



## *Optimal communication at Motorola.*

Motorola's Semiconductor Products Sector (SPS) has extended its highly scalable SAP R/3 solution, with a capacity for 30,000 users, and is enjoying greatly improved inventory management and production capabilities with SAP BW. With 25,000 employees, Motorola SPS develops semiconductor and software solutions, ranging from SmartCards to internal cell phones. Its mission is to create a "Connected World" on three technology platforms: Wireless, Broadband and the Internet.

Turning over more than \$7.9 billion dollars per annum, Motorola SPS originally installed its SAP R/3 system to optimize the company's internal business processes and to exploit the benefits of a powerful and fully-integrated ERP solution. When it started its implementation back in 1997, plans were to push the hardware well beyond all limits: it was the biggest ever SAP R/3 solution at the time with its 30,000 planned users. To put this on a traditional UNIX system would have posed some serious problems for Motorola. Greg

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Greg Hartig, Manager of SAP technologies for Motorola SPS

Hartig, Manager of SAP technologies for Motorola SPS, explains, "We wanted any decision to go to multiple SAP systems to be driven by our business needs, not technology limitations. To do a full-blown sector-wide SAP implementation we would have had to add more changes to the UNIX infrastructure." Managing such a large distributed system would have raised issues of scalability, availability, security, disaster recovery, and maintenance costs.

Motorola SPS decided to put full trust in the IBM innovative technology and implemented IBM S/390 Parallel Enterprise Server. A benchmark was run to test the feasibility and the performance of the system to ensure that the requirements could be met – and they were.

<b>Industry</b>	Manufacturing
<b>Application</b>	SAP R/3 mySAP solutions APO and BW
<b>Software</b>	OS/390 AIX Windows NT DB2
<b>Hardware</b>	S/390 RS/6000



Today the SAP implementation on IBM S/390 has matured into the core system at Motorola, already showing all the benefits of a truly integrated solution. Motorola has now moved further ahead into the e-business future by installing new mySAP solutions like Business Information Warehouse (BW) and Advanced Planner and Optimizer (APO).

### **BW on S/390 to master the data**

As the needs of Motorola SPS grew, the company wanted to move some of the reporting capabilities of its original SAP R/3 and internal data warehouse solution onto SAP BW, also running on DB2 and S/390: the upgrade was possible, thanks to the scalability of the original solution. It allowed for increased decision support and better analysis of Motorola's production environment, through the powerful data warehousing capabilities of SAP BW.

Greg Hartig looks back, "Motorola SPS was originally using SAP R/3 for Human Resources and Payroll, running on an S/390 server. We were already highly impressed with the IBM hardware: The Parallel Sysplex lets you link up to 32 servers, which automatically share workload in a continuous and constantly available computing environment. Now that we have added more SAP modules and the SAP BW, we have dramatically increased our ability to plan and build products and are able to provide better customer service, increase efficiency and reduce costs."

One of the primary requirements of Motorola SPS was for its new BW to integrate seamlessly with its existing SAP R/3 system in the most economical way possible. Based largely on the same SAP infrastructure as that previously used by the company, the installation proved extremely cost effective. Greg Hartig illustrates: "The BW solution uses the same database administration components of backup, recovery and day-to-day administration capabilities as the original SAP solution. This has enabled us to achieve significant cost savings, as well as reduce the cycle time required to implement. Moreover, since the solution is so similar to the original, no extra staff training has been required, again minimizing costs for Motorola SPS." A further benefit of using the company's existing infrastructure has been speedier implementation, as

Motorola SPS did not have to spend time setting up a new infrastructure to support the system. The initial BW system was implemented in six months for APO.

### **APO for supply chain optimization**

To have the right things available at the right place at the right time is one of the key objectives of Motorola SPS when it comes to its supply chain. To optimize the planning and organisation of its processes it has now implemented SAP APO running on IBM RS/6000 to better serve its 4,000 customers in the e-business area. Some 60,000 parts and 200 different locations are to be managed. Motorola SPS expects massive inventory reductions through this optimization, as well as the obvious better response for its customers. The complete forecasting will be optimized, allowing for a quick consensus forecast based on MRP runs to offer reliable delivery to partners and customers.

Greg Hartig states: "With APO we can do product and manufacturing planning much more quickly. We will later extend APO to do demand planning and supply network planning, to enjoy improved efficiency in these areas also."

### **High availability**

Along with the improved data integrity offered by the SAP solution, the availability of Motorola SPS' parallel sysplex environment on S/390 also means data is accessible on a more continual basis than on any other platform. This means users can go straight to the information they need 24x7. Greg Hartig points out, "Thanks to the great availability and the excellent performance of the S/390, Motorola SPS has a constant means of enjoying better material management and product planning."

A further benefit of S/390 is its capacity to handle the activities of many users at the same time. Motorola SPS is using several LPARs to run multiple SAP and BW instances simultaneously, so whatever function the users want to carry out, they can do so at once. Greg Hartig comments, "At any one point in time, the new system has 1,000 users logged on. They love using it and many are requesting us to implement more SAP modules, such as MM, PP and SD."

### **With mySAP into the future**

Over the next two to three years, Motorola SPS intends to develop its SAP solution even further. Greg Hartig explains: "In addition, Motorola SPS may implement the SAP CRM module, moving from its existing vendor to make a cohesive solution running entirely on SAP."

At this point in time over 6,000 people use the system. Motorola is still working towards its target of 30,000 users. Greg Hartig concludes: "Motorola SPS chose the IBM/SAP solution because it offered the scalability, availability and reliability Motorola SPS needs to deal with large data capacities. Although it is still early days to effectively measure all the benefits of the new system, we are already experiencing increased speed and efficiency in data handling and expect to see further improvements, such as financial benefits, in the very near future."



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