



I D C V E N D O R S P O T L I G H T

Canvassing Utilities' Digital Transformation

February 2018

By Roberta Bigliani

Sponsored by Wipro

The utilities sector is facing one of the most transformational periods in its history, with digital being an essential component of the strategies that industry executives are developing and deploying. Digital transformation (DX) is a continuous process by which — leveraging digital capabilities — utilities drive or adapt to disruptive changes in their customers and markets; innovate business and operating models, products, and services; seamlessly blend the digital and physical worlds; and improve operational efficiencies and organizational performance. Operationalizing digital strategies is not easy and requires collaboration with the ecosystem. This paper describe how Wipro is working with utilities to make DX a reality.

Introduction: Becoming Digital, Not Just "Digitized"

DX is more than the sum of the technology tools, individual data ingredients, and digital innovation techniques used to deliver it. It is a complex multidimensional process requiring utilities to digitally transform across their leadership, operating model, information, omni-experience, and approach to work sourcing.

IDC Energy Insights expects that by 2020, 50% of the top 100 worldwide utilities will have started their digital rebirth. The prize for those that initiate this transformation is sizable EBITDA improvement, projected at 15%. The resulting market for technology and services supporting DX initiatives is projected to be worth \$120 billion in 2020 alone.

IDC Energy Insights believes DX will soon bring sizable change across the utility organization (see Figure 1). As this happens, traits of successful digital utilities will include:

- Having technology-savvy leadership that is receptive and capable of promoting digital innovation from the ground up
- Leveraging digital to create new revenue streams and modify how the company operates, using data to create a "cognitive enterprise" (For instance, IDC Energy Insights expects that by 2020, 40% of utilities' DX initiatives and 60% of utilities' Internet of Things [IoT] efforts will be supported by cognitive/artificial intelligence [AI] capabilities.)
- Innovating the operating model and omni-experience by blending digital and physical
- Creating an open innovation culture and expanding the use of incubators and digital innovation teams (IDC Energy Insights predicts that by the end of 2019, about 85% of utilities in the G2000 will have established a new business unit with its own financing and governance, or a separate company, to speed up innovation and business transformation.)

FIGURE 1

New KPIs for a Digital Utility



Source: IDC Energy Insights, 2018

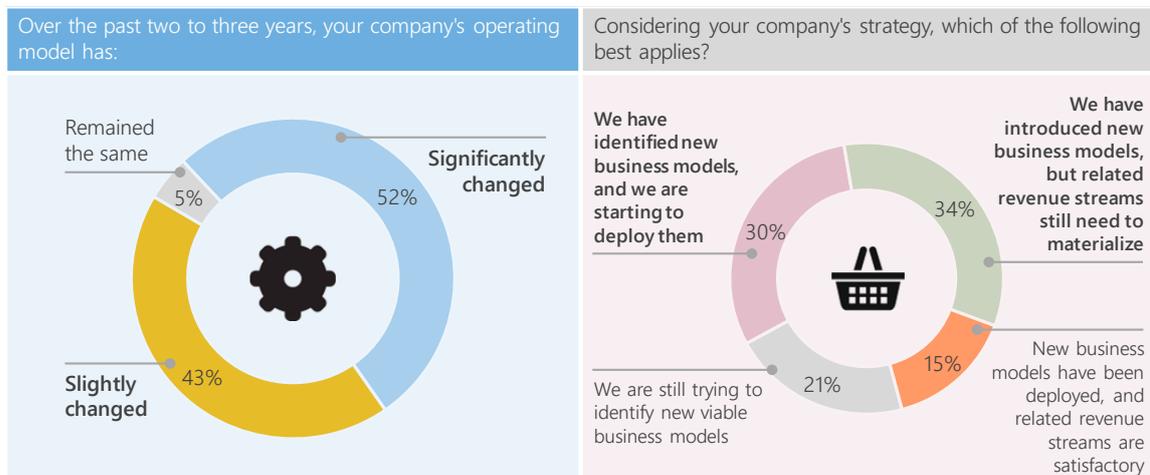
Embracing Change: Utilities' DX Journey

Year after year, utilities wake up to a renewed sense of urgency with regard to the "new normal" and the need for change. Material science and energy and digital technologies are shaking traditional utility value creation at its core. Energy technology not only is fueling a shift in the way energy is produced, distributed, and consumed but also is shifting the ownership of the production capacity itself. In parallel, digital technologies are disrupting decade-old processes, creating opportunities and threats to the traditional utility business model.

The pace at which utilities are embracing change is remarkable and, in some cases, even exceeds expectations. IDC Energy Insights recently measured the pulse of this change, interviewing about 40 executives of leading European utilities: 95% of them said their operating model has changed, and more than half indicated it has changed significantly (see Figure 2). But with regard to real new value creation, only a very limited number of utilities (15%) are satisfied with the outcomes. The majority are still searching for the best way to transform.

FIGURE 2

Utilities: Changing Operating and Business Models



Source: IDC Energy Insights, 2018

The operationalization of the DX journey is just beginning for many utilities. While these companies are running digital projects and making progress, they are not yet digitally transforming their entire organization. Their activities still have a somewhat limited impact due to lack of effective strategic and tactical plans, difficulties in operationalizing the digital journey, limited expertise, siloed organizational structure, and silos of innovation, among other factors.

To overcome these challenges, utilities are looking to the ecosystem for both strategic advice and concrete help to operationalize their DX journey.

Considering Wipro

Wipro has a comprehensive offering to serve the utilities sector, which has become a key vertical for the company. In recent years, Wipro's utilities practice has grown to over 90 active clients, including 30 of the world's top utilities. The company targets the whole utility value chain — from generation and renewables to smart grids and metering, retail, and digital — with a full-service portfolio where systems integrations and application services are the core capabilities. To serve the industry, Wipro leverages corporate and domain-specific strengths, including its international presence, strategic partner ecosystem, process expertise, and solutions competence ranging from customer to asset operations. The company has blended these capabilities into a solid digital transformational proposition, which is complemented by a \$100 million technology venture fund and a dedicated practice working alongside Wipro Digital to offer utilities a distinctive strategy for DX.

Contextualized Use Cases

Wipro has developed a suite of digital proofs of concept (POCs) contextualized in the utilities business. In this way it is possible for customers to concretely see how technology transforms their business and get inspiration for reinventing operations. These POCs are working artifacts that help customers visualize how their business scenarios could manifest in the digital world. These use cases span assets, customers, and workers.

In field operations, for instance, the focus is on empowering and improving activities in the field. One live POC solution shows the use of drones and image analytics to assess damages to utility assets after major events. Another POC is called "talk to your asset" and uses a chat-like interface to obtain asset information on the go and assistance in fixing issues. Yet another correlates digital asset data with physical condition to enable on-the-ground decisions. In addition, a smart wearables POC augments the digital data over the actual view of a field worker.

In the domain of customer operations, the focus is on enhancing customer care through AI: Cognisolve, for instance, uses AI to resolve utility billing exceptions; another POC applies analytics to identify call drivers to reduce the call center's operational cost.

Another suite of use cases focuses on enriching the energy experience for end customers. For example, Alexa for Utilities allows customers to use a voice-enabled and natural language chat facility to interact with their utility.

Wipro's POCs also look at the digital back office of utilities to leverage automation to increase efficiency. For example, one POC provides a fast track for the supplier onboarding process, which automates the critical process of validation using cognitive intelligence. Another detects anomalies in corporate processes such as claims and vendor invoices. There is also a POC that assists in bid evaluation with quick "go/no go" decisions by providing a summary of a complex bid including technical, commercial, and legal details and an evaluation of the risks. Further, a smart search engine allows employees to ask questions and get responses without having to know which system to go to or what language to use.

Operationalizing Utilities' Digital Strategy

DX is a complex journey for utilities. To make it easier, Wipro has developed methodologies and approaches to operationalize some digital themes. Built on top of a deep knowledge of industry business processes, these frameworks look at challenges and opportunities such as creating the following: an automation road map to deploy AI-based use cases; a framework for analytics to make the best use of available data; a concept-to-implementation road map for blockchain use cases; a cybersecurity methodology to tackle the complete array of cyberrisks through a unified approach; a structured approach to leverage crowdsourcing at scale; and the methodology for agile and DevOps work in a utilities package implementation scenario.

Digital Client Engagements

Wipro has an extensive track record in engaging with utilities to facilitate their DX journey. Some projects have supported utilities in exploring new market opportunities. For instance, a product portfolio strategy was developed for a Canadian utility for its foray outside the electricity retail market. Another project focused on empowering customers in the Netherlands to reduce energy costs by managing home appliances.

Some of these projects have been executed leveraging disruptive technologies, such as blockchain. Wipro helped a German retailer "productionize" a blockchain-enabled electric vehicle charging network. Blockchain was also used for another project to power the creation of a new energy marketplace for small LNG.

Design thinking workshops were the basis for the business-to-consumer (B2C) insights program for a U.K. power retailer. This approach was also adopted by Wipro to prioritize ideas and guide a major Australian transmission and distribution (T&D) utility in the redesign of its control room processes. Also in Australia, Wipro supported a major T&D utility in transforming its IT operations with the development of a cloud strategy. Further, an innovation partnership has been created with an Australian water utility to leverage IoT and analytics for customer and network insights.

Wipro has collaborated with many utilities across the world to redefine end-customer experiences. The company helped a utility in the southwestern United States understand its customers through advanced analytics; created a digital platform for business-to-business (B2B) market messaging for a major U.K. water utility; and delivered customer interfaces for better communication for a major Australian T&D utility.

Challenges

Wipro is well positioned in the DX market. It has strong thinking, good internal skills, and a clear value proposition. More broadly, the company has instituted DX skill development programs, a dedicated digital academy featuring "Digithon" challenges, design thinking programs, and more.

Nevertheless, the utilities DX services market is rapidly maturing and becoming more crowded. Wipro will have to prove its distinctive capabilities against tough competitors.

Conclusion: What Utilities Should Consider in Their DX Journey

Digital capabilities are essential in the utilities business today. With growth in the adoption of digital technologies and the resulting industry innovation and disruption, nearly all corporate strategies contain an increasingly significant digital component.

Utilities' business and IT executives are called upon to leverage digital technologies as well as new business and operating models to transform and disrupt their organizations, customers, markets, and competitors. The business rules of the past have given way to a "new normal" where agility, innovation underpinned by creative skills, and acumen with Big Data, analytics, and design thinking rule the day.

Assets and capabilities engaged in transformation require multiple experience domains and stakeholder support from inside and outside the enterprise to ensure success. To maximize the value of investments in digital, utilities should look to:

- Understand and evaluate the strategies and capabilities of service providers to construct a portfolio of preferred partners. This portfolio may include a core set of multinational, full digital service offering providers and a rapidly growing number of digital specialty firms. Firms in this portfolio can be categorized as being technology led, creative led, business strategy led, or industry led.
- Build ecosystems of engagement at scale and on demand. Tap into digital services that can provide networks of innovation, creative talent, and technological thought leadership at a local level and a global level. Be prepared for co-innovation and co-creation with service providers, and establish an engagement platform internally that can bring together business stakeholders, technology partners, end users, and start-ups with a focus on idea conversion and incubation.
- Establish leadership and a governance platform to align and unite the organization on transformation objectives. The overarching business objective will dictate unique aspects to the company's digital strategy approach and partners engaged in digital initiatives.
- Engage and partner with DX vendors while paying attention to capabilities deemed by buyers as most critical, such as integrating the use of cloud, Big Data and analytics, mobility, IoT, and collaboration into digital strategies and solutions; providing industry, functional, and business process insights and competence; improving existing business processes or designing new business processes; transferring project knowledge and insight to clients; and creating an enterprisewide digital strategy and road map.
- Have clear intentions and well-defined business, technology, and operational outcomes and measurements for all digital engagements.
- Ensure organizational commitment — leadership, innovation teams, divisions, and corporate and IT functions. Set targets to guide execution performance, measures to evaluate progress, and incentives to drive supporting behavior.

ABOUT THIS PUBLICATION

This publication was produced by IDC Custom Solutions. The opinion, analysis, and research results presented herein are drawn from more detailed research and analysis independently conducted and published by IDC, unless specific vendor sponsorship is noted. IDC Custom Solutions makes IDC content available in a wide range of formats for distribution by various companies. A license to distribute IDC content does not imply endorsement of or opinion about the licensee.

COPYRIGHT AND RESTRICTIONS

Any IDC information or reference to IDC that is to be used in advertising, press releases, or promotional materials requires prior written approval from IDC. For permission requests, contact the IDC Custom Solutions information line at 508-988-7610 or gms@idc.com. Translation and/or localization of this document require an additional license from IDC.

For more information on IDC, visit www.idc.com. For more information on IDC Custom Solutions, visit http://www.idc.com/prodserve/custom_solutions/index.jsp.

Global Headquarters: 5 Speen Street Framingham, MA 01701 USA P.508.872.8200 F.508.935.4015 www.idc.com