



How CNR Modernized its Payroll Systems

Migrating to an open Linux® environment improves performance and cuts costs with [Rocket® Enterprise Suite](#)



**Consiglio Nazionale
delle Ricerche**

The National Research Council (CNR) is Italy's largest public research body, with 86 institutes. It provides research services and manages approximately 10,000 employees through centralized IT services.



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Silvio Scipioni, Director of the Digital Agenda and Processes Office, **CNR**

CHALLENGE

Overcoming proprietary hardware constraints

CNR faced significant hurdles in maintaining its payroll operations. As Silvio Scipioni, Director of the Digital Agenda and Processes Office, explained, “We were essentially forced to keep up with hardware innovation and the rising cost of licenses, which required a year-over-year increase in management costs.” He added, “Upgrading the system was challenging — not only did it require specific expertise for hardware and software, but improving performance also meant higher expenses due to the licensing model.”

Beyond these financial constraints, resource limitations and an expiring outsourcing contract introduced operational risks. “There was the difficulty of finding new personnel with the correct skills, which made it difficult to keep up with frequent regulatory changes — typical of a payroll application where regulatory updates occur almost every month,” Scipioni said.

CNR needed a more modern, cost-effective platform to safely migrate its mission-critical payroll system — without disrupting its critical monthly paycheck distribution or increasing overall operating costs.

CHALLENGE

Finding skilled personnel to manage frequent regulatory updates while maintaining seamless payroll operations and controlling costs.

SOLUTION

An open infrastructure with Rocket® Enterprise Suite

Rocket Software partnered with modernization partner GFT Technologies to migrate the CNR payroll application to a modern, open infrastructure based on a Linux® operating system. Fabrizio Di Peppo, Head of the Application Modernization Center of Excellence at GFT, highlighted the teamwork: “The collaboration between GFT, Rocket, and CNR was perfect — everyone was extremely aligned in objectives, requirements, and methodology.” GFT utilized Rocket® Enterprise Server platform to emulate the previous hardware environment and ensure a seamless transition. As Di Peppo explained, “We had to interpret and partially adapt an application framework in use since the 1980s, combining GFT’s modernization expertise with Rocket’s tools to ensure a successful transition.”

Because the original operating system was highly specific, GFT built a new automatic JCL converter to transform the system components into a more standard format.

The teams also relied on the Debugger from Rocket Software, which provided an extremely efficient line-by-line debugging process to speed up problem determination.

This collaboration between GFT and Rocket Software delivered a smooth transition, utilizing advanced debugging and automated conversion tools to ensure exact system emulation.



Fabrizio Di Peppo
Application Modernization
CoE Leader
GFT

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PARTNER



GFT Technologies is a global system integration company operating in 20 countries across three continents and employing approximately 12,000 people.

RESULTS

Achieving better performance and scalability

The migration maintained the payroll system's original functionality while delivering a significant boost in performance. "We have certainly achieved a system that works exactly as it did before — which is absolutely positive — but with significantly higher performance, and this is a fundamental factor for us," said Scipioni. "Operations that previously required hours, or in some cases days, now take minutes — generally a maximum time of less than an hour - and this has significantly increased productivity. We are able to complete more activities in faster times."

The migration provided CNR with a cloud-ready architecture, setting them up for future scalability and improved disaster recovery. Scipioni explained, "For the CNR, Rocket Software made it possible to break free from proprietary hardware and move to a cloud architecture. This is fundamental for us because it will soon allow us to implement disaster recovery policies — something we couldn't do before because we were tied to hardware not designed for the cloud — and to have a much more scalable system." The new system also improved data accessibility for surrounding applications by implementing a database with a native ODBC interface.

"Data accessibility has improved because, through Rocket Software, we were able to use a database with a native ODBC interface. This allowed all the applications surrounding the payroll system to access data much more effectively and efficiently," he added.



Two-thirds reduction in software costs

CNR cut their annual software license costs to about one-third of their previous spending.



Over 50% decrease in hardware costs

The new system reduced hardware costs by more than half compared to previous expenditures.



70% boost in developer productivity

Modern DevOps systems enabled developers to increase their productivity by a remarkable 70%.

PRODUCT HIGHLIGHTS

Rocket® Enterprise Suite

Key features

- Seamless migration with exact environment emulation.
- Fast issue resolution using advanced debugging tools.
- Cloud-ready architecture for greater scalability.

At a glance

- Over 50% reduction in software and hardware costs.
- 70% increase in developer productivity.
- Improved scalability and data access.



Modernization. **Without Disruption.**™

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