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Digital Business Transformation for Utilities

Trends and Best Practices

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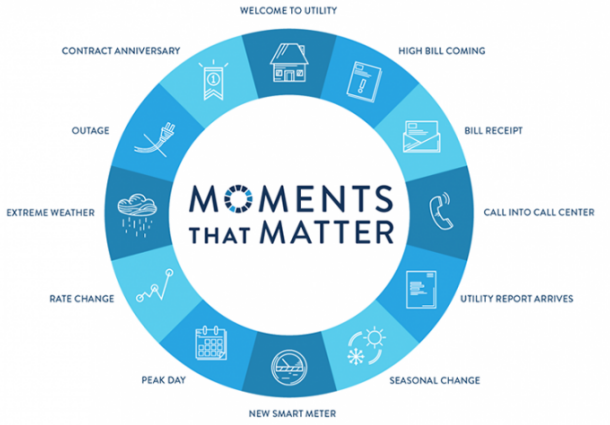
Major Levers of Digital Transformation at Utilities

Lever	Technology Solutions
Customer Experience	Self-service solutions, social media integration, intelligent interactive UX design, loyalty solutions
Infrastructure Transformation	Converged IT and OT networks, distribution grid as a interconnected and interactive platform, advanced security solutions, field sensors and AMI based solutions for monitoring and location services
Back Office Process Transformation	Meter to cash transformation, business process and CIS consolidation, fleet management, store replenishment, contract management, acquisition integration and consolidation
Operations and Production Optimization	Integrated utilities platform, preventive maintenance, geo-spatial analytics, field worker enablement, internal workforce management
Emerging Technologies Innovation	Advanced data and BI analytics, mobility, radar/sonar/drones based solutions, machine learning solutions
Alternative Energy	Distributed generation and bundling solutions, dynamic pricing solutions for alternate energy sources, weather forecast integration

Customer Experience Improvements

Utilities are becoming customer-centric by actively engaging with customers on an individualized basis with increased emphasis on personalized and tailored marketing, communication, and product and service packages.



Customer Facing

- Increase customer touch through integrated digital platform including multi-channels – IVR, Mobile, App, Chat, SMS, etc.
- Provide notification platform to customers for alerts on outages, peak load hours and other notices
- Provide self-service and crowd-sourcing/social-media solutions for increased stickiness
- Provide home utility management solutions to advanced users

Internal Operations

- Develop solutions for increased efficiency gains - Robotics Process Automation, Intelligent Speech and Text Analytics
- Develop UX frameworks that increase engagement with customers
- Develop analytics-based solutions for omni channel analytics, sentiment Analytics
- Optimize processes by remodeling CRM ecosystem

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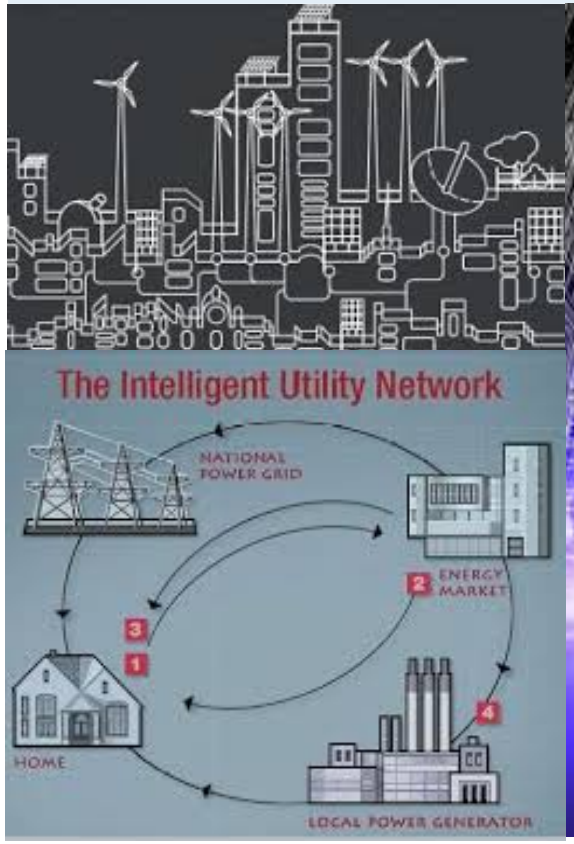
Infrastructure Transformation

As distributed generation starts to take prominence, Utilities are turning into 'Smart Integrators' by playing an enabling role as infrastructure builders, operators, and service providers.



Customer Facing

- Develop solutions to transform the distribution grid in to a smart and interconnected platform that enables interaction with customers and distributed generators
- Build solutions to enable customers as active power agents by:
  - Sending location based information on outages, etc.
  - Sending online feedback on installation services

Internal Operations

- Integrate IT and OT networks for reduced CAPEX and improved service delivery
- Build scalability and agility in IT architecture based on new technologies (Cloud) and development methodologies (DevOps, Agile)
- Build active cyber-security strategies for defense, monitoring and analytics
- Build real time sensor based monitoring solution based on field sensors and AMI

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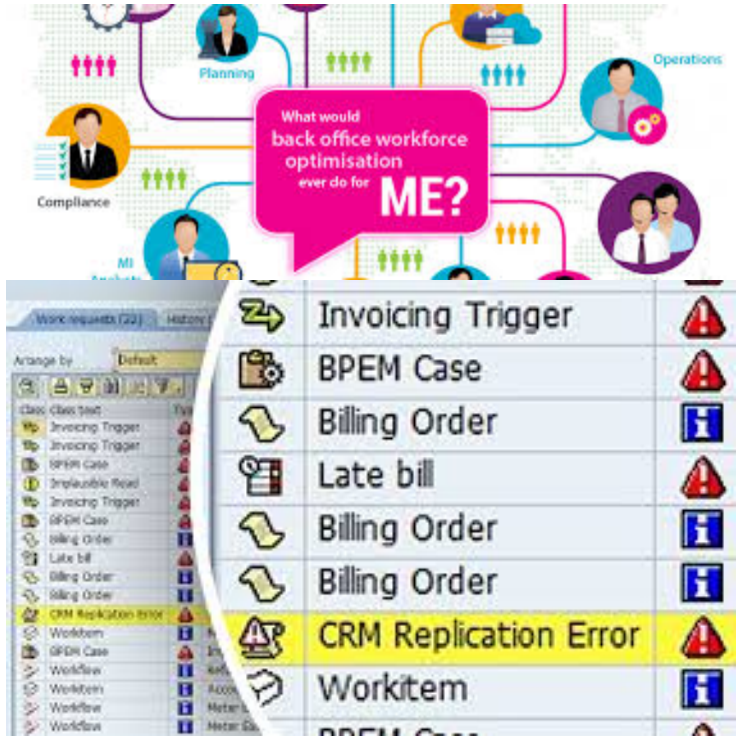
Back Office Process Transformation

How well Utilities meet customer expectations depends on processes beyond the contact center; most back offices aren't designed for streamlined operations; digital transformation enables Utilities turn this complexity in to opportunity for competitive advantage.



Customer Facing

- Develop automated billing reconciliation and meter reading analytics solutions
- Provide real-time spend intelligence and insights
- Automates BW data load/process chain monitoring & provides periodic alerts to users

Internal Operations

- Develop automation & value creation tool framework for process stabilization & optimization
- Consolidate business processes and CIS system
- Streamline operations focused on
  - Stock/store replenishment
  - Fleet management
  - Contract management
- Meter to cash transformation
- Enables faster integration/consolidation of acquired entities into existing technology landscape and seamless business process

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Operations and Production Optimization

Integrated digital solutions across production and operations lifecycles drive significant savings in operations of Utilities, including supporting higher capacity with existing assets.

Customer Facing

- Productize and gamify solutions for enhanced customer awareness and engagement
- Build geo-spatial analytics solutions for optimized operations and faster customer service
- Build pro-active outage reporting and preventive maintenance solutions and ensure greater transparency to end users

Internal Operations

- Build integrated utilities platform for information modeling and end-to-end tracking
- Digitize asset management solutions
- Field worker enablement
  - Integrated field worker platform for scheduling
  - Wearable technologies for field worker safety
  - Augmented and virtual reality for hands free support and training
- HCM diagnostics
  - Crowdsourced data recognition and social recruiting

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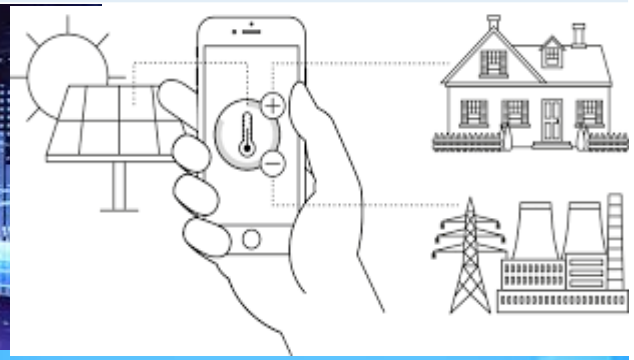
Emerging Technologies Innovation

Advanced technologies like analytics and mobility progressively and proactively act on real-time information about customers and operational systems for improved efficiency resulting in higher customer satisfaction.



Customer Facing

- Advanced Data and BI Analytics
  - Analyze consumption patterns
- Mobility
  - Build mobile solutions that allows residential and commercial customers to track energy usage, spot trends, track market prices and pay bills

Internal Operations

- Advanced Data and BI Analytics
  - Data cleansing and modeling
  - AMI analytics
- Mobility
  - Build mobile application for job notifications, appointments, follow on jobs, material request, work order request, work order update, etc. including GIS integration
- Radar, Sonar, Drones, Machine Learning
  - Drone based monitoring of operational networks
  - Image analytics for network monitoring

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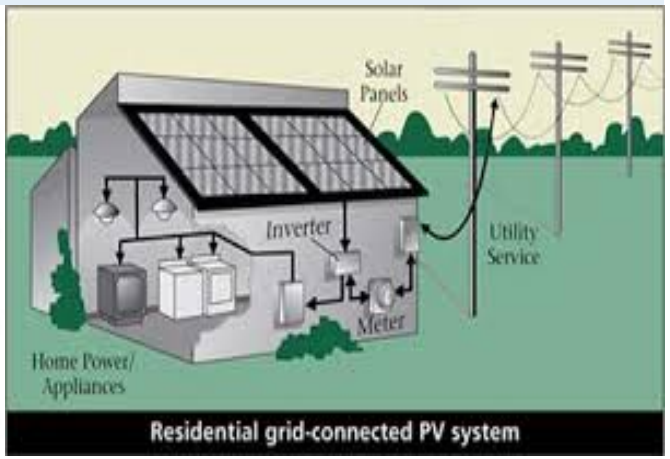

Customer Facing

- Build business models and pricing models for integrating distributed generation and bundling operations
- Build configurable and integrated systems to account for grid defection by distributed generators
- Enable dynamic pricing programs

Internal Operations

- Enable systems for distributed generation sensing and integration

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Empowering Beyond

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