

## Nominee: Green Mountain

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### **Nomination title: Green Peak - Dashboard, analytics and reporting solution**

Green Mountain sets the green standard being the most energy efficient data centre in the market with 100% renewable energy and close to zero CO2 footprint. To strengthen this position we have developed a DCIM-tool both to enable our customers to optimize energy efficiency of their use of the data centre and at the same time improve transparency and automate internal processes;

Green Peak offers customers access to real time and historical data about the data centre environment with 100% transparency.

#### Scope

As the factories of the digital age, data centre colocation customers need insight to the data centres environment and performance to continuously improve efficient utilization of the data centre infrastructure.

Through Green Peak, Green Mountain facilitates a comprehensive analytics suite for real time location and infrastructure monitoring. The aim has been to give customers a transparent view of the data centre performance in real time, facilitate analytical capabilities, and at the same time automate processes connected to reporting and cost allocation.

#### Solution

Green Peak builds on standard software, powered by Gurusoft and OneCo, that integrates with the data centres management system, presenting data to the customers via a standard web user interface.

#### Dashboard

Green Peak Dashboard gives the customer real time view of the environment in the data centre. The customer can see its data centres measured Power Usage Efficiency (PUE), temperature, humidity and O2-level.

#### Analytics

Through Green Peak, the customer gets access to detailed historical data about the data centres performance. Data can be viewed as graphical trend data on different timeframes or as tables. With this analytical capability, customers can analyse performance data about;

- Power consumption, availability and capacity utilization
- Power Usage Efficiency (PUE)
- CO2 footprint
- Environment (room and rack temperature, humidity, O2 level)

### Reporting

Monthly report module automatically creates and presents a SLA-report for the data centre services delivered to the customer. Customer gets an overview of last month, and historical, performance data against SLA, making it possible to create customized reports with trends on different periods.

- The driving force behind the Green Peak project and business/technology challenge that needed to be addressed:
  - o Strengthen our profile as the greenest and most energy efficient datacenter in the market (e.g. enable customers to data for energy optimizing, calculation of CO2 footprint)
  - o Increase transparency (e.g. real-time view to customer of state of their DC-environment, access to DC-Environment data for trend and capacity analyzes)
  - o Automation of current manual work processes (e.g. reporting to customer, trend and capacity analyzes, power consumption invoicing)
- The solution that addressed the challenges and innovative aspects that made Green Peak stand out:
  - o Analytic capabilities for customers of energy consumption down to PDU-level for energy optimizing
  - o Analytic capabilities for customers of temperature, cooling and other environment data for energy optimizing
  - o Automation and real-time view and at the same time keeping all data secure
  - o Calculation of CO2 footprint (CO2 accounting)
- Major challenges that we faced during the project and how they were overcome:

- o **Balancing user interface performance with integration of enough data to give customer the needed benefit. Involving end-customer in both functionality and performance testing throughout the project.**
- o **Balancing user functionality with (user) security. Strong collaboration between solution developers and security through the project. Thorough testing of performance, functionality and security in parallel.**
- **Benefits that Green Mountain has seen as a result of the Green Peak implementation:**
- o **Customer reporting delivered faster and with less manual work**
- o **Customer has access to operational data enabling more efficient optimizing of IT-equipment setup, energy consumption.**
- o **Customer gets calculation on CO2 footprint that they can use in their internal CO2 accounting**

**Relevance across the wider industry**

- **The industry can become more transparent to customers on quality in deliveries**
- **The industry can make better arrangements for customers to optimize their IT infrastructure and thereby become the most energy efficient**
- **The industry can automate and integrate systems to streamline reporting, billing and analysis and thus becoming more cost effective.**
- **What are the Innovation's key distinguishing features and/or USP?**
- **Real time**
- **Dynamic on different time frames**
- **Complete historical dataset (since customer start up)**
- **Improve energy efficiency**
- **Report your datacenters` carbon footprint**
- **Improve capacity management and plan for the future**
- **All historical data and reports available online**

- **What tangible impact has the Innovation had on our company, the market and our customers?**
  - **Improved energy efficiency**
  - **Increased customer satisfaction**
  - **Reduced customer PUE (e.g. lowered cost of energy)**
  
- **What are the major differentiators between our Innovation and current practices elsewhere?**
  - **Online**
  - **Fully automated**
  - **API available for integration with other solutions**
  - **Fully transparent in real-time**
  - **We do not know of any other that provides customer with the same dashboard, analytics/optimizing and reporting capability for their DC-environment.**

### **Why nominee should win**

1. **100% transparent in real time on delivery quality**
  
2. **Customized trend data for Customer**
  - i. **Significantly better overview of long-term trends across the entire data centre environment**
  
3. **Reduced time spent reporting and billing with (net) about 60 hrs per month**
  - i. **SLA reports are ready immediately at month end**
  - ii. **Automated billing data for approximately 1.5MW**



- iii. **Report quality has improved**
- iv. **Lowered customer PUE (lowered cost of energy)**
  
- 4. **Reduced time spent on establishing a new customer with (net) approximately 50 hrs per time**
  
- 5. **Increased customer satisfaction - We don't know of any other that provides customer with the same dashboard, analytics/optimizing and reporting capability for their DC-environment**