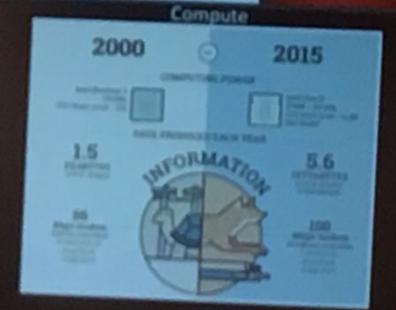
New Value from Cloud Ecosystem (Silicon - Apps) and the Implications for Manufacturing





● TCO of Infrastructure, ● TCO of Connecting 'Things' and ● TCO of Data Storage

IT & Enterprise Apps (OT/IT Convergence)

Predictive
Analytics
(Machine Learning)

Remote
Support/Monitoring
(New Business Models)

Machines (Legacy & New) L5 loT Enabled Governance and Planning Systems

L4 IoT Enabled Business Systems

L3 Smart Connected Operations - IloT Enabled Production, Quality, Inventory, Maintenance

L2 L1 LO Smart Connected Assets -

floT Enabled Sensors, Instrumentation, Controls, Assets, and Materials Next-Gen Systems

LIKS Rosseryn 2015

5 Drivers Fuel IoT Value in Manufacturing

How can Manufacturers capitalize on this opportunity?

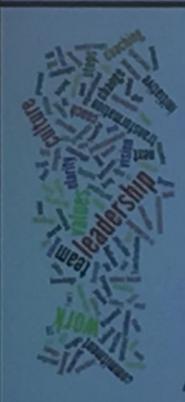
Rockwell Automation

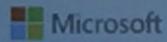
	Asset Utilization	\$675B
Manufacturing \$3.8T	● Employee Productivity	\$675B
	Supply Chain Logistics	\$729B
	Customer Experience	\$1T
	• Innovation	\$810B

The Connected Enterprise - "It Takes a Village"

Cultural & Technology Imperative - IT / OT Convergence

Rockwell Automation





allerle.

CISCO























COMMON SECURE

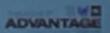
NETWORK INFRASTRUCTURE







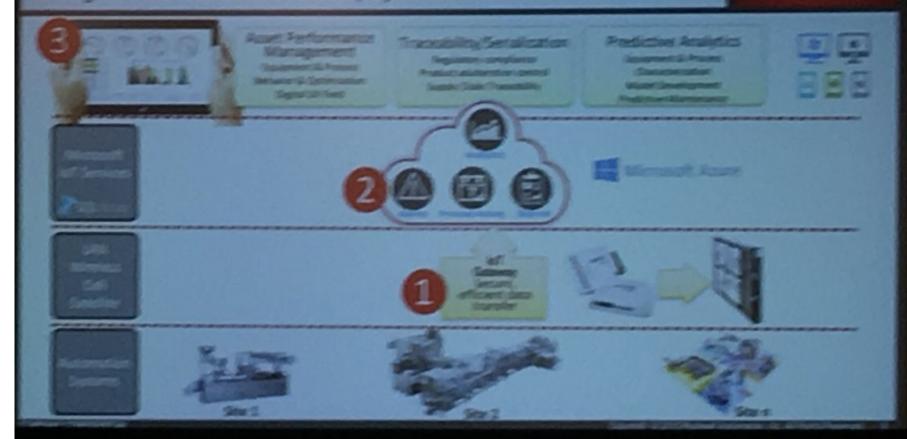


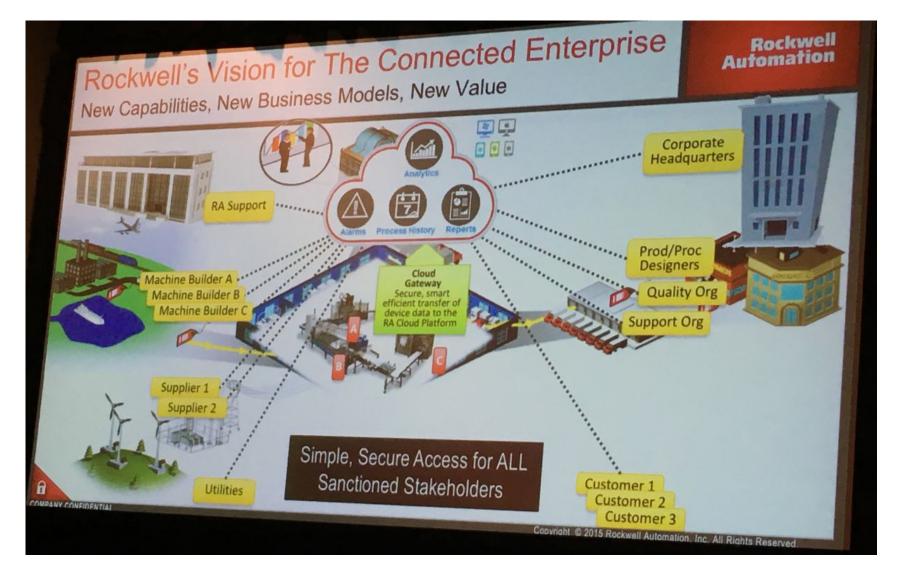


RA loT Platform: Enabling New Value Creation

Recitated Suffrentialist

Moving from Traditional Software Deployment to Software as a Service





The Cash Machine of the Oil & Gas Industry

Removing the Potential for Error



Trigg Technologies L.A.C.T. Units

Hydro-Carbon Custody Transfer via Cloud

- Reduce support costs
- Hands-off operation
- Eliminate human error
- Instant transaction & invoicing

Enterprise Performance Management

Global Manufacturing Re-Invention



F50 Food/Bev Co. Global Manufacturer

Common Plant KPI's, Plant to Plant

- One dashboard combining Quality, OEE, Production Order Status, Safety & Morale
- Daily Management System
- Longer term analytics to evaluate plants, products, packaging lines and machine builders

New Business Model - Supplying Consumables

Innovation in a Conservative Industry



M.G. Bryan Fracking Trucks

Revolutionizing the Fracking Industry

- · Consumables, Maintenance
- · Enable Real Time Invoicing
- Maintenance Accountability

Remote Asset Performance Management

Liquid Natural Gas Terminals



Supermajor Co. Building & Managing LNG Retail Stations

Innovation in remote operations management

- · Remote system management
- Monitor & predict consumption
- · Schedule deliveries
- Predict and mitigate failure

Connected Production The Digital Oil Field



M.E. Oil Co. Digital Oil Field

Monitor > Analyze > Predict > Optimize

- Quickly, cost-effectively connect remote assets
- PREDICT failure modes and minimize unscheduled downtime
- · Pump fillage & optimization
- IMPROVE well production
- Real time optimization of wells & other production assets

IIoT - Transforming Manufacturing Capturing the \$3.8T of Value that has been Identified

Stakeholder	Role
Analysts	Build equity in a new market
Manufacturing SW Vendors	Innovate; support standards; form new ecosystems
IoT Startups	Continue to innovate; be ready to partner
Enterprise SW Vendors	Invest to extend platform for manufacturing; facilitate OT/IT convergence
System Integrators	Learn; invest; facilitate OT/IT convergence
lanufacturers	Demand NEW value; collaborate to find real use cases; drive OT/IT convergence
	gonoo

Transformative Value of IoT in Manufacturing

Rockwell Automation

SaaS Will Reduce the TCO of and Simplify Manufacturing I.T.

Scale Up/Down Elasticity

'0' Infrastructure To Support

Trustworthy Exchange of Info

Business Model

Extracting New

CONFIDENTIAL



Remote Service & Support

<SME's Supporting >Assets

Predictive Maintenance

Service

Operations

Asset & Operations Performance

Consumables

Multi-tenant Visibility for your Supply Chain