> " We did consider other storage solution providers, but in the end we went with HDS for a few key reasons: their reputation and track record in Gujarat (they had L&T on their client list, for example), their manufacturing domain expertise, and their willingness to partner with us to make this the end-to-end solution we were looking for. "
>
> *Debasis Behura*
> *AGM – IT*
> *Birla Cellulose*

New Manufacturing Facility Chooses a Hitachi Compute Solution to Integrate IT Infrastructure and Streamline Operations

Birla Cellulose is the Aditya Birla Group's umbrella brand for its range of cellulosic fibers and is a leader in producing viscose staple fiber. The division focuses its efforts on green R&D, land conservation methods, water conservation systems and sustainable sourcing. As Birla Cellulose set up a new manufacturing facility in Bharuch, Gujarat, it realized that efficiency and optimization in its IT infrastructure would pave the way for operational excellence on the ground. To that end, it was looking to deploy an integrated solution that would allow it to bring computing, storage and network systems under one banner for ease of management and allocation. Hitachi Data Systems answered the challenge with a solution based on Hitachi Compute Blade and Hitachi Unified Storage.

The Challenge

The Birla Cellulose division, part of the Aditya Birla Group, was setting up a new manufacturing unit in Bharuch, Gujarat. This was, in essence, a greenfield environment, with minimal constraints from prior work, since manufacturing operations had only recently commenced. While an in-house IT team oversaw the facility's many strategic applications, spanning procurement, design, production and distribution, it was looking for consolidation and optimization in its IT infrastructure. This approach would provide a unified platform under which the various applications, including document management, Microsoft® Exchange, warehouse management, supply chain management and more, could be run. The infrastructure would serve as the backbone running through and supporting all the various strategic IT initiatives for the facility.

These applications were critical to Birla Cellulose for driving operational efficiency on the factory floor. However, the facility's

ADITYA BIRLA GROUP

Birla Cellulose
Fibres From Nature

Birla Cellulose

INDUSTRY
Manufacturing

SOLUTION
Compute

HARDWARE
Hitachi Compute Blade 500
Hitachi Unified Storage 110

SOFTWARE
Hitachi Command Suite

SERVICES
Implementation services provided by Hitachi TrueNorth Partner ITPL

Benefits at a Glance

- End-to-end management of IT components.
- Efficient storage provisioning and monitoring.
- Improved application performance.

employees sought a single interface through which they could manage these disparate applications. It was also critical to have adequate computing and data warehousing capabilities to handle and reliably store the large quantities of data that a typical manufacturing facility generates.

The Bharuch facility was also interested in post-sale service and support for the solution that was implemented. Given that this was a newly established facility, it wanted to ensure that it had adequate coverage and troubleshooting guidance to smooth out any initial glitches it might encounter.

Birla Cellulose was also looking for a reliable vendor with a proven track record in manufacturing-specific implementations. Although budget and cost considerations were factored into the decision-making process, it was more interested in a smooth deployment culminating in robust and positive outcomes.

The Aditya Birla Group has worked with different IT vendors in the past, based on specific needs of its individual divisions. Although the corporate office does make recommendations in this area, the divisions have a certain level of decision-making autonomy and flexibility.

The Solution

Following a recommendation from corporate headquarters, Birla Cellulose initially considered HP as a provider for the new factory IT implementation. However, they went with HDS given their own positive experience in the past with using the latter's storage solutions. The HDS track record in manufacturing-oriented implementations also played a role in influencing Birla Cellulose's decision.

The HDS solution consists of Hitachi Compute Blade 500 (CB 500) with 2 Fibre Channel modules and 6 blades running on Intel processing power. As an enterprise-class server platform, CB 500

provides performance, scalability and virtualization benefits to the data center. It is also an excellent platform for server and application consolidation, an important requirement for Birla Cellulose. It is equipped for workload optimization, which delivers the ability to efficiently distribute compute-intensive workloads on either Windows or Linux.

Logical partitioning (LPAR) embedded in the CB 500 provides the optional virtualization technology for efficiently allocating its resources and improving utilization rates for non-Windows environments.

The robust Hitachi Unified Storage 110 (HUS 110) infrastructure was part of the deployment. HUS 110 has a capacity of more than 11TB and consists of high-density feature-rich storage with a small footprint. It enables automated data management with dynamic provisioning, dynamic load balancing and auto tiering. It is designed for easy scalability and enhanced performance, all of which were attributes that Birla Cellulose found appealing.

The solution features Hitachi Command Suite software, with a single, unified interface or management console to administer both the storage and computing fronts. This kind of integration and ease of management was exactly what Birla Cellulose needed on the IT end of running a sprawling and complex manufacturing unit.

Hitachi Command Suite

LEARN MORE

Another factor that helped HDS win the contract was the presence of ITPL as an implementation partner. ITPL had plenty of credibility and name recognition within the Aditya Birla group. Together, HDS and ITPL had more than 20 years of experience in similar manufacturing implementations. The established regional reputation HDS has in Gujarat, where it has been awarded large contracts from well-known manufacturing

companies, was another factor that worked in its favor. The Aditya Birla Group felt confident about both the solutions and the level of support it could expect from HDS. ITPL was actively involved in meetings to understand and scope out customer requirements for the project. It also helped deploy the Microsoft operating system licenses integrated with Microsoft Hyper-V® virtualization platform. The involvement and efforts of ITPL helped ensure a smooth and complication-free implementation process.

The Benefits

The HDS solution is likely to provide an array of benefits for Birla Cellulose. Since this was an implementation for a brand-new facility, the improvements in storage management and efficiency along with several other business and technical improvements, are expected to manifest themselves over the next few months. A few of these include:
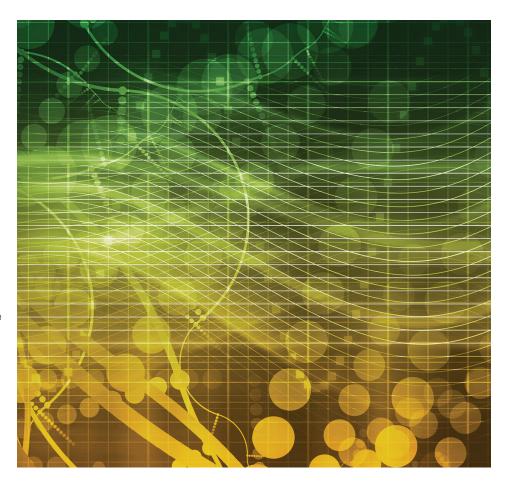
- **End-to-end management.** The HDS solution facilitates server consolidation and affords Birla Cellulose a single platform for integration of both compute and storage management. Through Hitachi Command Suite, Birla Cellulose has a unified interface through which it can view and manage all the components of the infrastructure, including servers, storage and underlying applications.

- **Efficient storage provisioning and monitoring.** The solution enables consolidated storage provisioning and configuration across all storage systems and data types. This approach allows Birla Cellulose to accelerate the deployment of new business applications while reducing the risks associated with manual storage management processes. The solution further allows for monitoring and analyzing application and storage system performance using a variety of performance metrics, again ensuring optimal storage system utilization.

The solution features Hitachi Command Suite software, with a single, unified interface or management console to administer both the storage and computing fronts. This kind of integration and ease of management was exactly what Birla Cellulose needed on the IT end of running a sprawling and complex manufacturing unit.

- **Improved application performance.** With the optimal storage and server configurations enabled by the HDS implementation, the performance and availability of its mission-critical business applications is likely to improve.

- **Flexibility in deploying LPAR.** In the future, Birla Cellulose has the option of deploying LPAR-based virtualization for any Linux application without investing in costly Windows 2008 or 2012 licenses.

- **Scalability.** Both CB 500 and the Hitachi storage platforms are easily scalable in small, incremental pieces.

- **Reliability.** Hitachi storage provides excellent reliability and availability, an important consideration for the manufacturing facility.

- **Cost and risk reduction.** By consolidating its management operations through the HDS infrastructure, Birla Cellulose can reduce the complexity and risks for its storage assets. Its operational costs are also likely to go down due to the simplified administration under the common management framework.

- **Optimization and efficiency.** Due to virtualization and the workload balancing feature of the CB 500, resources from across the IT infrastructure are allocated and utilized more efficiently. These improvements, in turn, lead to reduced power consumption and further cost savings.

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