

6DEPLOY – IPv6 Deployment and Support



Summary: The purpose of the 6DEPLOY project is to support the deployment of IPv6 in (i) e-Infrastructure environments, (ii) FP7 projects, (iii) developing countries (Africa, Latin America, Asia and Eastern Europe), and (iv) industrial environments in Europe. Partners offer basic training to organisations in Europe and developing countries, and support real IPv6 deployments.

Case studies of installations will be used to gain valuable practical experience which will help the **6DEPLOY team to become the centre of European expertise regarding IPv6 deployment.**

This expertise will be used to support deployments in Europe, in industry branches such as Emergency Services, Health, Broadcast, Transport, (Primary & Secondary) Education, Environment, Gaming, etc.

Objectives: IPv6 will become an integral part of improved multi-disciplinary e-Infrastructures during the timeframe of FP7. Continuing the 6DISS successes, 6DEPLOY aims to encourage the coordination between National and pan-European e-Infrastructure initiatives, by offering its services of IPv6 training and supporting IPv6 deployment.

6DEPLOY will organize workshops on the benefits of IPv6 for e-Infrastructures, and will give practical advice and hands-on support for deploying it in their environments. Several developed regions of the world (e.g. Korea, Japan) have already deployed IPv6 e-Infrastructures more densely than in Europe, and developing regions already recognise the benefit in terms of the availability of addresses, which are no longer available for them with IPv4. Therefore, a majority of the world with which European researchers want to communicate will be based on - or moving to - IPv6 e-Infrastructures. For synergy and efficient international interoperation, more IPv6 deployment in Europe is necessary. 6DEPLOY will work in parallel on deployments in Europe and in developing countries; exchanging experiences and best practices.

Action plan: The *outreach to European industries and researchers* and *giving support for deployments* are the 2 key new services offered by 6DEPLOY. Developing regions (in Europe and abroad) are often the early adopters of IPv6, given that they have less legacy IPv4 networks installed. These test cases will be used to gain valuable practical experience which will be brought back to support deployments within EC e-Infrastructure projects and industrial environments.

We reassert our support for open, bottom-up and consensus-based decision making, but we also call upon the leading senior and expert members of this community to provide strong leadership in the support of a global transition to IPv6.

continued overleaf ➤

Project acronym:

6DEPLOY

Contract n: 223794

Project type: SA

Start date:

March 1st 2008

Duration: 30 months

Total budget:

€1,284,776

Funding from the EC:

€1,000,000

Total funded effort in person-month:

123

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UCL	UK
Soton-ECS	UK
UNINETT	N
AfriNIC	MU
LACNIC	UY
BREN	BG

Keywords:

IPv6, deployment, e-
infrastructures, training

**Collaboration with other
EC funded projects:**

6CHOICE, Global,
GEANT

Support activities: These include the collection and maintenance of material for the training sessions, and the tailoring of programmes in conjunction with the requesting organisation. “Hands-on” IPv6 training courses will be offered to FP7 projects, developing regions (focusing more on *training trainers*, so that the effect of the courses can be multiplied) and European industries. A professional and popular e-learning course is available which will be supplemented with additional topics related to IPv6 and improved with sub-titles in other languages.

A further support activity is the practical on-site assistance for making IPv6 deployments in FP7 projects, the targeted regions (Africa, Latin America, Asia and Eastern Europe) and European industries.

Partners will also give assistance for the development of a strategic plan (“roadmap”) for the deployment and will advise on practical aspects such as equipment ordering specifications, routing plans, etc. An IPv6 Deployment Guide will be maintained, and supplemented with examples of case studies. A less-technical “How to Deploy” guide will also be produced for administrators.



User communities: e-Infrastructures are important for developing new research environments, building upon the ICT capabilities of existing and evolving infrastructures. Since these infrastructures are currently being made IPv6 capable, there is a huge potential benefit to be achieved if users share their deployment experiences. Since the Internet has become the fundamental resource for modern communications, “users” in this respect may be network operators and administrators from both the research community and commercial companies. Sharing the information between such user communities requires the emergence of “communities of practice” comprising commercial users, scientific users and computing and communication technologists. e-Infrastructures foster the emergence of new working methods, based on the shared use of resources across different disciplines and technology domains.

As an e-Infrastructure project, 6DEPLOY supports the further development and evolution of high-capacity and high-performance communication (GÉANT) and grid empowered infrastructures, including the reinforcement of world class distributed supercomputing facilities, data storage and advanced visualisation facilities. This activity aims at fostering the adoption of e-Infrastructures by user communities where appropriate, enhancing their global relevance and increasing the level of trust and confidence from their users.

International aspects: 6DEPLOY includes AfriNIC and LACNIC as partners and has close links to RIPE NCC, APNIC and ARIN. Through these Internet address registries, it will keep aware of IPv6 deployment activities and opportunities worldwide. The developing countries of Africa, Latin America, the Asia-Pacific region and Eastern Europe will likely be some of the first to commit to large-scale IPv6 deployment, and may lead their counterparts in the rest of the world. They will therefore provide excellent Case Studies for the project, which can be fed into industrial environments, in order to ensure success.