can they get better control over the cost and quality of what is the lifeblood of their IoT applications – mobile connectivity? With the accelerating migration of Enterprise IoT applications to the cloud and with the end points fast becoming “mobile first,” these challenges may soon jeopardize the productivity and ROI they hope to reap from IoT.

Can we get to a world where devices truly are “born connected” with performance optimization and security built in? Can we get to a place where the enterprise, not the mobile operator, is the “parent” of these “newborn connected” devices no matter where they are, with ultimate control over how they connect? Tata Communications believes we can...

IoT connectivity needs a new wave of innovation to help Enterprises confront and overcome these challenges. The industry needs a new type of connectivity provider that covers the globe, offers multiple connectivity options in each country, gives total control back to the Enterprise, seamlessly ensures edge to cloud security and makes it all easily programmable and manageable.

At Tata Communications, we've pursued this vision and made it a reality with our MOVE IoT Connect service. We'll outline how MOVE IoT Connect is the next generation IoT connectivity solution.

*Location: Grand Ballroom B*

### Participants

**Jeff Bak** - Vice President of Americas Enterprise Mobility Business Development, Tata Communications Ltd.

## Building IoT Cloud Applications at Scale with Microservices

11:40am - 12:10pm

Developers Conference: Build & Deploy (Architecture)

DConnectivity, big data, and analytics are transforming businesses of all types, and one of the challenges for industrial internet of things is that there are massive amounts of data generated by “things” such as jet engines, wind turbine, sensors and more. This data is only valuable if it can be accessed securely, efficiently and quickly. Often, Industrial companies have very unique requirements that are different from those of other businesses. Engineers need to build systems for security, flexibility and resiliency, not just efficiency and robustness. This presentation will discuss how to leverage microservice design principles and other open source platforms to build an IOT device management solution in a microservice oriented architecture. This gives the cloud visibility to securely manage millions of connected IOT devices at scale. Design Patterns/Architecture Maps for IoT Design patterns are the building blocks of architecture and enable developers and architects to reuse solutions to common problems.

In this session, we will review how several common design patterns for connected things, design patterns for common use cases and design patterns for infrastructure, can speed connected device development.

*Location: Grand Ballroom C*

### Participants

**Dave Chen** - Principle Software Engineer, Workday

## Is Universal Connectivity Possible?

11:40am - 12:10pm

Developers Conference: Connectivity & Networking

Without Bluetooth and Bluetooth Low Energy in play, the idea of a future where people experience seamless IoT engagement falls apart. While Bluetooth is superior for certain use cases, an honest conversation about the future of connectivity to support the emerging mobile IoT, and increasingly sophisticated multi-faceted device interaction in the very near future, wouldn't be possible without acknowledging the importance of all relevant connectivity technologies, such as NB-IoT and WiFi. This session explores current Bluetooth and other wireless technology trends, challenges, and opportunities associated with voice, mobility, security, and new standards activities. The speaker shares thoughts about the possibilities, opportunities, and challenges associated with developing a Universal Connectivity technology.

*Location: Grand Ballroom D*

### Participants

**Arun Rajasekaran** - Director of Engineering, Plantronics

## Ask Mercedes: Digital Transformation at Mercedes-Benz

11:40am - 12:00pm

Co-Located Event: Connected and Autonomous Vehicles

Join Sudha Jamthe of DriverlessWorldSchool on a fireside chat with Kyle Columbus of Mercedes-Benz to find out how business innovation and digital transformation happens in global OEM company. This fireside chat will address key questions that will help companies as they navigate challenges and opportunities to transition to Connected Cars and the Driverless World.

- What is the secret sauce to permeate innovation across global units
- How can you incubate ideas in small teams while keeping the focus on the core business?
- What business metrics do you use to prioritize innovations that get funded
- What are the execution, investment and innovation strategies that work?

*Location: Grand Ballroom F*

### Participants

**Speaker: Kyle Columbus** - Program Launch Manager @ Future Transportation, Mercedes-Benz Research & Development North America

**Moderator: Sudha Jamthe** - Autonomous Vehicle Instructor, Stanford University

## Smartifying the bonfire in our caves: How AI, robots and sensors will catalyze a waste-free future

11:40am - 12:10pm

Futurist Stage (FREE TO ATTEND)

Each year, we waste two million Olympic-sized swimming pools of water just waiting for our water to get hot. The world doesn't need a better water heater or another smart thermostat. What we need, is a total transformation in the way we utilize energy to heat water and to cool our spaces. The way we utilize energy to cool our rooms and to heat our water has remained virtually the same for the past 100 years. How can sensors, autonomous robotic behaviors and multidisciplinary technology blur the boundaries between function and devices and revolutionize the way we heat water?

*Location: Exhibit Hall Futurist Stage Booth #1360*

### Participants

**Sri Deivasigamani** - Co-founder & CEO, Intellihot

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## Power of Where

11:40am - 12:00pm

Ecosystem Center Stage (FREE TO ATTEND)

The value of the data captured by IoT devices can be greatly enhanced when augmented with location. This session will highlight some examples, and methods that are available to determine location in very efficient ways, including Arm Mbed and Samsung Artik devices.

*Location: Exhibit Hall Ecosystem Center Stage Booth #1052*

## Participants

**Brian Salisbury** - Vice President Product Management, Comtech Telecommunications

## Panel: Digital Manufacturing in Full Effect – Predictive Maintenance and Connectivity

12:00pm - 12:40pm

Industrial IoT

- Successfully Identifying, connecting and securing a variety of devices and machines
- Utilizing predictive maintenance and machine learning and overcoming hurdles that hindered flawless outcome
- Blockchain helping manufacturers to streamline operation
- Integrating the captured/transmitted/stored data into the core data center without issues

*Location: 2nd Floor Theater*

## Participants

**Panelist: Sean Horan** - Director of Western USA, Sigfox USA

**Panelist: Gary Binstock** - Director of Technology - Strategic Innovation & Technology Alliances, Colgate-Palmolive Company

**Moderator: Ian Hughes** - Senior Analyst, IoT, 451 Research

**Panelist: Peri Subrahmanya** - Product Manager, IoT, Monsanto

**Panelist: Rahul Garg** - Director, Azure IoT, Microsoft

## Connectivity Enabling the Future of Mobility & the Customer Experience

12:00pm - 12:40pm

Smart Cities

- Seamless mobility solutions and driverless vehicles to improve reliability and efficiency
- Using IoT and Smart Data to enhance the consumer and customer experience
- Vehicle personalization and ride sharing for urban mobility

*Location: 2nd Floor Meeting Rooms 203/204*

## Participants

**Panelist: Steve London** - Senior Manager, Business Development, Global Connected Consumer, General Motors

**Panelist: Sai Yagnyamurthy** - Director of Global Strategy, Ford Motor Co.

**Panelist: Jon Walker** - Transportation Policy Manager, Lyft

**Moderator: David Immerman** - Associate Analyst, 451 Research

**Panelist: Daniel Herb** - Director, IoT, T-Mobile

## Panel: Technical Considerations: Cloud-based Work and Asset Management in Connected and Smart Cities

12:00pm - 12:40pm

Energy & Utilities

- Reducing city & utility operational and IT infrastructure and costs through cloud-based smart city application delivery models
- Using data analytics for service provider and end user use cases (ex. Distributed Energy Resource/ DER integration, Blockchain for Transactive Energy)
- Managing and tracking business critical assets, either on a daily operational basis or during a routine audit
- Supporting team collaboration around asset reservations, maintenance, checkouts, and audits via mobile systems
- Utilizing barcode, RFID, NFC, and GPS technology

*Location: Grand Ballroom E*

## Participants

**Paul Doherty** - President & CEO, The Digit Group

**Chad Hoyle** - Lead IT Architect IoT, Duke Energy

**Bob Tafoya** - Director of Business Development, Juniper Networks

**William Pugh** - Managing Partner, Smart Connections Consulting, LLC

**Thomas Olsen** - Managing Director, Lagoni

## Panel: Smart Building Planning - Assessing Investment and Objectives

12:00pm - 12:40pm

Smart Building

- Staff optimization and efficiency (B.A.S. facilities and skilled labor)
- Understanding the unique specification of a building
- Measuring cybersecurity issues for commercial buildings
- Overcoming challenges of changing nature of size and lengths of leases with co-working spaces, occupants of office space
- What technology is doing to the customer and how to use the technology

*Location: Grand Ballroom H*

## Participants

**Panelist: Fred Gordy** - Director of Cyber Security & Managing Consultant, Intelligent Buildings, LLC

**Panelist: Chris Richardson** - AVP - IT Development, Arizona State University

**Panelist: Maya Henderson** - Sustainability Manager, Kilroy Realty Corporation

**Moderator: Alex Glaser** - Vice President, Harbor Research

**Panelist: Andy Ellicott** - Head of Developer Relations, Crate .io

## Fireside Chat: Building Compelling Value into Smart Homes

12:00pm - 12:40pm

Smart Home

- Perception of 'value' needs to go up while price points must go down
- Increasing awareness of what these devices can do for everyone – AI
- Devices can do more than manage light bulbs and thermostats – property damage avoidance, property management, etc.
- Once you move beyond practical matters, most devices are based around entertainment and ease of life

*Location: Grand Ballroom G*

## Participants

**Moderator: James Glasnapp** - Global Lead UX Design Research, PARC

**Panelist: Rajat Shail** - Senior Director, Experience Design, Honeywell

**Panelist: Tim Westman** - Marketing Director, Smart Home Group, Intel Corporation

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## Panel: IoT Connectivity Options: Licensed or Unlicensed?

12:00pm - 12:40pm

Data Infrastructure: Mobile IoT: LPWAN & 5G

New options for connectivity mean there are new ways to connect, adding to the explosion of IoT-enabled devices. This session will explore both the licensed and unlicensed options for LPWA, current and future use cases, and the new business models that are now possible.

- What's the difference between LTE-M/NB-IoT, LoRa and Sigfox and which one is best for you?
- Criteria: Short range vs. Long range; power/battery life; cost
- What is the future role of LPWAN / how will the arrival of LTE/5G change the market?
- Disruptive use cases and future roadmap

Location: Grand Ballroom B

### Participants

**Panelist: Christos Koliass** - Principal Research Scientist and Orange Expert, Orange

**Panelist: Marc Hervieu** - IoT Marketing Manager, STMicroelectronics

**Panelist: Graham Trickey** - Head of IoT Programme, GSMA

**Panelist: Dave Kjendal** - CTO & Vice President Engineering, Senet

**Panelist: Nick Taluja** - Vice President, Worldwide Sales, Sequans Communications

## Automakers in the Driving Seat - Maintaining Digital Control Within the Vehicle

12:00pm - 12:20pm

Co-Located Event: Connected and Autonomous Vehicles

As enhanced connectivity continues to enable new services and forms of infotainment in the vehicles, how can automakers keep digital control of the vehicle?

- Get to grips with how OEMs can monetize connected car data (i.e. location, audio, driving behaviour) by breaking through industry silos (i.e. media, insurance, emergency response)
- Monetize data opportunities enhanced by the autonomous car; from payments enabled by localisation/routing to content streaming and infotainment

Location: Grand Ballroom F

### Participants

**Scott Burnell** - Global lead, Business Development & Partner Management, Ford Motor Co.

## Understanding and Addressing Security Maturity in the Internet of Things

12:00pm - 12:20pm

Ecosystem Center Stage (FREE TO ATTEND)

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**Mike Ahmadi** - VP - Transportation Security, DigiCert

## How to Build an IoT Backend Using Node.js, Serverless & Docker

12:10pm - 12:40pm

Developers Conference: Build & Deploy (Architecture)

This session will provide examples of how to develop and run IoT backends as FaaS (Functions as a Service) using an API Gateway, Kubernetes, Node.js and Docker. We will also cover home automation, transportation, retail and industrial IoT use cases. Reference architectures and open source code samples will be provided.

Location: Grand Ballroom C

### Participants

**Shubhra Kar** - VP, Product, Joyent

## Case Study: Optical IoT Networks Using Morse and QR code

12:10pm - 12:40pm

Developers Conference: Connectivity & Networking

In this session, we'll relate how we code Arduino and Raspberry Pi 3 to perform full duplex Optical and RF hybrid Communications with Python and Arduino SDK. Data rates and BERT will be presenting for Space, airborne, terrestrial, marine and underSea Applications. As a five domain technology, it also works at each of the edges or boundaries.

Location: Grand Ballroom D

### Participants

**Peter Ateshian** - Adjunct Faculty, Naval Postgraduate College

## Break

12:10pm - 12:50pm

Futurist Stage (FREE TO ATTEND)

## Connected Car Data - Unlocking Value Today & Creating A Roadmap For The Future

12:20pm - 12:40pm

Co-Located Event: Connected and Autonomous Vehicles

Learn how to disrupt with connected car data within a fragmented ecosystem of automakers, hardware and systems suppliers, insurers and service providers.

- Identify the most valuable data from the huge volumes of data generated by the vehicle, maximizing monetary value versus the cost associated with transfer, storage and analytics.
- Increase consumers' willingness to share data by building trust, and meet increasingly complex security, privacy and data regulations.
- Unlock new business models that improve brand loyalty and drive value from the outset whilst creating a road map for the future of connectivity.

Location: Grand Ballroom F

### Participants

**Speaker: Richard Barlow** - Founder & CEO, Wejo

## Navigating Patent Wars in IoT

12:20pm - 12:50pm

Ecosystem Center Stage (FREE TO ATTEND)

Patent wars are what happen when the wireless industry converges with other industries. The smartphone patent wars offer us three good lessons for both patent owners and technology implementers when it comes to IoT convergences:- Everybody needs to own some patents in a patent war,- Wireless component suppliers are key allies in a patent war, and- Negotiation and arbitration can be a better path than waging a world war of litigation

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**Ryan Koppelman** - Partner, Alston & Bird

## Networking Refreshment Break & Exhibition Visit

12:20pm - 1:10pm

Project Kairos Pitchoff (FREE TO ATTEND)

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

## Networking Lunch & Exhibition Visit

12:30pm - 1:30pm

LeadersIn IoT (INVITE ONLY)

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Industrial IoT

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## Vertical Focus Networking: Smart Cities & Smart Buildings Networking Lunch in the Networking Garden

12:40pm - 1:40pm  
Smart Cities

Join us to network with your peers in the informal setting on the IoT World Networking Garden situated in the Tusca Courtyard.

Open to all conference pass holders.

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Energy & Utilities

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## Vertical Focus Networking: Smart Cities & Smart Buildings Networking Lunch in the Networking Garden

12:40pm - 1:40pm  
Smart Building

Join us to network with your peers in the informal setting on the IoT World Networking Garden situated in the Tusca Courtyard.

Open to all conference pass holders.

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Smart Home

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Data Infrastructure: Mobile IoT: LPWAN & 5G

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Developers Conference: Build & Deploy (Architecture)

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Developers Conference: Connectivity & Networking

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## Networking Lunch & Exhibition Visit

12:40pm - 1:40pm  
Co-Located Event: Connected and Autonomous Vehicles

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## Lunch Break

12:50pm - 1:30pm  
Futurist Stage (FREE TO ATTEND)

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## The Future of Connected Mobility: What opportunities are emerging from the on-going disruption of how people move around in cities

12:50pm - 1:10pm  
Ecosystem Center Stage (FREE TO ATTEND)

One of the most transformative disruption currently happening is the advent of new forms of mobility. Car-sharing, ride-hailing, and more generally mobility-as-a-service (MaaS) have already fundamentally transformed the way people move around in cities; and autonomous vehicles are only a few years away.

The implications of that disruption go well beyond transport. Second order consequences will fundamentally reshape cities geography (and real estate dynamics), energy markets, or ways of working.

To understand the future of mobility and its ramifications, we spoke with 30+ experts, conducted in-context user interviews in 3 continents, and analysed 250+ companies across the ecosystem. Through this multidisciplinary analysis we forged our unique point of view on mobility. We are convinced journeys are increasingly becoming an opportunity rather than a negative externality, and that the next opportunities will lie in creating journey experiences, rather than more efficient ways to go from A to B.

*Location: Exhibit Hall Ecosystem Center Stage Booth #1052*

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## Participants

**Aldo de Jong** - Co-Founder, Claro Partners

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## Unite the Connected: Developing for the Trifecta - IoT device, Mobile App and Web App

1:10pm - 1:30pm  
Ecosystem Center Stage (FREE TO ATTEND)

The start of a developer's project usually starts with the question "what are we building it on?". Unite the Connected will discuss the capabilities and needs of building with all devices in mind to function as one. We'll investigate how it looks when you build a mobile application, IOT Device and a web application to function under one need for the consumer and founder. We'll also discuss the workflow changes that take place when building for a trifecta platform, the proper languages to utilize and the does and don't around its project management.

*Location: Exhibit Hall Ecosystem Center Stage Booth #1052*

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## Participants

**Rakia Finley** - Co-Founder, Fin-Digital

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## Pitchoff Semi-Finals

1:10pm - 2:20pm  
Project Kairos Pitchoff (FREE TO ATTEND)

Semi-Finalists Announced:

- Consumer IoT: **MbientLab**
- Enterprise: **Nikola Lab**
- IoT Solutions Providers: **Go Parakeet**
- Connected Automotive: **LuneWave**
- Industrial IoT: **VINchain**

*Location: Project Kairos Pitchoff Stage, Startup City*

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## Participants

**Panelist: Brad McManus** - Managing Director, Motorola Solutions Venture Capital

**Panelist: Liz Kerton** - Executive Director, Autotech Council

**Panelist: John LeMoncheck** - Entrepreneur in Residence, Vanedge Capital

**Panelist: Nalin Balan** - Director Business Development, Reality AI

**Panelist: Ross Perich** - VP at 10Fold & GM, ProMotion Studios

**Panelist: Ilya Pavlov** - Venture Partner at Bright Capital, Managing Director, Stanislavsky Ventures

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## Critical Success Factors for IoT Security

1:30pm - 2:30pm  
LeadersIn IoT (INVITE ONLY)

Successful deployment of IoT security is a combination of coordinated efforts between technologists, executives, consortiums, and stakeholders. These conversations lead to better understanding of the critical role of security and what factors are necessary to make security an added value to IoT projects. A successful security program must be scalable, reliable, flexible, and ideally drive business forward in a seamless manner. Join this session for an overview of what security experts believe must happen going forward, and a discussion of case studies that serve as examples.

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## Participants

**Mike Ahmadi** - VP - Transportation Security, DigiCert

**Goeff Noakes** - VP of IoT Business Development, DigiCert

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## Break

1:30pm - 2:00pm  
Futurist Stage (FREE TO ATTEND)

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## Avoiding the Top 5 Pitfalls of Developing and Deploying Smart Applications at the Edge

1:30pm - 1:50pm  
Ecosystem Center Stage (FREE TO ATTEND)

Efforts to derive value from IoT continue to grow, and the underlying device and gateway technologies are evolving to include more local computing resources. Add to that the growth of developer communities around Android, iOS, embedded Linux and Windows, Intel/, ARM and others, and we will see a surge of new applications with locally managed and analyzed data on IoT/OT edge devices and gateways. Considerations for metadata management, data movement, security, and governance of data associated with these apps, overhead for processing and packaging, and security concerns will require on-device and gateway persistent storage. Flat file systems and other prior tools don't meet modern embedded data management platform or analytics requirements. Join us to gain in-depth insight on how to optimally deliver persistent data management at the edge. Avoid the hassle and security complications that ETL between things, gateways and datacenters will create. Experience a real-world demo in Python with source code samples showing how you can code once and deploy to multiple target platforms.

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

### Participants

**Desmond Tan** - Senior Director of Product Engineering, Actian

## Utilizing Supply Chain Digitization to Transform Pfizer's Business

1:40pm - 2:00pm  
Industrial IoT

- Discover the digitization journey underway at Pfizer to better serve the population of patients that rely on its products
- Explore the key enablers, including the ERP approach to help create true End to End Supply Chain visibility;
- Look at the future technology opportunities the company is currently exploring
- Discuss key findings on the IoT exploration Pfizer has undertaken and how those can revolutionize the Supply Chain in Pharma

*Location: 2nd Floor Theater*

### Participants

**Speaker: Mirko Senatore** - Director Network Solutions & Excellence, EMEA, Pfizer

## Automation & the Transformation of Retail in Cities

1:40pm - 2:00pm  
Smart Cities

- How smart urban transportation tools are being used to power how commerce moves in cities
- Deploying smart city applications with the right resources

*Location: 2nd Floor Meeting Rooms 203/204*

### Participants

**Speaker: Vikrum Aiyer** - Vice President of Global Public Policy, Postmates, Inc.

### Break

1:40pm - 2:00pm  
Energy & Utilities

Red Team results, resources and activities setup to secure IoT devices in secure networks, from toys, routers to that "special gift"; What normal people see vs What a security researcher sees on IoT devices.

*Location: Grand Ballroom E*

## The Owner's Perspective

1:40pm - 2:00pm  
Smart Building

- What features and functionality are we ready to embrace?
- What concerns do owners and managers have regarding adoption of IoT tech?
- How can IoT complement/ amplify sustainability efforts underway?

*Location: Grand Ballroom H*

### Participants

**Speaker: Maya Henderson** - Sustainability Manager, Kilroy Realty Corporation

## How In-Home Delivery is Changing E-commerce & Services

1:40pm - 2:00pm  
Smart Home

- Outsourcing your life in the smart home era
- Is delivery the last barrier to e-commerce adoption?
- Is in-home delivery safe?
- Case study: In-home delivery results
- The future of the smart home and unattended services

*Location: Grand Ballroom G*

### Participants

**Speaker: Herve Letourneur** - Vice President Product, August Home

## Telecom Perspective: Technical considerations in Combining Licensed and Unlicensed Networks for IoT

1:40pm - 2:00pm  
Data Infrastructure: Mobile IoT: LPWAN & 5G

*Location: Grand Ballroom B*

### Participants

**Daniel Herb** - Director, IoT, T-Mobile

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## Extending Security to Low Complexity IoT Endpoint Devices

1:40pm - 2:10pm

Developers Conference: Connectivity & Networking

Millions of low compute, low power IoT sensors and devices are deployed today with billions expected to be deployed by 2020, all of them without any strong security! These low complexity devices have by design very limited onboard processing power, memory and battery capacity, and are typically very low cost. Conventional IoT security schemes assume that IoT edge devices are intelligent enough to handle processor-hungry validation and encryption techniques, and have access to vast amount of power to handle multiple message exchanges used for authentication. These schemes are not well adapted to the world of low complexity IoT devices.

A new security scheme needs to be designed from the ground up with very low footprint on the processor, and low impact on battery life and cost. The solution should also be IoT platform agnostic and very easy to implement by IoT vendors, operate seamlessly over any wireless technologies (e.g, Zigbee, BLE, LoRA, etc.), and transparent to the existing network implementation. Finally, the solution should be automated and scalable for very high volumes, evolve with new security and encryption techniques being released, and last for a long time in the field with no necessity to update the edge devices with security patches.

*Location: Grand Ballroom D*

### Participants

**Francois Lé** - CEO and Founder, iotaBEAM

## Urban Mobility on Demand: Utilizing ELSVs in providing a First and Last Mile Solution

1:40pm - 2:00pm

Co-Located Event: Connected and Autonomous  
Vehicles

Innovation is key to drive change when it comes to transportation planning and execution. This panel of experts in logistics, operations, robotics and manufacturing bring together a model that will revolutionize the way people get around in their cities.

- Partner and develop innovative and scalable solutions utilizing neighbourhood electric vehicles to connect people to public transportation
- Manage your fleets effectively by getting accurate positioning systems in place (Smart Roads) and real-time data through telematics devices
- Change communities attitudes around using their cars on a daily basis, reducing carbon emissions, traffic congestion and driving economic re-development in transit

*Location: Grand Ballroom F*

### Participants

**Mark Minden** - National Accounts Manager, Electric Cab of North America

## IP Ramifications in the Age of IoT

1:50pm - 2:30pm

Ecosystem Center Stage (FREE TO ATTEND)

With over 75B+ connected devices projected by 2025 (Statista, IoT connected devices installed base, <https://protect-us.mimecast.com/s/bK13CKrY6nH2rkJPPukugrc?domain=statista.com>), and with both immense amounts of connectivity data and user data generated, the issues of intellectual property and invention rights to the insights and new ideas generated by the IoT explosion will become critically important.

How does intellectual property get generated (given the massive back-end analytics and AI applied to the data)? Who owns that rights to it? How is revenue equitably shared? What legal and technological challenges will be on the horizon? And, what innovative approaches do we need to meet them?

Question such as these, need to be the focus today, if we are to capitalize on the potential benefits of IoT. This session will shine a light on these issues, highlight areas that need attention, and look at create approaches to addressing them.

*Location: Exhibit Hall Ecosystem Center Stage Booth #1052*

### Participants

**Moderator: Vishal Sharma** - Principal, Metanoia

**Nilanka Maldeniya** - Senior Corporate Counsel, AMD

**Jeffrey Miller** - Partner, Arnold & Porter LLP

**Priya Venkat** - General Counsel, Edgewater Networks

**Stuart Bartow** - Partner, Lewis Roca Rothgerber Christie LLP

**David Thibodeau** - Partner, VLP Law Group LLP

**Aaron Karuna** - Patent Attorney, Kwan & Olynick LLP

## Securing the IoT Manufacturing Supply Chain

2:00pm - 2:20pm

Industrial IoT

Ensuring the safety and security of IoT devices is challenging. Device designers, manufacturers and systems integrators must work together to secure the manufacturing supply chain. In this presentation, you will learn about the challenges of securing the supply chain during software development, application integration, manufacturing, shipment, device activation and enrollment and OTA firmware updates. You will hear how industry leaders are working together to secure IoT devices from the silicon to the applications embedded on microcontrollers to protect the IoT security lifecycle.

*Location: 2nd Floor Theater*

### Participants

**Speaker: Dean Weber** - CTO, Mocana

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## Wireless Communications Creating Potential for IoT to Empower Smart Cities

2:00pm - 2:20pm  
Smart Cities

In this session, we'll be exploring current and emerging options to transport data from sensors to the dashboard where value can be derived through reporting, alerts, and analytics – with emphasis on simplification of provisioning, installation, and management of infrastructure and end devices. We'll also present case studies of actual deployments to bring these operational benefits to life.

Location: 2nd Floor Meeting Rooms 203/204

### Participants

**Speaker: Scott Imhoff** - Senior Vice President, Product Management, Cambium Networks

## Multi-Service Networks as a Shared and Marketable Asset

2:00pm - 2:20pm  
Energy & Utilities

i. Considerations of opening utility networks to other entities (ex. municipal departments, multi-commodity utilities) in shared network business models for increased grid reliability, safety and revenue opportunity

ii. Practical business models, use cases and service delivery models (ex. network-as-a-service, hosting applications, data integrations)

iii. Leveraging multi-tenant network capabilities to support additional revenue streams in hosting, business intelligence, data mining, consumer applications, services and more

Location: Grand Ballroom E

### Participants

**Ty Roberts** - VP Networked Solutions Marketing, Itron

## The Advantages of Bluetooth® Mesh Networking for Smart Buildings

2:00pm - 2:20pm  
Smart Building

- Overview of the BLE MESH networking; including the latest BlueNRG-MESH architecture
- How to implement BlueNRG-MESH networks in Connected buildings

Location: Grand Ballroom H

### Participants

**Speaker: Hary Radakichenane** - Senior Product Marketing Manager, STMicroelectronics

## Smart Home Services for the Multi-Dwelling Unit - Broadening the Concept of "Home"

2:00pm - 2:30pm  
Smart Home

- How to quickly recoup costs of installing devices in units while continuing to stay competitive with tenants and owners
- Single Family vs Multi-Family dwellings: How maintenance and support of devices managed? What retailers/Insurers/Advertisers are moving into the Multi-Family dwelling space?

Location: Grand Ballroom G

### Participants

**Speaker: Jim Dobbie** - Executive Vice President, Hunt Companies

## Unlocking the value of IoT on the road to 5G

2:00pm - 2:20pm  
Data Infrastructure: Mobile IoT: LPWAN & 5G

- Insights from our latest research on how to capture the business potential of industry digitalization with IoT & 5G
- How to monetize IoT opportunities for any industry, any business model and any revenue stream
- Unleashing the value of your IoT ecosystem, standards and alliances fostering collaboration
- Cases studies from our research projects collaborations with industry partners, universities and technology institutes

Location: Grand Ballroom B

### Participants

**Shannon Lucas** - VP, Head of Emerging Business Unit, Ericsson

## Getting Ready for Automated Mobility On-Demand

2:00pm - 2:20pm  
Co-Located Event: Connected and Autonomous Vehicles

Location: Grand Ballroom F

### Participants

**Jon Walker** - Transportation Policy Manager, Lyft

## Entertainment: Bringing Humanity to Tech

2:00pm - 2:20pm  
Futurist Stage (FREE TO ATTEND)

The Center for Humane Technology has been getting quite a bit of coverage of late - these are the early Google and Facebook employees that have banned together to "fight the tech they created." This topic would explore our responsibility as a tech community to innovate, not for the sake of the next product iteration, but for the sake of our collective future.

Location: Exhibit Hall Futurist Stage Booth #1360

### Participants

**Tina Mulqueen** - CMO, Kindred Marketing Company / Grey Cloak Technologies / Forbes, Huffington Post, Thrive Global, New York Lifestyles Magazine, Today Show

## Nirvana for IoT – How do you get there?

2:10pm - 2:40pm  
Developers Conference: Build & Deploy (Architecture)

Many IoT systems deal with very high speed massive ingestion of real-time or near real-time data. Ideally, you want to do analysis of this real-time or hot data, together with very large historical or cold datasets, coupled with immediate alerting or reporting. If only you could do that on a single platform and thereby: reduce data movement, reduce data transformations, reduce complexity, and of course, reduce cost. This nirvana for IoT would enable well-informed and timely action to be taken, making your IoT solution all the more effective in delivering real business value.

This is possible today! Come find out how we did it.

This talk will cover two IoT customer use cases and technical aspects of the software stack that made these customer success stories possible.

Location: Grand Ballroom C

### Participants

**Rao Kakarlamudi** - VP Pre-Sales & Principal Architect, Esgyn

**Rohit Jain** - CTO, Esgyn

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## MQTT -- The Lingua Franca of IoT

2:10pm - 2:40pm

Developers Conference: Connectivity & Networking

With the vast array of devices that coexist on the Internet of Things, the ability to build systems with many different devices is critical to the success of IoT deployments. There is no single high level communication protocol for IoT devices, nor is there likely to be one in the future. The best protocol for your IoT network may be determined by the type of data, the network bandwidth, or the processing power available. Domain specific or system specific high level protocols will be the norm.

Message Queueing TT (MQTT) provides a standardized message delivery and queueing mechanism upon which edge nodes, gateways, and cloud solutions can build robust domain-specific or equipment-specific protocols. MQTT is usable in low power, low bandwidth wireless as well as hard wired ethernet. MQTT is available in open-source, proprietary, and software-as-a-service capabilities from multiple vendors. MQTT is not a protocol itself, it is a technology for building robust protocols that can more easily intercommunicate – like the Lingua Franca created by merchants in the 17th century who each spoke different languages, but settled on a common language for business transactions.

Ed will discuss the technology behind MQTT, the queuing techniques, and the definable Quality of Service capabilities. Use cases will be used to describe how MQTT can be used in edge-to-gateway as well as gateway-to-cloud communications.

*Location: Grand Ballroom D*

### Participants

**Ed Kuzemchak** - CTO, Software Design Solutions

## Team IOT Blockchain & Co "T - 0" for Quantum Digital Ascent

2:20pm - 2:40pm

Industrial IoT

- Team IOT Blockchain & Co "T - 0" for Quantum Digital Ascent
- Its not just one concept or technology it's a team that is making and will make the biggest impact.
- Each concept has evolved in a certain way, as a solution to an existing problem, constraint. Example blockchain evolved as a concept to enable crypto currency. IOT evolved as a concept to connect things, make them talk and go further.
- VR and AR evolved to ease the human interaction.
- Focus of this presentation will be in particular on IOT and Blockchain. Time for take off.

*Location: 2nd Floor Theater*

### Participants

**Speaker: Ravi Arikapudi** - Global Program Manager, Abbott Laboratories

## City of Orlando: Utilizing Data Analytics to Support Public Safety Missions

2:20pm - 2:40pm

Smart Cities

- Video analytics to increase response prevention as well as city planning
- Optimizing opportunities to deploy and re-stabilize the surveillance system
- Computer aided dispatch for police/fire computer aided system
- Ensuring privacy and security

*Location: 2nd Floor Meeting Rooms 203/204*

### Participants

**Speaker: Rosa Akhtarkhvari** - CIO, City of Orlando

## Digitalization of utilities: evaluating technologies, investments & results

2:20pm - 2:40pm

Energy & Utilities

Utilities around the world are turning to digital technologies to improve operations, reduce costs, and integrate renewables. This presentation will quantify the investment in, and use of, machine learning, the IoT, blockchain, drones and more, to rank utilities on their progress, and give analysis around company strategy, targets, and partnerships.

*Location: Grand Ballroom E*

### Participants

**Claire Curry** - Head of Emerging Technology Analysis, Bloomberg New Energy Finance

## The San Francisco Department of Energy Use Case: Implementing BayREN Integrated Commercial Retrofits Project

2:20pm - 2:40pm

Smart Building

- Opportunity for Energy Efficiency in San Francisco Bay Area Small and Medium Commercial Buildings
- Role of the lack of structured data about the built environment in increasing costs of energy efficiency customer acquisition and transactions, limiting purchasing power of public/ratepayers investment in negawatts
- Technical Approach & BRICR Work to Date and Implications and Next Steps

*Location: Grand Ballroom H*

### Participants

**Speaker: Barry Hooper** - Senior Green Built Environment Coordinator, San Francisco Department of the Environment

## Using CBRS as a Platform for IOT in a Multi-user Industrial Location

2:20pm - 2:40pm

Data Infrastructure: Mobile IoT: LPWAN & 5G

*Location: Grand Ballroom B*

### Participants

**Andrew Scott** - FUSE Executive Fellow, Port of Los Angeles



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## Charging into the Electric Future

2:20pm - 3:00pm

Co-Located Event: Connected and Autonomous  
Vehicles

While we're breaking through the 200-mile battery barrier, range isn't the only psychological issue stopping consumption. Accessibility of EV infrastructure may be a more vital apprehension.

- The infrastructure funding dilemma: Debate whether the investment for infrastructure should be public, private or a mix of both through public-private partnership (P3s)?
- Discuss the impact of clean low emission tech. on the grid from the surprise surges in supply from clean energy (i.e. solar, wind) to the drains from (fast) charging stations
- Can consumers go green? Overcome public perception hurdles around charging and infrastructure by tackling the anxiety around charging station availability, charge time and utility cost

Location: Grand Ballroom F

### Participants

**Moderator: Eric Totaro** - Senior Automotive Analyst, Euromonitor

**Panelist: Simon Lonsdale** - Chief Strategy Officer, ChargePoint

**Panelist: Terry O'Day** - Vice President, Product Strategy & Market Development, EVgo

## IoT Security in a Zero Trust World

2:20pm - 2:40pm

Futurist Stage (FREE TO ATTEND)

What is Zero Trust? Definition from Forrester: Zero Trust is a model for how security teams should:

- Redesign networks into secure micro-perimeters;
- Limit the risks associated with excessive user privileges;
- Dramatically improve security detection and response through analytics and automation; and
- Increase data security through obfuscation techniques.

Zero Trust demands that CIOs and CISOs move away from legacy, perimeter-centric models of information security — which are useless for today's digital businesses, no longer bounded by the four walls of their corporation — to a model that is both data- and identity centric and extends security across the entire business ecosystem." This session will explore

- Are you exploring Zero Trust with IoT implementations?
- Are you looking to adopt a "least privilege" strategy and strictly enforce access control?
- Do you want to ensure all resources are accessed securely, regardless of location?
- Are you looking for a uniform way to access applications across your on premises and cloud resources?

Location: Exhibit Hall Futurist Stage Booth #1360

### Participants

**Tina Gravel** - SVP Global Channels, Cyxtera

## The Dos and Don'ts of Engaging with the Startup Ecosystem

2:20pm - 2:40pm

Project Kairos Pitchoff (FREE TO ATTEND)

### Participants

**Speaker: Cyril Attia** - CEO, BeMyApp

## Bridging AI, Digital Identity, and Privacy in the Smart Home

2:30pm - 3:00pm

Smart Home

- With AI/Voice as a new interface in the smart home, personal data analysis is an absolute must to understand and capture customer insights.
- The growing demand for security and the emergence of the IoT, densifying the internet by a factor of 15, is putting a strong focus on Digital Identity
- Digital Identity will be strong, multifactor, and frictionless to help protect the users' data and simplify customer journeys

Location: Grand Ballroom G

### Participants

**Speaker: Patrice Slupowski** - Vice-President Digital Innovation, Orange

## Identity & Access Management Meets IoT - Giving People, Applications, Services, and Devices Identity

2:30pm - 3:00pm

Ecosystem Center Stage (FREE TO ATTEND)

- Overcoming challenges of implementing IAM solutions
- Increased enterprise risks of centralized IAM

[BOOK YOUR FREE EXPO PASS TO ATTEND](#)

Location: Exhibit Hall Ecosystem Center Stage Booth #1052

### Participants

**Ashu Pande** - VP and Head, Product and Market Development, Rosetta Cyber Systems

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## The Data Brokerage Opportunity

2:40pm - 3:40pm  
LeadersIn IoT (INVITE ONLY)

Join us for a CxO roundtable on Data Brokerage to learn more about most pressing issues in data monetization through an interactive round table discussion with your peers. It has been said that "data is the new oil", but what exactly does this mean? Perhaps it means that to monetize data effectively you need to refine and productize it first. In this session you will hear about some of the best practices in data brokerage and data monetization to-date, discuss the challenges of sharing data and determining the value of data. We will address both existing and emerging technologies, including blockchain, and their potential impact on data monetization. The session will allow you to share your knowledge, ask questions and provide your opinion in a safe closed-door setting of your industry peers

Location: Magonlia (Hyatt)

### Participants

**Roundtable Leader: Daniel Obodovski** - CEO, The Silent Intelligence

## A practical guide to Smart Factory

2:40pm - 3:00pm  
Industrial IoT

Smart factory transformations will help you become Fit for Growth\*. Learn how to get the right capabilities in place to accelerate the journey from start to success. We will discuss common challenges, how to avoid pitfalls and how to pick the right value creating use cases.

\*Fit for Growth is a registered service mark of PwC Strategy& LLC in the United States.

Location: 2nd Floor Theater

### Participants

**Speaker: Steve Pillsbury** - Digital Operations Leader, PWC

## Our Collective Superpower: How Can We Make Smart, Inclusive Cities a Reality?

2:40pm - 3:00pm  
Smart Cities

Every two weeks, the world's urban population grows by 3 million people – roughly the size of Chicago. Constrained by legacy infrastructure and tight budgets, local governments are looking at better ways to deliver municipal services and ensure inclusive, economic growth. New Partnership models are uniting the public and private sectors to benefit cities, leveraging their collective expertise, data and tech to form a superpower that has the ability to propel urban development forward at a significant pace – positively impacting people's lives and transforming urban experiences.nts

Location: 2nd Floor Meeting Rooms 203/204

### Participants

**Speaker: Maddie Callis** - Enterprise Partnerships, Mastercard

## Data Governance as a Critical Step in Your IoT Digital Transformation Journey

2:40pm - 3:00pm  
Energy & Utilities

To extract the full value of being an IoT-enabled enterprise, the master data used to collect insights from digital twins of your physical assets must be accurate, accessible and able to be maintained across multiple systems of record. SAP Asset Information Workbench can help make digital twinning a reality for your business by leveraging SAP Master Data Governance and integration with SAP Asset Intelligence Network (AIN) to ensure high-quality, consistent asset master data, enterprise-wide.

### Participants

**Arvind Singh** - CEO, Utopia Global

## How Cloud, Connectivity and Analytics Enhance Smart Buildings

2:40pm - 3:00pm  
Smart Building

Smart buildings combine the latest technological advances in the cloud, connectivity, analytics, and physical design to enable better visibility, greater efficiency and control, and more satisfied, productive occupants. This session will cover how Smart buildings offer benefits for building stakeholders of all types, including building owners, operators, and occupants

Location: Grand Ballroom H

### Participants

**Speaker: Daniel Escapa** - Principal Program Manager, Microsoft

## Enabling Digital and Automated Operations with Leading Edge IoT Solutions

2:40pm - 3:00pm  
Data Infrastructure: Mobile IoT: LPWAN & 5G

As the volume and velocity of data generated by Industrial IoT systems continues to increase it cannot be properly supported by legacy communication infrastructures. Today's industrial companies are faced with the challenge of transitioning their mission critical communication infrastructure to enable digital and automated operations. Legacy networks were not engineered to support real-time communication of high-volume, bandwidth-hungry, latency sensitive, critical data with the highest QoS. In this session we will discuss the challenges that industry verticals are experiencing and the solutions that will help them achieve their operations, safety and productivity goals.

Location: Grand Ballroom B

### Participants

**Karl Bream** - Vice President / Head of Internet of Things Strategy, Nokia

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## Dev Kits Without Profanity

2:40pm - 3:10pm

Developers Conference: Build & Deploy (Architecture)

Pretty much all developers have felt like hurling their laptop through the window or swearing like a sailor while trying to get something done with a new developer kit (or even an old one). It's time for you to rise up and demand better-quality dev kits. This session will help you to see you're not alone with the problems you've found in dev kits.

And manufacturers, you'll hear some very practical guidelines about what makes an IoT dev kit and API good or bad. The session will cover the following:

- Product websites with practical facts, not marketing fluff
- What Hello World should really be (hint: not displaying "hello world")
- Connectors and hardware: flimsy or sturdy?
- Providing code that does something, not trivial examples
- Commenting in sample code
- Verifying after each section so you don't have to redo 47 steps
- Guide to getting started vs. getting stopped
- Showing the system scheme in a diagram
- Full descriptions for each API call

Companies that want developers to build on their platform or standard will find that their odds go way up as the frustration caused by development kits goes down.

*Location: Grand Ballroom C*

## Participants

**Colin Bay** - Chief Research Officer, Thug Design

## Turning Any Enterprise into a Mobile Virtual Network with Global IoT

2:40pm - 3:10pm

Developers Conference: Connectivity & Networking

*Location: Grand Ballroom D*

## Participants

**Mikael Schachne** - VP Mobility Solutions, BICS

## What does it take to become part of the Smart Cities landscape?

2:40pm - 3:00pm

Project Kairos Pitchoff (FREE TO ATTEND)

There are many reasons to love smart city installations. Few other IoT deployments have such far and wide-reaching impact on individuals, communities, and infrastructure. Startups, typically well positioned to solve wide-reaching, big-impact problems, face particular headwinds creating smart city solutions. This presentation will discuss some of these headwinds and strategies for pushing past them.

## Participants

**Speaker: Jackie DiMonte** - Senior Associate, Hyde Park Venture Partners

## Networking Refreshment Break & Exhibition Visit

3:00pm - 4:00pm

Industrial IoT

## Leadership and Collaboration – Leveraging Resources for Smart & Resilient Communities

3:00pm - 3:20pm

Smart Cities

The macro themes that shape Cities around the world are changing. To address challenges from changing climate to increasing congestion, cities are searching for ways to become more efficient, more connected, and more responsive to constituent needs. With all of the attention being given to smart cities and IoT, how can we increase meaningful collaboration amongst relevant stakeholders to accelerate the deployment of smart city services that bring real value to people? For ComEd, it starts with matching the challenges and objectives of the community with strategic partners who are collectively capable of delivering solutions.

Leveraging partnerships alongside utility network assets (physical, digital, and social), ComEd is leading an initiative to demonstrate the concept of the "Community of the Future". This is a place where ultra-reliable, clean energy and wireless communications provide the backbone for other smart city features including efficient transportation options, responsive safety services, and near real time two-way communications between city and resident, for example.

## Participants

**Speaker: Patrick Graves** - Manager of Smart Grid Programs, ComEd, Exelon Corporation

## Connecting with DHS Partners to Secure Critical Infrastructures

3:00pm - 3:20pm

Energy & Utilities

DHS is building new partnering models to innovate operations and enhance infrastructure resilience. Learn how the 16 critical infrastructure sectors are being impacted by IOT advances and how you can get connected to Sector Coordinating Councils and target Department of Homeland Security (DHS) components to share insights, provide solutions, and exchange best practices. Outcomes from this presentation will inform you on how DHS can best assist critical infrastructure owners/operators, including where sectors are investing in new solutions to enhance resilience and making adjustments to keep pace with the changing security landscape created by IOT.

*Location: Grand Ballroom E*

## Participants

**Patrick J. Massey** - Regional Director for the DHS Office of Infrastructure Protection, Region 10 office in Seattle, Department of Homeland Security

## Enhancing the Workplace with IoT: From Managing Buildings to Managing the User Experience

3:00pm - 3:30pm

Smart Building

The real estate landscape is going through profound changes: occupier expectations are shifting, and we are seeing a move from workspace as a commodity to workplace as a service. Real estate management, therefore, increasingly needs to go from managing buildings to managing the occupant experience.

To do this requires a focus of both the occupant using the building and the operational efficiency of the building. This is done through the use of IoT technologies to help capture actual performance data; and then leverage this data to drive real estate workplace and service planning.

CRE services firms are partnering with IoT companies to offer personalized, hospitality-like services to building occupants. Using -an activity-based approach, we can deliver a superior occupant experience in a highly efficient manner through "sensor-to-value" smart building scenarios.

*Location: Grand Ballroom H*

## Participants

**Speaker: Colette Temmink** - Executive Managing Director of Integrated Facilities Management (IFM), Cushman & Wakefield

**Speaker: Koen Matthijs** - CEO, MCS Solutions

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## Vertical Focus Networking: Smart Home Networking Session in the Networking Garde

3:00pm - 4:00pm  
Smart Home

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## Networking Refreshment Break & Exhibition Visit

3:00pm - 4:00pm  
Data Infrastructure: Mobile IoT: LPWAN & 5G

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## Networking Refreshment Break & Exhibition Visit

3:00pm - 4:00pm  
Co-Located Event: Connected and Autonomous  
Vehicles

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## Security Advantages in LPWAN Technologies: A Sigfox Case Study

3:00pm - 3:30pm  
Ecosystem Center Stage (FREE TO ATTEND)

- IoT becomes bigger and more diverse with new communication technologies being invented every day; surprisingly, most technologies have stopped competing and have become compatible to solve specific user needs. One of these new wireless technologies is LPWAN, designed to allow long range communications at a low bit rate among things that live on a battery for long periods of time. In this occasion, I would like to address a specific LPWAN technology, Sigfox, a global disruptive network and focus on its security advantages. From its message structure and uplink/downlink mechanisms to its advantages against organized crime.

Location: Exhibit Hall Ecosystem Center Stage Booth  
#1052

### Participants

**Sergio Armenta** - Operations Manager, NxtIoT

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## Project Kairos Final Pitches - Join us at 3:30pm on the Ecosystem Center Stage!

3:00pm - 3:30pm  
Project Kairos Pitchoff (FREE TO ATTEND)

The final pitches will be delivered to a wider audience on our Ecosystem Center Stage on the Expo Floor! Please join us at 3:30pm for the finale and award presentation.

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## Networking Refreshment Break & Exhibition Visit

3:10pm - 4:00pm  
Developers Conference: Build & Deploy (Architecture)

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## Networking Refreshment Break & Exhibition Visit

3:10pm - 4:00pm  
Developers Conference: Connectivity & Networking

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## Networking Refreshment Break & Exhibition Visit

3:20pm - 4:20pm  
Energy & Utilities

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## Pitchoff Finals & Innovation of Things Award Ceremony

3:30pm - 4:00pm  
Project Kairos Pitchoff (FREE TO ATTEND)

3 finalist startups will face off and deliver their pitches to win the lot! The final round of pitches will be delivered on the Ecosystem Center Stage and startups will battle it out to win the prize package:

- 1 subscription to Ovum's Knowledge Center
- Opportunity to showcase at your choice of Internet of Things World 2019 or one of our Fall IoT events, includes:
  - Table top stand
  - 30-minute showcase within the conference
  - Pre-event and onsite interview
  - Featured article on IoT Institute (IoTi.com)
  - Promoted as 2017 Innovation of Things Award Winner
  - Travel stipend

[Go to the Project Kairos page to learn about additional perks, book your Startup Package, secure your spot and submit your entry to the competition.](#)

Location: Project Kairos Pitchoff Stage, Startup City

### Participants

**Panelist: Brad McManus** - Managing Director, Motorola Solutions Venture Capital

**Panelist: Philippe Cases** - CEO, ReadWrite

**Panelist: John LeMoncheck** - Entrepreneur in Residence, Vanedge Capital

**Panelist: Nalin Balan** - Director Business Development, Reality AI

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## The Impact of Voice AI - How the new generation of interfaces will change your products & services

3:50pm - 4:50pm  
LeadersIn IoT (INVITE ONLY)

Location: Magonlia (Hyatt)

### Participants

**Roundtable Leader: Ronan de Renesse** - Practice Leader Consumer Technology, Ovum

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## Leveraging IoT to Transform Service and Services for SMB Clients

4:00pm - 4:20pm  
Industrial IoT

Pitney Bowes has been leading global commerce innovation for businesses worldwide for nearly 100 years. Operating in multiple countries in a highly regulated industry, Pitney Bowes faced significant challenges in meeting regulatory requirements as well as addressing the diverse IT and operational environments of their SMB clients. This case study will focus on how Pitney Bowes leveraged IoT technology in its SmartLink™ product to transform equipment service models and expand services for more than 100,000 existing SMB clients.

Launched in July 2016, SmartLink™ enabled Pitney Bowes to revitalize an existing product. The case study will present data that demonstrates how Pitney Bowes was able to leverage IoT technology to offer additional services (e.g., automatic supply replenishment, remote administration) while at the same time reducing operational costs (e.g., customer support, service). The case study will touch on the challenges in deploying a client installed IoT product in a small/medium business environment where the users have varying degrees of technical know-how. It will also provide practical advice for companies planning an IoT deployment.

Objectives:

- Understand challenges applying IoT technology to existing products
- Demonstrate how to successfully deploy and manage IoT technology to a large, diverse environment
- Demonstrate how to leverage IoT technology to change service models and expand client services

Location: 2nd Floor Theater

### Participants

**Speaker: Rick Ryan** - Pitney Bowes Fellow, Pitney Bowes

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## The New Boundaries of the Smart Home

4:00pm - 4:20pm  
Smart Home

- The ability to manage your home through apps on your smart phone
- Boundary-free homes - no lines drawn, home is where you (and your phone) are
- Carrying connectedness with you

Location: Grand Ballroom G

### Participants

**Speaker: Colin Bay** - Chief Research Officer, Thug Design

# SESSIONS

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## How LPWAN Enabled Smart Ground Support and Maintenance in Aviation (Case study)

4:00pm - 4:20pm

Data Infrastructure: Mobile IoT: LPWAN & 5G

The overhaul or modification of aircraft requires a lot of ground handling equipment necessary: Ladders, Ground Power units (GPU), vehicles, safety equipment. In Hamburg, Lufthansa Technik have 1,500 + pieces of this equipment distributed over the entire work area, and often faced the problem of finding the right equipment and understanding its status (booked, out of order, fueled/unfueled)? Highly skilled workers were wasting time searching for equipment. VIP customers couldn't get out of the plane, because the right ladder couldn't be found. Missing equipment also meant greater cost due to renting replacement tools from the airport.

Lufthansa Technik has launched a project to fix these pain points: Know both status and location of equipment and be able to act quickly to increase efficiency. This talk will outline both the technical outline of the project, challenges faced and successes so far.

The foundation of the infrastructure is an IoT network with LoRa WAN and BLE. The stack includes three IT applications and platforms where the production crew can order equipment as easy as a pizza (1), the service employees can see the position like in a taxi app and can provide the equipment (2) and last, but not least, the coordinator can control and adjust the GSE easily within the planning tool which has all the existing data from our ERP system (3). It's a system for all kind of devices: mobile phone, tablet or desktop PC. With analytics, we have full transparency and are able to further increase the efficiency.

The system is running in Hamburg and Frankfurt, with proof of concepts in Munich and Malta. A further rollout is planned for other kind of use cases within the aviation like cargo containers, reusable boxes, parts and tooling. Again: Not only to track them but also know for example where and when an asset got a damage in order to clarify how is responsible for the repair cost: The customer or the ground handler.

Location: Grand Ballroom B

### Participants

**Gerrit Rexhausen** - Program Manager Corporate Innovation, Lufthansa Technik

## IoT World Hackathon: The Final Pitch-Off

4:00pm - 5:00pm

Developers Conference: Build & Deploy (Architecture)

Witness the final pitch-off of the IoT World Hackathon and congratulate the winner are they are selected !

Over May 16th & 17th over 100 Hackers will be busy innovating and creating, doing their utmost to create the best IoT device :

*"Using any voice interaction device, software, or API you wish, you are challenged to build an innovation solution incorporating AI and utilizing voice activation for enterprise, industrial, or consumer purposes"*

On the afternoon the challengers will be whittled down to the final shortlist of three, with each of the finalists presenting their solution on the Developers Conference Stage

Be there to hear their creative solutions, help select the winners and help celebrate their success.

Further details on joining and supporting the IoT World Hackathon can be found here:

<https://iotworldhack.bemyapp.com/>

## IoT World Hackathon: The Final Pitch-Off

4:00pm - 5:00pm

Developers Conference: Connectivity & Networking

Witness the final pitch-off of the IoT World Hackathon and congratulate the winner are they are selected !

Over May 16th & 17th over 100 Hackers will be busy innovating and creating, doing their utmost to create the best IoT device :

*"Using any voice interaction device, software, or API you wish, you are challenged to build an innovation solution incorporating AI and utilizing voice activation for enterprise, industrial, or consumer purposes"*

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## AutoTech Council Presents: Innovation Sessions - Mobility Start-Ups Deliver their Experiences

4:00pm - 5:00pm

Co-Located Event: Connected and Autonomous Vehicles

Here we gather 4 start-ups who are pushing the boundaries of the automotive space. We go beyond the pitch to tackle the real life experiences and learnings from one of the most saturated scenes in the start-up space

Location: Grand Ballroom F

### Participants

**Moderator: Liz Kerton** - Executive Director, Autotech Council

**Speaker: Scott Hemy** - Founder & Business Development, Filld

**Speaker: Louay Eldada** - CEO, Co-Founder, Quanergy Systems, Inc.

**Speaker: Maha Achour** - CEO, Metawave

**Speaker: Kyle MacDonald** - Head of Marketing, Mojio

**Speaker: Paul Drysch** - Vice President of Sales and Business Development, Civil Maps

## Lessons Learned: What is Next?

4:20pm - 4:40pm

Industrial IoT

Location: 2nd Floor Theater

## Who Will Service the Billions of Internet of Things Devices?

4:20pm - 4:40pm

Smart Home

As the Internet of Things is evolving, one of the biggest considerations is going to be consumer's expectations around service delivery. Similar to an integrated platform which allows multiple IoT devices to be integrated, service delivery models will also have to evolve to provide:

- Integrated Installation & Support
- Driving Highly Personalized Onboarding & Product Engagement
- Proactive vs Reactive Issue resolution
- Leverage Big Data to Acquire & Retain Stickier Customer with High Net Promoter Score

Location: Grand Ballroom G

### Participants

**Speaker: Shuvankar Roy** - Vice President, Xfinity Home, Comcast

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## Case Study: How LPWAN is Helping Levelgas Uberize Gas Tank Monitoring

4:20pm - 4:40pm

Data Infrastructure: Mobile IoT: LPWAN & 5G

Mexican company Levelgas is revolutionizing the management of stationary gas tanks in homes, leveraging Sigfox's LPWAN network. Levelgas breaks the paradigm of traditional gas distribution, adding value to, both, the end user and the gas company.

Levelgas' solution integrates a device that is quickly placed directly in the tank and sends information (via Sigfox) to a mobile application where the user can check the gas level, calculate refills, verify the supply of the tank in real time, buy gas remotely and transparently, and know their consumption habits.

For the gas companies, Levelgas becomes a commercial partner with a unique advantage: generating data. This data becomes essential when it is translated into a deep knowledge of the market for better marketing strategies, the optimization of routes based on real demand, and a logistical efficiency that results in important savings.

*Location: Grand Ballroom B*

### Participants

**Pedro Gabay Villafaña** - Founder, Levelgas

**Daniel Guevara** - CEO, IoTnet Mexico

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## Case Study: Google - Home Automation

4:40pm - 5:00pm

Smart Home

*Location: Grand Ballroom G*

### Participants

**Speaker: Daniel Clarkson** - Strategic Partnerships, Google Assistant, Google

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## Aligning M2M Business Models with Wireless Network Options

4:40pm - 5:00pm

Data Infrastructure: Mobile IoT: LPWAN & 5G

- 3G/4G Migration, emerging 5G standards and LPWA wireless network options create opportunities and challenges for IoT services
- Enterprises need to align their business models with the right connectivity option

### Participants

**Ed Naef** - Partner, CMA Strategy Consulting

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7:00AM	7:30am - Analyst Breakfast Briefings															

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8:00AM											<p><b>8:30am</b> - Keynote Case Study: Redefining Retail with the Internet of Everything</p> <p><b>8:50am</b> - Can Information Technology Simultaneously Delight the Patient and Physician, Increase Access,</p>						



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											Reduce Cost, and Improve Quality?					

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9:00AM											<p>9:10am - Lightning Talk; When Stars Align: The Time for Trans- forma- tion is Now</p> <p>9:20am - From the Edge to the Cloud: Deploy IoT Appli- cations that Trans- form Your Business</p>						

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											9:40am - Keynote Panel: How IoT Will Revo- lutionize Banking's Digital Future					

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10:00AM		10:50am - Vertical Focus Networking: Connected & Autonomous Cars Networking Session in the Networking Garden	10:50am - Networking Refreshment Break & Exhibition Visit	10:50am - Networking Refreshment Break & Exhibition Visit	10:50am - Networking Refreshment Break & Exhibition Visit	10:50am - Top 5 Killer Use Cases of IOT Analytics with Machine Learning at Scale	10:50am - Networking Refreshment Break & Exhibition Visit	10:50am - Break	10:50am - Networking Refreshment Break & Exhibition Visit	10:50am - The Impact of IoT on the Changing World of Retail	10:00am - Digital Factory Transformation – What do you Get When you Connect 25,000 Pieces of Manufacturing Equipment to the Cloud?  10:30am - Key Challenge Panel: Bridging the Skills	10:50am - Networking Refreshment Break & Exhibition Visit		10:50am - Networking Refreshment Break & Exhibition Visit	10:50am - Networking Refreshment Break & Exhibition Visit	10:50am - Networking Refreshment Break & Exhibition Visit

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											Gap and Develop- ing the IoT Work- force					

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11:00AM		11:40am - Ask Mercedes: Digital Transformation at Mercedes-Benz	11:30am - Chair's Opening  11:40am - Edge-to-cloud Connectivity and Virtualization for Efficiency	11:30am - Chairman's Opening  11:40am - Building IoT Cloud Applications at Scale with Microservices	11:30am - Chairman's Opening  11:40am - Is Universal Connectivity Possible?	11:00am - Leveraging cloud technologies to build an effective IoT platform for Smart Manufacturing  11:20am - The Progression of IoT Maturity  11:40am - Power of Where	11:30am - Chairman's Opening  11:40am - Connected Energy: Modernizing the energy sector & the national grid in the UK	11:00am - Consumer IoT: From Traditions in the Swiss Watch Valley to Open Innovation Human-Friendly IoT-Based Ecosystems in Western Europe  11:20am - Learn How AWS IoT 1-Click Can Easi-	11:30am - Chairman's Opening  11:40am - How IoT and Industry 4.0 Is Transforming Manufacturing of the Future			11:30am - Optimizing your Business for Fast, Secure, Scalable IoT Deployments – lessons learned the Hard Way.	11:10am - Pitchoff Opening Remarks  11:20am - Pitchoff: Industrial IoT	11:30am - Chairman's Opening  11:40am - The Interface Between the Smart Grid and Smart Buildings	11:30am - Chairman's Opening  11:40am - Cloud module enable the Innovation of IoT industry	11:30am - Chairman's Opening Remarks  11:40am - Authentication of Things: Protecting Consumer Privacy While Seamlessly Provisioning Smart Home Devices

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								ly Exe- cute Sim- ple Ac- tion  11:40am - Smarti- fying the bonfire in our caves: How AI, robots and sen- sors will catalyze a waste- free fu- ture								

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12:00PM		<p><b>12:00pm</b> - Automakers in the Driving Seat - Maintaining Digital Control Within the Vehicle</p> <p><b>12:20pm</b> - Connected Car Data – Unlocking Value Today &amp; Creating A Roadmap For The Future</p>	<p><b>12:00pm</b> - Panel: IoT Connectivity Options: Licensed or Unlicensed? <b>12:40pm</b> - Networking Lunch &amp; Exhibition Visit</p>	<p><b>12:10pm</b> - How to Build an IoT Backend Using Node.js, Serverless &amp; Docker</p> <p><b>12:40pm</b> - Networking Lunch &amp; Exhibition Visit</p>	<p><b>12:10pm</b> - Case Study: Optical IoT Networks Using Morse and QR code</p> <p><b>12:40pm</b> - Networking Lunch &amp; Exhibition Visit</p>	<p><b>12:00pm</b> - Understanding and Addressing Security Maturity in the Internet of Things</p> <p><b>12:20pm</b> - Navigating Patent Wars in IoT</p> <p><b>12:50pm</b> - The Future of Connected Mobility: What opportunities are emerging</p>	<p><b>12:00pm</b> - Panel: Technical Considerations: Cloud-based Work and Asset Management in Connected and Smart Cities</p> <p><b>12:40pm</b> - Networking Lunch &amp; Exhibition Visit</p>	<p><b>12:10pm</b> - Break</p> <p><b>12:50pm</b> - Lunch Break</p>	<p><b>12:00pm</b> - Panel: Digital Manufacturing in Full Effect – Predictive Maintenance and Connectivity</p> <p><b>12:40pm</b> - Networking Lunch &amp; Exhibition Visit</p>		<p><b>12:30pm</b> - Networking Lunch &amp; Exhibition Visit</p>	<p><b>12:20pm</b> - Networking Refreshment Break &amp; Exhibition Visit</p>	<p><b>12:00pm</b> - Panel: Smart Building Planning - Assessing Investment and Objectives</p> <p><b>12:40pm</b> - Vertical Focus Networking: Smart Cities &amp; Smart Buildings Networking Lunch in the Networking Garden</p>	<p><b>12:00pm</b> - Connectivity Enabling the Future of Mobility &amp; the Customer Experience</p> <p><b>12:40pm</b> - Vertical Focus Networking: Smart Cities &amp; Smart Buildings Networking Lunch in the Network-</p>	<p><b>12:00pm</b> - Fireside Chat: Building Compelling Value into Smart Homes</p> <p><b>12:40pm</b> - Networking Lunch &amp; Exhibition Visit</p>	



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		12:40pm - Net- working Lunch & Exhibi- tion Visit				from the on-going disrup- tion of how peo- ple move around in cities									ing Gar- den	

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1:00PM		1:40pm - Urban Mobility on Demand: Utilizing ELSVs in providing a First and Last Mile Solution	1:40pm - Telecom Perspective: Technical considerations in Combining Licensed and Unlicensed Networks for IoT		1:40pm - Extending Security to Low Complexity IoT Endpoint Devices	1:10pm - Unite the Connected: Developing for the Trifecta - IoT device, Mobile App and Web App  1:30pm - Avoiding the Top 5 Pitfalls of Developing and Deploying Smart Applications at the Edge  1:50pm - IP Ramifi-	1:40pm - Break	1:30pm - Break	1:40pm - Utilizing Supply Chain Digitization to Transform Pfizer's Business			1:30pm - Critical Success Factors for IoT Security	1:10pm - Pitchoff Semi-Finals	1:40pm - The Owner's Perspective	1:40pm - Automation & the Transformation of Retail in Cities	1:40pm - How In-Home Delivery is Changing E-commerce & Services

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TIME	ANALYST BREAK- FAST BRIEFIN- GS	CO- LOCATED EVENT: CON- NECTED AND AU- TONOMO US VEHI- CLES	DATA IN- FRA- STRUC- TURE: MOBILE IOT: LP- WAN & 5G	DEVELOP- ERS CON- FERENCE: BUILD & DEPLOY (ARCHI- TECTURE)	DEVELOP- ERS CON- FERENCE: CONNEC- TIVITY & NET- WORK- ING	ECOSYS- TEM CEN- TER STAGE (FREE TO ATTEND)	ENERGY & UTILITIES	FUTUR- IST STAGE (FREE TO ATTEND)	INDUS- TRIAL IOT	INSIDER SESSION (FREE TO ATTEND)	KEYNOTE S	LEADER- SIN IOT (INVITE ONLY)	PROJECT KAIROS PITCHOF F (FREE TO AT- TEND)	SMART BUILD- ING	SMART CITIES	SMART HOME
						cations in the Age of IoT										

# SCHEDULE

IoT WORLD DAY THREE - 17/05/2018

Internet of Things World 2019 | World's Largest IoT Conference & Expo

May 13 - 16, 2019  
Santa Clara Convention Center  
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TIME	ANALYST BREAKFAST BRIEFINGS	CO-LOCATED EVENT: CONNECTED AND AUTONOMOUS VEHICLES	DATA INFRASTRUCTURE: MOBILE IOT: LP-WAN & 5G	DEVELOPERS CONFERENCE: BUILD & DEPLOY (ARCHITECTURE)	DEVELOPERS CONFERENCE: CONNECTIVITY & NETWORKING	ECOSYSTEM CENTER STAGE (FREE TO ATTEND)	ENERGY & UTILITIES	FUTURIST STAGE (FREE TO ATTEND)	INDUSTRIAL IOT	INSIDER SESSION (FREE TO ATTEND)	KEYNOTES	LEADER-SIN IOT (INVITE ONLY)	PROJECT KAIROS PITCHOFF (FREE TO ATTEND)	SMART BUILDING	SMART CITIES	SMART HOME
2:00PM		<p>2:00pm - Getting Ready for Automated Mobility On-Demand</p> <p>2:20pm - Charging into the Electric Future</p>	<p>2:00pm - Unlocking the value of IoT on the road to 5G</p> <p>2:20pm - Using CBRS as a Platform for IOT in a Multi-user Industrial Location</p> <p>2:40pm - Enabling Digital and Automated Operations with Leading</p>	<p>2:10pm - Nirvana for IoT – How do you get there?</p> <p>2:40pm - Dev Kits Without Profanity</p>	<p>2:10pm - MQTT -- The Lingua Franca of IoT</p> <p>2:40pm - Turning Any Enterprise into a Mobile Virtual Network with Global IoT</p>	<p>2:30pm - Identity &amp; Access Management Meets IoT - Giving People, Applications, Services, and Devices Identity</p>	<p>2:00pm - Multi-Service Networks as a Shared and Marketable Asset</p> <p>2:20pm - Digitalization of utilities: evaluating technologies, investments &amp; results</p> <p>2:40pm - Data Governance as a Critical Step in Your</p>	<p>2:00pm - Entertainment: Bringing Humanity to Tech</p> <p>2:20pm - IoT Security in a Zero Trust World</p>	<p>2:00pm - Securing the IoT Manufacturing Supply Chain</p> <p>2:20pm - Team IOT Blockchain &amp; Co "T-0" for Quantum Digital Ascent</p> <p>2:40pm - A practical guide to Smart Factory</p>		<p>2:40pm - The Data Brokerage Opportunity</p>	<p>2:20pm - The Dos and Don'ts of Engaging with the Startup Ecosystem</p> <p>2:40pm - What does it take to become part of the Smart Cities landscape?</p>	<p>2:00pm - The Advantages of Bluetooth® Mesh Networking for Smart Buildings</p> <p>2:20pm - The San Francisco Department of Energy Use Case: Implementing BayREN Integrated Commercial</p>	<p>2:00pm - Wireless Communications Creating Potential for IoT to Empower Smart Cities</p> <p>2:20pm - City of Orlando: Utilizing Data Analytics to Support Public Safety Missions</p> <p>2:40pm - Our Collective Superpower:</p>	<p>2:00pm - Smart Home Services for the Multi-Dwelling Unit - Broadening the Concept of "Home"</p> <p>2:30pm - Bridging AI, Digital Identity, and Privacy in the Smart Home</p>	

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			Edge IoT Solutions				IoT Digital Transformation Journey							Retrofits Project <b>2:40pm</b> - How Cloud, Connectivity and Analytics Enhance Smart Buildings	How Can We Make Smart, Inclusive Cities a Reality?	

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3:00PM		3:00pm - Networking Refreshment Break & Exhibition Visit	3:00pm - Networking Refreshment Break & Exhibition Visit	3:10pm - Networking Refreshment Break & Exhibition Visit	3:10pm - Networking Refreshment Break & Exhibition Visit	3:00pm - Security Advantages in LPWAN Technologies: A Sigfox Case Study	3:00pm - Connecting with DHS Partners to Secure Critical Infrastructures  3:20pm - Networking Refreshment Break & Exhibition Visit		3:00pm - Networking Refreshment Break & Exhibition Visit			3:50pm - The Impact of Voice AI - How the new generation of interfaces will change your products & services	3:00pm - Project Kairos Final Pitches - Join us at 3:30pm on the Ecosystem Center Stage!  3:30pm - Pitchoff Finals & Innovation of Things Award Ceremony	3:00pm - Enhancing the Workplace with IoT: From Managing Buildings to Managing the User Experience	3:00pm - Leadership and Collaboration - Leveraging Resources for Smart & Resilient Communities	3:00pm - Vertical Focus Networking: Smart Home Networking Session in the Networking Garde

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4:00PM		4:00pm - AutoTech Council Presents: Innovation Sessions - Mobility Start-Ups Deliver their Experiences	4:00pm - How LP-WAN Enabled Smart Ground Support and Maintenance in Aviation (Case study) 4:20pm - Case Study: How LP-WAN is Helping Levelgas Uberize Gas Tank Monitoring	4:00pm - IoT World Hackathon: The Final Pitch-Off	4:00pm - IoT World Hackathon: The Final Pitch-Off				4:00pm - Leveraging IoT to Transform Service and Services for SMB Clients 4:20pm - Lessons Learned: What is Next?							4:00pm - The New Boundaries of the Smart Home 4:20pm - Who Will Service the Billions of Internet of Things Devices? 4:40pm - Case Study: Google - Home Automation

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			4:40pm - Aligning M2M Business Models with Wireless Network Options													