IPv6 workshop

Malta April 4-6 2006

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 - Or bernard.tuy@renater.fr



Agenda

- Workshop objectives
- What you can expect
- What we expect
- 6DISS project and resources
- How the session will be run and organized



Workshop objectives

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



What you can expect

- Day#1 (April 4th)
 - IPv6 basics
 - "Transition" mechanism basics
 - Enabling IPv6 on hosts and local routers
 - Applications
 - DNS
 - Web
 - => LAB



AGENDA

- Day#2 (April 5th)
 - Routing
 - "Debriefing" => General discussion
 - Security
 - => LAB



AGENDA

- Day#3 (April 6th)
 - Managing IPv6 networks
 - \Rightarrow LAB
 - Debriefing : feedback questionnaire



IPv6 TFs meeting

- Meeting for the TFs
- Friday, April 7th 2006
- From 10:00 am to 1:00 pm
- Place: same as today
- Who can attend?
 - All people involved in national / regional TFs
 - In charge of IPv6 deployment, strategies, scenarios ...



What we expect ...

- Provide us with your experience and your needs to go ahead in IPv6 deployment
- Ask ("good") questions at any time
- Take the chance to gain a solid experience in the lab sessions (hands on)
- Remain in contact afterwards ... and be informed of all the initiatives related to IPv6 in your region
- Fill in the feedback questionnaire ...



6DISS: IPv6 Dissemination & Exploitation



Agenda

- Introduction
- Key Data
- Objectives
- Technical Approach
- "World Tour Progamme"
- Conclusion



Introduction

- **6Net** is over ...
- A lot of experiences have been gained during the 3,5 year-project
- and documentation produced
 - Should you have any technical question related to IPv6 ... look at http://www.6net.org
- A new project (smaller) has been set up to share the experience on a practical basis



Key Data

Partners: 10

- Martel (project leader)
- Vendors
 - Cisco, Alcatel
- NRENs
 - RENATER, GRNET, FCCN, NIIF/HUNGARNET
- TERENA
- Universities
 - University College London (UCL)
 - University of Southampton (Soton)

Duration:

1st April 2005, for 30 months

EC Funding



Objectives (1)

To transfer knowledge and deployment experiences from European IPv6 projects (6NET, Euro6IX, GEANT), TERENA, European NRENs, etc. to research network operators, universities, commercial organisations, governments and regulators in:

- . Balkan countries (inc. Bulgaria, Romania, Moldova & Turkey)
- . Mediterranean countries
- . Newly-Independent States (Central Asia, including Afghanistan)
- . Sub-Saharan Africa
- . Southern Africa
- . The **Caribbean**
- . **Asia-Pacific** region
- South and Central America

and will exchange information with such organisations in India & China



Objectives (2)

- To build constituencies,
- raise awareness,
- exchange best practices,
- and engage the organisations in future IST projects.



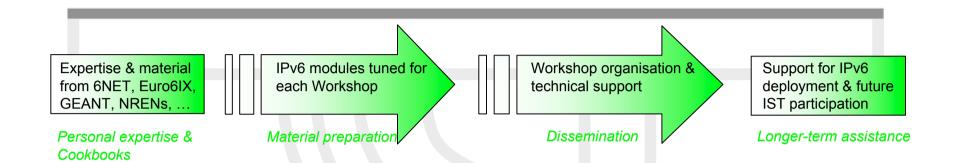
Technical Approach: Workshops

To organise 8 workshops to disseminate the information on:

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



Technical Approach: Workshops / 2



8 Workshops (1 per Region):

Balkan countries
Mediterranean, Sub-Saharan Africa & Caribbean
Newly-Independent States
South & Central America
Southern Africa
Southern Asia

plus exchange of best practices and deployment examples at events in India and China

GRNET RENATER UCL TERENA/FCCN Cisco, FCCN Uni SOTON

Uni SOTON, Martel



Technical Approaches / 3

To complement the Workshops:

- IPv6 tutorial material is under preparation
 - for beginners
 - to "train the trainers"
 - e-learning for remote self-teaching
- IPv6 permanent Labs will be available (hands-on)
 - at Cisco in Brussels
 - at Renater's in Paris
- An IPv6 "Tiger Team"
 - available 24/7 to
 - answer any question related to IPv6 deployment & operation
 - help people willing to start
 - email to : helpdesk@6diss.org



Potential Impact

- To assist less-developed regions to deploy the latest technology in the most efficient manner
- To build contacts to organisations in these regions to support and enable their subsequent participation in projects within the IST Programme
- To increase opportunities for EU manufacturers to open new
 or enhance existing markets in these developing regions
- To make European research and industrial concerns aware of the highly skilled personnel who can contribute to the urgently needed improvement of ICT infrastructures



Expected Results

- 8 Workshops organised with relevant training material
- A number of trained persons
- Improvement of the knowledge base in the regions
- Increased participation to IPv6 Fora, IPv6 Task Forces, RIR meetings
- An assessment of Internet connectivity in the regions



"world tour programme"

- Done so far
 - IPv6 summit, Taipei, TW (08/2005)
 - TENET IPv6 workshop, Port Elizabeth, ZA (09/2005)
 - Afrinic-3, Cairo, EG (12/2005)
 - S-E Europe, Serbia/Montenegro (03/2006)
- Running
 - EUMEDconnect, Malta (04/2006)
- Already planned
 - Latin America, Ecuador (Q1/2006)



Conclusion

- 6DISS project will achieve part of the work
- There is room for lots of other initiatives
- Cooperation, sharing info, ... is a must
- If you're planning an event with a bit of IPv6 info, training, ...
 - Don't hesitate to be in a touch with us
- Contact: <u>6diss@6diss.org</u>



How the session will be run & organized



- Discussion (Day#2) + Cases studies on Day#3
 - Be prepared to present
 - Your network topology
 - Your plan to deploy IPv6
 - Your questions / issues
- Workshop language is (kind of) english
- Gifts ... at the end of every day (only)



Questions?



Don't forget to switch back on your cell phone at the end of every time slot;)

Thank you!

