Driving Digital Innovation
Enabling Industry 4.0 for Oil & Gas Operations
Safety Moment

• Tools
• Process
• Precautions
Digital has defined the 4th Industrial Revolution

1700’s  
**First** Industrial Revolution  
**Mechanical**  
Technology was steam and water powering the first factories

1800’s  
**Second** Industrial Revolution  
**Electrical**  
Electricity made possible the division of labour and mass production

1900’s  
**Third** Industrial Revolution  
**Automated**  
IT enabled programmable work and an end to reliance on manual labour

Today  
**Fourth** Industrial Revolution  
**Connected**  
Cyber-physical systems, powered by IoT and fuelled by data, create a fully interconnected society

**Unprecedented pace**
- **35 days**
  - For a new technology to reach a critical mass of 50m users

**Extreme experiences**
- **87%**
  - Percentage of customers looking for a more seamless experience

**Connected chaos**
- **50 b**
  - Internet connected “things” by 2020**, including sensors, RFID chips etc.

**Digital natives**
- **75%**
  - By 2025, the makeup of the workforce is projected to be majority digital native
3 Mega Trends

Internet

Cloud Computing

Hyperconnectivity
It has changed our lives....
...and how we do business

“Networked enterprises are 50% more likely to have increased sales, higher profit margins, gain market share, and be a market leader.”

Value is derived from the network effect. The more relevant the network, the stronger the platform.

The Digital Factory

2000s Manual Process
- Generate / Get Approval for FT
- Generate Invoice
- Code/Route Invoice
- Verify Pricing
- Approve Invoice
- Load To ERP

2010 Digital Invoices
- Generate / Get Approval for FT
- Generate Invoice
- Verify FT
- Code/Route Invoice
- Verify Pricing
- Approve Invoice
- Load To ERP

2018 Digital Field Tickets + Digital Invoices
- Generate / Get Approval for FT
- Generate Invoice
- Code/Route Invoice
- Verify Pricing
- Approve Invoice
- Load To ERP
- Verify FT

Now: Pay on the ticket
Why Every Company Is A Technology Company

STEPHENIE STONE

Stephenie Stone is CIO Americas at M+W Group, a global high tech design and construction firm.
Supply Chain 4.0: Evolution not Revolution

- Remote Connectivity
- Digital Networks & Blockchain
- Artificial Intelligence
- Smart, Connected Devices
It’s all about the (big) data...
Easy access to quality information, everywhere!

- Consistency
- Completeness
- Correctness
- Currency

Better, Faster Decisions

- Interpreted
- Derived
- Reported
Gaining Intelligent Insight with AI

1. Understand the trends
2. Detect when trends change
3. Discern anomalies
4. Determine root cause
Data Driven Digital Innovation

**Robotic Process Automation**
- High volume, simple, repetitive tasks
  - Contract management
  - Supplier Relationship & Risk Management
  - Supplier Onboarding & Enablement
  - Tactical Buying
  - Category Management
  - Procurement Performance Management
  - Spend Management & Visibility

**Virtual Assistants**
- Collaborative helper
- Augment decision making
- Drive compliant processes
  - Guided Buying
  - Operational Support
- Proactive information Provider
- Knowledge Worker

**Cognitive Analytics**
- Cause something to happen
- Acts independently
- When do we let the computer pull the trigger itself?

“Source to Contract is becoming predictive, Purchase to Pay is becoming automated, Supplier Management is becoming proactive, and these are all empowered by analytics and strong operational management.” - Deloitte 2017 CPO Survey
Why Every Company Is A Data-Driven Technology Company

Stephenie Stone

Stephenie Stone is CIO Americas at M+W Group, a global high tech design and construction firm.
It is impossible to be data-driven without data

“Digital transformation ... is now a top business priority for a majority of oil and gas companies.”

- Gartner
The Virtual Company Man

- Remote Connectivity
- Digital Networks & Blockchain
- Artificial Intelligence
- Smart, Connected Devices

Field Office
Company Man
Crescent Point Reduces Costs and Improves Processes with Digital Field Tickets

Situation
• Strategic initiative to use digital data to improve operations
• Paper-based tickets were costing $2 million/year, lengthening invoice cycle times, masking billing issues, and increasing risk of duplicate and/or fraudulent billing

Solution
• Added OpenTicket to existing OpenInvoice deployment,
• Integrated OpenTicket with their Reporting system
• Initial roll out in South Saskatchewan

Results
• Achieving projected cost savings
• Reduced invoice processing times
• Click-of-a-button reports
• Easy monitoring of ticket lifecycle
• Process and procurement improvements
• Very positive supplier acceptance

“Field Ticket is integral in getting more granularity in the data, having that detail and transparency from the vendor and our field staff. It allows us to better assess where problems are.”

Lisa Howland
Manager, Operations Accounting
Data-Driven Digital Oilfield 4.0

**D&C Operations**
- **Safety** support by eliminating unnecessary travel
- Digital field ticket data feeds
- **Morning Reports**
- **Rentals** support
- More accurate **cost management**
- Better **operator/supplier relationships**

**LOE Operations**
- **Safety** support by eliminating unnecessary travel
- Digital field ticket data accelerates **cost and operations understanding**
- “**Virtual Company Man**” concept
- More accurate **accruals**
- Operational information provided as services performed
- Better **operator/supplier relationships**

**Business Processes**
- **Streamline** field ticket & invoice review/coding/approval process
- **Fraud** detection
- Push processing as far forward as possible, **reducing back office effort**
- Reduced knowledge worker involvement in **approval process**
- **Early Pay Discounts**

**Service Providers**  Get paid faster!