Smart Utility Transformation...  
... driven by data

John Renard, Cyient - BU Head, Utilities & Geospatial
WORKING WITH UTILITIES ACROSS THE GLOBE

20+ Mn
Hours of expertise on IT/Utilities Systems

5,000+
Employee Strength

5 of the top 10
Utilities globally

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WHY SMART?

Technology Trends
- Advances in IoT
- Next Gen, Cloud, SaaS...
- Image & Video Recognition
- Mobility Platforms
- GIS, RFID

Pressures on Utilities
- Ageing Asset Base
- Ageing workforce
- Tighter Regulation
- Micro Generation
- Renewables
THE SMART, SECURE SUSTAINABLE UTILITY

The Utility of the Future Needs to Be:

- **Smart**
  - Leverage new technologies and business processes to deal with the unexpected
  - Build capability to ensure reliability.
  - Inform customers through efficiency programs of the need to reduce consumption

- **Secure**
  - Secure and reliable energy supply
  - Electric utilities especially are the source of significant cyber attack risks
  - Total security of power generation assets, including nuclear power plants

- **Sustainable**
  - Manage exposure to climate-change through deployment of new technologies
  - Integration of renewable generation into the Grid (edge of grid)
  - Able to cost effectively renovate its infrastructure
THE KEY ATTRIBUTES OF “SMART” VARIES

- Opportunistic
- Green
- Analytical
- Intelligent
- Standards driven

- Resilient, Self-healing
- Electric Storage, Electric Vehicles

- Accommodating
- Motivating
- Demand Side Management
- Smart Appliances
- Quality

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SOME MAJOR HURDLES TO ADDRESS

• Regulation
• Slow-Moving
• Financial Constraints
• Technology
SMART UTILITIES ARE DRIVEN BY DATA

Focus on ‘Right Information, Right People, Right Time’ rather than “Features, Functions and Service”
SMART UTILITY CHARACTERISTICS

**Energy Efficient and Agnostic**
Culturally and operationally focus on delivering as efficiently as possible. Embracing interoperability

**Data Driven**
Mining the ‘gold’ within their data in order to drive innovation

**Super-processes**
Single purpose business process will be superseded by “super processes”

**Convergence**
Foundational technologies will drive integration of traditional systems & processes

**Automation**
Automated solutions that protect the grid, monitoring real-time condition

**Trusted Advisor**
Customer engagement to reduce demand/carbon footprint and energy spend

**Two Networks**
Communications infrastructure, in conjunction with the electric infrastructure.

**Foundation Technologies**
Like AMSs, PMUs, and sensors will underpin the smart solutions
THANK YOU - QUESTIONS?