

Atelier IPv6

Rabat, Maroc
28 - 30 Mars 2007

Philippe.Bereski@alcatel.fr
Simon.Muyal@renater.fr
Bernard.Tuy@renater.fr



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Planning

- Objectifs de l'atelier
- Ce que vous pouvez en attendre
- Ce que *nous* en attendons
- Planning des 3 journées
- (brève) Introduction au projet 6DISS



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Objectifs de l'Atelier

- Introduire les principaux concepts du protocole IPv6 en soulignant les différences avec IPv4
- Le programme comprend :
 - Les éléments nécessaires à la mise en oeuvre d'IPv6
 - La présentation des mécanismes d'intégration avec IPv4
 - Les stratégies de déploiement
- Configurer et mettre en oeuvre concrètement les équipements
- Reproduire la même chose dans votre environnement de travail et connecter votre campus/entreprise à l'Internet v6



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Ce que vous pouvez attendre de l'Atelier ...

- Disponibilité à 150% des formateurs
- Réaliser vous même la configuration
 - Des machines terminales
 - Des routeurs
- Configurer les services réseaux usuels
- Vérifier que "ça marche" en se connectant à l'Internet v6 ...



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Ce que *nous* attendons de l'Atelier ...

- **Participation active de tous**
 - En posant des questions
 - En réalisant les exercices proposés
 - Saisissez l'occasion de cet atelier pour acquérir une bonne expérience avec IPv6
- **Et aussi ...**
 - Faire part de votre expérience
 - Des problèmes que vous auriez rencontrés
 - Remplir le questionnaire d'évaluation
 - Rester en contact une fois chacun rentré "à la maison" pour être informés des initiatives de déploiement d'IPv6 dans votre région.



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Les "non" objectifs ...

- **Vous former au fonctionnement des réseaux IP**
- **Ou des systèmes d'exploitation des machines**
- **Vous donner les bases de l'administration de réseaux**
- **Ou des services IP usuels (DNS, HTTP, SMTP, ...)**



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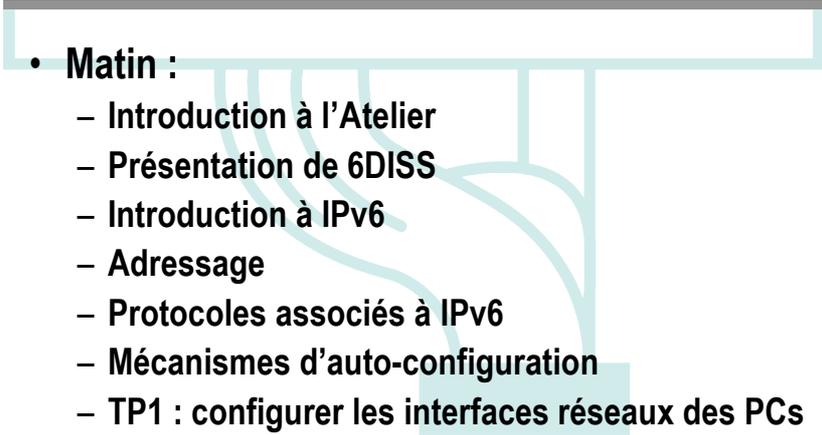


Planning des 3 jours



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Mercredi 28 Mars 2007 /1

- 
- **Matin :**
 - Introduction à l'Atelier
 - Présentation de 6DISS
 - Introduction à IPv6
 - Adressage
 - Protocoles associés à IPv6
 - Mécanismes d'auto-configuration
 - TP1 : configurer les interfaces réseaux des PCs



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Mercredi 28 Mars 2007 /2

- **Après-midi**
 - TP1 (Fin) : configuration des PCs
 - Analyse des datagrammes NDP ...
 - Mécanismes d'intégration avec IPv4
 - Présentation de la topologie (locale et distante)
 - Réseau local
 - Plateforme de tests de Paris
 - TP2 : configuration des interfaces des routeurs (distants et locaux)



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Jeudi 29 Mars 2007

- **Matin**
 - Protocoles de routage IPv6
 - TP3: configuration IGP et EGP
- **Après-midi**
 - DNS, Applications IPv6
 - Security for IPv6 networks
 - TP4 : Applications & DNS



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Vendredi 30 Mars 2007

- **Matin**
 - TP5: Sécurité
 - Administration des réseaux IPv6
- **Après-midi**
 - TP6: administration de réseaux IPv6
 - Questionnaires
 - Debriefing

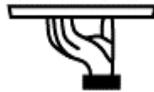


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<http://www.6diss.org>



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Programme

1	Objectives and Approach
2	Key Data
3	The 6DISS Toolkit
4	World Tour Programme
5	Conclusion



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Objectives

To transfer knowledge on IPv6 deployment and operation to NRENs, Universities, commercial organisations, ISPs, Governments and Regulators in :

- Southern Africa & Sub-Saharan Africa
- SE Europe
- Mediterranean Countries
- South America, Central America & Caribbean
- Asia Pacific Region
- Newly-Independent States in Central Asia
- India & China



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Objectives

- To raise awareness of IPv6
- To work with communities and organisations in the regions
- To exchange best practices
- To try and integrate the organisations into future European projects



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Approach

To take the knowledge gained and the documented results from the EU project *6net* IET: <http://www.6net.org> and Euro6IX: <http://www.euro6ix.org>



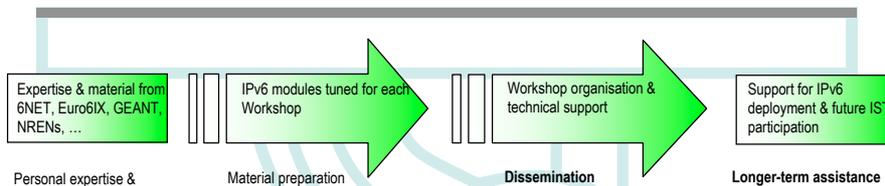
... and build a new (smaller) project, focused on sharing the experience in a practical way



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Approach



At least 8 workshops will be given to disseminate information on:

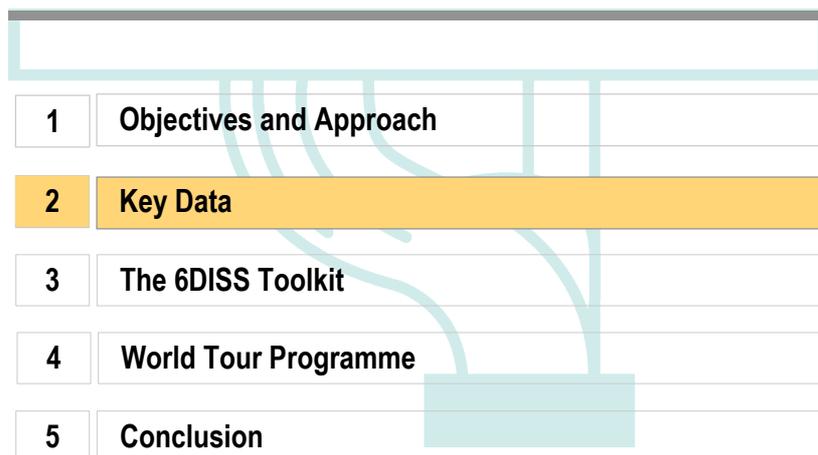
- . IPv6 Addressing and Routing
- . IPv6 deployment and migration strategies
- . Making network services ready for IPv6 : DNS, DHCP, HTTPd, SMTP, ...
- . IPv6-enabled applications
- . Monitoring and management tools
- . Multicast, Security, QoS, Renumbering, Mobility ...



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Programme



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Key Data

• 10 Partners:

 Martel

 CISCO

 Hungarnet

 UCL

 FCCN
Federação para a Computação Científica Nacional

 Renater

 University of Southampton

 GRZMET
ΕΔΕΤ

 ALCATEL

 TERENA
TRANS EUROPEAN RESEARCH AND EDUCATION NETWORK

- Start date: 1st April 2005
- End date: 30th September 2007



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The 6DISS Toolkit

- **Workshops**
 - (slideware + access to remote labs)
- **E-learning package**
- **Training the Trainers manual and courses**
- **Tiger Team** (helpdesk@6diss.org)
- **Website**



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6DISS Toolkit – “Slideware”

- **400 slides inherited from the G6 Group and RENATER**
- **6DISS partners then:**
 - harmonised the style
 - reviewed the content
 - added new topics/modules (provided by partners)
 - split them into 20 modules
 - More convenient to handle and update
 - Easier to build up a workshop programme selecting the appropriate modules.
- **Each module has an owner, responsible for the updates**
- **Modules continue to be added or expanded (eg. lab exercises, deployment scenarios, applications, ...)**



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6DISS Toolkit – “Slideware”

Module Topic	Module Topic
6DISS presentation	IPv6 DNS
IPv6 Introduction	IPv6 Routing protocols
IPv6 Protocol	RPSLNg
IPv6 Addressing	IPv6 Security
IPv6 Addressing case studies	IPv6 Mobility
IPv6 Associated protocols	IPv6 - IPv4 Co-existence
IPv6 Network Management	Deployment scenarios
IPv6 Multicast	IPv6 Applications
M6Bone	Equipment configuration
IPv6 Autoconfiguration	IPv6 QoS

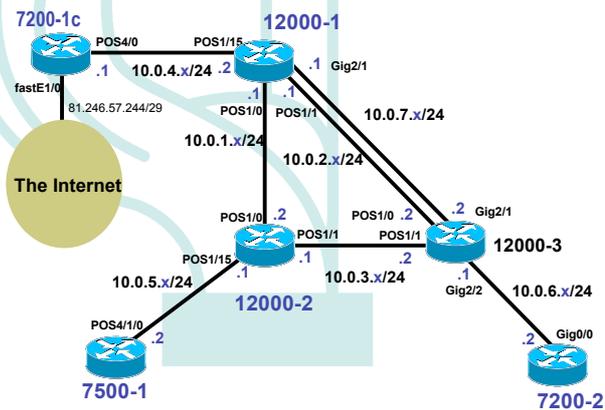
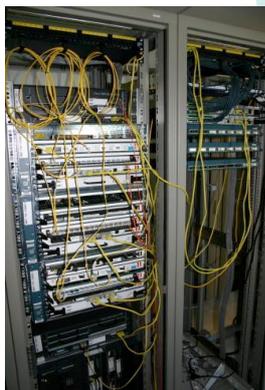


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6DISS Toolkit – Access to remote labs

Brussels lab

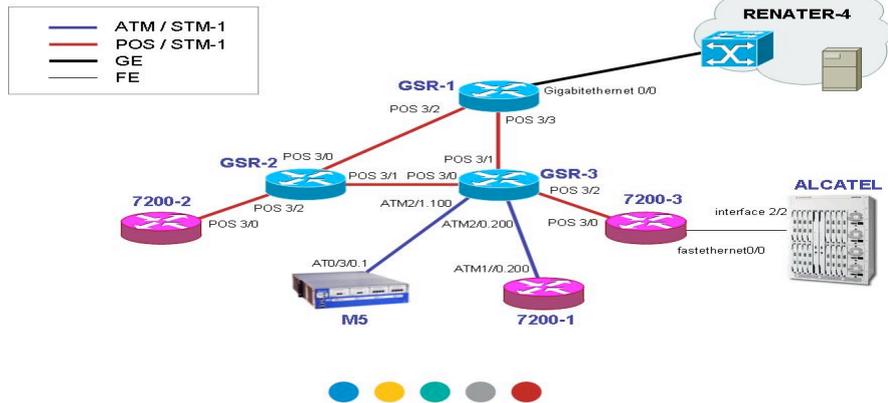


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6DISS Toolkit – Access to remote labs

Paris lab



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6DISS Toolkit – Reserving the labs

Lab booking and usage procedures...

- <http://www.6diss.org/labs>
- labs@6diss.org



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http://www.renater.fr/article.php3?id_article=190 - Microsoft Internet Explorer

Le Réseau National de télécommunications pour la Technologie l'Enseignement et la Recherche

Accueil du site > Projets > Projets de recherche > 6DISS

RENATER Testbed availability

Testbed is already booked for the following dates and events :

Dates:	Events:
September 12th - 24th 2005	CIREN IP multicast tutorial
December 14th - December 27th 2005	NOC-RENATER / tests COS
January 16th - January 20th 2006	6DISS meeting
January 23rd - January 27th 2006	NOC-RENATER / tests COS
January 30th - February 3rd 2006	6DISS review
February 6th - February 10th 2006	NOC-RENATER / tests COS
February 13th - February 20th 2006	EUMEDCONNECT multicast training
February 20th - February 23rd 2006	NOC-RENATER / tests COS
February 24th - March 5th 2006	6DISS workshop - South east Europe
March 6th - March 8th 2006	RENATER multicast workshop
March 9th - March 24th 2006	NOC-RENATER / tests COS
March 25th - April 7th 2006	6DISS workshop - EUMEDCONNECT
June 5th - June 14th 2006	CIREN BGP tutorial

6DISS Toolkit – E-learning package

Available from anywhere (accessible via <http://www.6diss.org/e-learning>)

Attractive content

- well-balanced combination of audio, graphical and animation components

Effectiveness is ensured through:

- an integrated instructional design, including a modular structure
- interactivity
- individual learning flexibility
- subtitles (so far, only in Portuguese)

The e-learning package is used:

- as a "teaser" for the workshops
- for assessing the suitability of participants for the workshops
- for training the trainers



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6DISS Toolkit – Training other Trainers

Goal

- Prepare other / potential trainers to build IPv6 workshops and courses
- Increase / multiply the number of occurrences for IPv6 trainings around the globe

Audience

- Engineers, teachers, professors, ... in charge of the education of technical teams, students, ...

Means

- (re)use all available material prepared and validated by 6DISS partners
- Slides sets, remote labs, e-learning, ...

Content

- Guidelines regarding the fundamentals of teaching
- Guidelines on how to organize and run a workshop about IPv6
- Information on all the 6DISS material and services available
- Practical exercises on using 6DISS slide modules
- Remote labs presentation and configuration



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6DISS Toolkit – Tiger Team

The “Tiger Team” is a channel to experts (within or outside the project). It operates via a *help desk* service (helpdesk@6diss.org), concerning aspects such as:

- state-of-the-art, eg:
 - IPv6 IETF RFCs that are released or still in progress
 - IPv6 deployments
 - IPv6 applications
- how to configure equipment
- hardware and software requirements and releases
- transition scenarios
- management and monitoring tools
- applications



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6DISS Toolkit – Website

At <http://www.6diss.org>, you can find:

- All the presentations that have been made at the workshops and in conferences, reports from the workshops, deliverables, press releases, news, etc.
- A calendar of upcoming events especially related to IPv6, and the upcoming 6DISS workshops
- The link to the e-learning package
- Links to related sites

Workshop hosts can also download the information they need regarding the organisational details.



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World Tour Programme

Workshops held so far:

- Asia-Pacific Region: Taipei, Taiwan (IPv6 Summit, 08/2005)
- Southern Africa: Port Elizabeth (TENET IPv6 workshop, 09/2005)
- S-E Europe: Serbia/Montenegro (03/2006)
- Mediterranean Countries: Malta (04/2006)
- South & Central America: Ecuador (07/2006)
- Sub-Saharan Africa: Senegal (10/2006)
- Guadeloupe, France (03/2007)



"Hands-on" practical sessions supported at:

- Afrinic-3, AfriNIC-4, AFNIC FFTI, ...

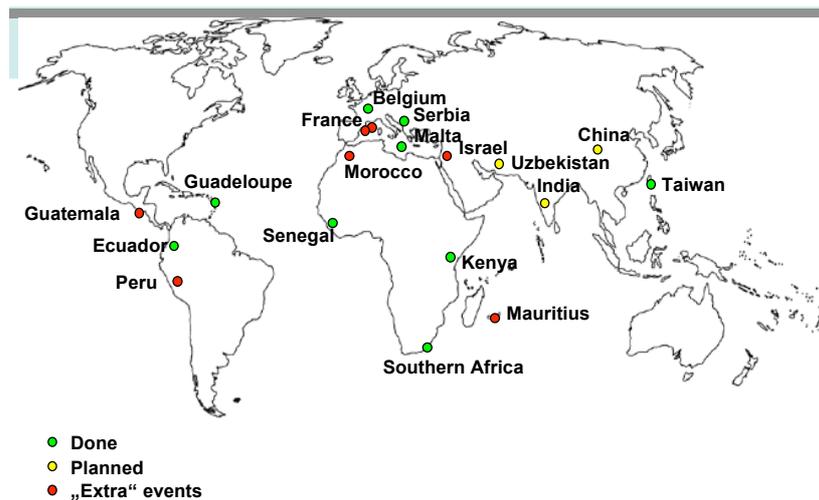
"IPv6 Trainers' session" in Belgium (10/2006)



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World Tour Programme



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Conclusions

6DISS aims to:

- Assist regions with less IPv6 experience to deploy the latest technology in the most efficient manner
- Build contacts to organisations in these regions to support and enable their subsequent participation in projects within the EU ICT Programme
- Make European research and industrial concerns aware of the highly skilled personnel who can contribute to the urgently needed improvement of ICT infrastructures



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Conclusions

The 6DISS project is achieving its objectives well, but we know that there are lots of other related initiatives.

Cooperation, sharing information, ... is a must

So, if you are planning an event that includes IPv6 information dissemination, training, etc., do not hesitate to get in a touch with us.

Contact us through our Website (www.6diss.org), or send a mail to helpdesk@6diss.org

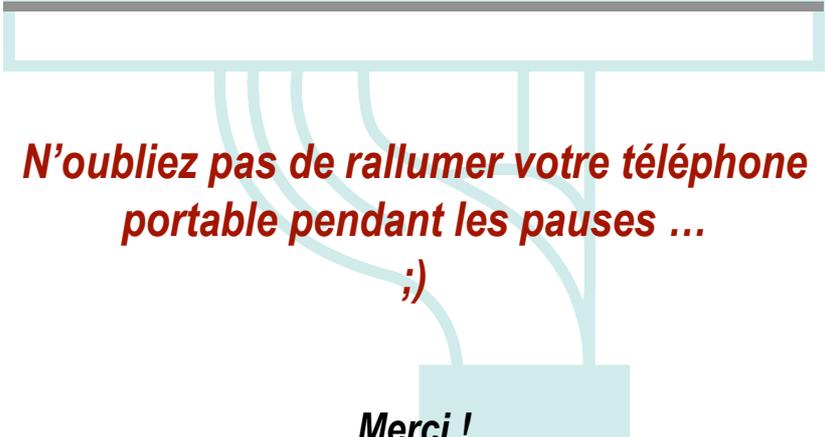


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Questions ?



N'oubliez pas de rallumer votre téléphone portable pendant les pauses ... ;)

Merci !

