

Big Data generated by Machines:

Why it's useful

After this video you will be able to...

- Understand how machine generated big data is being used to enable real-time actions
- Identify what is needed to start creating a big data strategy that includes machine generated data

Big Plane → Big Data???



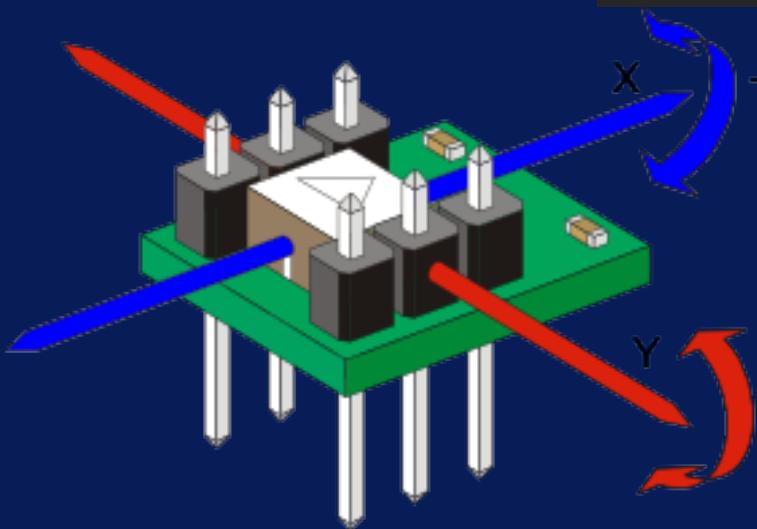
Half a TB of data
every time it flies!



What produces data?



Accelerometers →
turbulence





Sensors:
temperature, pressure, etc.
→ malfunctions

**Real-time problem detection
at 40,000 ft. with machine
generated data!**



In-Situ Processing

Then (RDBMS)

Data moved to computational space



Now (In-Situ)

Bring computation to data



Real-time Notification Enables Real-time Actions

Design Differently!

Machine Health

Smart Metering

Environmental Monitoring



Culture shift to real-time operations

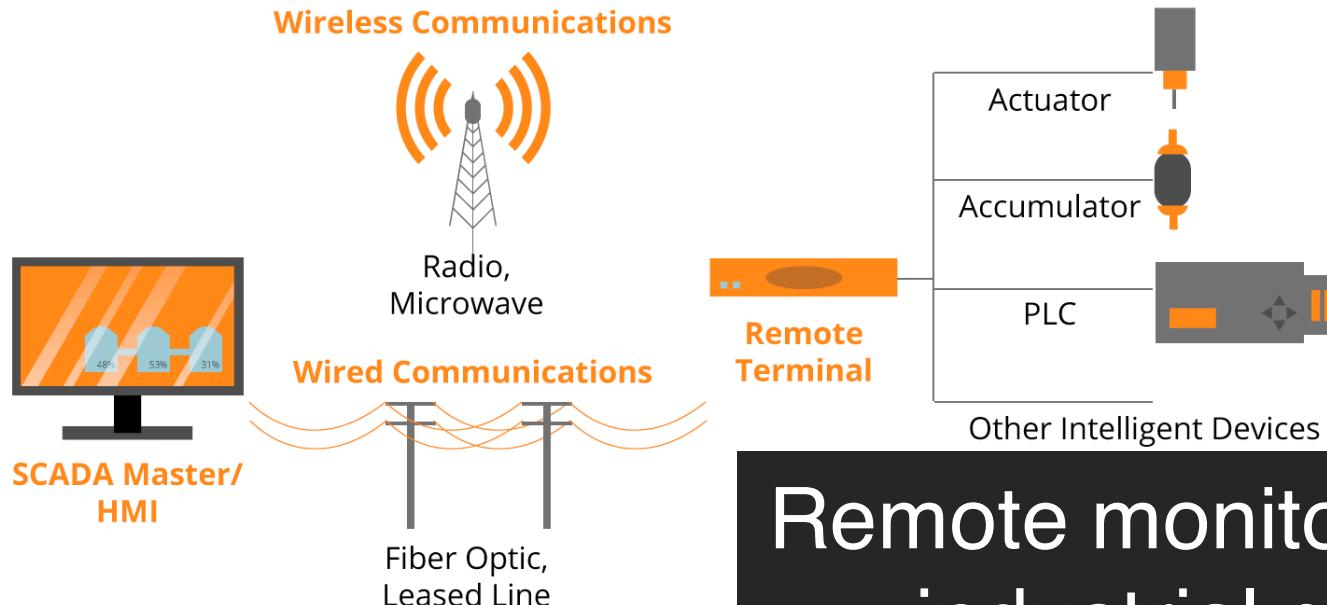
- **Customer relations**
- **Fraud detection**
- **System monitoring/control**

Increased use of scalable computing



Supervisory Control and Data Acquisition (SCADA)

GENERAL SCADA SYSTEM LAYOUT



Remote monitoring / control
industrial processes

Supervisory Control and Data Acquisition (SCADA)

Reduce waste,
improve efficiency

Identify trends,
patterns, and
anomalies



Machine Health

Smart Metering

Activity Tracking

Environmental Monitoring

Culture shift to real-time operations

Increased use of scalable computing

