ENABLING AN e-AUCTION SYSTEM

THE CHALLENGE

To enhance the existing web-based auction infrastructure to handle more products and commodities as well as the resultant higher volumes while ensuring near continuous availability.

THE SOLUTION

An IBM WebSphere Application Server based online auction portals with work load management (WLM) and clustering to create a scalable, reliable, robust and efficient multi-product auction platform.

KEY BENEFITS

- Robust, high-available IT infrastructure ensuring near continuous availability
- Significant performance enhancements

- Greater flexibility and high scalability

IBM TECHNOLOGIES AT WORK

- IBM WebSphere Application Server
- IBM DB2

- IBM WebSphere Studio Application Developer

About MSTC

A Government of India enterprise, MSTC has two lines of business; a Marketing division which procures industrial raw materials in bulk for its principals from domestic or foreign sources. MSTC focuses on procuring items such as HMS, HR coil, billets, wire rods, LAM coke, coking coal, and naphtha, which e are mainly required by the steel industry in India.

MSTC also provides a marketplace for domestic sellers and buyers to transact business in metal scrap (ferrous/non-ferrous), surplus stores, machineries, obsolete spares, vehicles and plants.

While MSTC has always successfully used the conventional approaches of open tenders and public auctions, it pioneered the use of e-auctions for scrap as early as 2001 and later extended the e-auction facility to coal as well. The stupendous success of the scrap auction site (it saw a 500% increase in turnover in the period 2004-05) impelled MSTC to explore the possibility of shifting more of its physical auction services online and also launch a reverse auction site. In fact, MSTC had already bagged the contract for online coal auctions from Coal India Ltd (CIL) and its subsidiaries.

The Business Need

MSTC's existing successful scrap auction site was built on IBM WebSphere Application Server and IBM DB2 and would have be substantially enhanced to meet MSTC's aggressive growth plans and consequent increase in volumes.

MSTC required a robust infrastructure that would be highly scalable and efficient to meet the demands of a high-growth, competitive market place while ensuring near-continuous availability.

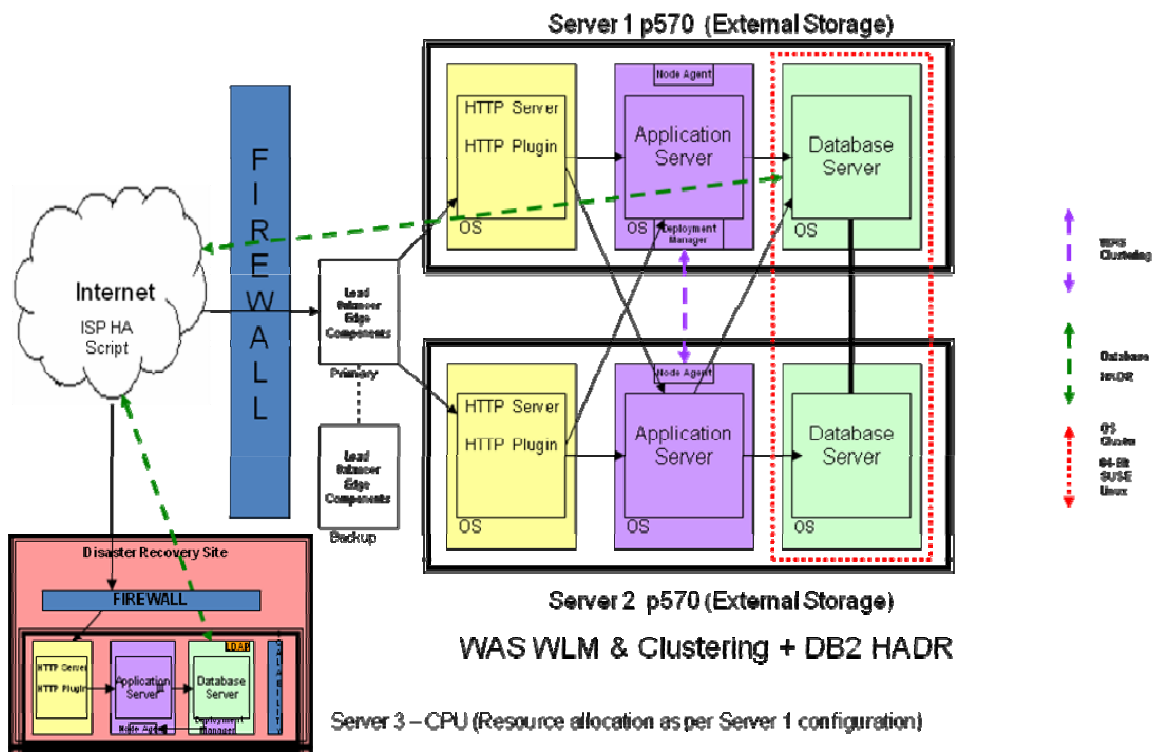MSTC chose IBM to help implement the infrastructure for two reasons:

- IBM provided a complete solution—hardware, software, networking, security and support—backed by a wealth of knowledge and expertise.

- MSTC had already experienced the reliability and efficiency of IBM solution-based e-auction portal.

"We knew we could rely on IBM to help deploy a highly scalable, resilient architecture allowing us to focus on our core business," says **Malay Sengupta, Chairman & Managing Director, MSTC**.

THE SOLUTION

The IBM team designed a comprehensive solution around IBM WebSphere Application Server (IBM WAS) and IBM DB2 that included comprehensive workload management (WLM) in the form of load balancing and clustering to ensure a responsive and efficient auction system capable of superior performance even under heavy workloads.

The IBM WAS created a robust, scalable, highly available platform that would power the auction portals while providing a standards-based secure environment that is a business imperative for an auction site.

Given the rapid pace of anticipated growth and the time sensitive nature of its business, MSTC wanted a solution with in-built redundancy to avoid single-point failure.

IBM used load balancers to ensure that the load was evenly distributed between the two application servers at the primary site in Kolkata while ensuring each server has the ability to handle the entire load should the other fail. In the event of a failure, the third server located at the disaster recovery site in Mumbai would come into play and offer uninterrupted service.

The IBM Edge

In IBM, MSTC found a partner who offered them a complete portfolio of services from business process management to software and hardware solutions backed by extended ITS support. IBM also brought deep domain knowledge and international experience to the table.

With the IBM e-auction solution, MSTC is experiencing:

- A robust, scalable, highly available IT infrastructure
- Significant performance enhancements

- Greater flexibility and high scalability