



GFS Crane DCIM

In Higher Education: A Case Study



About the Customer

One of India's leading academic institution, renowned for both teaching and research, particularly in Science, Technology, Engineering & Math.

GFS Crane DCIM and a BMS were selected for data center monitoring, operations, planning and management for their new High Performance Computing Center & a Disaster Recovery Center.



Business Cases for DCIM

❑ **Business Case 1 (High Availability):** The High Performance Computing and Cloud Computing environments required a very high degree of availability. Customer required an intelligent tool that did the following:

1. Monitors all critical infrastructure components at real-time
2. Provides end-to-end visibility of the data center physical infrastructure for both the DC and DR sites from a central NOC
3. Provides predictive alerts on potential failure of any critical infrastructure component to enable timely migration of the HPC and Cloud Services from the primary DC to DR site.

❑ **Business Case 2 (Reliability & Operational Efficiency):** The customer desired high automation for accuracy, reliability & operational efficiency with least manual interventions. Hence customer required a tool that

1. Puts 24x7 data center infrastructure monitoring on an 'auto-pilot' mode
2. Sends proactive alerts on data center infrastructure health to all stakeholders when attention is required – such as critical power, cooling or equipment health issues that requires failover mission critical IT services to the DR site



Business Case for DCIM

❑ **Business Case 3 (Agility):** Beyond monitoring, daily operations and metrics, the Center Head desired Actionable Analytics on vital parameters and performance of all physical and IT infrastructure components of the data center.

DCIM had to:

1. Seamlessly integrate with the BMS
2. Provide actionable analytics on data captured from the BMS, and other systems (UPS, IT devices) it was directly monitoring

❑ **Business Case 4 (Energy Efficiency):** In conformance with its 'Go Green' initiative, the Center Head wanted to adopt 'Green' data center practices from its design & build up to operations. He wanted a tool that:

1. Adopts best practices recommended in ASHRAE Guidelines and The Green Grid Framework.
2. Tracks real-time and average PUE of the data center
3. Provides multi-level PUE measurement at different levels of the electrical architecture



Delivering on Business Case 1: High Availability



Driven

DCIM

Real-time Alarms

Eliminating Error-prone Manual Operations

Visibility across Power Chain

Eliminating Single Point of Failures

Trend Analysis on each Device Performance



Delivering on Business Case 2: Reliability & Operational Efficiency

1. GFS Crane DCIM has put customer's infrastructure monitoring on 'auto-pilot' mode and significantly reduced the requirement of 24x7 monitoring staff in the data center
2. Through its multi-protocol support capability, DCIM is able to auto-discover, monitor and manage critical infrastructure assets in a highly heterogeneous device landscape



Delivering on Business Case 3: Agility

1. Building Management System (BMS), is monitoring core infrastructure systems and subsystems.
2. GFS Crane DCIM is capturing raw data from BMS and other infrastructure components and producing KPIs & actionable analytics
3. KPIs & Actionable analytics have accelerated decision making and improved agility



Delivering on Business Case 4: Energy Efficiency

1. DCIM is enabling the Center to adopt best practices recommended in ASHRAE Guidelines and The Green Grid Framework.
2. DCIM is tracking real-time and average PUE of the data center
3. Providing multi-level PUE measurement at different level of the electrical architecture



GFS Crane DCIM: *Delivered Benefits*

THE GREEN GRID Recommendation for data center PUE Measurement





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