Oracle Utilities Cloud Solutions

The Top 5 Ways to Incorporate Cloud at Your Utility Today

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The utility industry is in the midst of significant transformation, experiencing changes at a more rapid pace than at any other time in its history. Utilities’ enduring success in the face of these transformative changes requires new technology approaches to facilitate agility and innovation while at the same time decreasing upfront investment risk.

With increasing frequency, utilities of all sizes around the world are turning to the cloud as an attractive alternative to traditional, on-premises software delivery. Cloud’s promise aligns with key business goals, allowing a utility to innovate more quickly, simplify IT management and increase flexibility.
More specifically, cloud provides two broad categories of benefits to an enterprise: business benefits and technical benefits. On the business side, it’s all about innovation. Companies worldwide spend trillions of dollars on IT every year. Of that, Forrester Research notes that “Typically the costs to maintain and operate the tech organization, systems and equipment consume 70% to 75% of total cash outlay on technology.”¹ This leaves very little that can be spent on innovation.

On the technology side, the enterprise benefits from the cloud provider’s expertise in running specific applications, as well as robust technology around security, privacy and performance. For many utilities, these types of skills and technologies would not be available to them outside of a cloud application: they’re expensive and they’re complicated to design and run. By pushing the work to the cloud, customers gain valuable technology benefits in addition to the business benefits.

But what are the best ways for utilities to begin to utilize the cloud today?

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¹ Forrester “Tame Your Tech MOOSE Before the BT Agenda Makes It Bigger” by Andrew Bartels and Phil Murphy, 13 May 2015.
BEGIN WITH THE ROUTINE AND THE BOLD

When looking for ways to start incorporating cloud within your utility, it’s best to start with base applications that are standardized, and areas of exploration for your utility.

Standardized applications are those that are critical to running a business, but do not vary much from one company to the next. Examples could include financial, human resources and payroll applications, and even some critical applications such as the customer information system.

Areas of exploration refer to those applications and projects that are more focused on quickly evolving, new ideas. These are often launched in a pilot mode to allow the utility to try out an idea, quickly iterate, and retain some flexibility to change course along the way. For these areas, cloud offers the speed and flexibility to “play in the sandbox” by trying things out, and then quickly changing course when necessary.

As a first step, take all of your existing applications running today and slot them into the above-referenced framework. For those applications that fall into the above categories, begin thinking about how your utility can be more flexible by using a cloud solution, or how you can improve your operational efficiency and the focus of your IT staff by pushing some of these applications—in part or in their entirety—to the cloud. Finally, for any new application, try adopting a “cloud first” or “is cloud an option?” approach.

Here are some ideas to get you started.
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**OFFLOAD ROUTINE IT AND SYSTEMS OF RECORD TASKS**

By offloading certain routine tasks to the cloud, you can reduce IT operating costs and your IT department can spend more time focusing on other ways in which to innovate. This can include providing new products or services, concentrating more on change management, or freeing up time and staff to focus on new initiatives.

As well, as you begin to replace highly customized legacy systems built on old technology, consider moving to cloud-based replacement applications to further decrease costs and free up IT manpower for new innovation projects throughout your utility enterprise.

**Examples:**

» Customer care and billing, as well as meter data, mobile workforce and work and asset management tasks can be handled quickly and efficiently within a cloud-based application.

» Leverage a Platform-as-a-Service (PaaS) solution to move workload into the cloud, such as:
  - Pieces of work from existing on-premises applications that are extremely work intensive for short periods of time (such as billing).
  - Data storage, in lieu of purchasing storage hardware.
  - Work involving intense data processing.

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**Implementation**

- Applications
- Databases
- Server Hardware
- Security & Integration
- Storage
- Virtualizations
- Networking
Greater Cincinnati Water Works (GCWW) is a municipally owned and operated utility providing both retail and wholesale water services in a service area that encompasses the entire City of Cincinnati, most of Hamilton County and parts of Warren and Butler County in Ohio, as well as Boone County and Florence, Kentucky.

“Like several utilities, we see consumption declining, so we were looking for additional options to enhance revenue, outside of raising rates,” says Gary Wiest, GCWW’s commercial services division superintendent. “We have built billing services and contact center services for other municipalities for years. We wanted to expand these services.”

GCWW is replacing its 18-year-old customer information system with Oracle Utilities Customer Care and Billing solution, and hosting it in the cloud rather than on premises.

Wiest cites improved functionality for the utility’s customers, a lower cost of ownership (the cloud service is Opex-based, rather than Capex-based), and a much quicker implementation, cutting implementation time to 13 months (an on-premises CIS implementation can take from two to three years).

“Another hope for us,” Wiest says, “is being able to provide this Tier 1 solution to a Tier 2 market: other municipalities that may not be able to afford the type of product we have.” As a utility itself, GCWW understands the needs of other utilities, he says: “We’ve been doing this for a long time. We do it well. That’s why we’re trying to expand.”
Contracted work, both in regular utility activities such as meter installation or tree-trimming and in emergency situations requiring mutual aid, can benefit from the use of cloud systems. In both types of situations, this work may not persist throughout the entire year. A cloud system by its very nature is uniquely suited with the flexibility to scale to peak demand and then return to a more regular operational level.

Further, mutual aid situations require high process consistency and efficient allocation of resources to handle emergency storm or natural disaster situations. By spinning up a cloud system, utilities can allow workers to take millions of calls from the affected geographies, assign thousands of mutual aid crews who might be working on a contracted basis, and avoid traditional IT start-up barriers.

Examples:

» Any activity that is cyclical in nature and contracted out can be easily managed in the cloud, allowing the contractor to complete the field work and send back the information to the utility directly.

» As federal rules require that mutual aid and assistance agreements need to include procedures, authorities, and rules for all allocation and reimbursement of costs, using a cloud solution to crunch the necessary data is much faster, and avoids the potential errors that can occur with paper and manual processes.
Not every utility need requires a permanent application. Using a cloud-based application gives you a fast and flexible way to launch and retire projects as needed, without the permanent expense of adding new, on-premises applications and systems.

**Examples:**

» Run your test and development environments in the cloud, spinning them up and down whenever they are needed.

» Run temporary analytics projects, such as revenue protection, in the cloud for quick and economic results.

» Use a cloud solution only as and when needed for deploying new initiatives such as the work management and scheduling around the installation of smart meters.
LEVERAGE CLOUD TECHNOLOGY FOR NEW SERVICE OFFERINGS

For financial reasons, you may need to keep a legacy system alive for a few more years before replacing it, while continuing to meet increasing customer expectations. Those increasing expectations may not be able to be met by your legacy systems. But by complementing legacy technology with pre-built, best-of-breed technology available in cloud services as new needs and projects arise, you can continue to build new customer services nonetheless. Eventually, you can begin to move replacement technology off premises and deploy it quickly in the cloud, rather than continuing to invest in legacy systems that need to be replaced. For smaller utilities, leveraging the scale of a cloud provider such as Oracle can significantly lower the costs of running new applications that aren’t financially feasible on premises.

Examples:

» You have a complex setup for which you need to schedule 50 people—such as vegetation management or distribution SWAT teams—but it doesn’t make economic sense to change your mobile workforce management enterprise system to do it. Rather than retrofitting your legacy system on premises, you can economically use the cloud.

» Changing needs require a new functionality your on-premise system doesn’t support. Why not put that new functionality in the cloud, have it do the work, then pass it back to the on-premise system? The cloud environment provides opportunities for you to model, provide and manage a variety of specialized billing services, including:

  - Net metering,
  - Prepaid billing, and
  - Dynamic rates.
Without the burden of a Capex purchase, utilities can use the cloud environment as a place in which to explore and experiment with new ideas, and have the flexibility to be able to discard those that don’t measure up and start again.

**Examples:**

- Prototype and test new demand-side management applications, both to modify load shape and to enhance customer service.
- Assemble and pilot substation asset management in a cloud application.
- Pick and choose multiple cloud technologies and stitch them together for a custom-made service environment. With this approach, integrations become easier and faster, and iteration time is dramatically decreased.
Oracle is dedicated to building best-of-breed applications for the markets we serve. In the utilities industry, this is exemplified by our world-class, end-to-end solutions in customer systems; grid, meter and asset management solutions; analytics and more. We have extended these best-of-breed applications with other back office and customer-facing applications that span the entire value chain from financials, human resources and payroll all the way through to customer interaction and engagement. Now, we are moving all of these applications to the cloud, and helping ensure our customers continue to enjoy a seamless experience regardless of whether those applications are on premises or in the cloud.

Further, as we have built our technology and our cloud infrastructure, we have designed seamless choice into every step—something unique to Oracle’s cloud solution. Traditionally, one of the concerns about adopting cloud solutions has been the possibility of being locked into them for life, with no flexibility for change. Our technology, our infrastructure and our agreements with our customers allow them to move easily and seamlessly between on premises, public cloud and private cloud, in any way that they choose to deploy the solution. This gives our customers the ability to start up very quickly on an iterative, innovative cloud solution and later move it to an on-premises application, or to take an existing on-premises application and move it to the cloud.

As we continue to build this comprehensive cloud solution, Oracle Utilities is simultaneously exploring how cloud edge innovation can drive the utility business model to new frontiers and deliver even more innovative solutions to our industry partners. The options and possible new opportunities are boundless.

**Get Started:**

For more information about Oracle Utilities, visit oracle.com/goto/utilities or call +1.800.ORACLE1 to speak with an Oracle representative.