

Mahindra Vehicle Manufacturers Limited

Category: Automotive - Large
Enterprises

Background:

Mahindra Vehicle Manufacturers limited (MVML) unit in Chakan, Pune was designed and built as a green-field facility with an aim to manufacture 1.5 lakhs vehicles per annum in phase-1, whereas the overall facility would produce 6.5 lakhs vehicles per annum. The company wanted to provide backbone from data center hosted from MVML to the existing and upcoming sister concern companies planned in the vicinity, the IT setup planned for MVML Chakan consisted of the following infrastructure:

- Data Centre (2000 sq. ft.) housing major critical IT resources.
- IT infrastructure rolled out for 19 shops (each shop of 25000 Sq. Mt.)
- Campus backbone covers around 350 km of Optical fiber
- Office locations (Data network), Control network and temporary cabins connected on copper approx. 650+ Km.
- All critical servers integrated with the Centralized Storage box.
- Critical applications hosted on Virtual platform (50 servers)
- Oracle DB configured on MS clustered mode.
- Entire network deployed on Cisco Unified Platform
- Plant is facilitated with 100 percent VoIP services
- Network Operations Centre setup using real time monitoring and management tools
- Access control and surveillance implemented on IT Platform.
- Centralized Helpdesk and SLA based services for n/w, servers, DB and End-user support

As part of the green field project which clearly focused on sustainability the company wanted to develop IT infrastructure by taking care of power, cooling, administration, maintenance and recurring cost.

IT initiative/Project: IT Infrastructure for green field facility operation

- The project was rollout for 14 major shops within the MVML plant covering 280 acres in Phase-1, which initiated in January 2008.
- The Datacenter infrastructure was completed in 100 Days which started in May 2010 and gone live in August 2010.
- The Virtualization project was initiated in April 2011 and completed in June 2011.
- The company required 40 physical servers in phase-1 to meet the MES system requirements. The out of box solution conceived by MVML IT team helped the solution provider to implement with 5 physical servers on virtualized platform.

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- To host the MES application, virtualized solution had been successfully deployed with VMware and Hitachi storage box.
- The project employed multiple vendors like Hitachi, VMware, Oracle and Rockwell Automation, Wipro Infotech, Cisco, and personnel who worked both onsite and off-shore.
- The project successfully rolled out MES simultaneously in various process units. The implementation team managed the entire setup to meet the global and industry standards besides meeting the audit and compliance requirements.
- The Digital Manufacturing and other hosted services from this setup are scalable enough to facilitate other upcoming companies, as and when required.

Impact:

- Cost Reduction in Server procurement from 40 servers to 5 servers.
- Cost Reduction in Server Maintenance and Administration
- Fewer Resources for Server Administration.
- Energy saved in terms of power to server and the required cooling.
- Rack space saved due to reduced numbers of servers.
- Scalable attained with the flexibility of further expansions.
- The project meets the governance norms of MVML IT Policies and M&M's Corporate guidelines
- Structured and centralized operational flexibility.
- Meeting new project requirement.
- Meeting global security practices without compromising standards (projects / operations).
- Ease of upgrade and apply patch management
- High Availability with no downtime.
- Monitoring of server round the clock using single console.
- Generating MIS report related to uptime for all the servers.
- Quick implementation of resource as per new requirement.
- Resolution of problems in less time.
- As servers are on virtual mode, there is no AMC or maintenance cost.

About the company:

Mahindra Vehicle Manufacturers Ltd. is a 100 percent subsidiary of the Mahindra and Mahindra Group, a \$14.4 billion multinational group with more than 144,000 employees in over 100 countries across the globe with operations spanning across 17 different industries. MVML has a manufacturing facility located in Chakan - Pune; it produces automotive products in the Heavy and Light Commercial vehicles, SUV's, Pick-up vehicles, four wheeler vehicles for domestic and export business.