

Access to knowledge through the
Grid in a mobile world

Akogrimo



Mobility has become a central aspect of European life. Due to rapid technological and societal changes, there has been an astonishing growth of technologies and services for mobile users. On the other hand, Grid technologies are evolving from a niche market solely addressing high performance computing towards a framework useable within a broad business context. Akogrimo — by leveraging the large base of mobile users — is aiming to radically advance the pervasiveness of Grid computing across Europe.

Akogrimo will bring together the market orientation and pervasiveness of mobile communication technology with the promise of a dynamically concerted use of resources and services provided through Grid infrastructures.

By integrating the widely disjointed worlds of data communication, telecommunication and distributed service architectures, the final **result** of Akogrimo will be a commercial operator-oriented architecture and platform, which supports the deployment of global Grid services.

The **vision** of Akogrimo is accordingly a world in which:

- Grid services, pervasively available, eventually meet the 'everywhere at any time in any context' paradigm;
- Grid services (comprising personalised knowledge and semantics) allow for fixed, nomadic and mobile citizens the formation of complex problem-solving scenarios on an ad-hoc, dynamic, and possibly federated basis in everyday life, in business and science;
- network and service operators are able to develop new business activities and to provide profitable services in such an integrated world, based on Grid and mobile communications concepts.

Approach: Merging Grid service architectures with the underlying mobile network technology requires an iterative approach. Iterations of the framework need one or more non-trivial scenarios capable of validating features and capabilities added to the framework. Therefore, early versions of the framework will be validated through prototypes or by testing a limited set of functionality in 'validation scenarios'. The scenarios and their related requirements will be supported with an IPv6 capable network. Following the framework's evolution, the validation progresses from system component level to the complete demonstrator.

The following scenarios have been identified to date for **validation** of the Akogrimo framework:

- **e-learning:** This scenario will be embedded in the framework of the e-learning domain and the focus will be to build a showcase for new ways of learning made possible by the Akogrimo infrastructure;
- **e-health:** The e-health testbed will explore Grid technology and the mobility paradigm in the healthcare domain;

continued overleaf ▶

Contract number
004293

Type of project
Integrated project

Project coordinator
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Project website
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Maximum Community contribution to project
EUR 7 000 000

Project start date
1 September 2004

Duration
36 months



- **disaster handling and crisis management:** Incidents of various crises or disasters are handled by rescue services and other mission-critical mobile personnel, who have to collaborate within time-critical and dangerous situations, such as large sporting events or concerts, or at special locations, such as airports or railway stations. The Akogrimo Grid infrastructure is envisaged to serve as the collaboration platform

Project partners

Organisation name and country

TELEFONICA INVESTIGACION Y DESARROLLO SA UNIPERSONAL	ES
UNIVERSITAET STUTTGART	DE
UNIVERSIDAD POLITECNICA DE MADRID	ES
ATOS ORIGIN SA	ES
CENTRO DI RICERCA IN MATEMATICA PURA ED APPLICATA – CONSORZIO	IT
BOC INFORMATION TECHNOLOGIES CONSULTING GMBH	AT
INSTITUTO DE TELECOMUNICACOES	PT
COUNCIL FOR THE CENTRAL LABORATORY OF THE RESEARCH COUNCILS	UK
TELENOR COMMUNICATION II AS	NO
INSTITUTE OF COMMUNICATION AND COMPUTER SYSTEMS	EL
DATAMAT S.P.A.	IT
UNIVERSITAET HOHENHEIM	DE
UNIVERSITAET ZUERICH	CH