

Using Analytics to propel your digital utility

The success of your digital utility will increasingly depend on your ability to differentiate your business in the market place via new services, new business models and effective customer engagement.

Analytics is the catalyst for your success.

From commodity to service value

Electricity is electricity. Gas is gas. Water is water. Differentiation on product alone is tough for any utility company. Business analytics is the key to differentiation, expansion and earning the loyalty of your customers.

Customer-focused thinking requires new business models which utilize data-driven insights and enables your transformation into a modern, agile and responsive utility.

Through meaningful analytics, you can maximize success in four essential areas.



Customer Experience

Your services must resonate with your customers and enhance the way they live. Understanding their digital lifestyles is essential to **sustainable customer engagement** for consumers and commercial customers. Thorough analysis of customer data will provide the raw material for new services and partnerships.



Business Reinvention

New services demand fresh, diverse partnerships. These new collaborations need **new business models** which allow mutually beneficial data to be shared with full customer consent and in compliance with all regulations.



Operational Excellence

Every utility company understands the need to increase **operational efficiency** and improve processes for better productivity, quality and cost reduction. As new services and new models are adopted, analytics must drive **operational optimization**.



Trust & Compliance

When data-driven customer service is the foundation for new initiatives, security is critical. Sustained focus on **trust and compliance** is a prerequisite for successful customer relationships.

Data-driven value

For every utility company, the ability to turn increasing volumes of data into actual service and operational value is vital to sustainable success.

The need for serious business analytics has never been more important. Emerging technologies such as smart meters, the IoT and personal digital communication have contributed to a rapid increase in data volumes. In addition, deregulated markets have given rise to increased competition and energy conscious prosumers who want to better understand and control their consumption.

The clear leaders in the market will be those that utilize data analytics not only to drive

operational efficiency, but those that make the customer and value-driven services the foundation of their businesses.

As a digital utility, you can use meaningful data analytics to save money via more efficient operations, to better serve current customers, and to attract new customers with valuable service offers.

Data analytics enables:

- Operational efficiencies and cost reduction via improved asset performance and maintenance scheduling
- Savings based upon early identification of losses, anomalies and fraud
- Improved customer service via responsive and real-time self-service options, sentiment analysis, virtual assistants and proactive alerting
- Improvements to billing and credit systems for timeliness and accuracy
- New digital services such as those linked to electric vehicles, e-bikes, smart homes, appliances and more
- Use of gaming apps and interactive advice articles to deliver digital visibility and to improve the customer experience



Atos Codex Analytics Platform

Atos has created a platform that enables utility companies to effectively use their growing data assets to drive value throughout their organizations.

The Atos Codex Analytics Platform aggregates high-value business and customer intelligence to enable more efficiency and cost savings, new service development, and deeper customer engagement.

Improve efficiency and lower operational costs

Atos Codex is a scalable analytics platform that integrates data from multiple IoT platforms and disparate systems such as EPPM, EAM, ERP, GIS, WFM, CRM and other third-party sources. Codex takes this large volume of data and performs comprehensive analysis to help decrease costs and increase asset performance via proactive asset lifecycle management, predictive maintenance, and timely and accurate maintenance planning.

Codex also incorporates machine learning, robotics and artificial intelligence (AI) to allow for: continuous improvement of processes, identification of fraud and non-technical losses (NTLs), and recognition of consumption patterns.

In the utilities industry, Codex is being used to improve grid operations and stability to better forecast renewable production versus consumption. Real-time data is ingested from IoT sensors at renewable facilities and is integrated with data from the SCADA DMS, then Codex uses machine learning to produce a 48-hour forecast for renewable energy sources. This enables the utility to strike a balance between local production and consumption and anticipate the impact of renewables upon the grid.

Create new services and revenue streams

Atos Codex provides a framework where multiple partners can collaborate on new service propositions built around shared, real-time data. This framework can include data-analytics functions, or extended integration with real-time data sources such as those generated through smart metering or building control systems.

For example, the Codex platform can be used to develop client engagement services across utility target markets such as:

- Residential – allowing specific focus according to housing type, location and social demographics
- Multiple property owners – including multi-family and private property rental
- Business clients – with special emphasis on small and medium-sized companies

Intelligence derived from the Codex platform facilitates cross-selling and up-selling. Atos Codex can help suggest new service opportunities for individual customers based upon their current services, behaviors and consumption patterns.

Across other industries, Codex is being used to administer extensive services such as management of connected cars for major auto manufacturers and retailers, connected coolers for a multi-billion dollar, global beverage company, and predictive maintenance for amusement park rides, to name a few.

Enhance customer engagement through new partnerships

By teaming up with relevant third parties, utility companies can create new, collaborative business models and enhance service value for their customers. For example, approved data-sharing with manufacturers of renewable energy or even e-vehicle manufacturers creates new service opportunities for all.

The smart meter has naturally been a focus for utility companies – but new services and new partnerships can go well beyond that:

- Renewables – connect and collaborate with solar and other renewable suppliers
- Building control – create value with smart building system collaboration from thermostats to motion sensor lighting activation
- Security – offer domestic and industrial video surveillance services in partnership with camera and security suppliers
- Insurance and real-estate – help create and reward safe and responsible building management

Platform Features

Brand-ready

Your new customer services must be a powerful vehicle for building brand awareness. Atos Codex is entirely brand neutral – ready for your marketing and communications teams to make it entirely your own.

Service-ready

You cannot afford new service initiatives to become huge and over-complicated IT projects. Atos Codex is service-ready, enabling you to set-up and commercialize new services quickly and cost-effectively.

Incentive-based

Service success depends on incentives. You ask your customers to share information with you in exchange for tangible rewards. Atos Codex facilitates this dialogue, encouraging opt-in while allowing opt-out.

Extended collaboration

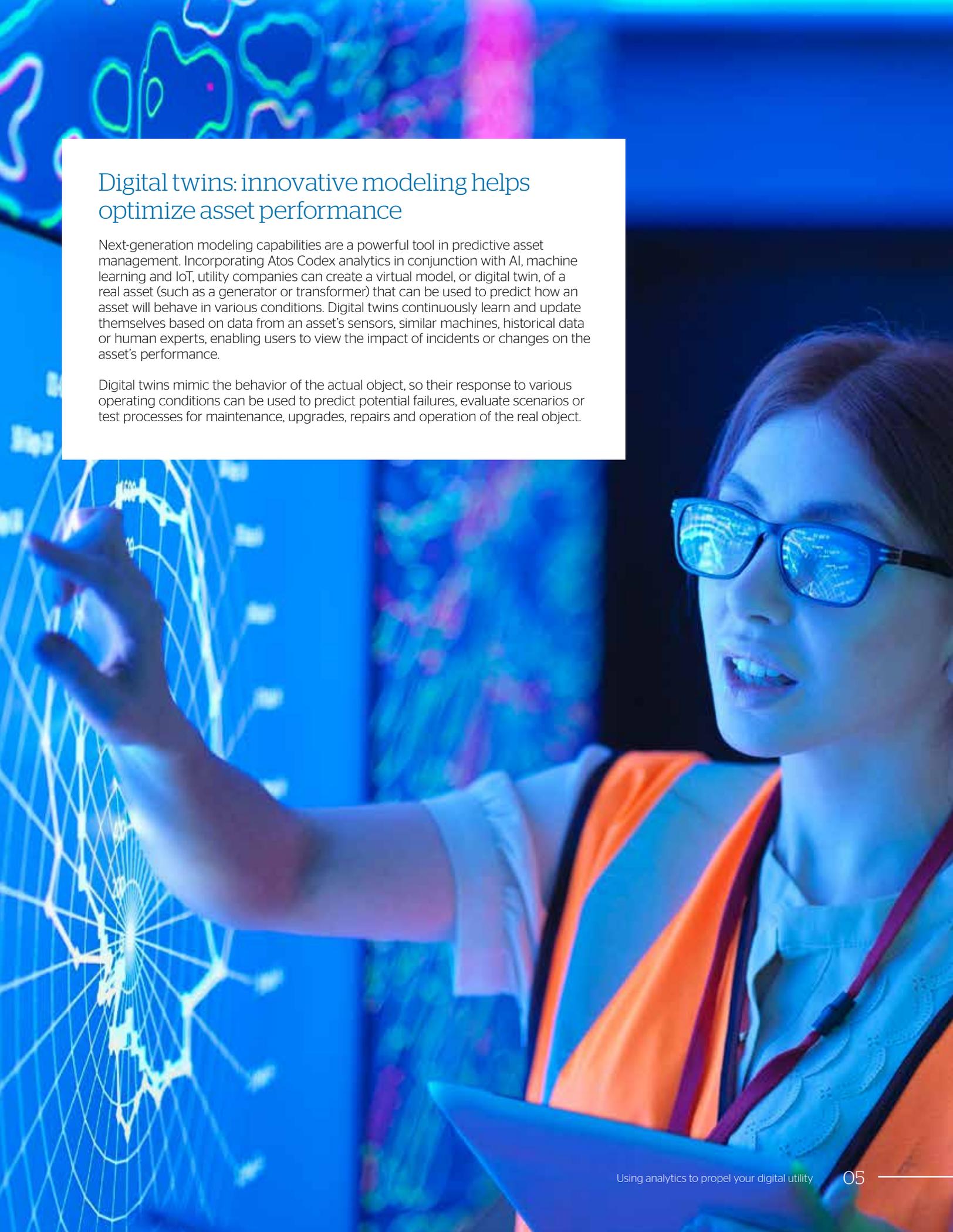
Atos Codex is ready for open collaboration. With new customer services, utilities will find real potential for extended collaboration with third parties. Your data and analytics become a valuable catalyst for partnerships.

Device connection

Atos Codex is not limited to connection to smart meters. Any internet-connected device from thermostats and motion sensors to CCTV cameras can become part of the data picture. Beyond devices, data from third party services, such as weather reports, can also be integrated to add depth and value.

Open to new models

Prosumers are becoming a reality, as smart grids make it possible to balance local production from renewables with grid supply. New data-driven services give utilities the chance to turn this into a commercial advantage.

A woman wearing safety glasses and an orange safety vest is interacting with a large digital display. The display shows a complex network diagram with glowing nodes and lines. The background is a dark blue with abstract, colorful patterns. The overall scene is illuminated with a strong blue light, creating a high-tech, futuristic atmosphere.

Digital twins: innovative modeling helps optimize asset performance

Next-generation modeling capabilities are a powerful tool in predictive asset management. Incorporating Atos Codex analytics in conjunction with AI, machine learning and IoT, utility companies can create a virtual model, or digital twin, of a real asset (such as a generator or transformer) that can be used to predict how an asset will behave in various conditions. Digital twins continuously learn and update themselves based on data from an asset's sensors, similar machines, historical data or human experts, enabling users to view the impact of incidents or changes on the asset's performance.

Digital twins mimic the behavior of the actual object, so their response to various operating conditions can be used to predict potential failures, evaluate scenarios or test processes for maintenance, upgrades, repairs and operation of the real object.

Preloaded and ready for extension

Atos offers a number of fast-track service packages preloaded on its customer engagement platform. These are ready for immediate use and can be enjoyed by customers over any device.

The value achieved with the Atos Codex Analytics Platform is different. Our preloaded services are just a starter - we offer a platform on which:

- All customer-service applications can be hosted and managed
- New services can be rapidly conceived and developed
- Standard analytics tools can be used across all services
- Data from any internet-enabled device or application can be integrated to create value
- Third party solutions, based upon shared data, can be rapidly built and deployed
- All data usage can be monitored with "opt in/opt out" compliance

Preloaded service packages



My consumption

Get a view of current versus historical consumption. See what you are spending and how much energy you are using against a comparable period. Split the picture according to actual usage for heating, cooking, laundry and other activities.



Consumption alerts

Receive alerts when there is an abnormal spike in usage, with informed advice on reason and remedy.

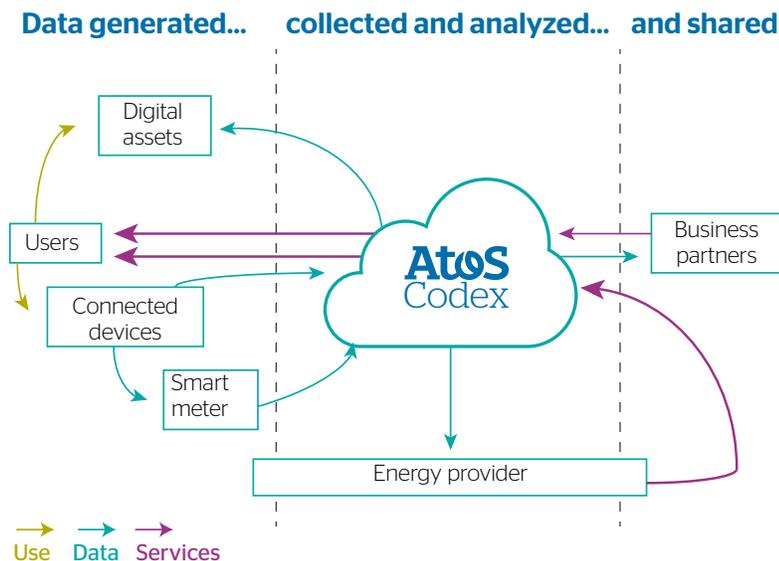


Eco-points

Turn responsible resource usage into tangible rewards. Customers can spend eco-points with partners, offset them against future payments, or even gift them to help reduce energy poverty.

Data analytics drive customer experiences

New technologies such as AI and machine learning, robotics and IoT, are powerful resources for utility companies. However, it's the analytics from this technology that can strengthen customer engagement and create customer loyalty. Atos Codex is the key to collecting meaningful data and transforming it into positive customer experiences. It enables utility companies to collect, analyze and share data, which drives a new generation of customer engagement services and collaborative partnerships.



Atos Codex is modular and open. It provides the means to collect data not just from smart meters but from any other internet-connected device. It acts as a smart data hub, managing analytics and routing multiple, complex data streams to their specified portals and applications for effective service use.

Data can be securely hosted by Atos, as required, both for cloud delivery and service development: our datacenters are certified to the ISO 17799:2005 information security standard.

Why Atos?

Digital utility companies must balance business continuity with innovation. The success of new customer engagement services hinges on effective integration with existing business systems. Atos is the trusted partner for your digital journey, and our extended skills add clear value.

Atos is a systems integrator with deep experience in the utility sector. The many projects we have successfully undertaken around smart grid, smart metering, billing and customer relationship management will all contribute to the quality of your new customer engagement services.

We provide a complete service delivery platform backed with industrial data analytics capabilities further strengthened by the company's strategic investment in the Atos Codex analytics solution.

As specialists in cybersecurity, we ensure that critical client confidentiality is given the attention it demands. As a global company, we ensure that all aspects of data hosting meet relevant regulatory obligations.

In addition to our breadth of skills as utility-specific systems integrators, Atos is also a leading provider of fully managed business services.

Atos Worldgrid

Worldgrid is an Atos business unit delivering real-time integration between IT and OT with sophisticated vertical solutions for energy and utility companies. We work across the power, water, oil and gas value chains, from production and distribution to transportation and retail services. With more than 35 years of utilities experience, over 3,000 industry specialists and an innovation-focused R&D culture, we help energy and utility companies drive digital change to realize business value across their organizations.

Next Steps

Atos is focused on bringing its clients the benefits of digital transformation while ensuring that all existing investments in information technology are managed securely, efficiently and cost-effectively.

At the same time, these new services must be effectively integrated not only with your own existing business systems, but also with those of the third parties you choose to partner with.

A gradual transformation approach enables the combination of the IoT and powerful business analytics for a more automated, agile and operationally efficient digital utility, but the starting point has to be the big picture – and we invite you to explore the immediate opportunities to establish new, innovative customer engagement services.

You will need to act fast to ensure that your service innovations build brand recognition and loyalty ahead of the competition. The Atos preloaded services are ready for immediate trial and adoption and we invite you to experiment with our consumption and comparison services, to see how you could apply them in your own service strategy.

The Atos approach is always driven by practical action – and we encourage you to take advantage of cloud-based piloting and prototyping from day one. Focus on immediate opportunity and together we will identify practical, affordable and risk-free initiatives. We can help you put new customer engagement ideas into action, develop new and productive partnerships, and explore the positive impact of data analytics in your pursuit of operational excellence.



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About Atos

Atos is a global leader in digital transformation with approximately 100,000 employees in 73 countries and annual revenue of around € 13 billion. European number one in Big Data, Cybersecurity, High Performance Computing and Digital Workplace, the Group provides Cloud services, Infrastructure & Data Management, Business & Platform solutions, as well as transactional services through Worldline, the European leader in the payment industry. With its cutting-edge technologies, digital expertise and industry knowledge, Atos supports the digital transformation of its clients across various business sectors: Defense, Financial Services, Health, Manufacturing, Media, Energy & Utilities, Public sector, Retail, Telecommunications and Transportation. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos Consulting, Atos Worldgrid, Bull, Canopy, Unify and Worldline. Atos SE (Societas Europaea) is listed on the CAC40 Paris stock index.

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Let's start a discussion together



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