

IPv6 workshop

Gosier, La Guadeloupe
March 5-9 2007

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- *Looking for a contact ?*
 - *Mail to : martin.potts@martel-consulting.ch*
 - *Or bernard.tuy@renater.fr*



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Agenda

- Workshop objectives
- What you can expect
- What we expect
- The 6DISS project and resources
- Session organisation



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Workshop objectives

- Introduce IPv6 concepts and differences to IPv4
 - Coverage includes:
 - Basic protocol operation
 - Core services
 - IPv6 routing –Deployment – getting up and running
- Give you hands-on (Cisco, Vista, Linux) experience
- Allow you to go home and get IPv6-connected!



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What can you expect ?

- **150% availability of the tutors team**
 - Answering your questions
 - Helping you to achieve **all** the exercises
 - Helping you to find (a) solution to problem(s) you might report
- **Get in touch for further offline questions**
- ...



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What we expect ...

- **Take the chance to gain a strong experience with IPv6 configuration (hands on)**
- **Ask questions at any time**
 - Don't leave the room with an unanswered question or a partially achieved exercise
- **Provide us with your experience and your needs to go ahead in IPv6 deployment**
- **Remain in contact afterwards ... and be informed of all the initiatives related to IPv6 in your region**
- **Fill in the feedback questionnaire ...to help us getting better ;)**



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Non goals ...

- Operating systems and IP(v4) networks operation
- Network management and monitoring basics
- IP “classical” service protocols (DNS, HTTP, SMTP, ...)



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Session programme



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Session Programme /1

Monday, March 5th 2007		
13:45	Welcome	Tutor(s)
14:00	Opening session and training objectives 6DISS presentation	Bernard
14:30	IPv6 basics : protocol, addressing Case study	Stig Simon
15:30	Break	
15:45	Associated protocols	Stig
16:15	LABs presentation LAB-1: Enabling IPv6 on hosts & routers	Simon
17:30	End of Day #1	



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Session Programme /2

Tuesday, March 6th 2006		
10:30	Autoconfiguration protocols for IPv6	SM
11:00	LAB-2: Packets analysis (*S, *A)	SV
12:15	End of Day #2	



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Session Programme /3

Wednesday, March 7th 2007		
10:30	Routing protocols for IPv6	Bernard
11:00	LAB-3: IGP & EGP configuration	Simon
12:15	Lunch break	
13:45	LAB-3: cont'd	Simon
14:30	DNS for IPv6	Bernard
15:00	IPv6 Applications	Stig
15:30	Break	
15:45	LAB-4: DNS & applications configuration	Stig
17:00	Managing IPv6 networks	Simon
17:30	End of day #3	



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Session Programme /4

Thursday, March 8th 2007		
08:30	LAB-5: Management tools installation & configuration	Simon
09:30	Feedback questionnaire	All
10:15	Debriefing	Tutors
10:30	End of IPv6 training	



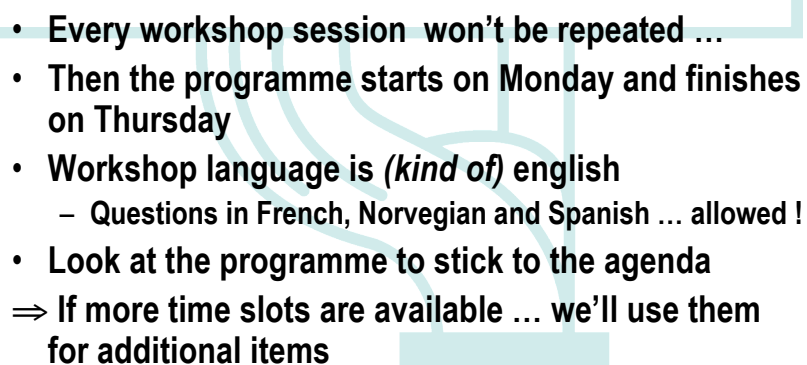
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How the session will be run & organized



- 
- Every workshop session won't be repeated ...
 - Then the programme starts on Monday and finishes on Thursday
 - Workshop language is *(kind of)* english
 - Questions in French, Norwegian and Spanish ... allowed !
 - Look at the programme to stick to the agenda
- ⇒ If more time slots are available ... we'll use them for additional items





**Don't forget
to switch your cellphone
back on during the breaks ;)**

Thank you !



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Questions ?



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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 projects 6NET:

6net

<http://www.6net.org> and

Euro6IX: <http://www.euro6ix.org>



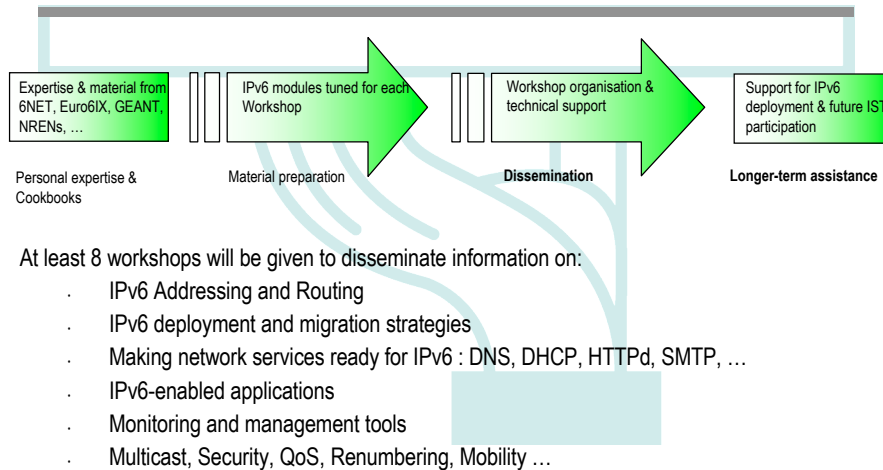
... and build a new (smaller) project, focused on sharing the experience in a practical way



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Approach



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Key Data

- 10 Partners:

Martel

CISCO

Hungarnet

UCL

FCCN
Fundação para a Computação Científica Nacional

Renater



University
of Southampton

GRZEE
EΔET

ALCATEL



- 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

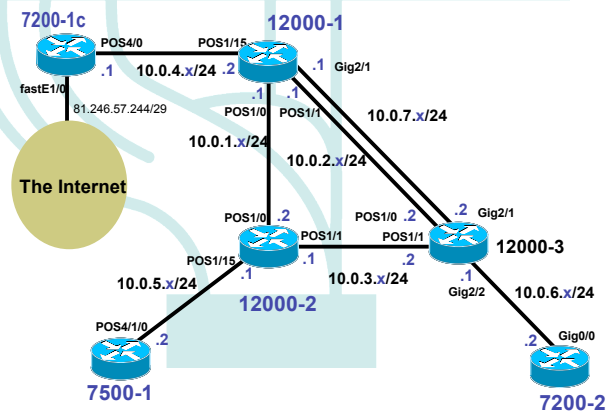
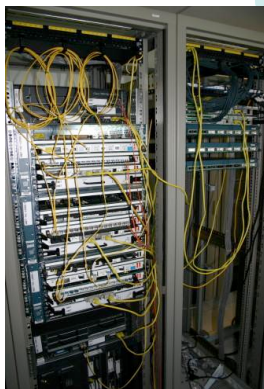


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6DISS Toolkit – Access to remote labs

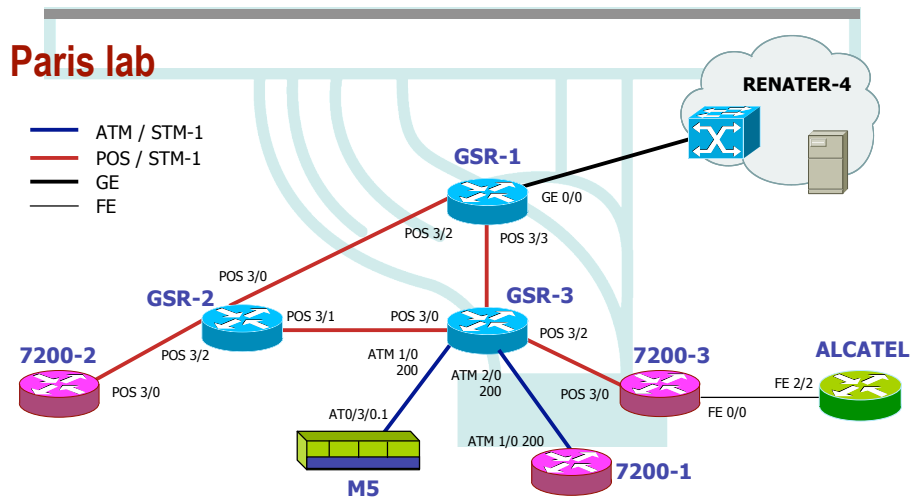
Brussels lab



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6DISS Toolkit – Access to remote labs



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6DISS Toolkit – Reserving the labs

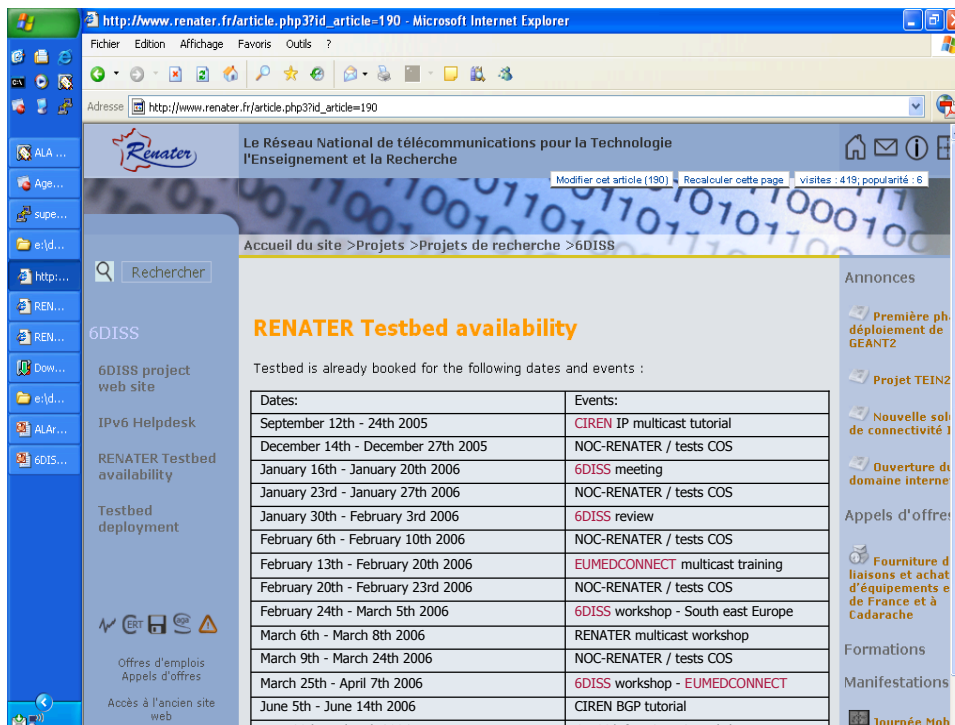
Lab booking and usage procedures...

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



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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)



"Hands-on" practical sessions supported at:

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



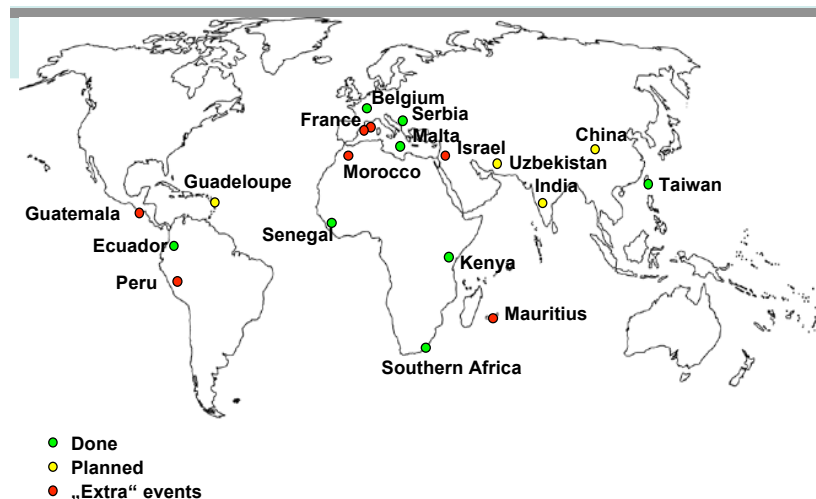
"IPv6 Trainers' session" in Belgium (10/2006)



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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 ?



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