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Digital's The Way To Go For Utilities

Utilities are known slow adopters when it comes to technology. And with good reason. Regulations have largely dis-incentivized the adoption of technology and planning processes in utilities have traditionally spanned15 to 20 years, making it difficult to predict which technology will outrun current trends. The caution towards technology is evident in the fact that while sectors such as banking and manufacturing adopted ERP in the '80s, utilities began their ERP journey a good 20 years later.

But that is changing—and changing fast. Utilities are waking up to the need for digital transformation, driven by evolving consumer expectations, millennials who were born in a world powered by mobiles and broadband, deregulations, incentives to improve consumer experience, pressure from technology-savvy non-traditional competition and—this last one is a relief--the lowered cost of digital adoption itself.

The next generation of energy consumers is doing everything, from buying game tickets to groceries to getting laundry picked up using digital technologies. These technologies rely on mature data, analytics, mobile, cloud, social and e-commerce platforms to deliver convenient services.

Evidence around the efficacy of digital in utilities has been gaining momentum. One study by a US-based power provider showed that customers who received e-bills were about 20% more likely to make an on-time payment and about 60% less likely to call a customer service agent than those receiving paper bills.

3 Key drivers of the Digital Trend

These drivers help improve operating performance and provide opportunities for innovative services and business models.

Connected Consumers

With the growth in mobile networks and the drop in data costs, consumers are spending more time with their smart phones on social media and other online channels. They now expect their providers (bank, financial services, travel, government and utilities) to be accessible 24X7 across channels of their choice. This digital trend will help put customers in control of their accounts, giving them the freedom to decide consumption, price points, collective bargaining and payment options–business dimensions in utilities that have been unheard of until now.

Utilities need to re-think how they use the Web and contact centers to manage business processes. The more important aspects of customer management that lead to improvement in satisfaction levels and loyalty, such as customer relocation, product changes, high billing resolution, billing reversal, etc., need to be taken out of the ambit of expensive contact centers and replaced by sophisticated on-demand digital services that improve customer experience. This calls for technology agnostic, end-to-end customer lifecycle management through integrated Web, contact center, IVR, mobile, chat, text to voice and smart device solutions.

Connected Workforce

Field force management, one of the most persistent challenges for utilities, becomes simpler using automation and digital solutions. Digital technologies enable real-time information exchange, reducing communication gaps and logistical issues such as scheduling and monitoring the field force.

Utilities had an early start to digital with tough books and field data collection. This can now be replaced with smart, connected devices. Communication too has changed–enabling collaboration between engineers working at different sites with central control rooms augmenting solutions. Digital technology also makes it possible to exchange real-time information on field engineer availability, inventory and logistics. In other words, a connected workforce offers a revolution in terms of workforce optimization, productivity improvement and responsiveness.

Connected Assets

Smart metering, two-way networks for real-time exchange of data between equipment and the availability of operational data from SCADA systems is here to stay. These provide data for improved services, products and customer engagement. They also create the potential for IT-OT convergence. Our experience with utilities shows that IT-OT convergence unlocks opportunities to optimize generation, transmission and distribution systems and enable critical improvements in organizational and field force performance.

Starting with SCADA investments in the 1990s, utilities have fortunately been at the forefront of connecting their large and geographically spread out asset base. With advancement in technology, practically every asset can be monitored in real time. Our engagements with utilities have shown that data analytics can provide a further boost to asset management by leveraging intelligent and automated systems for decision making and to drive predictive maintenance that results in lowered downtime.

What Consumers (and Stakeholders) Want

Digitally connected utilities are in a position to change the game. Using real-time data and intelligence they can guide consumers into adopting better usage practices, help save power, water and gas while shaving off hundreds of dollars from their utility bills.

By providing information in a timely and transparent manner, utilities can become trusted providers, opening the doors to new business opportunities. Gas utilities, for example, can provide household insurance based on the customer's profile, devices being used, time of usage, etc. A water utility can empower communities to collectively bargain for lower pricing or incentivize lower water usage based on availability of water. A power utility may become a pure aggregator and distributor of renewables from its customers, with zero dependency on traditional energy production assets. The possibilities are endless (see Figure 1 below for further details on the impact of digital on utilities). This is aside from reducing contact center costs, better use of inventory, improved asset maintenance, etc.

Figure 1: Digital has immense impact on a utility from an operating cost perspective. From a consumer and stakeholder point of view, it enables the above illustrated benefits

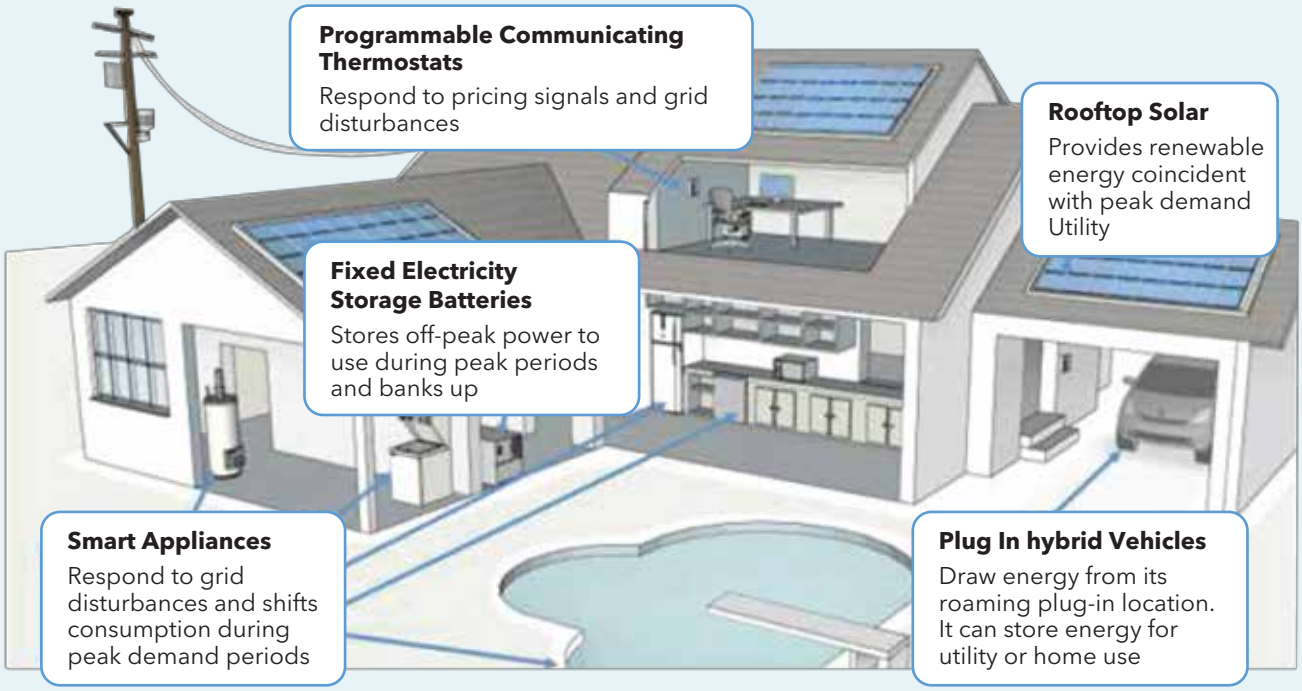
Digital Intervention and Impact

Smart In-Home Devices and Smart Apps

Innovative channels for interaction with customers, market communications.

Distributed Generation

Energy consumption, tariffs and billing



Programmable Communicating Thermostats

Respond to pricing signals and grid disturbances

Rooftop Solar

Provides renewable energy coincident with peak demand Utility

Fixed Electricity Storage Batteries

Stores off-peak power to use during peak periods and banks up

Smart Appliances

Respond to grid disturbances and shifts consumption during peak demand periods

Plug In hybrid Vehicles

Draw energy from its roaming plug-in location. It can store energy for utility or home use

Greater customer insight, segmentation and data analytics, meter data management. complex billing, payments & collections

Smart Meter Remote Connect/ Disconnect, Load Control and Configuration Management

Utilities expanding portfolio of products to include green energy, solar, energy eficient devices

Energy Effciency and Demand Response Management

For utilities, digital holds the promise to reinvent business, improve margins, create new products and grow customer loyalty. Within the span of the last decade, digital has transformed the way we shop and communicate. It is the now the turn of utilities to help make the world a better place.

About the Authors

Rajpal Gohar Vice President, Utilities at Wipro, has 2 decades of experience in large scale transformation programs. He has capability development expertise in multiple products, including SAP and Oracle, for utility, retail and distribution business processes. He has worked across the North Americas, the UK, Australia and Norway, helping utilities adopt technologies such as digital, analytics and cloud.

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About Wipro

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