

# Future-proof utilities migration

Exelon PHI unlocks resilience in  
the cloud



# New pressures on outdated systems

**In the US, people take many things for granted. They expect the lights to come on when they flip the switch and assume that they will see a flame on the stovetop burner when the knob is turned. For utility companies that bring the conveniences of modern life to consumers, however, the details are a bit more complicated.**

Demand for power is rising, for starters, while record heat waves, historic winter storms and devastating hurricanes threaten service at unprecedented rates. The answer to such challenges is to build more resilient utility systems—and that requires flexibility.

Exelon, a Fortune 100 energy company, recognized the need to modernize its infrastructure—particularly for Exelon PHI, a subsidiary that serves two million customers in the mid-Atlantic and Northeast. PHI's legacy SAP® and non-SAP applications portfolio, which

handled key business functions including energy meter analysis and customer billing, was dated and quickly going out of support. This was creating pain points throughout the business: Data inconsistencies, data replication issues and slow software performance hampered the employee experience, and customers faced web-portal timeouts and unexplained outages.

To help future-proof its systems, PHI reached out to Accenture. The Accenture team helped Exelon implement its SAP software-based customer information system (CIS) in 2014 and has since worked with PHI in various capacities, including supporting that same CIS system. For the PHI project, a newly formed PHI-Accenture team partnered to upgrade the company's tech to align with Microsoft Windows systems (with the latest enhancement and support packs), decrease operations costs and provide greater reliability across all touchpoints.



When tech meets human ingenuity

# Operational efficiency in the cloud

**The joint team designed a technical migration and systems upgrade from on-premise servers and application software to the cloud. The lift involved porting Exelon PHI's legacy SAP platform to SAP S/4HANA®, an enterprise resource platform that can execute transactions and analyze data with AI in real time, in the cloud. It's simpler and more secure to manage at scale—and has the added benefit of interoperability with Microsoft's Azure cloud base.**

PHI had a huge data footprint—including terabytes of readings from analog and smart energy meters. The first step for the joint team was to reduce data volumes by archiving PHI's older data to make the cloud business case economical. Key to the team's strategy in execution was Accenture's proprietary SAP S/4HANA remediation tool.

This tool automatically transformed PHI's existing code to make it SAP S/4HANA compliant—with only small manual tweaks required. Together with enablement services, PHI successfully migrated its data as well as much of the functionality of its legacy system into the cloud.

## When tech meets human ingenuity

### Automating time- and labor-intensive tasks

Now, the team's engineers and developers could focus on delivering value across PHI's systems. Most notably, the team pursued hands-on and simultaneous upgrades to meter data management (MDM) and customer billing solutions.

This was achieved with a smart brownfield migration, in which data and services are transferred in phases to a shell copy of the new system. Meter provider Itron assisted in the MDM migration to Microsoft Azure. From a technical standpoint, this upgrade allows PHI to ingest huge volumes of smart meter readings without data duplication. And from a usability perspective, PHI was able to rely on SAP S/4HANA as a single source of

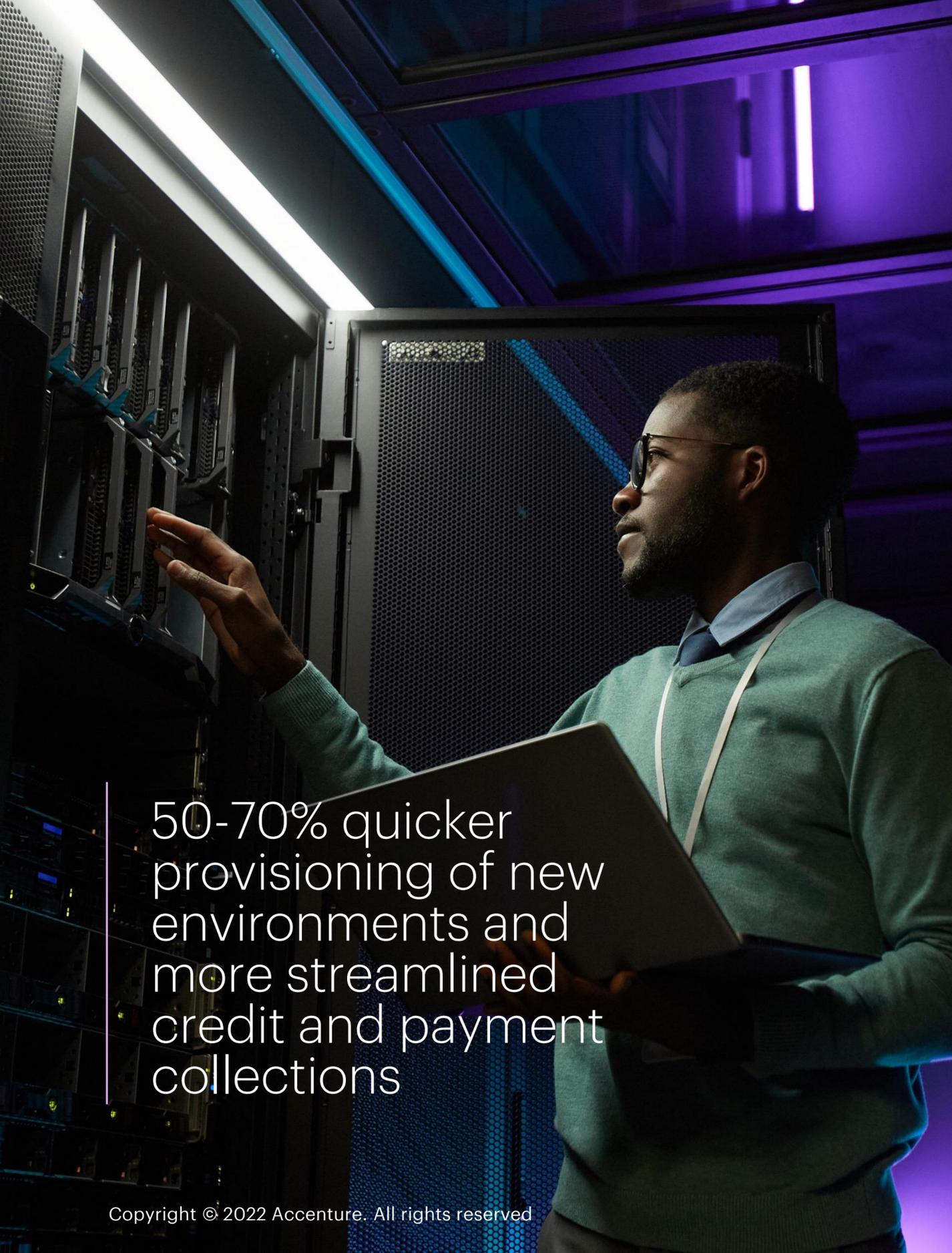
the truth, leading to significant performance improvements.

Solving data replication issues translated into improved customer service. Before the move to the Azure cloud base, customer service representatives (CSR) navigated as many as 30 screens to see all the data points needed to service customers—including outage information and billing details. In some cases, changes made in the Customer Relationship Management (CRM) system weren't reflected in the billing system. Internal data suggested that customer service representatives spent up to 80% of their time transferring customer utility accounts between locations. That changed with SAP S/4HANA. All customer information is now

housed in a newly created dashboard dubbed Customer 360. And with the implementation of a solution called "Fast Move," agents can push service live to a new customer address in just a few clicks.

While the project and its direction were decided over the course of 18 months, all of PHI's highly customized systems and databases were migrated in full, with only 48 hours of service downtime—and one slight delay due to adverse weather. The new PHI platform went live and was fully operational on Super Tuesday: 2/22/22.

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A valuable difference

# Powering a new era of resilience

**The technical migration was a tremendous success. Together, the team of 250-plus people across four countries executed nearly 1,000 specific tasks, including reducing PHI's data footprint from 50TB to 5TB, and put in over 1,700 hours of review, training and management.**

Notable firsts included executing the first smart brownfield migration to the cloud for a North American utility company and launching the first large instance of SAP S/4HANA for a utility client on Azure – and it's the first time a project of this size has been delivered in a 100% remote global work environment.

The elimination of data replication and data errors has resulted in faster batch processing, 50-70% quicker provisioning of new environments and more streamlined credit and payment collections. Employee satisfaction is up, most notably in user

experience with SAP's Fiori apps and when interacting with PHI's digital services. And when disaster strikes, faster reboot capabilities from PHI's cloud services mean that the utility company can restore service within four hours of an outage, as opposed to potentially up to 12 hours.

While the complex migration and infrastructure upgrade was barely noticed by customers who might contact PHI services just once or twice a month, the hours spent and collective effort was not lost on PHI leadership – who sang praises of the near flawless implementation and hyper-care period.

There's more to come: Technology changes so fast that another systems update will likely be required by 2030, if not sooner. But Accenture will be there to support this change as PHI's long-term strategic partner.

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