SPIKE stands for Secure Process-oriented Integrative Service Infrastructure for Networked Enterprises. The goal of the project is to develop a software platform for the easy and fast setup of short-term business alliances. The solution will encompass a semantically enriched service oriented infrastructure with special focus on the security issues involved.

At a glance

**SPIKE**

Project coordinator:
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[http://www.spike-project.eu](http://www.spike-project.eu)

Partners:
addIT Dienstleistungen GmbH & Co KG (Austria)
Citec Information Oy Ab (Finland)
Infineon Technologies IT-Services (Austria)
Intersoft a.s (Slovakia)
IT Inkubator Ostbayern GmbH (Germany)
Technical University of Kosice (Slovakia)
University of Malaga (Spain)

Duration: 36 months
Total cost: 2.826.636 €
Programme: FP7, ICT

Further information:
SPIKE will encompass a semantically enriched service-oriented infrastructure. At the enterprise interface level, SPIKE will follow a collaborative process portal approach. This will also enable integration of legacy systems via tailored portals and connectors. Special focus will be put on security issues. The solution will include an easy-to-administer security infrastructure for the networked enterprise, which will provide security services for service and workflow management.

Why is SPIKE needed?

Europe's enterprises face several challenges in the modern economy. Today business is often performed through a rapidly formed network with anyone, anywhere, anytime regardless of different computer systems and business processes.

SPIKE aims to lower the barriers for Europe's enterprises to participate in the digital economy in a secure way.

Using SPIKE, enterprises of all sizes that want to collaborate with each other will gain new business opportunities with previously inaccessible customers and partnering organisations.

Impact on SMEs

A lack of suitable tools and technologies causes many SMEs to keep their eBusiness on a one-to-one basis. That means a SME usually provides services for only a few large customers. The SMEs are forced to align their processes to serve only theses customers, which makes them very dependent on their client’s success. With SPIKE, SMEs will be able to act more flexible and to faster react on their customers need.

Impact on large companies

Large companies usually consist of many business units and are not flexible enough to cope with rapidly changing conditions. SPIKE will offer a direct benefit to them because they will become able to cooperate with customers,
suppliers and even competitors to jointly design, develop and bring products and services to the market more quickly and at lower costs.

**SPIKE in a nutshell**

The aim of SPIKE is to research and implement a system that will bring flexibility to the collaboration between networked enterprises.

SPIKE targets short-term and loosely coupled business alliances (alliances up to 6 months) and offers services for intra- and inter-domain workflow enactment.

The potential of SPIKE will be shown in pilot deployments and use cases: a collaborative business alliance and two ready-to-use services in the networked enterprise.

**Goals of the project**

SPIKE will develop a software service platform for the easy, fast and secure start-up and management of virtual short-term and project-based business alliances.

The platform will:

- Enable outsourcing of parts of the value chain to business partners
- Simplify collaboration through dynamically created and pre-defined business processes and workflows
- Achieve interoperability and integration between organisations of all sizes
- Offer generic solutions for inter-enterprise interoperability and collaboration through reference scenarios and guidelines for their use
- Have a special focus on security and trust
- Put an emphasis on pragmatism and financial feasibility

The SPIKE base system and the infrastructure of the solution will be made available as open source software, which ensures low initial adoption cost.

The deployment of open standards will reduce the lifecycle costs and provide a better return on investment in the long run. This will open up business opportunities, especially for SMEs.

**Technical building blocks**

SPIKE will follow a semantic process portal approach, capturing the user's working context and transmitting it to all applications in his portal, so it can adapt to the user's current task in a workflow.

SPIKE's main technical building blocks are:

- A semantic service bus for registering, discovering services, as well as service message routing and processing capabilities
- A semantic business process management engine, to handle customized reference processes as well as ad-hoc defined workflows
- A security infrastructure for the networked enterprise in terms of attribute management, authentication, workflow and service access control, and auditing functionality
- A portal server extension for semantic context capturing and communication
- Portal-based interfaces and tools for user-friendly administration of alliances, ad-hoc workflow modelling and process handling, service management and security as well as user administration.

**Project organisation**

The SPIKE project started in January 2008 and will be completed by the end of December 2010.

The SPIKE consortium involves eight academic and user partners from five countries:

The user partners, namely addIT Dienstleistungen GmbH & Co KG (Austria), Citec Information Oy Ab (Finland), Infineon Technologies IT-Services (Austria) and IT Inkubator Ostbayern GmbH (Germany) contribute requirements, scenarios and test cases for the SPIKE platform.

Intersoft a.s (Slovakia), the Technical University of Kosice (Slovakia), the University of Malaga (Spain) and the University of Regensburg (Germany) are responsible for research, specification, implementation and validation of the different components of the SPIKE platform.

**For further information:**

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