



## Point of View

# The Digital Utility

**“Going digital” to transform how utilities serve customers and empower employees is a huge challenge...and opportunity.**

Today’s utility providers are challenged to find new avenues for growth due to shifting demand, increasing costs, greater competition, less capital and more regulation. Delivering utility services is different now, even as the definition of a utility is changing. Utility leaders will have to change how they serve customers, as well as how they manage their assets and workforce. These changes will occur in great part through the application of new digital technologies and digitally enabled business processes.

## Digital Technologies Will Change How Utilities Work with Customers and Employees

Evolving expectations and greater choice among utility end customers are causing utility providers to change how they deliver their products and services. Research published in *Public Utilities Fortnightly* outlines how new products and services could increase utility revenue opportunities by as much as 40%.<sup>1</sup> As a result, utilities are actively exploring which channels to use, when to use them and how to seamlessly integrate interactions to deliver the right customer experience.

Indicative of another sea change, research shows that 73% of utility customers today are willing to purchase energy-related services from non-utility companies.<sup>2</sup> Just as utilities are realizing they now have customers instead of just ratepayers, digital technologies are changing how those customers interact with their utilities...and how they expect utilities to engage and interact with them. As a result, utilities' relationships with their customers will be more interactive than ever, requiring deeper insights into customer behaviors and actions.

Likewise, digital tools are changing how employees for utilities companies work, whether those employees are engaging with each other or interacting directly with customers (note that 71% of those customers want more digital options for communications from their utility).<sup>3</sup> Across the organization, utilities are trying to help employees work smarter, so they can manage operations more efficiently and serve customers better. The fundamental shift towards "smart" is accelerating this journey (see side bar).

As nearly half of the utilities workforce will be eligible to retire over the next five to ten years, 80% of utility CEOs say they plan to increase their efforts to engage employees in the business.<sup>4</sup> A utility's technology choices and the decision to "go digital" will not only determine how efficient and effective it can become with those tools, but will also absolutely determine whether a utility (like any company) can attract and hire the right talent for the future.

### Smart...Everything

Smart technology (not just meters) adds a layer of information availability, customer knowledge and new service capabilities that will enable utilities to compete beyond just price and reliability. The most successful utilities will be those that take full advantage of the "Smart" opportunity. Smart is more than the grid – it's two-way digital communications across the whole value chain for all types of utility services.

93% of consumers want new forms of value from smart grid.<sup>1</sup>

To get there, utilities must first make the business case for "smart" projects – how does collecting and using all that data really help customers? Then they must manage "big data" effectively and efficiently – collection, analysis, reporting, security – all before they can expand their portfolio of products/services using digital technology to market, sell, and deliver new offerings.

1 "Profit & The New Normal." Public Utilities Fortnightly 2013.

2 Revealing the Values of the New Energy Consumer. Accenture 2011.

3 "Five to Thrive: Key Characteristics to Great Utility Customer Engagement." Clean Power Research 2015.

4 Mobile Technology Use in the Utilities Industry – A Benchmarking Study. NetMotion Wireless 2013.

## Serving The Digital Customer: Customer Experience in the New Energy Era

The customer experience in utilities spans all customer touch points, from billing to outages to demand-response and energy efficiency programs. Yet, historically, utilities spend less than nine minutes a year directly interacting with their customers<sup>5</sup>. The new, improved utilities customer experience will be about increased engagement, optimized interactions and new products and services. Furthermore, the ability to manage and analyze data from legacy systems, along with new data from the smart grid, means utilities will have more and better information about

their customers, which they can use to address and improve core systems and processes. In turn, means they can achieve more proactive customer engagement and meet consumer desire for digital interaction.

Utilities are also seeking new and better ways to to build customer loyalty and lifetime value. They must work to solve traditional customer issues include high cost to serve, reactive customer service, low “one and done” completion, inaccurate billing, long handling time, slow stop-start service and outage management support to customers. They must also break down silos for customer data and segment buyers based on unique needs – one U.S. utility has developed over 110 individual customer market segments based on

factors around cost, sustainability, ease of use, and other buyer interests.<sup>7</sup>

Effective customer management programs for utilities will be about integration and automation. In making this shift, utilities will also have to leverage current customer-facing systems and avoid abandoning prior investments, while adopting new tools and technology. Such programs can increase customer retention and acquisition, lower cost to serve, and grow customer interactions aimed at selling both traditional and new products/services.

“50% of customers cite convenient service as important in engaging their utility.”<sup>7</sup>

### The Digital Customer in Action: AGL

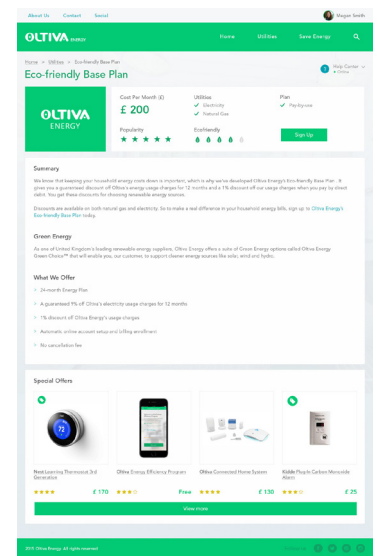
AGL is Australia’s leading diversified energy utility, providing 3.5 million customers with gas and electricity services. AGL sought to get ahead of emerging competitors, reduce customer turnover and develop the systems and infrastructure to market and sell new products and services.

AGL adopted a cloud-based online customer engagement platform operating on Microsoft Azure to make the online customer experience more personalized and engaging, while also making smart meter data more readily available and understandable for customers making decisions about new offerings.

In doing so, the utility consolidated 50 different websites into a single online presence, optimized for mobile, which resulted in a 29% increase in mobile conversions for AGL, as well as a 47% increase in click throughs on web pages related to AGL energy management plans.

### Effectively engaging digital customers means:

- Engaging customers in ways they want to communicate across any channel.
- Optimizing customer interactions to resolve issues better/faster, using advanced customer knowledge – e.g., having a 360-degree view of your customer is vital.
- Leveraging existing systems and data to identify and leverage customer insights – e.g., break down silos and create technology and culture around the customer.



Online Customer Engagement

5 Consumer behavior and Electricity Usage.” Intelligent Utility 2010.  
6 Executive Summary, 20th Annual International Utilities & Energy Conference. Accenture 2010.  
7 The New Energy Consumer – Architecting for the Future. Accenture 2014.

## Creating the Digital Workplace: Employee Engagement in the New Energy Era

Utilities are more focused than ever on operational excellence (asset optimization), situational awareness, and financial performance...all in reaction to changes in consumer, regulatory, and competitive trends that will require them to act more like a retail-oriented business than ever before. Yet gathering data from multiple sources to get an integrated, accurate view of business processes is hard – “too many screens” with “too much data” is a common challenge. The result is a lack of real-time, shareable data, which leads to many of the utility industry’s biggest obstacles, ranging from inaccurate billing, to inefficient communications with field crews, to a lack of real-time information

for better decision-making around asset management.

To make sense and best use of this data deluge, employee engagement is key. And given the current specter of downsizing and retirements, it is imperative that utilities embrace digital technologies to both attract/support new talent and to help improve manual, error-prone processes. The digital workplace is really all about giving employees the right insight at the right time on the right device. It means tailoring information and tools to an employee’s role, location and task by efficiently connecting them with appropriate, real-time information.

To use the data from improved work processes and engagement, executives and managers are also seeking dashboards and data visualization tools to make it easier to view and understand data and analyze data

across platforms, including mobile. They also want more dynamic reporting from predictive analytics to enhance processes (trading) and prevent issues – e.g., outages and equipment failure and shortfalls in supply. And, given that 60% of all service calls relate to customer payments, data-driven processes like billing will become even more important as one of the main communication channels between the utility and customers.<sup>9</sup> Utilities today want digital billing technologies to complement and maximize industry smart initiatives – e.g., billing consolidation, shadow settlement for asset owners and service providers, mobile access and customer management tools for billing services and information, and online collections.

“Utilities achieve productivity improvements of 20% to 30% with mobility.”<sup>8</sup>

### The Digital Workplace in Action: PWN

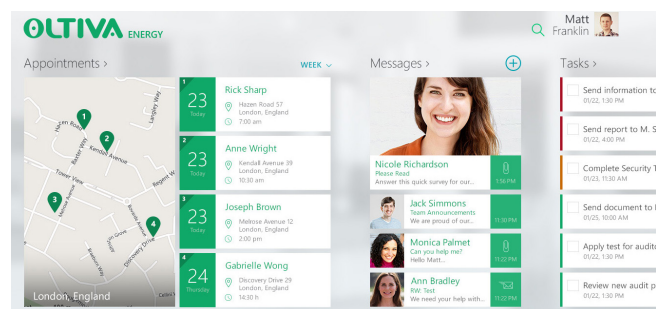
PWN, a supplier of water in the Netherlands, wanted to improve how employees share knowledge throughout the company to become more productive and efficient.

PWN also wanted the solution to easily integrate with their public-facing website in order to publish answers to frequently asked questions by customers.

PWN deployed a knowledge management solution using Microsoft SharePoint enabling PWN employees to upload information to a central knowledge pool. Special capabilities were implemented such as the ability to publish information from the knowledge portal to PWN’s customer-facing web site at the push of a button. The solution has helped to break down barriers within the company – employees now can share information widely online, making for a much more open and collaborative working environment.

### Enabling a digital workplace means:

- Providing the workforce with contextual, real-time insights with greater integration and automation – e.g., integrated analytics.
- Making the workforce more connected and collaborative by breaking down process and technology silos – new processes and apps that make collaboration the standard, not the exception.
- Making the workforce more mobile with devices and apps that make time and place irrelevant.



Mobile field service tool

8 Mobile Technology Use in the Utilities Industry – A Benchmarking Study. NetMotion Wireless 2013.

9 “12 Essentials for Successful Utility eBilling / ePayment Programs.” Paymentus 2013.

## Cloud and Managed Services Enable Utilities to Maximize Legacy Systems While Tapping into New Capabilities

The digital age will make it necessary for utilities to upgrade legacy tools and systems to keep up with changing customer and employee needs. Utilities must continuously adapt core business processes (e.g., billing, finance & admin, supply chain) to support changing business conditions (e.g., omni-channel expansion, mergers and acquisitions, de-regulation). This also includes the integration of Information Technology with Operations & Maintenance Technology (IT/OT).

In most cases, utilities find that their existing legacy solutions do not provide the flexibility to meet these changes in a cost effective way. For example, analysts have identified key gaps in today's utility enterprise asset management (EAM) and enterprise resource planning (ERP) systems, which aren't built to incorporate all the data flowing from new smart devices, let alone analyze all that data.<sup>10</sup> Utilities want strong, scalable and flexible EAM and ERP systems to serve as a platform for future growth initiatives – e.g., distributed energy, renewables, connected home products and services.

By modernizing core system capabilities and processes through the cloud and managed services, utilities can not only simplify the customer and employee user

experiences to help increase productivity and time to market, but also more quickly implement new business processes and policies. Such initiatives can reduce cost and effort required to implement and integrate core systems and improve asset productivity (e.g., for electricity providers, when to push power in the market and take planned maintenance).

**"74% of utilities say that public cloud is their dominant, long-term platform strategy to meet IT needs."<sup>11</sup>**

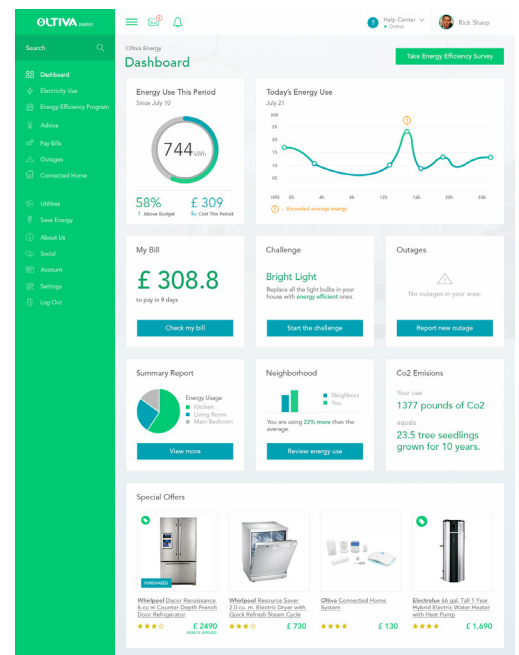
### Managed Services in Action: PacificLight

As a new provider in Singapore, PacificLight Energy (PLE) needed to deploy a retail customer management and billing system and have it certified by the market authority (SingPower). Only then could PLE be an authorized market participant able to sell electricity to customers.

PacificLight turned to Avanade to implement the MECOMS billing solution as PLE's retail billing system. The solution, operated in a managed services environment, helped PLE achieve the required market certification quickly to starting provisioning and billing new customers.

### Using the cloud and managed services, utilities have the opportunity to...

- Adopt Cloud-based ERP management solutions to lower the total cost of ownership and operational burden.
- Upgrade or replace systems to support new operating models and provide an omni-channel business/customer view and capabilities.
- Access and leverage data from core legacy systems to be analyzed and applied in new ways "with digital solutions, for both customers and employees.



On-line customer dashboard

10 "From Utility Back-office to Grid Analytics." GreenTech Media 2012.  
11 "Taking Cloud in Utilities to the Next Level." IDC Energy Insights 2015.

## The Way Forward: How to Become a Digital Insurer

Utilities should look to digital as a way to expand relationships with the customers, improve employee engagement and performance, and grow their business. Utilities need to:

### 1. Modernize core customer management systems

New data management and digital CRM solutions can help utilities get a unified customer view by integrating all their customer data so that agents can proactively recommend actions, products, and services to improve sales and service.

### 2. Expand digital presence with new tools and approaches

Using evolving digital channels effectively means proactively engaging customers during moments of truth (e.g., billing inquiries)

to segment and market better, while also improving the quality and speed of issue resolution and reducing costs to serve.

### 3. Provide business capabilities to help customers understand and engage “smart”

Utilities must help customers adopt smart product and services by presenting smart grid data in an understandable format and by developing applications that help customers derive value from the smart grid – e.g., better energy and home management.

### 4. Improve use of analytics to understand customer behavior and offer new products

As customer adoption of “smart” grows, utilities can collect, integrate and analyze smart data to capture consumption trends and segment customers, integrate analysis into existing business processes and empower channels and partners.

### 5. Attract and engage the next-generation workforce with digital workplace tools

With utility employees retiring in large numbers, providers will have to search for new talent to fill the gap. That talent has grown up in a digitally-aware world, and that’s how they expect to operate, at work and play. A digitally advanced workplace will be critical to attracting the best talent.

To learn more about digital customers and digital workplace in utilities visit [www.avanade.com](http://www.avanade.com)



#### About Avanade

Avanade is the leading provider of innovative digital and cloud-enabling services, business solutions solutions and design-led experiences, delivered through the power of people and the Microsoft ecosystem. Majority owned by Accenture, Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation and has 29,000 professionals in 23 countries. Visit us at [www.avanade.com](http://www.avanade.com)

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