

Asset Optimization: Achieving High-Impact Business Outcomes

ASSET OPTIMIZATION



Uncover Hidden Treasure

Organizations are under tremendous pressure to optimize and unlock significant value from all of their assets, including equipment, intellectual property, websites, and employees. Today's new business models, such as power by the hour, complex long-term maintenance service plans, service level plans that can have penalties, and visibility down to sensor level data, all require a better understanding of how assets are performing. Meanwhile, escalating capital costs are driving higher utilization rates from the original equipment manufacturer (OEM) to the operator and ultimately to the end user.

Point solutions leveraging sensor and machine data are providing critical insights, but their continuous improvement and design must be viewed as part of a highly-connected ecosystem enabling an Internet of Things (IoT) capability. Otherwise, the landscape becomes a patchwork of silos with restricted value. Limited visibility can lead to imprecise decision making in planning and operations, inefficiencies, and a negative impact to the bottom line. That's why optimizing assets, both tangible and intangible, is increasingly important.

Obstacles to Achieving High-Impact Business Outcomes

Existing company processes and infrastructures often prevent the business from gaining maximum value from its assets.

- An inability to optimize assets is a common barrier for businesses. For example, human resources may be unable to optimize talent, succession, planning, and resourcing, causing performance and productivity to suffer.
- Organizational silos prevent collaboration and need to be knocked down so optimizing infrastructure and asset management will not be the sole responsibility of one department. Instead, it will include collaboration with procurement, operations, customer services, regulators, and other stakeholders.

- Capital investment indecisions prevent organizations from prioritizing capital investments, which affects their ability to make assessments that balance risk and reward across interconnected factors such as assets, asset classes, and profitability.
- Asset-level margin generation without a sense of priority makes it difficult for companies to realize the full financial benefit of their assets.

Companies Redefining What Is Possible

Global engineering company Siemens was looking for ways to compete with other forms of transportation—namely airlines. It focused on its high-speed train between Madrid and Barcelona, which can run between the two cities at about 200 miles per hour.

Siemens leveraged big data and built a predictive maintenance model to uncover mechanical issues prior to breakdown. Thanks to predictive analytics, the company is able to schedule and perform proactive maintenance on its equipment, achieving a 99% on-time arrival rate. Siemens guarantees that passengers will not be delayed more than 15 minutes, or they receive a full refund on their ticket price.

This approach enables Siemens to drive a business model that has claimed 60% of airline customers taking the same route for \$100 million in opportunity gains.

- Non-standard maintenance practices prevent smooth decision making and are often a barrier to adopting new techniques.
- Increasing capital costs are driving higher utilization rates from the OEM maker to the operator and, ultimately, to the end user.
- Companies need the ability to tap into new business models to improve how assets are performing.

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Why You Need Asset Optimization

Assets are now operating in an environment of increasing cost of capital and high utilization expectations for all OEM makers, operators, and end beneficiaries. These challenges are forcing companies to become increasingly efficient.

Optimizing assets through sensor data acquisition, quality checks, and the integration of accelerators to aid in analysis, including a closed-loop feedback of analytics, helps organizations become more efficient and provides a wealth of other business benefits. This enables organizations to realize a range of benefits.

- Companies can lower capital expenditures by intelligently managing the infrastructure and assets across the entire lifecycle, which can reduce the overall budget requirement to buy new assets.
- Savings can be realized that improve the total cost of ownership (TCO).
- Assets previously understood to have a set lifetime can often see that lifetime extended.

- Advanced asset management techniques, taking advantage of sensor and other associated data, allow early detection of emerging issues.
- Leveraging human capital improves employee productivity and performance.
- Reducing failures and downtime is a fundamental building block in the overall benefits case for advanced infrastructure and asset management techniques.
- Improved safety is realized through well-designed and well-managed data-driven infrastructure and asset management regimes.
- By better utilizing assets, companies can reduce waste.
- Continuous improvement in asset utilization is essential and can lead to enhanced quality assurance.
- Optimizing assets lets organizations drive revenue growth from improved product and service offerings.

Assets continue to evolve for businesses. Large capital assets, for example, such as heavy-duty trucks used in mining operations or turbine engines that produce energy, are becoming more instrumented and producing more sensor data. Companies need the ability to collect that data, integrate it with data from the industrial IoT, and analyze it for new insights.

Those insights enable a range of benefits, such as allowing companies to predict when a part is likely to fail so it can be replaced before it breaks down, which saves money and reduces disruption. Companies can also use the insights to improve their products and operations, making them more effective and efficient, which is the leading edge of IoT uses.

As many manufacturers move toward a business model of renting equipment, optimizing assets such as data becomes more critical. Rentals require companies to know the “heartbeat” of their assets to keep them running at maximum efficiency. Businesses need the tools and information to ensure their equipment is maintained and serviced properly, the ability to determine and extend the life cycle of products, and actionable insights that can lead to lower operating costs of equipment.

For organizations to optimize their assets, they need to gain a detailed view across all of those resources. This view is essential for the business to see how those assets are being utilized, how they are performing, what they are costing, and other essential information that drives informed decision making and enables the business to leverage the assets for enhanced value.

What we do, we do differently

Our Approach

We believe analytics and data unleash the potential of great companies. Analytics and data have become the number one asset in organizations that are driving differentiated value. When companies view their data as such, they have the ability to transform their organization. Whether your company is working to reduce the time for clinical trial for new drugs, improve yield for farmers by improving knowledge of soil conditions, improving power efficiency while lowering carbon emissions, or improving communications between people, there is unlimited potential to what data and analytics can unleash.

Why Teradata

Our success is rooted in proven capabilities that span technology, people, and methodologies—and is backed by real-world experience from countless customer successes. We leverage our expertise and proven capabilities to help drive customer success across multiple industries.

High-Impact Business Outcomes

The difference is in our approach. Teradata’s complete portfolio provides three core capabilities to help drive high-impact business outcomes:

- **Business:** Business Analytics Solutions help you leverage data and analytics to achieve high-impact outcomes. Our team of Analytic Business Consultants can help you understand how to leverage data and analytics to solve common business challenges such as fraud, churn, and customer acquisition. Our business value framework, which identifies business opportunities across multiple business domains and industries, helps you identify key business process improvement areas—and with RACE™ (Rapid Analytic Consulting Engagement™) we can quickly prove the value of your initiative.
- **Architecture:** Ecosystem Architecture Consulting brings unmatched consulting around data and analytics strategies, roadmaps and technology architecture design and implementation, and ongoing managed services.
- **Cloud:** Best-of-breed Hybrid Cloud Products include the leading database and open source solutions, with flexible deployment options in the public cloud, managed cloud, or on-premises.

As your trusted advisor, our unique approach can help your organization tackle critical business problems—and gain deeper business insights—enabled by multi-genre analytics, agile integration, and at scale.

For More Information

To learn more about Teradata Asset Optimization, contact us at Teradata.com/contact-us.

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