

Customer success story

## ZSMK: Russian steel giant aligns IT environment with business growth strategy



“Today, we have a cost-effective ERP solution in place that can readily be scaled up in pace with growing needs. And we have an IT Service Management solution that enables us to take proactive control of our growing IT landscape without requiring additional IT staff.”

Elmurod Rasulmuhamedov, CIO,  
ZSMK – West Siberian Iron and Steel Plant





The West Siberian Iron and Steel Plant (ZSMK), one of Russia's leading makers of steel products for the construction and engineering industries, relies on premier IT solutions to support its growing production, distribution and sales operations. From supplier integration right through to production control and logistics, these solutions enable ZSMK to streamline its operations and to extend its reach in the global marketplace while keeping a tab on costs.

## Integrated IT environment under proactive control

ZSMK ranks among the most innovative metallurgical enterprises in Russia. The reliability and availability of production facilities is assured through the extensive use of leading-edge IT solutions. In the course of a complete redesign of the company's IT environment, disparate solutions have been replaced or embedded in a fully integrated IT landscape that is subject to proactive control and effective management from end to end. SAP R/3, HP Integrity Superdome servers and HP OpenView IT management solutions are at the heart of this new environment.

## Standardization for cost reduction

In 2001, ZSMK established an IT Management Board. The mission statement of this board was "to support and optimize the key business processes of the plant by substantially increasing the efficiency of its IT systems." In order to achieve this objective, the IT Management Board developed a strategy for a unified and standardized IT environment.

"The time had come to resolve organizational and technical issues and to consolidate all resources necessary for implementing not only world-class ERP solutions but also automated monitoring systems as well as process control systems and their interaction,"

says Elmurod Rasulmuhamedov, CIO of OAO ZSMK.

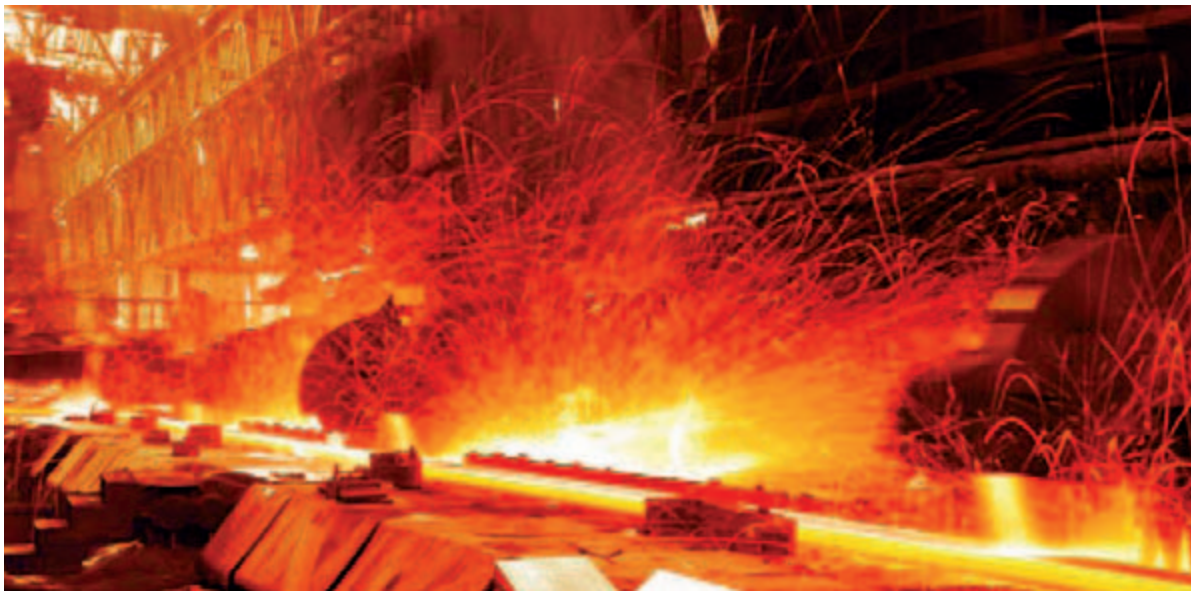
Overall cost reductions achieved by OAO ZSMK through the standardization of its IT environment amount to 14%.

## SAP R/3 for Enterprise Resource Planning

To overcome the limitations of the disparate ERP systems deployed in the various sections of the ZSMK site, the IT organization of ZSMK initiated a project aimed at unifying and integrating the entire IT landscape, aligning the entire business process management environment with the company's requirements. The following objectives were defined for this project:

- Implementation of an SAP R/3 based ERP solution for managing all business processes of the company: materials supply, financing, costs, equipment repair and maintenance, production planning and management, asset management;
- Step-by-step replacement of legacy corporate ERP systems used at the plant;
- Providing the required level of performance, flexibility and scalability with consideration of future hardware and software development.

"The strategic goal of this project was to build a robust ERP solution which would provide ZSMK management with all information necessary for the efficient management of the company. In addition to providing an excellent price/performance ratio and rich functionality, the ERP solution also had to meet a number of technical requirements, such as support of multiple operating systems and exemplary flexibility and scalability, allowing us to further develop the system in the future," notes Elmurod Rasulmuhamedov.



## Customer at a glance:

The West Siberian Iron and Steel Plant (ZSMK), owned by the Evraz Holding group, ranks among the biggest integrated steel facilities in Russia. Its product range includes coke and associated byproducts, blast furnace, steelmaking and rolling operations along with numerous auxiliary departments and services.

Located in Novokuznetsk, ZSMK employs 29,000 staff. In 2004, the total steel production at ZSMK exceeded 5.6 million tons.

ZSMK is focused on long products for the construction and engineering sectors, iron and steel casting, coke byproducts, low hardenability steel wire cord, cold-resistant rebar, and welding wire. ZSMK products are sold in more than thirty countries worldwide. ZSMK steels have earned numerous international certificates and awards, and the steel maker is an acknowledged leader in a range of products.

## Quantum leap in server power and cost effectiveness

An analysis of the current and future requirements to be met by the ZSMK IT infrastructure indicated that server loads as well as data volumes would increase exponentially following the rollout of SAP R/3. Having evaluated offers from the major players in the IT industry, ZSMK selected HP Integrity Superdome servers based on 16 Intel® Itanium® 2 processors.

“The HP Integrity Superdome has enabled us to achieve a number of key objectives. First of all, we now have a server solution in place that provides excellent cost effectiveness, enabling us to increase performance and scale up the system in the future without any large additional investments. Secondly, HP Integrity Superdome supports multiple operating systems, including HP-UX, MS Windows and Linux, enabling us to seamlessly run our SAP ERP solution, process control systems and corporate applications on the same server platform. And we are in an excellent position to prepare for the deployment of mySAP ERP,” says Elmurod Rasulmuhamedov.

For its data storage needs, ZSMK chose the HP StorageWorks Enterprise Virtual Array (EVA) solution.

## Taking control of multiple-site networks

The integration of all IT systems used by ZSMK into a single IT infrastructure required the creation of a scalable corporate network spanning an area of 35 square kilometers. Connecting more than 6,000 desktop computers and 300 servers, the ZSMK network currently includes 200 active network components and fibre-optic lines with a total length of 250 km, set to grow by around 50 km per year. ZSMK has recently begun to use Voice over IP (VoIP) for calls between its Novokuznetsk site and Moscow offices.

“The node maps displayed in HP OpenView Network Node Manager are very helpful. Newly added or re-located nodes show up in the right place on the right map. Most of the network issues we encounter are cabling problems, caused by the high temperatures that are inevitable in a steel mill,” comments Elmurod Rasulmuhamedov.

## IT Service Management for efficiency, cost transparency and accountability

To improve the overall efficiency and cost transparency of its IT services, the IT organization of ZSMK was looking for a comprehensive IT Service Management solution to help it meet the following requirements:

- Reduction of IT infrastructure and operating costs
- Continuous monitoring and tracking of the status of IT resources and production facilities
- Proactive elimination of costly downtimes of IT resources as well as of production facilities
- Robust incident handling capabilities
- Establishment of a responsive and accountable technical support system with a single point-of-contact for all IT service users
- Cost-effective and efficient change management within the IT infrastructure

Following an assessment of a number of leading solutions in the marketplace, ZSMK chose HP OpenView Operations and HP OpenView Service Desk as the key components of its unified IT services support solution. Upon successful completion of a pilot phase, this solution was extended to the monitoring and control of power supply, communication, utility, and process control systems within ZSMK and other companies of the Evraz Holding group.

## HP OpenView solutions used by ZSMK:

- HP OpenView Operations
- HP OpenView Operations Smart Plug-in for SAP
- HP OpenView Service Desk
- HP OpenView Performance Insight
- HP OpenView Network Node Manager

## Other HP technologies used by ZSMK:

- HP Integrity Superdome servers
- HP 9000 series PA-RISC servers
- HP StorageWorks Enterprise Virtual Array (EVA) storage systems

## Challenges

- Creating an efficient management system for ZSMK, spanning all its areas of activity and business processes
- Building a comprehensive IT resource management solution for a metallurgical plant
- Providing the required IT infrastructure performance, flexibility and scalability for changing business needs

## Solution

- Implementation of mySAP ERP on HP Integrity Superdome servers
- HP OpenView Service Desk for ITIL based best practices and HP OpenView Operations for IT resource management
- A premier corporate management system, providing ZSMK executives with all information needed for efficient plant management

## Benefits achieved

- 14% reduction in IT related costs
- Excellent price/performance ratio and the ability to scale up in pace with growing demand
- Reduced number of incidents, greater process stability
- Sustained growth without requiring additional IT staff
- Ability to extend IT services portfolio to other customers

Drawing on the HP IT Service Management (ITSM) model, the IT organization of ZSMK was able to build its own customized IT Service Management system based on ITIL best practices. Located in Moscow, the HP OpenView Service Desk installation of ZSMK provides 24 x 7 service availability with automated alerting. ITIL disciplines deployed to date include Incident, Change, Configuration and Problem Management. Release Management is planned to be added in the near future.

### Preventing costly production outages

Thanks to its comprehensive IT Service Management solution, the IT organization of ZSMK is in an excellent position to manage and control the company's entire IT environment. Its services also help to keep steel production processes running smoothly. For example, in 2003, with the support of HP OpenView Operations and Service Desk, proactive incident handling capabilities enabled ZSMK to prevent two partial steel production shutdowns that would have resulted in considerable financial losses.

Today, the extended scope of services of the IT organization also includes the organization and monitoring of ZSMK's supply chain, generating alerts before the production processes run short of vital supplies such as coal, ore, electric power, or transportation capacity.

### Expanding the IT service business

The IT organization of ZSMK has concluded a number of Service Level Agreements (SLAs) with ZSMK business organizations and with other companies within the Evraz Holding group as well as with external suppliers and service providers.

In March 2005, a new Industry IT Competence Center was opened at the ZSMK plant in Novokuznetsk. The charter of this Center includes participation in industry standard development and the demonstration of hardware and software solutions to prospects in a real-life industrial environment.

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