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# Analytics Quick Start Program for Utilities Delivers Rapid Results

## SAS and Intel team up to deliver a powerful data processing and analytics environment for prototyping business value

- **Rapid prototyping.** Multiple iterations of testing are possible — all without impacting production systems.
- **Analytics modernization.** Test out the newest capabilities for visualization, optimization, and machine learning.
- **Instant sandbox.** Need more space to innovate? No problem.
- **Speed to value.** Easily "lift and shift" work from the Analytics Fast Track™ for SAS® to a full production environment.

### Executive Summary

Utilities are true lifelines for the communities they serve, and data analytics plays an expanding role in supporting these vital services. But in exploring new approaches, too many utilities invest millions in IT solutions that get tossed aside a few years later. What if you could test your approach and deliver quick wins in a high-performance sandbox environment? Or prototype solutions while full implementation is underway?

If your organization is modernizing your analytics, Intel and SAS offer a special program to help you on your way. The Analytics Fast Track™ for SAS® helps your company move quickly to harness the power of predictive business analytics. This program helps lower your initial analytics investment and allows for the rapid deployment of new solutions, so you can get started prototyping and improving your analytics capabilities right away.

By running SAS software on servers powered by the Intel® Xeon® processor E7 family, your IT staff will also be able to rapidly deliver SAS capabilities without compromising their governance. Utilities can exploit powerful Intel® architecture and SAS Analytics in days, not months, allowing you to focus on business value.
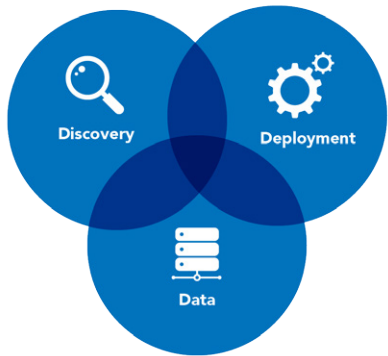
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**Figure 1.** Opportunities for big data analytics are prevalent in the smart grid.

**Figure 2.** The entire analytics lifecycle - from data to discovery to deployment - is supported by SAS and Intel.

## Real–World Applications

With the diversity of use cases expanding by the day, utilities are seeking answers more rapidly and demanding greater confidence than ever before. Some of the specific areas where utilities can benefit from analytics modernization include:

**Energy forecasting and network load management.** Forecasting is a data-intensive discipline that utilities use for a wide range of planning, investment, and decision making purposes, including network load management. Forecasting will increase in importance because of the growing complexity of challenges and the availability of more data inputs from a data-rich smart grid environment.

**Smart grid analytics.** Utilities now capture more granular data from connected devices than ever before. By applying predictive analytics to that data, utilities can unlock new business value. Examples include consumption anomalies that may indicate faulty meters or energy theft, energy program engagement analytics, and distribution system characterizations. Smart grid analytics can also locate hot spots of congestion in the network that may affect reliability today and constrain growth in the future.

**Customer intelligence.** Utilities are applying analytics to get a deeper understanding of their customers. From segmentation and geospatial visualization to behavioral analysis and customized product pricing, utilities are becoming more efficient with their marketing and customer service. SAS provides a market-leading solution that uses data, analytics, and insights to create relevant, individualized customer experiences.

**Cybersecurity analytics.** Cyber threats are real in the utility industry, and they carry significant risk for operations, safety, finances, and brand credibility. Modern analytics can help detect suspicious network activity that is missed by existing information security architectures. SAS is a partner in the Intel Security Innovation Alliance, a security platform with a standard data taxonomy for sharing data across a broad ecosystem of vendors. This partnership also provides improved cyber remediation and compliance, supporting the needs of today's security analyst.

## Proven Infrastructure

With change underway in the utilities industry, time to market is now a key metric for delivering internal and external capabilities. Getting started with the Analytics Fast Track  for SAS is as simple as loading your data into the Hadoop* environment and opening your analytics software workbench. With servers powered by the Intel® Xeon® processor E7 family, a Hadoop data storage device and a full stack of industry-leading analytics software, your possibilities are endless.

## Solution Architecture

Built on the Intel Xeon processor E7 family, the Analytics Fast Track for SAS provides a robust architecture that supports multiple use cases, allowing you to get the most out of your investment (Figure 2). This processor can rapidly process large amounts of data in real time, keeping data in memory to overcome data-demanding workloads. Systems using the Intel Xeon processor E7 family and Intel® Solid State Drives help provide the flexibility, reliability, memory, storage speed, and overall performance you need to enable big data analytics.

## Conclusion

Utilities are applying the predictive power of modern analytics to deliver better service to their communities. Increasingly, the smart grid and distributed energy resources are adopted by utilities grappling with new economic and regulatory realities. Utilities are also using data to reduce security threats and boost customer satisfaction. The Analytics Fast Track for SAS, running on Intel® hardware, enables utilities to move with agility, refine the business cases for new analytics applications, and sharpen their focus.

To learn more about how Intel and SAS and can help you maximize the value of your data, contact your representative or visit the Intel and SAS partner pages: **sas.com/intel** and **intel.com/sas.**

**Solution Provided by:**