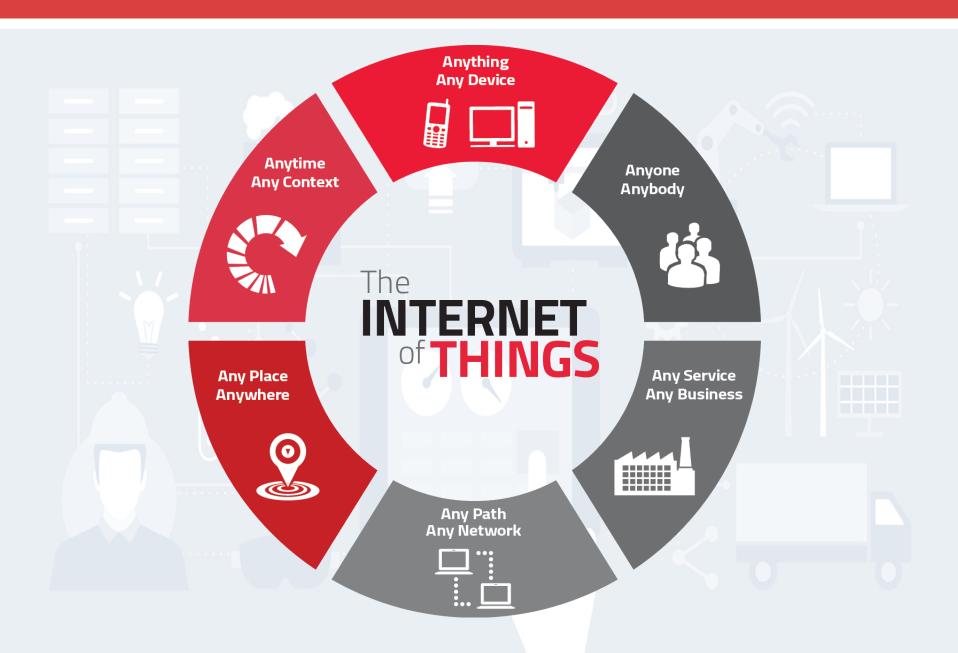


Outline

- Definitions
 - IoT
 - Smart Logistics
- Cargo tracking
- Underwriters perspective
- Security and new risks
- Summary

Definitions







Current Location



Temperature



Tamper



Humidity



Light



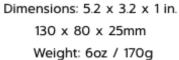
Air Pressure (Altitude)



Shock



Delays





Non-Permitted Movement



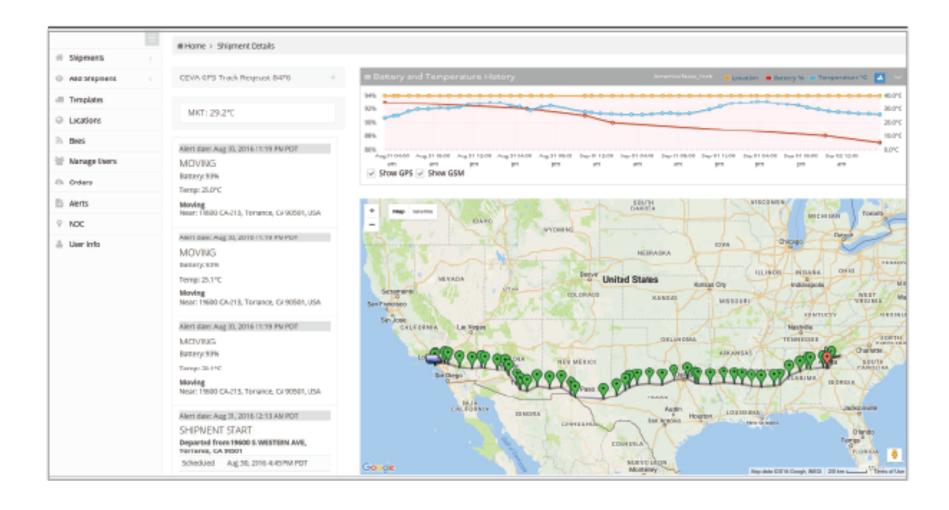
Deviation from Assigned Route

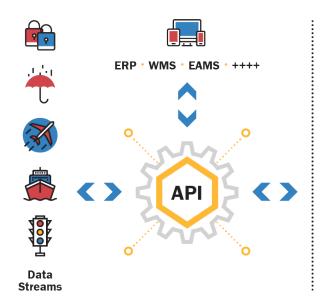


Change in ETA



Crossing Waypoints





Shipment Monitoring Asset Monitoring Application Application Honeycomb (IoT API Platform) One reading One reading per day transmit per **hour** transmit 11111111 **Stores** lasts 1,000 days lasts 90 days 20,000 Readings Back-Up: One reading per day transmit lasts 60 days





































Location Sensing

Condition Sensing

Possibility to rectify problems before loss is incurred

- Earlier notification/warning allowing survey,
 loss mitigation or recovery of a stolen cargo
- Full control over information better subrogated recoveries for cargo interest

Underwriters perspective

- New opportunities now and in the future
 - Better analytics and risk modelling
 - Premium incentive for cargo owners
 - STP/Warehouse product/premium opportunities based on real-time data
 - The possibility of an alert system

Security and new risks

- Consolidated data on third party servers ('the cloud')
 - Tracking units providing real time exact locations – a treasure map!
 - 'Hacktivism'
 - Terrorism

Security and new risks

- Tracking device = foreign object
 - Lithium-ion batteries
 - Contamination risk
- False sense of security?

HYUNDAI