

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???



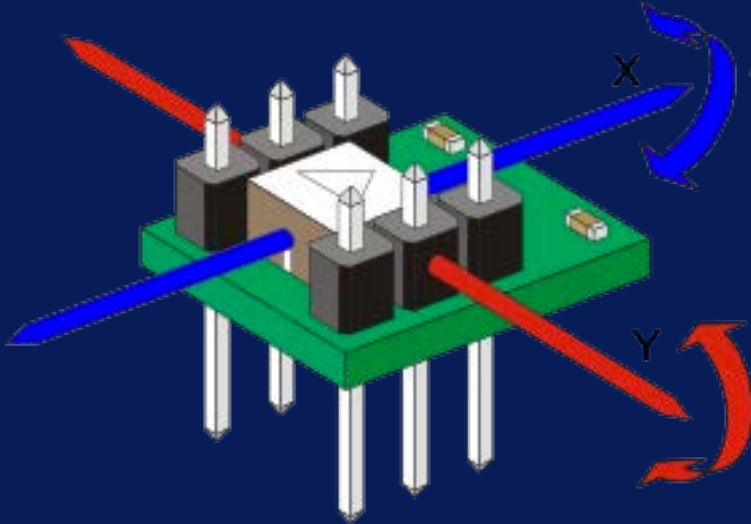
Half a TB of data
every time it flies!



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**

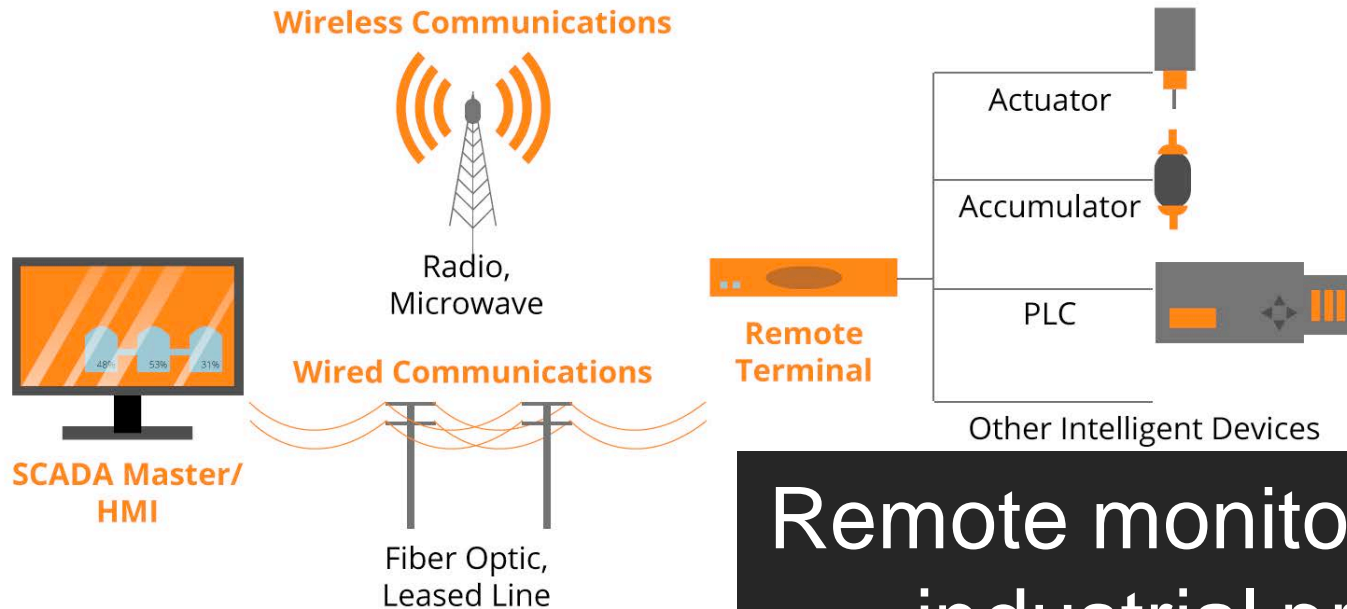
Increased use of scalable computing



Microsoft
Azure

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



Smart
Metering

Activity
Tracking

Machine
Health



Environmental
Monitoring

Culture shift to real-time operations

Increased use of scalable computing