Digital Transformation for Environmental Health and Safety

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Agenda

- About Prometheus Group
- EHS 411 – Current state, Trends and Solution Expectations
- Incident Management & Management of Change
- Permitting and Isolations/LOTO
- Digital Enhancement
- Mobility
- "Perfect World"

Prometheus Group

- Founded in 1998
- Headquartered in Raleigh, NC, USA
- Asset Management Experts
- Integrated and Intuitive Software
- Trusted by the largest asset-intensive companies in the world

TOP 6	TOP 6	TOP 6	TOP 6	TOP 6
Oil & Gas	Chemical	Pulp & Paper	Mining & Metals	Utilities

SAP Partner

IBM Business Partner

ORACLE Gold Partner

Prometheus Platform

Planning & Scheduling

Mobility

Permitting & Safety

Reporting & Analytics

Shutdown, Turnaround & Outage

Master Data

Current State, Trends, and Solution Expectations

- Regulations & deregulations
  - Regional requirements make the "one size fits all"… no longer fit

- North American workplace fatalities are up

- EHS 4.0? 5.0? X.0??

Incident Management & Management of Change

- Incident Management
  - Accurate timelines are impossible when we rely on humans
  - Simply making a *digital* Incident report doesn't save time or improve safety

- MoC
  - Effective change is inconsistent when we rely on humans
  - 80% of large scale incidents can be traced back to failures in MoC
  - For every 1000 work orders, around 50-100 require MoC
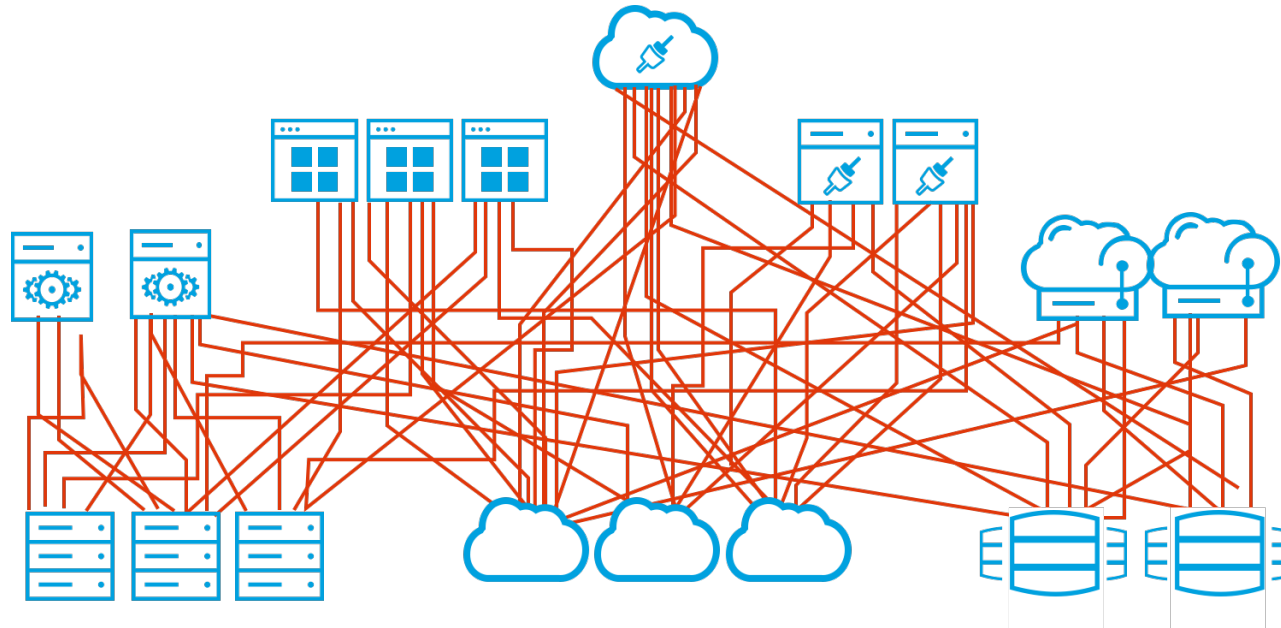
Permitting and Isolations

- Smart Forms or Smart Systems?
  - One tells you what you did wrong, the other tells you what you *should* do
- Are you trying to save lives, save time or save trees?
- Hard and Soft controls
- Are you ready for the culture change?
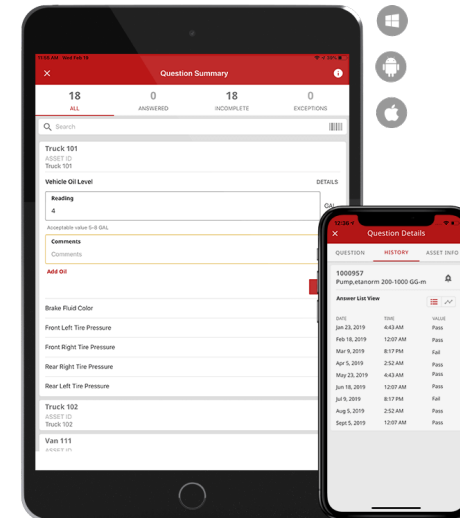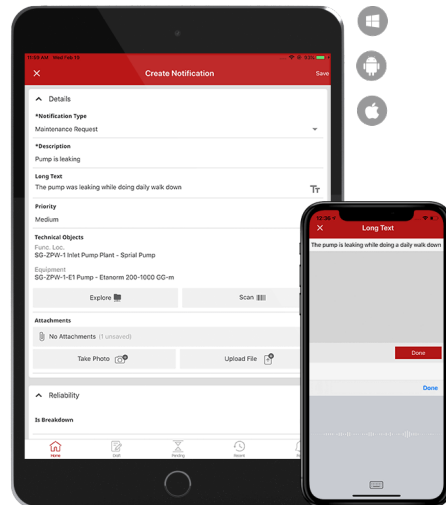
Digital Enhancement

- Value add vs "cool"
  - P&ID Markup
  - Barrier management
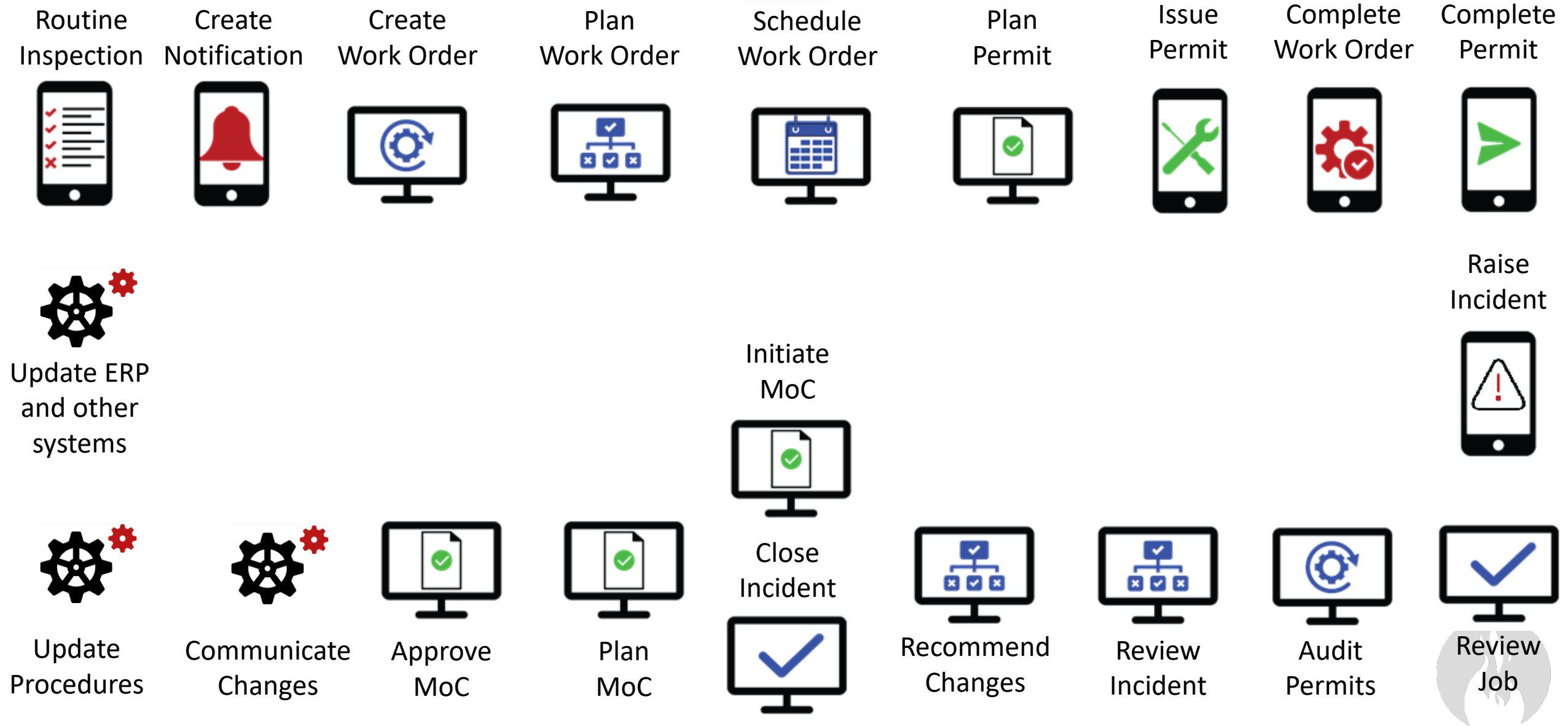 - 3D plant diagrams
- Integration vs Interoperability

Mobility

- Build it for chimpanzees
  - The interface needs to be intuitive
  - Humans forget details very quickly, immediate collection of information is paramount
- Best of breed vs "Jack of all trades"
- Online and Offline

Circle of Life

Routine Inspection · Create Notification · Create Work Order · Plan Work Order · Schedule Work Order · Plan Permit · Issue Permit · Complete Work Order · Complete Permit

Update ERP and other systems

Raise Incident

Initiate MoC · Close Incident

Update Procedures · Communicate Changes · Approve MoC · Plan MoC · Recommend Changes · Review Incident · Audit Permits · Review Job

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