

Internet of Things and Bring Your Own Device in your Business

Presenter:

Jeff Gibson, ControlScan

Agenda

- Housekeeping
- Presenters
- About Conexus
- Presentation
- Q & A

Housekeeping

This webinar is being recorded and will be made available in approximately 30 days.

- YouTube (youtube.com/conexxusonline)
- Website Link (conexxus.org)

Slide Deck

- Survey Link – Presentation provided at end

Participants

- Ask questions via webinar interface
- Please, no vendor specific questions

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Presenters

Conexxus Host

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Speakers

Jeff Gibson

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Moderator

Kara Gunderson

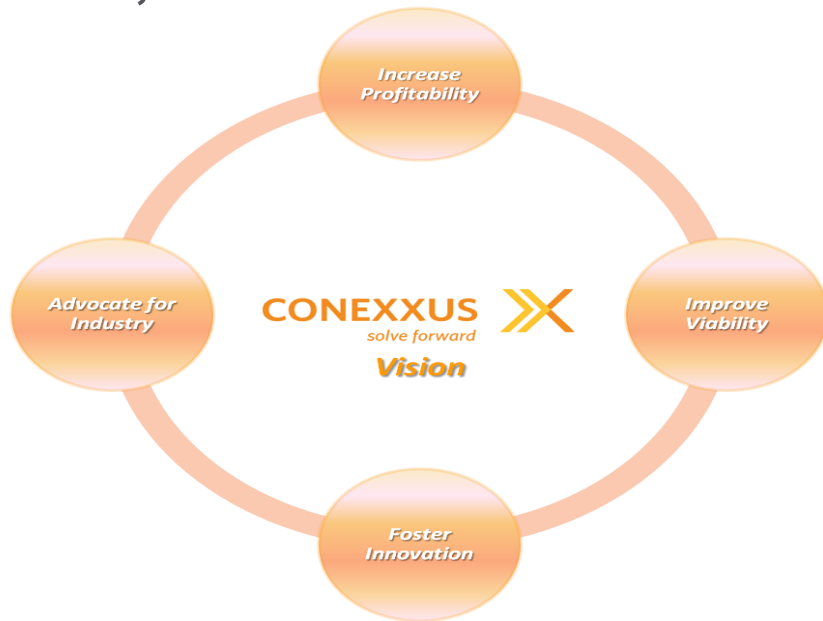
Chair, Data Security Committee

POS Manager, CITGO Petroleum

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About Conexus

- We are an independent, non-profit, member driven technology organization
- We set standards...
 - Data exchange
 - Security
 - Mobile commerce
- We provide vision
 - Identify emerging tech/trends
- We advocate for our industry
 - Technology is policy



2017 Conexus Webinar Schedule*

Month/Date	Webinar Title	Speaker	Company
July 27, 2017	Third Party Risk Management: How to Identify and Manage Data Security Risks from your Vendors	Sam Pfanstiel	Coalfire Systems
August 31, 2017	Using the NIST Cybersecurity Framework to Guide your Security Program	Chris Lietz	Coalfire Systems
October 12, 2017	Things & Impact of Bring Your Own Device to the Workplace	Jeff Gibson	ControlScan
November 2017	New Technologies for Addressing Payment Risk: A Survey of Payments Security Landscape	Andrew Barratt Terry Mahoney	Coalfire Systems W. Capra
December 2017	Conexus: EB2B White Paper Presentation	TBD	EB2B WG

2018 Conexxus Webinar Schedule*

Month/Date	Webinar Title	Speaker	Company
January 2018	Securing and Penn Testing your Mobile Payment App	Denis Sheridan	Citigal
February 2018	Unified threat management: What is it and why is it important?	Thomas Duncan	Omega
March 2018	Penetration Testing: How to Test What Matters Most	Sam Pfanstiel & Coalfire Lab Personnel	Coalfire
May 2018	QIR Program Update	Chris Bucolo	ControlScan



At the NACS Show
October 17-20, 2017
Chicago, IL
Booth 4384

IoT

IoT – Internet of Things

IoT is the network of physical objects – devices and embedded sensor systems that enables these objects to collect and exchange data over the internet.

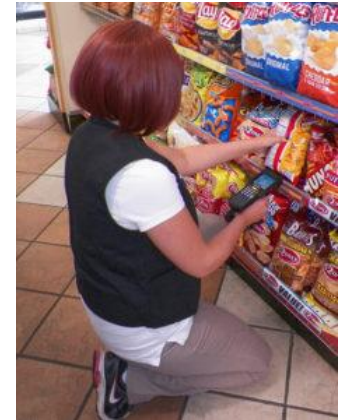
Gartner, Inc. forecasts that 8.4 billion connected things will be in use worldwide in 2017, up 31 percent from 2016, and will reach 20.4 billion by 2020. Total spending on endpoints and services will reach almost \$2 trillion in 2017.

"IoT services are central to the rise in IoT devices,"

Source: Gartner News Room

IoT in Retail

- Customer Experience
 - Customer engagement
 - Buying habits
 - Loyalty programs
 - Automated checkout
- Operations
 - Energy management
 - Equipment management
 - Inventory Management
 - Security



OPTIMAL CUSTOMER EXPERIENCE THROUGH REAL-TIME CONVERGENCE OF SENSORS, ANALYTICS & MOBILITY

1 Know

Understand shopper behavior in-store and online to create customer 360 view

- Customer Segmentation and 360 degree View
- Video Analytics
- Survey Analytics
- Social Media Analytics
- Non Invasive Foot fall

2 Engage

Real-time personalized communication with the shopper.

- Personalized Recommendation Engine
- Mobile Engagement
- CEP (Customer Engagement Platform)

2

Shelf Space Optimization

Campaign Management

3

- Loyalty Analytics
- Product Affinity Analytics

SENSORS

Grid EYE IR based Occupancy, I Beacons, NFC Tags, QR Codes, In-Store Video Cameras and Thermal sensors, Intel AIM Suite, STC IoT GW

MOBILITY

Retailer App m-commerce

Mix Optimization

3 Sell

Send Personalized mobile coupon specific to the products in the aisle. Promotions or Offers on shopper's smartphone to attract the shopper to the store.

4 Service

Track in-store shopper movement (Shopper Traffic, Dwell Time, Shopping Sequence).

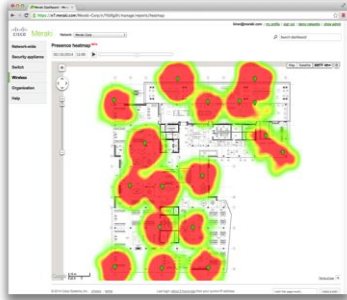
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Labor Optimization

Source: LinkedIn Redefining Smart Retail

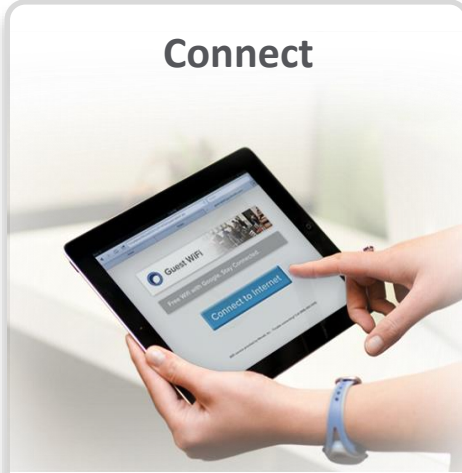
Business Relevance

Detect



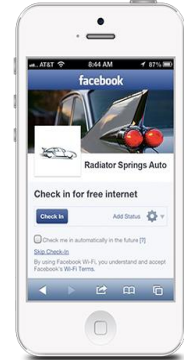
Data about every
visitor

Connect



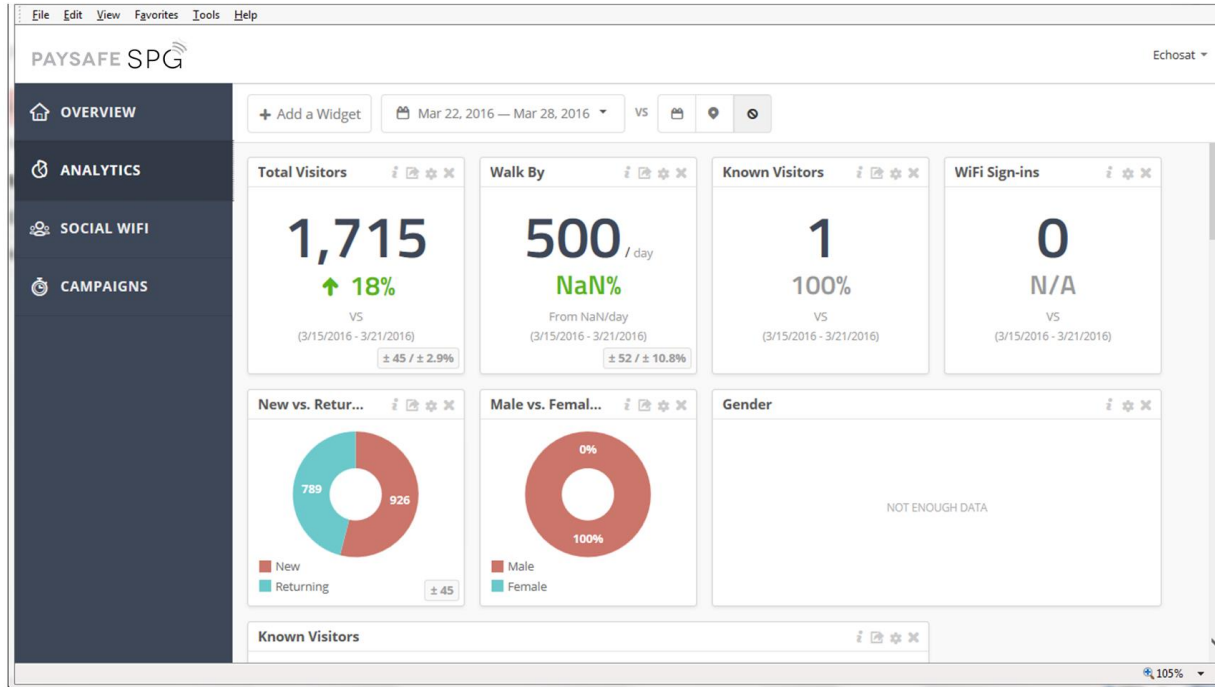
Optimized for
branding

Engage

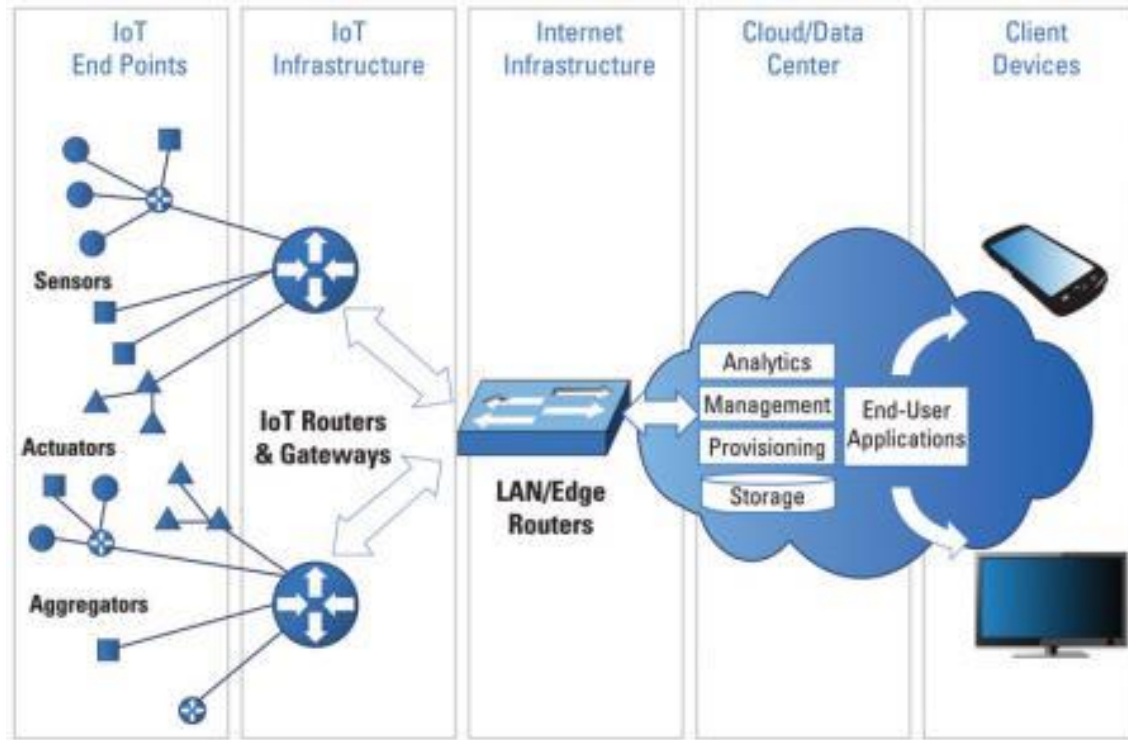


Real-time location
based apps

Consumer Analytics = Interesting Data



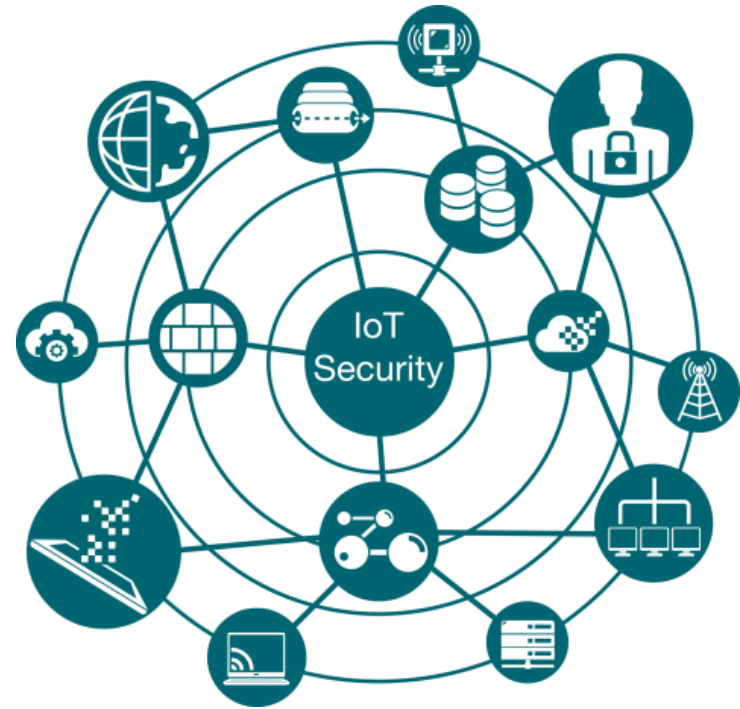
Internet of Things - Infrastructure



Source: RTC Magazine

Internet of Things - Security

- Endpoints
 - Protect data at rest and in transit
 - Security policies
 - Patch management
 - Restrict access
- Network
 - Segment endpoints
 - Restrict access to known destinations
 - Monitor network traffic
 - Intrusion prevent and detection systems
- Cloud Providers
 - Security policies
 - Authentication
 - Data Rights
- End-user applications
 - Security policies
 - Scalability
 - Authentication





- What are we wanting to accomplish?
- Who needs to be involved?
- What are the risks?
- When does it need to be completed?



- ✓ Evaluate multiple vendors
- ✓ Involve other departments early on
- ✓ Clearly define the scope of the project
- ✓ Develop an implementation plan

Resources

IoT Analytics: <https://iot-analytics.com>

IoT Newsletter: <https://iotnewsletter.org/>

IoT Central: <https://www.iotcentral.io/>

IoT Security Foundation:

<https://www.iotsecurityfoundation.org>

Gartner: <http://www.gartner.com>



BYOD – Bring Your Own Device

Traditional Definition: The policy of permitting employees to bring personally owned devices to their workplace, and to use those devices to access privileged company information and applications.

BYOD Drivers



BYOD Adoption Today



40%
BYOD is available
to all employees

32%
BYOD is available
to select employees

13%
We have no plans
to support BYOD

9%
We do not support BYOD, but plan
to start in the next 12 months

3%
BYOD was tried
but abandoned

3%
Other

BYOD - Risks

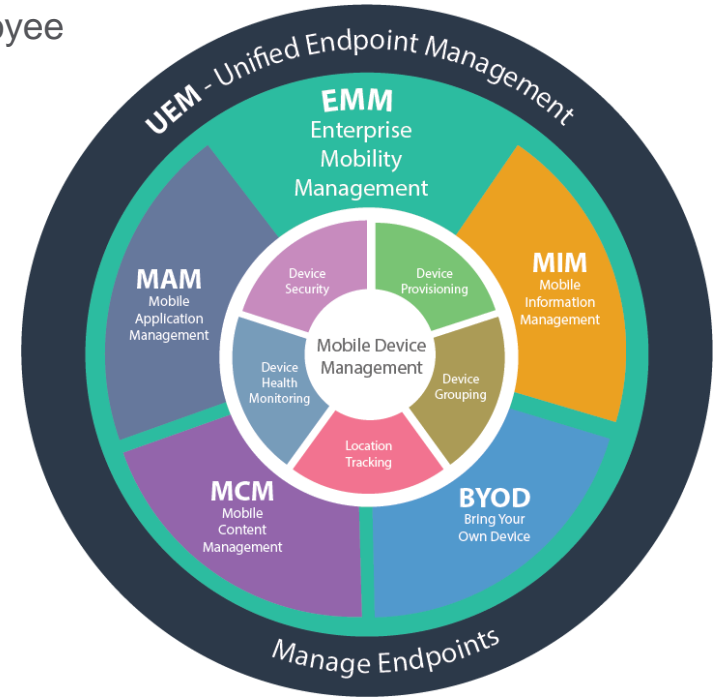
- Employees are their own Administrators
- May not always be used by the employee
- May not have endpoint protection
- Updates may not always be maintained
- Wireless Access Point connection
- Application features enabled may pose security risks
- External Cloud based storage solutions
- Increase in Malware
- Lost / Stolen device

BYOD Planning

- Eligibility
- Devices
- Accessibility
- Employee Communication
- Costs
- Security and Compliance
- Support and Maintenance

EMM – Enterprise Mobility Management

An all-encompassing approach to securing and enabling employee use of smartphones and tablets. typically involves some combination of mobile device management (MDM), mobile application management (MAM) and mobile information management (MIM).



BYOD – Beyond Employees

- Vendors
- Contractors
- Mobile payments
- IoT Devices
- Inventory





- What are the supported devices?
- What access is needed?
- Who are the vendors?
- How easy is it to deploy?



- ✓ Evaluate multiple vendors
- ✓ Clearly define the scope of the project
- ✓ Evaluate all costs
- ✓ Develop an implementation plan



- Website: www.conexxus.org
- Email: info@conexxus.org
- LinkedIn Group: [Conexxus Online](#)
- Follow us on Twitter: [@Conexxusonline](#)