



How the Utility of Tomorrow is Evolving

The utility industry has overstayed in the analog age, though the race to go digital is moving fast across the value chain. Senior executives are now eager to leverage the newest technologies to address industry trends such as the rise of distributed generation and renewables; alignment with regulatory frameworks; flat or declining revenues; evolving customer demands; and the need for greater reliability, safety, and affordability.

According to a recent study, the global digital utility market is expected to reach US \$299.1 billion by 2025, expanding at a CAGR of 11.6%. Water utilities are also surging; the smart water management market is expected to reach US \$15.12 billion by 2026, registering a CAGR of 12.3%. And in China, power, gas, and water utilities are among the top three spenders (US \$27 billion) on digital transformation, lagging

just behind discreet manufacturing and process manufacturing. The opportunities (and demand) for utilities to transform are clearly immense.

But digital transformation is not simple. Many utilities could be investing too much, too fast, and deploy digital innovations where demand is tepid. Utilities are snapping up data scientists and developers to invest in digital the same way they've operated in power, gas, and water plants. But the difference in investment is huge. The recovery of plant investments happens over decades; the recovery of digital cannot wait and is a continuous process due to the rapidly changing technology landscape. Utilities must think carefully about where to spend to benefit most from their transformation.

Where to Invest for Impact?

The real challenge is to determine the priorities and focus of digital transformation initiatives. Utilities should:

- **Use analytics to predict and prevent equipment failure and smart-asset investment planning.**
- **Set a course for a new business model to acquire new customers or increase revenue from existing ones.**
- **Create a better customer experience and real-time communication.**
- **Empower customers to self-serve their needs using the channel of their choice without sacrificing the experience.**

Digitizing the core operations across applications and infrastructure has great potential to reduce operations and management costs, improving a utility's competitiveness. Viewed objectively, the utility industry is at an inflection point where it can transform operations, customer interaction, and modernize the IT landscape.

Utilities can begin to mine data from their analog systems by adding sensors and IoT networks. They can use sophisticated data management technology to combine systems and operational data with customer and third-party data to generate new usage insights. And they can leverage a host of new technologies (e.g. mobile, blockchain, augmented reality, artificial intelligence, and natural language processing) to provide better service, exploit the growing usage of batteries and electric vehicles, and provide better grey water management. For example, Texas-based retailers are using innovative ideas and solutions to win in a highly competitive retail market. One retailer is applying AI to anticipate energy demand and purchase power on behalf of customers for a cost advantage. It is also using Ethereum Blockchain to settle transactions in minutes using smart contracts. Admittedly, many of the innovations that bundle services with products have only seen partial success.

For example, utility-provided insurance coverage for appliances (refrigerators, gas heaters, water purifiers) has been adopted, but the idea is still struggling to find a strong foothold. Businesses must continue to explore ways that digital presents to disassociate from hard assets, to spin retail into a new business, and to encourage prosumers in the power markets.

Despite the fact that some experiments in unregulated markets have not gone well, utilities lag behind in innovation. Understandably, this is a challenge. Regulations have been restrictive and slow down the industry. For example, utilities are not incentivized to move to cloud despite the proven advantages because utilities get a better rate of return on capital expenditures versus expenses. This prevents cloud adoption where capital expenditures become operating expenditures. This has to change, or the consequences will leave utilities severely handicapped. The impact of poor incentives can be seen in R&D spend in the industry. Utilities worldwide invest less than 1% of their revenues in R&D. Some invest barely 0.2%. With such meager budgets, customers can't expect better products and services.

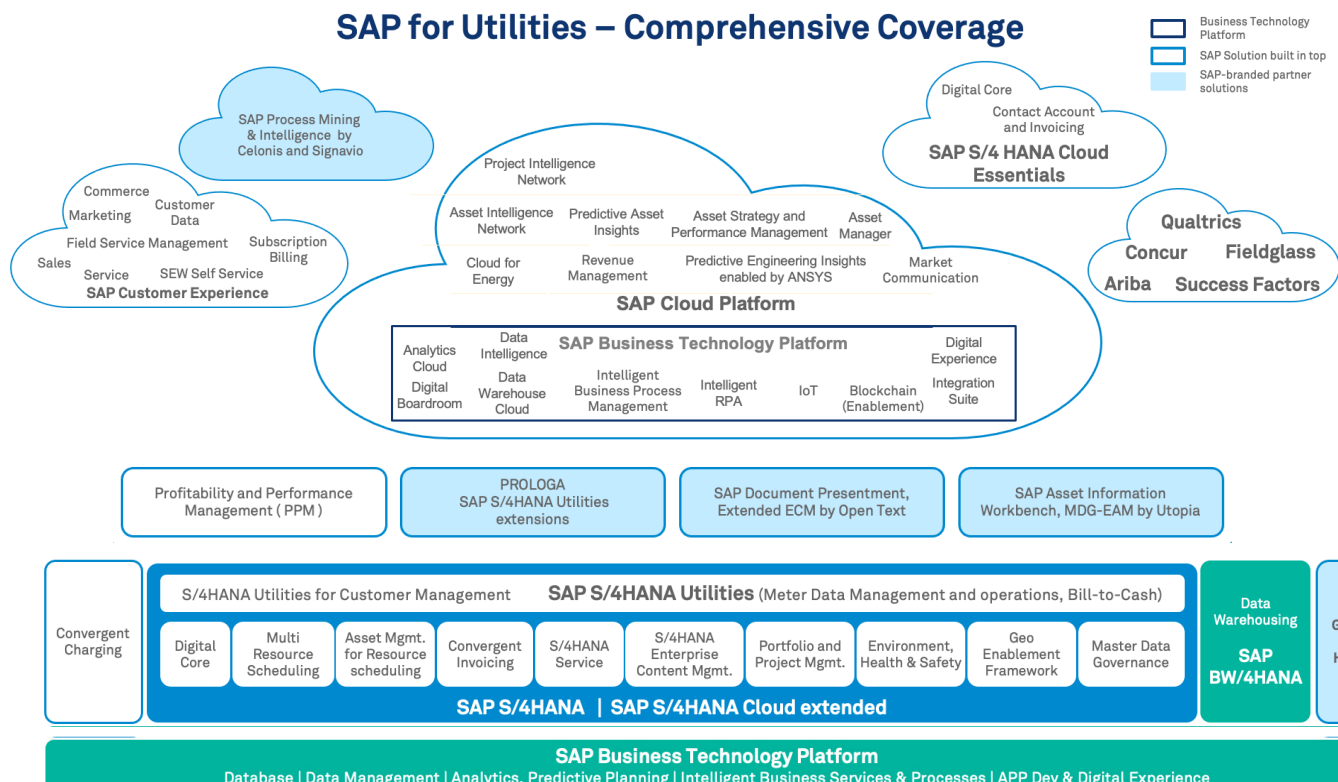
Adapt Faster on Industry Demands

Fortunately, tools exist to counteract some of these forces. SAP, for instance, can help utility companies adapt to industry demands with a variety of solutions that address key capabilities:

- Energy generation and asset management excellence
- Smart and efficient distribution
- Demand and supply balancing services
- Omni-channel retail to digitalized consumers

SAP's comprehensive intelligence framework has four main components: SAP S/4HANA digital core for utilities, SAP Business Technology Platform, Customer Experience suite and Business Network suite. Together, they support the business priorities of utilities across core industry-centric processes such as enterprise asset management, metering, customer experience and bill to cash, finance, HR, and procure to pay.

SAP for Utilities – Comprehensive Coverage



SAP for Utilities

Wipro has invested in building unique solutions for utilities embarking on their transformation journey utilizing SAP solutions. With Digital Canvas for Utilities, businesses can create a contextualized roadmap based on their priorities and digital adoption maturity for a specific line of business. Wipro's SAP practice also has a dedicated Digital Innovation Group, which co-innovates solutions with utilities, SAP, and technology providers. These solutions include

preconfigured templates of standard SAP applications integrated with industry cloud solutions to address specific business needs. video, captures different emotions like sorrow, joy and excitement along the timeline of the video.

Wipro Vantage also has a well-defined roadmap with newly added features - emotion analysis, smart clip trimmer, and many more, added on a monthly basis.

Digital Solutions for Integrated Utilities



There is a need for utilities to adopt new business/revenue models, reduce costs, improve the customer experience, enable intelligent asset management, and convert data into valuable insights. Rapidly adopting technology to address these business challenges is vital. Wipro can help

utilities proactively meet their transformational needs and build targeted solutions leveraging SAP technologies, with a team of experts ready to empower utilities to become Digital Utilities ready for the future.

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Shivanand has over 22 years of global experience. He leads the Digital Innovation Solutions group within Wipro's SAP Practice focusing on energy, utilities, and real estate. One of his key activities includes "Incubation to GTM" for smart business applications addressing business challenges working with SAP, customers, and technology partners who are integrating with best-of-breed technologies. He is also the product owner for Preconfigured Solutions and Model Company Solution Development.





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