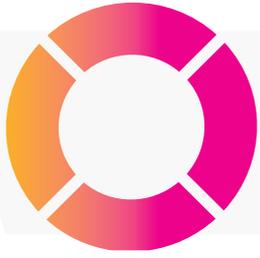


On the verge  
of a new era:  
Why the energy market is  
ready for **digital** change



# amdocs OPTIMA

In this fast-paced world,  
consumers want to connect  
anytime, anywhere and on any device.

We insist on real-time interactions and  
expect immediate satisfaction.

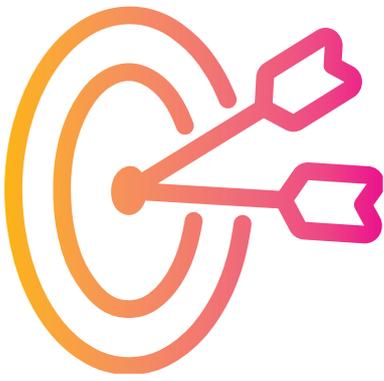
Our expectations are for services and  
products to be delivered exactly the way  
we want them.

**We are digital.**

Very little research has been done on Customer Information Systems (CIS), as this market is considered to be slow moving and rigid, with lone incumbents calling the shots in each regional market or country. But with deregulation accelerating in many parts of the world, complacent incumbents and vendors are being forced to face the new reality – their world is changing. So if they want to stay relevant, attract new customers, or even maintain their current customer base, their back office systems must change as well.

Deregulation is also responsible for consumers and producers being increasingly able to choose their own suppliers for energy. It's the reason vendor monopolies are breaking apart and separate regions are able to accommodate several service providers that take responsibility for billing as well as customer care.

Amdocs Optima engaged with Linx Research Company to explore concepts and perceptions of utilities providers in deregulated markets, specifically in the electricity domain. For this research, Linx conducted in-depth interviews with senior executives at utilities companies and other stakeholders in this market. The knowledge gathered through the course of this research is the most comprehensive in the industry, based on well-positioned sources with deep industry knowledge in this domain.



# 1 Utility vendors are gearing towards the increased competition

However, the B2C market is also seeing a lot of changes due to a broader effect of word-of-mouth, and this relationship is significantly improving through the offer of modern, flexible solutions. For this segment, new key energy efficiency initiatives and pilot projects such as electric vehicle charging stations require more of a focus on billing and usage for the customer. With this focus on new energy, billing platforms need to be capable of accommodating the associated new rates and hourly consumption billing.

The key difference in terms of CIS system demands for large industrial customers and residential customers is that while industrial customers need a high degree of customization in their bills, residential customers require simpler bills.

Additionally, most mid-sized to small utilities have a much larger percentage of residential customers compared to large industrial customers, so they tend to prioritize residential customers when it comes to billing and CIS processes and improving their customer experience. That seems to be the secret formula for enticing new customers.

It's worth noting that micro or burst production practices are expected to drive utilities to be more innovative, buy new systems, and increase competition in terms of distribution, generation, and micro-generation sides of the market.

## Insight

The most significant change when it comes to evolving customer experience trends is taking place in the B2B market. This is especially relevant since utilities companies need to be able to offer their B2B customers very flexible and attractive products because their margins in this context are relatively high.



## 2 Current CIS / customer care & billing solutions are too expensive or rigid

Most of the new utilities companies surveyed think that the market lacks a dominant vendor, apart from key players like Oracle or SAP, whose solutions are considered to be both expensive and inconvenient for smaller utilities who don't already have their other systems (such as ERPs) deployed.

These incumbents require a degree of "buy in" to their entire solutions portfolio, which isn't easy for smaller and mid-sized utilities. Smaller utilities would welcome a new dominant vendor that could offer a less expensive, more flexible and standalone CIS solution.

### Main trends

- Utilities are moving towards a commercial off-the-shelf model for CIS systems, but they worry about the lack of proven and reliable market players outside of Oracle and SAP. Both of these provide solutions on the higher end of the cost scale.
- Utilities need far better analysis of their customers' energy usage. With the advent of smart metering in homes, this is becoming possible, but the software applications that enable utilities to switch their own supply sources to customers, more accurately forecast predictive usage and enable energy to be sourced more cost-effectively are still limited.
- Packaged solutions require less in-house training. The benefit of packaged software is that it doesn't require the level of extensive training that homegrown software requires.
- Acquiring less complex solutions results in reduced levels of engineering and support.
- Instead of massive outsourcing deals, utilities prefer to spread their risk over multiple vendors, reducing the need for tie-in to a single vendor's system.



# 3 Utility companies are looking to expand into additional revenue streams

Utility companies are now trying to find new revenue streams with additional services. For example, a water utility could sell additional services like filtration for water to commercial establishments.

Utility companies expanding into additional revenue streams need additional software to be able to sell these services. This software should bridge marketplaces with an e-Commerce portal for both – the sale of traditional services to customers and the sale of additional services to partners.

## - End-to-end smart grid management

Smart grid management is expected to have a significant impact on billing processes within utilities. Immediately after the financial crisis, many utilities ended up building out a smart meter implementations, and while a lot of these utilities have smart meter data now, they still lack dedicated applications to manage this data. This has created a significant market opportunity. Utility companies, in terms of their billing systems, are looking at being able to manage a large volume of changing rates every month as a result of meter-to-cash processes.

Another opportunity in this space is linked to the smart energy and green movement, where billing systems would eventually be expected to respond to the integration of electric vehicles and their corresponding distribution and generation requirements.

The biggest opportunity right now is for the utility company to have visibility into how much energy is being supplied to the system at any particular time in order to support management planning processes. Another area of opportunity in smart green management is engaging the

customer on a frequent basis in terms of “agro-dynamic pricing” or green energy-drive reduced pricing, and supplying this information to customers through the quickest and easiest channels. Utilities are trying to establish “low energy” patterns for residential customers in the daytime, where they have visibility through mobile applications into increased rates in the daytime, so they can plan their smart usage patterns.

## - Industrial IOT

A key area that is driving growth in this segment is predictive maintenance of equipment along with predictive manufacturing. In terms of customer experience, this translates into predictive analytics to anticipate changing customer demand trends, particularly in terms of power and water consumption.

In addition, considering the large number of utilities which are publicly traded and heavily audited, controls are very important in this space. So these utilities are investing heavily in teams of personnel who are solely responsible for measuring, implementing and monitoring controls, preparing for audits and ensuring that they pass these audits for their shareholders. These processes are largely manual so there is an opportunity for improvement and error-reduction through Industrial IOT where control processes can be more system- and software-driven.



## 4 Increasing demand for cloud-based CIS

**With an increase in “on premises technology fatigue”, utilities companies are seeing a rise in the readiness and willingness to invest in cloud platforms.**

In the process of choosing a solution, IT spend in the EU market is primarily based on the needs of Marketing and Sales departments (rather than IT departments). The move to SaaS solutions in the billing and CIS area is currently slow, particularly since current SaaS CIS solutions are not able to demonstrate the required level of performance that utility companies need.

Still, cloud-based CIS platforms deployments are expected to reach 80% of CIS deployments in some regions, with a gradual increase of readiness for cloud-based CIS systems in the next 3 years, as companies exhaust the lifecycles of legacy systems and have written off their investments. This move will be propelled by the need to minimize costs in areas such as maintenance, and fit into today's utilities' strategy of being more cost-oriented and streamlined with their business processes and offerings.

### Insight

Key considerations for utilities contemplating using cloud-based applications revolve around security, data privacy, scalability, performance and access to existing internal systems.



# 5 A new marketplace among "prosumers", distributors & manufacturers

Increasing consumer and "prosumer" demand to move from a more standardized, RFI and RFP-driven purchasing process to more of an auction-based process lays a huge challenge at the feet of existing CIS vendors. They need to find ways to comply with the demand for such systems that enable a potential buyer to post their requirements to a centralized location, where multiple vendors can access that information and subsequently provide competitive bids through the auction process. The primary reason behind the marketplace moving towards this trend is the ability to potentially reduce the amount of work and effort from the "prosumer's" side in terms of finding marketplaces that will serve their interests and provide them the greatest number of opportunities with the least amount of effort.

Notwithstanding, the increasing use of renewable energy is expected to have a significant impact on consumer billing systems, especially in places like California which is already seeing major electric vehicle and solar power projects that can have a major impact on consumer billing systems. But current constraints revolve around utility companies not having enough manpower to manage these IT projects that change existing consumer billing systems.

## Insight

Utilities providers are looking into predictive analytics for e-commerce and billing solutions to gain customer intelligence and predictive analytics.



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