

**Industry:**  
Telecommunications

**Organization:**  
MCI WorldCom

**Description:**  
MCI WorldCom is a global telecommunications company with revenue of more than \$30 billion and operations in over 65 countries in the Americas, Europe, and the Asia-Pacific regions. The company is the second largest long distance carrier in the U.S. and provides facilities-based and fully integrated local, international, and Internet services.

**Business Problem:**  
In order to keep up with the demands of telecommunications regulations, recent business acquisitions, and changing business requirements, the Mass Markets Order Management Group needed a better way to manage requirements for their mission-critical order processing system. Among the challenges were:

- More than 1,000 new work requests each year
- A large number of requirements coming from many different sources, both within and outside of the organization
- Requirements scattered across many different documents, making it difficult for business analysts, developers, and testers to pinpoint requirements and track progress
- A frustrating lack of structure and consistency in the requirements elicitation, design, and testing process

**Rational Solution:**  
Rational RequisitePro

**Key Benefits:**

- Easy-to-use, centralized tool provides consistency in requirements, cost-effective, and tests across multiple projects
- Customized attribute features improve project understanding and control
- Archiving capability provides historical knowledge for visibility into past projects
- Requirement hierarchy improves testing processes and overall software quality

## MCI WorldCom Uses Rational RequisitePro to Conform to Telecom Industry Regulations

In the race for domination in the competitive telecommunications business, one thing is clear. If you can't quickly adapt to change, you'll soon find yourself at the back of the pack. No one knows this better than Mireille Mallouh, project manager in MCI WorldCom's Mass Markets Order Management Group.

Mallouh must ensure that the telecommunication giant's order processing system complies with federal regulations and evolves readily with changing business requirements.

With every new marketing campaign, business acquisition, or change in an order processing rule, Mallouh and her team are responsible for all requirements gathering and analysis, project management, release planning, architecture development, and user interfaces. Her team leads each of these projects from business analysis to software development and QA, and uses Rational RequisitePro to understand and control requirements for the company's order processing system.

This mission-critical application transfers information between MCI WorldCom and the local exchange carriers (LECs). This includes all revenue-related activities such as new transactions, installs, disconnects, and maintenance, as mandated by telecom industry regulations, such as the Telecommunications Act of 1996. Mallouh asserts, "We can't generate revenue unless we communicate with the LECs."

### Rational RequisitePro Manages Thousands of Requirements from Internal and External Sources

Requirements for MCI WorldCom's order processing system are derived from many different sources, including industry regulations, marketing, maintenance, infrastructure development, and long-term architecture planning. In addition, her group is still in the process of integrating MCI's and WorldCom's unique systems. Consequently, Mallouh and other business analysts on her team receive more than 1,000 work requests each year, and must then translate them into requirements for the new, integrated system.

"The job of our business analysts is to capture all the system's requirements, get any necessary clarifications, and then link these requirements to software changes. Rational RequisitePro has helped us achieve this. By looking at the requirements contained within Rational RequisitePro, we can immediately determine who is involved, the action items, the priority and stability of each requirement, who the sponsor is, how each requirement was tested, where the funding is coming from, and which requirements are mandatory versus just 'nice to have,'" said Mallouh.

"Rational RequisitePro has allowed us to truly understand what the requirements are for each project. And because we can sort on all the requirements and their unique attributes, we've been able to better manage our projects and gain control of the process," she added.

### MCI WorldCom's Development Teams Ensure Requirements Consistency with User-Friendly Rational RequisitePro

MCI WorldCom's business analysts create Project Requirements Documents (PRDs) in Rational RequisitePro and use them for internal review within IT. "Once we know we've captured the impacts of our requirements and have agreed to them, we then present them to our internal customers," said Mallouh.

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## About Rational Software:

Rational Software Corporation (NASDAQ: RATL), the leader in unifying software teams, helps organizations develop and deploy e-business, Web, enterprise-wide, technical, and embedded software through a combination of tools, services, and software engineering best practices. Rational's solution unifies the key members of a software team – including analysts, developers, and testers – and provides unique offerings optimized for each of these roles, thereby improving team and individual productivity. Rational simplifies the process of acquiring, deploying, and supporting a comprehensive development platform, reducing total cost of ownership.

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Prior to Rational RequisitePro, requirements were captured in the group's own project initiation documents, but requirements were impossible to find and manage. "Requirements weren't consistent throughout all of our documents. We needed to centralize our requirements, and we needed a tool that everyone in IT—business analysts, software developers, configuration managers, database managers, and quality assurance engineers—could use."

"We chose Rational RequisitePro because it is a user-friendly tool that is also price-competitive. We looked at DOORS when deciding which tool to purchase, but thought it was too expensive. Because it integrates with Microsoft Word, RequisitePro was easy for all the team leaders to adopt. In addition, Rational® Software's customer service team walked us through the implementation process, and new releases of the software have incorporated our specific needs," Mallouh said.

## MCI WorldCom Links the PRD, SRS, and Test Plan with Rational RequisitePro, Greatly Improving the Quality of Software Testing

By hierarchically linking the PRD, the SRS (Software Requirements Specification) and the test plan, Rational RequisitePro has made MCI WorldCom's requirements management process more effective. "With one resource housing all the software requirements, building a test plan is much more efficient," Mallouh said.

Using Rational RequisitePro, the testers on Mallouh's team have created testing macros that track the input, output, and expected result for each requirement. "The biggest benefit of RequisitePro for us is that team members can go to one source for 90 percent of the testing cases. Prior to

using RequisitePro, testers never knew which document to go to for building the test plan. RequisitePro has helped us to establish a clearinghouse for this critical information," she explained.

"Rational RequisitePro has pulled everyone together on our projects. I like that our business analysts can go online to check the progress of software testing," she added.

## Rational RequisitePro Supports Multiple Projects, Project Archiving and Management Reporting

Rational RequisitePro allows Mallouh's team of business analysts to incorporate multiple PRDs with multiple projects. The software also supports bundling and unbundling of projects.

"We use Rational RequisitePro to archive all of our previous projects, which gives us immediate access and visibility into what has happened in the past," said Mallouh. "In addition, we print management reports from RequisitePro to quickly determine how many requirements we have, which ones are critical, how many requirements are not being met, and what is still outstanding. With limited resources and limited people, it is very important for us to understand what we can and can't deliver."

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