

Profile



Maharashtra State Power Generation Co Ltd. (MAHAGENCO) has been incorporated under Indian Companies Act 1956 pursuant to decision of Govt. of Maharashtra to reorganize erstwhile Maharashtra State Electricity Board.

Mahagenco is the Maharashtra State government company working for Electricity generation from Coal, Water & Gas. Before 2005 Maharashtra Government had MSEB (Maharashtra State Electricity Board) who looking for Electricity generation, distribution, & transformation in Maharashtra State. Maharashtra government observed that MSEB had heavy workload & low profit. State Government of Maharashtra made three companies instead of MSEB. These three Companies are:

1. Mahagenco: For electricity generation.
2. Mahadiscom: For electricity distribution.
3. Mahatransco: For electricity transmission.

Challenge

MAHAGENCO needed a Datacenter partner to support SAP implementation, provide reliable services, robust infrastructure and improve productivity while enhancing performance

Solution

Formed partnership making a bodHOST group company its exclusive dedicated server and Datacenter services provider

Business Challenge

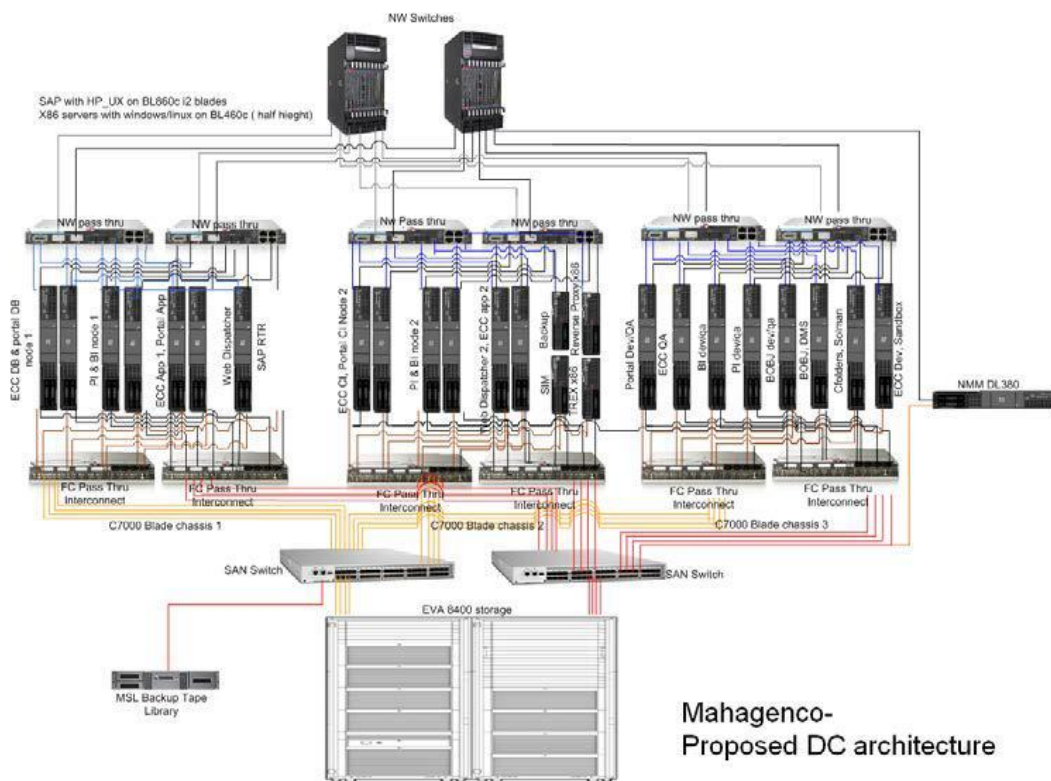
1. To support the SAP implementation initiative, MSPGCL needed to setup a state of the art data centre to create a robust, reliable and secure infrastructure services centre for hosting and managing the SAP ERP application and its constituents. This would also enable all key departments / personnel to function efficiently, effectively and in a productivity enhancing manner.
2. The said infrastructure has been envisaged to enable MSPGCL to deliver services quickly and effectively to its stakeholders, while improving productivity and enhancing performance. The desired infrastructure is to be connected to all power stations and other departments under the purview of MSPGCL.
3. Specifically, through a comprehensive information system, MSPGCL wanted to achieve the following key objectives:
 - a. Ensure that the IT systems are ready for the future competitive environment.
 - b. Ensure that the IT infrastructure in the organization is geared to support high end business critical applications to ensure uninterrupted, reliable, speedy, efficient and robust operations.
 - c. Ensure high level of security and safety of precious organizational data and information to provide sustained competitive advantage.

Solution



1. DC Management Services Provided by a bodHOST group company:

- a. Designed, Built and operating TIER II datacenter for Mahagenco at Mumbai.
- b. Implementation and Configuration of network required for mission critical application should provide high data through put capability, reliability, security and centralized management, we have proposed entire network on Cisco products
- c. A core, Distribution and access layer has been maintained in network infrastructure.
- d. We have carried out Hardware sizing and designed system architecture so that each server will deliver the desired SAPS at 65% server utilization. Refer the below image.



- e. The servers are also in-box upgradeable to next generation CPU, thereby allowing scalability within the same footprint.
- f. The Non-UNIX servers are on BL460c Intel Xeon based blade servers, where each server is with a single processor, and room for 100% scalability of additional CPU and other resources.
- g. NMS – NMMi Software is integrated with Cisco devices via SNMPv3.0 for network monitoring, alarms and Performance Statistics.

2. SAP Integration with HP-UX Virtualization and Service guard:

- a. The SAP ERP infrastructure solution is on BL860/BL870 HP Integrity blades.
- b. Each C7000 chassis has been utilized with redundant network and FC pass through, terminating on

redundant Switches.

- c. All Production, development and QA servers are virtualized using HPVM virtualization technology.
- d. The Cluster nodes like „ECC“, „BI“ and „PORTAL“ have been based on redundant chassis, four redundant network interfaces & redundant 8GBPS FC HBA.
- e. The HP service guard cluster is integrated with SAP Enqueue services. This ensure “no transaction loss” when a server in the cluster fails.
- f. Service guard extension for SAP enabled and integrated with SAP enqueue replication Services. This enables the Instantaneous Redirection, Highly Transparent and Optimal Performance.
- g. EVA 8400 Storage with Dual redundant/active-active storage controllers are configured with 22GB Cache as well with FC disks to achieve optimal performance and load balancing. SAN storage using 120 disks is configured to achieve highest IOPs for SAP systems.
- h. MSL 8048 Tape Library is integrated and configured with HP Data Protector software and subsequently enabled the Policy Based Backups, Online Database Backup on both physical and virtual environments.

Solution Benefits:

1. “No transaction loss” solution with SGeSAP enqueue replication in production.
2. Performance boost with latest Intel Itanium Tukwila processors and HP Integrity blades.
3. Maximum SAP servers are in cluster and are hardware independent.
4. All SAP instances are on Virtual machines to provide hardware independency and failover.
5. No single point of failure for SAP systems.
6. Investment protection:
 - a. Inbox CPU upgrades, current blades will support next generations of CPU’s
 - b. Scalable link interface: The purpose of the Scalable Blade Link is to conjoin multiple blades together to create an 8 CPU socket (8S) maximum ccNUMA system in a bladed environment.
 - c. Blades proposed with DDR3 memory
 - d. Blades with inbuilt 1/10 Gb auto-neg network interface, migrate seamlessly to 10gbps network