

## Gruppo FIAT: Massive consolidation, minimal impact

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### Overview

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#### ■ **Business Challenge**

*Italian transportation manufacturing giant Gruppo FIAT needed to streamline and improve the efficiency of its IT operations. The company saw an opportunity to improve performance, manageability and cost-effectiveness by optimizing its IT service delivery model, as well as modernizing and consolidating its massive European IT infrastructure.*

#### ■ **Solution**

*IBM provided expertise, project management and best practices to help FIAT accomplish one of the largest IT migrations ever undertaken in Europe. Over the course of 18 months, more than 90 percent of FIAT's IT infrastructure was consolidated into three state-of-the-art, IBM-run data centers. In order to minimize the impact on the business of this high-risk project, the IBM Application Wave-Based Relocation Approach was used to optimize the migration. In addition, the business relationship under which IBM provides outsourced IT services to FIAT was converted to an on-demand IT service delivery model.*



#### ■ **Key Benefits**

- Improved average system performance by 30 percent
- Decreased the occurrence of Severity 1 incidents by 20 percent
- Met aggressive targets for physical consolidation (2:1), logical consolidation (1.6:1) and standardization (80 percent)
- Accomplished a highly complex and risky migration of unprecedented size on schedule, and with minimal disruption to the business

*“This was an extremely complex enterprise, distinguished by a great effort of all of the resources involved—both from IBM and FIAT.”*

— *Gilberto Ceresa, FIAT CIO*

## Managing the risk of migration on a vast scale

### Business Benefits

- Accomplished a complex and risky migration of unprecedented size—the largest of its kind in Europe—on time, and with minimal disruption
- Improved average system performance by 30 percent and decreased Severity 1 incidents by 20 percent
- Increased available storage capacity by 50 terabytes
- Achieved aggressive targets for physical consolidation (2:1), logical consolidation (1.6:1) and standardization (80 percent), making the IT infrastructure more efficient, responsive and productive
- Improved disaster recovery capability by dispersing assets across three locations in Milan

*“This project was of an enormous magnitude, and particularly complex from the technical and financial point of view.”*

– Aldo Borrione, head of FIAT ICT Services

When one of Europe’s largest corporations decides to undertake a massive business transformation project, the risks are enormous. That’s what was facing Gruppo FIAT, the about 60 billion Euro Italian manufacturer of trucks, automobiles and equipment, when it decided to consolidate and modernize its IT operations. For a company as large as FIAT, the IT infrastructure inevitably consists of a wide variety of computing platforms, thousands of servers, vast amounts of storage and many applications that touch every part of the business. Consolidating and migrating it takes time and many changes, each one of which risks causing service disruption and consequent damage to the company if something goes wrong. The huge scale of FIAT’s IT modernization initiative compounds those risks considerably.

FIAT needed to take this significant step in order to simplify its IT service delivery and make it more reliable and cost-effective. To that end, it was decided to consolidate and refresh FIAT’s entire European IT infrastructure and move to a more logical outsourcing model. With the signing of a new contract in July 2005, planning work started, and the actual migration began late that year. Eighteen months later, in November of 2007, the project was complete; the IBM Worldwide Strategic Outsourcing Group would supply Gruppo FIAT’s IT needs for hosting, customer self-care, governance and management services from three new locations in Milan under a new, on-demand IT service delivery agreement. The IBM team is also developing a global shared services model for e-mail, active directory services and help desk functions.

### Proceeding carefully

The scope of the migration and consolidation effort cannot be overstated. This was one of the largest such projects ever undertaken in Europe, involving the equivalent of a full-time effort from 230 workers at its peak. According to Gilberto Ceresa, FIAT CIO, “This was an extremely complex enterprise, distinguished by a great effort of all of the resources involved—both from IBM and FIAT.”

The project is remarkable for the fact that it was completed on time, on budget and with minimal disruption to the business. Because of the high degree of complexity and risk involved in large-scale IT migrations, it is essential to take precautions in order to ensure successful completion without impacting the business. The IBM and FIAT team accomplished this in part through the methodology used for the project.

The IBM and FIAT team used the IBM Application Wave-Based Relocation Approach, a proven methodology for accomplishing consolidation and relocation with minimal risk. Under this approach, the IT infrastructure is analyzed and “application islands” are identified. These are groups of applications that are interrelated and work together to perform a business function. Starting with non-mission-critical application islands, the migration was accomplished step-by-step. In this way, the methodology could be fine-tuned and tested with less overall risk; by the time it was necessary to migrate and consolidate vital systems, the team had considerable experience.

Scheduling was a challenge. In order to avoid disruption to normal business operations, the team had to look for windows of opportunity during which changes could be made. Essentially, the infrastructure was altered in some way every weekend for 18 months, which meant that the team had to be very careful to avoid causing operational problems. Through rigorous controls and teamwork, all start-up problems have been faced and solved by the team so that the overall project was completed on schedule.

#### **A diverse infrastructure, simplified**

The migration involved literally thousands of assets—a full range of IBM servers and mainframes, including System z®, System p®, System i®, System x™, and IBM TotalStorage® disk and tape units, as well as hardware from other vendors. All of FIAT’s applications were part of the migration, including its extensive SAP application suite—consisting of finance, procurement and resource management and planning, and the industry-specific SAP Automotive solution—along with HR, warehouse, parts management, global dealer management, marketing and production systems. No part of the organization was left unaffected. These systems serve thousands of users at dozens of facilities across Europe and also tie into FIAT’s global operations.

The new infrastructure is far simpler, flexible and capable. In total, some 2,250 servers were consolidated onto 1,562 servers, and FIAT’s 400 terabytes of storage was increased to 450 terabytes. The number of discrete databases was cut from approximately 1,900 to only 500. Over 1,000 network lines and VLANs were reissued, and some 900 people were also physically relocated.

Thanks to the modernization, there has been an average performance gain of 30 percent, with greater reliability and scalability. FIAT can now bring additional capacity online, on demand, enabling it to scale the infrastructure rapidly when it needs to. Severity 1 incidents (the most critical, causing significant disruption) are

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### **Solution Components**

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#### *Hardware*

- IBM System z®, System p®, System i®, System x®
- IBM TotalStorage®

#### *Services*

- IBM Global Business Services—Application Management Services
  - IBM Global Technology Services—Worldwide Strategic Outsourcing
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### **Transformation at a glance**

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In one of the largest projects of its kind ever accomplished in Europe, Italian transportation manufacturing giant Gruppo FIAT migrated, streamlined, modernized and consolidated its entire European IT infrastructure and service delivery model over the course of 18 months. This complex and risky operation was accomplished on time and with minimal disruption to the business, thanks to a highly effective migration methodology and extensive teamwork.

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down by at least 20 percent. Service and change management, along with problem resolution, has also been improved with the institution of updated processes based on the industry-standard IT Information Library and the creation of a new customer service hub based on a customized version of the Remedy help desk tool.

Despite the massive scale of the project and the extraordinary challenges that it posed, all of FIAT's consolidation goals—physical, logical and standardization—were accomplished. FIAT is also better prepared to withstand disasters, due to the geographic dispersal of IT assets across three locations in Milan.

### **World-class competency, available worldwide**

One of the key reasons that FIAT turned to IBM for the project was the availability of IBM global resources. The team included IBM professionals from Italy, the United States, Denmark, Germany, the United Kingdom, Switzerland, Italy, Brazil, the Czech Republic, India and France. FIAT is also considering a similar project for its South American IT operations, located in Brazil. This project will be made possible by the global reach of IBM.

Gruppo FIAT head of ICT Services, Aldo Borriore, highlights the complexity of the project and the value of teamwork in reaching the goal. "This project was of an enormous magnitude, and particularly complex from a technical and financial point of view. In addition, the project closing date was really mandatory, requiring great planning effort and execution precision from all who were involved. Our teamwork certainly played an important role, as the team became ever more bonded, joining people with competencies and backgrounds who worked together to avoid errors that would have serious consequences in a phase that was especially delicate for FIAT."

### **For more information**

To learn more about how IBM can help transform your business, please contact your IBM representative or IBM Business Partner.

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April 2009  
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ODC03080-USEN-01