Secretary of Defense Product Support Manager Workshop
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Innovation & Digital
Caterpillar Inc.
WHO WE ARE
Caterpillar is the world’s leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives.
Unmatched Competitive Advantage

- 140,000 lines shipped every day to 2,000 dealer stores – 38M lines per year
- Over 16M sq. ft. of warehouse space – equivalent to 344 football fields
- Over 8,500 Suppliers providing over 1M active part numbers
- Over 1M purchase orders open every day
- Over 950 trucks per week delivering to entry points
- Over 11M pieces per week
- Over 60,000 dealer calls answered every year
A FEW RECENT INNOVATIONS
Channel1

Launched in 2015, and true to the spirit of innovative learning. Channel1 is a cloud-based video training and service support tool which allows its subscribers to view, share and author Caterpillar training information from anywhere, at any time and in any language.

- Video tutorials
- Quick, short answers to work matters
- Personalized video library - “My Channel”
- Social sharing and interaction with other instructors and learners
Safety and Sustainability

Wearables and site sensors provide real-time operational data and visibility to risks
- Site condition sensors and wearables for jobsite personnel
- Delivered as stand-alone, technology-enabled safety product/PPE
- Focus on protection, location, exposure, performance and identity
- Point solutions offer greater value and interaction when part of platform

Jobsite Sustainability Solution to unify point technologies
- Integration platform for sensors
- Correlation of sensor data & predictive analytics using Caterpillar equipment and other external data
- Workflow engine using sensors and event triggers to identify, escalate, automate and track issues and resolution
- Common customer experience with unified front-end and integrated back-end using shared data across equipment, worker, and jobsite

Consulting Services that extend value of point solutions and platform
- Sustainability (Safety and Environmental) Advisors provide active monitoring of equipment, people and worksite conditions
- Identify jobsite safety and environmental hotspots and provide training, technology and tools
- Comprehensive approach incorporating safety and sustainability culture and change management services
Caterpillar Fleet Monitoring Center

- High tech environment focused on collaboration & innovation
- Provide equipment management support and condition monitoring services
- S·O·S\textsuperscript{SM} fluid analysis interpretations
- Advanced analytics, prognostic modeling & algorithms
- Safety Services - operator fatigue & distraction monitoring
A FEW ON THE HORIZON
Disrupt or be **Disrupted**

- **3D Printing / Additive Manufacturing**
- **Robotics**
- **Autonomous Vehicles**
- **Drones**
- **Sensors**
- **Materials Science**
- **Augmented Reality/Virtual Reality**
- **Safety & Sustainability**
Augmented and Virtual Reality at Caterpillar

In 2015 Caterpillar publically demonstrated a proof of concept project to aid Service / Maintenance personnel with machine inspection, and service procedures.
Augmented and Virtual Reality at Caterpillar
Caterpillar 3D Printing Capabilities

80+ 3D printers at Caterpillar
  ~ 30 commercial printers
  ~ 50 desktop printers

Additive Manufacturing Factory
  – Located in Illinois
  – 10 commercial printers
  – Manage 5 nomadic printers

We have access to nearly any machine in the market through partnerships
Caterpillar Parts on Demand Factory

- Availability
- Performance
- Flexibility
- Delivery