Open Replication of Databases

Results in Brief

Putting your trust in database management

Databases drive everything from e-commerce and internet search to the critical systems managing our buildings and roads. But can we trust them? New prototypes by European researchers will make all-important data replication easier, helping to prevent the horror scenario - data loss.

DIGITAL ECONOMY

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Database management systems (DBMS) are at the heart of new-generation information systems beating life into on- and off-line activities affecting daily life - what and how we buy things, how we get around, our interaction with one another and with service providers.

But with all this responsibility, databases have sometimes struggled to keep up, and the cost and effort to maintain reliable systems has spiralled. All this means a growing demand for DBMS which help to safeguard our data in the event of a major failure - ranging from the irritating failed attempt to book a holiday to the disastrous crashing of railway routing systems.

The experts call it 'database replication' and it has been tipped as a key technology for the long-term competitiveness of business today. Effective replication is not as simple as just backing up the day's transaction on tape, and it affects the bottom line

of almost all organisations.

The EU-funded 'Open replication of databases' (GORDA) project tackled these issues head on. The team from Finland, France, Portugal, Sweden and Switzerland saw database replication as a way of addressing the challenges of trust, integration, performance, and cost in current database systems underpinning the 'information society'.

According to the partners, 'A major effort has been put in the refinement of a simulation infrastructure for evaluation and benchmarking of both communication and database replication protocols.' This helped implement the publicly available prototypes of the replication protocols and to develop one of the industrial partners' main commercial product, Sequoia.

As for group communication, the consortium proposed the 'GORDA group communication service specification' (GCS) as a draft standard and promoted its dissemination and adoption. The team also delivered a demonstration of a running prototype of several GORDA replicated databases which are available for testing. GORDA welcomes feedback on these, in particular from those interested in future R\;&\;D ties.

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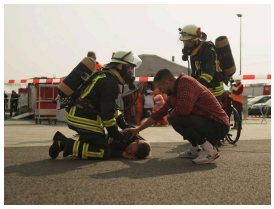

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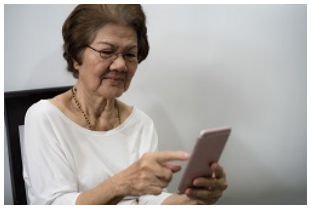

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Project Information

GORDA

open replication of databases

GORDA

Grant agreement ID: 004758

Project closed

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1 October 2004

End date
31 March 2008

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Total cost
€ 1 729 432,00

EU contribution
€ 1 218 643,00

Coordinated by
UNIVERSIDADE DO MINHO
Portugal

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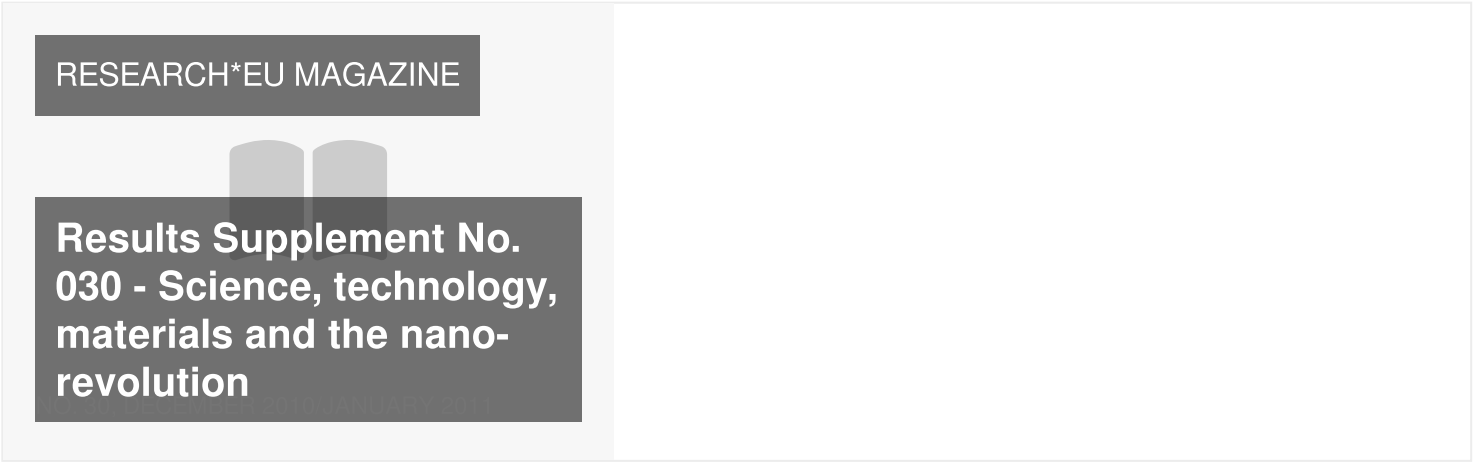

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