

# Asset Lifecycle Management for Utilities

To obtain maximum value from their assets, utilities need to integrate large volumes of data from disparate sources, yielding actionable insights into equipment health and failure risks, total cost of ownership and potential process improvements.

The utility industry is facing pressure on all sides, from flat revenue growth and increased regulatory requirements to changing technologies and consumer expectations. Capital expenditures are increasing as aging infrastructures need to be updated or replaced with safer, more reliable and environmentally responsible infrastructures. And customers expect utilities to keep costs down while supporting the latest technology.

Capital is at the root of many of these utility industry challenges. Even if a company is profitable, it can be hard to find the funds required for major infrastructure projects at the right time. A disciplined, holistic approach to asset management is increasingly important in controlling costs. Strategic management of assets lets utility companies realize maximum value from their capital expenditures, enabling them to:

- Predict and prevent outages to avoid costly unplanned downtimes
- Schedule maintenance proactively and reduce maintenance service overheads
- Extend asset lifetimes
- Improve operational efficiency
- Ensure compliance with safety regulations
- Reduce total cost of ownership while achieving desired service levels

## Harness the Power of Your Data to Reduce TCO

Smart technologies and rich troves of data related to equipment and infrastructure are now available to help utilities take a more proactive approach to asset management. However, many companies still aren't able to take full advantage of this data to effect change in their operations. Relevant data may exist in separate silos in different business units, third-party systems, and machines spread over multiple locations in plants and in the field. Some equipment may be analog and not connected or tracked.

To get a complete picture of any one asset, you might need to access geospatial data from a geographic information system (GIS), maintenance records and schedules from an enterprise asset management (EAM) application, warranty information from an enterprise resource planning (ERP) system, IoT sensors from multiple manufacturers, CAD tools, and more. Mergers and acquisitions further complicate the picture by creating multiple, redundant data sets.

Atos helps utilities bridge these gaps by uniting data from all these sources into a unified framework for analysis through the Atos Codex Analytics Platform to generate business insights and predictive information.

Asset lifecycle management by Atos balances the very different maintenance requirements of your diverse and distributed assets to deliver maximum safety and longevity throughout design, construction, commissioning, operations, maintenance, decommissioning and replacement.

Drawing on our strengths in utilities and data analytics, we can help you leverage your digital assets to maximize the value of your industrial assets, from hardware and software to plant equipment and structural elements.

# Atos Codex for Proactive Asset Management and Predictive Maintenance

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 more. Codex takes this large volume of data from multiple sources and performs comprehensive analysis to drive uniform metrics and predictive maintenance. With Codex analytics, you can identify potential issues and neutralize them before they become actual problems. For example, certain alerts may serve as early indicators of equipment degradation. Codex also incorporates machine learning to allow for continuous improvement of your processes.

Atos Codex encompasses a complete portfolio of analytics services and solutions, from consulting to analytics-as-a-service, and from IoT to artificial intelligence. Our services and methodologies are supported by a large pool of specialized data scientists and utility industry experts. A variety of delivery options are available, offering affordable ways for both small and large utilities to achieve operational and business advantage.

For more information:



[pages.atos.net/digital-utility](https://pages.atos.net/digital-utility)



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## Digital twins: innovative modeling helps optimize asset management

Next-generation modeling capabilities are a powerful tool in predictive asset management. Incorporating Atos Codex analytics in conjunction with artificial intelligence, 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.

## 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.