

# Data Center Energy Analytics and Optimization

## FINANCE BENEFITS

- Lower Overall IT Cost
- Lower IT Energy Costs
- Manage Energy Costs
- Accurately Allocate Energy Costs

## IT BENEFITS

- Greater Asset Utilization
- Transparency of Energy Usage
- Analytics for Green IT
- Optimize Server Procurement

## BUSINESS UNIT BENEFITS

- Insight into IT Energy Costs
- Reliable Data for Budgeting
- Cost Reduction Control



- Reduce data center energy costs through advanced energy efficiency analytics and ongoing metering/reporting
- Minimize financial risks of energy price fluctuations by accurately measuring and reducing server energy usage
- Identify the most cost-effective and energy-efficient servers before you buy
- Analyze best options for reducing CO<sub>2</sub> emissions using a vendor-neutral assessment of server energy usage and compute capacity

One of the key challenges in the modern data center is how to effectively manage energy usage and costs. IDC estimates that for every dollar spent on installed servers today, half goes to power and cooling and this is expected to increase to 70 percent by 2010. Not only are energy costs a large part of the IT budget, but they contribute significantly to the increase in CO<sub>2</sub> emissions. Moreover, new regulations will increase the costs for companies that don't control their data center emissions.

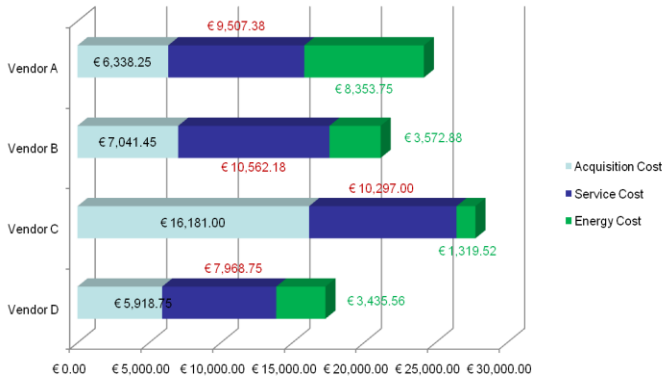
Companies have a unique opportunity to introduce energy saving plans by better utilizing server capacity, analyzing, and metering server energy usage, and introducing energy chargeback and resource allocation systems.

SatoriAnalytics™ provides software and services that analyze server energy costs, enabling IT organizations to optimize cost and energy efficiency in production environments. Moreover, SatoriTech™ can provide vendor-neutral compute capacity and energy consumption benchmarks to IT during the server procurement process.

The solution is based on patent-pending technology and over 10 years of IT cost management experience, typically producing IT operation cost savings of at least 25 percent.

**SatoriTech**

# Advanced Energy Cost Analytics and Reporting



Illustrative example: Lifetime cost for every 1 million CRU capacity (Euro, thousands)

SatoriAnalytics uses the Computing Resource Unit (CRU), a vendor-neutral unit of measure of compute capacity. The CRU is based on patent-pending technology and normalizes compute capacity across a wide range of hardware systems, configurations, and operating systems.

Using the CRU, SatoriAnalytics provides actionable data on current server capacity utilization and costs, current energy and cooling costs, all of which can be normalized per computing unit (CRU).

Moreover, comprehensive reports on energy consumption at various load levels (measured in Watt), cooling requirements (measured in BTU), and carbon emissions (measured in metric tons of CO<sub>2</sub>) provides the data required to implement cost-effective Green IT programs in the data center.

The ability to attribute energy usage by server, application and business units enables IT and finance to more effectively manage data center energy costs and introduce sustainability and chargeback programs.

*\$29 billion is spent on server power and cooling annually, with only 30 percent going to actual servicing of the IT load.*  
IDC

## Features and Benefits

- Accurately measures and normalizes compute capacity:** apples-to-apples comparison of different server models and operating systems, including Windows, Linux, UNIX, and virtualized servers
- New server assessments:** benchmark new servers for cost and energy efficiency to reduce total cost of ownership
- TCO efficiency:** comprehensive report on the TCO of one computing unit, factoring in hardware, energy, cooling, and facilities cost
- Energy and cooling efficiency analysis:** understand the energy and cooling and space required to delivery one computing unit
- Chargeback, analysis, and metering:** accurately meter the use of computing capacity and allocate associated costs by business unit, application, or server

**Helping Transform IT**

Projects That Benefit from SatoriTech's Solutions:

- Green IT and Sustainability**
- IT Purchasing and Budgeting**
- Chargeback of Energy Usage**
- Financial Risk Management of Energy Costs**



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