"IPv6 for innovative government and public services"

The transition from IPv4 to IPv6

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The transition from IPv4 to IPv6

- All Internet stakeholders must now take definitive action to deploy IPv6 being given that the available IPv4 address space is slipping away.
- The adoption of IPv6 is now of paramount importance, since it will allow
  - the Internet to continue its amazing growth and
  - foster global innovation, after all the future of the Internet is ours to choose.
- IPv6 has the capacity to expand the available address space on the Internet enormously,
  - using 128 bits instead of the 32 bits of IPv4 as well as having the capability to provide better QoS.

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- In addition IPv6 is designed to promote
  - higher flexibility,
  - better functionality and
  - enhanced security & mobility support.
- Because of these advantages, the service providers generally should be inclined to migrate to this newer version of Internet technology.

- Moreover, after years of promoting IPv6 equipment, vendors have also started to produce hardware
  - which can handle "Native IPv6" routing.
- Cisco/Linksys, NetGear, Belkin, etc are finally stepping up to meet the needs of consumers.
- Mobile phone vendors and applications providers for iPhone, Android, and Windows are being forced to produce IPv6-ready products.
- The tools are finally starting to become available.

The transition from IPv4 to IPv6;

Questions may arising:

- Should the regulator play a regulatory role in the transition from IPv4 to IPv6 for the country or do you think the industry has the capability handle it on its own?
- If yes, what are the regulatory steps and policy initiatives that you believe are required?
- Which transition mechanism/strategy do you consider is best suited for migration from IPv4 to IPv6?
- Do you consider that the allocation of permanent IP addresses to a broadband user is a must or not?
- Do you believe that the present mandate of the regulator regarding numbering administration is by extension applicable to IPv6?
- Do you find or have you ever encountered any problem with the existing system of IP address allocation in Greece?
- If yes, is there a need to create a neutral entity to handle IP address allocation at the national level?
- Are ISPs presently involved in any experimentation programme with IPv6 in an effort to move towards commercial IPv6 based services?
- Any other issue/ comments pertaining to transition to IPv6 in Greece that you may wish to flag out.

IoT and the transition from IPv4 to IPv6

- For making a transition from IPv4 to IPv6, ISPs have to upgrade their networks, provide training to their system administrators and related staff and also have to conduct trial on their network before commercially deploying IPv6.
- This may involve certain amount of capital and operational cost.
- Presently ISPs in different countries are reluctant to invest in transition to IPv6 as
  - they are not finding any compelling business case and feel that deploying a dual stack IPv4-IPv6 infrastructure,
  - which is required for smooth transition and coexistence of IPv4 & IPv6,
  - will increase the costs initially till IPv6 based operation becomes streamlined and financially viable.
- One major objective is to get a clear indication of the status of the transition process of the Greek ISPs.

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- There are no deadlines for mandatory transition by the Regulator side
- It leads to self-regulation procedures
- Due to the economy and the status of the market in nowadays, this can not lead to mandatory transition
- It is foreseen that the market in its current development withstand for at least 2 years more.
- Companies moving into temporary solutions to address the problem.

The transition from IPv4 to IPv6

- Developing reference specifications and transition guides
- Developing IPv6 capabilities
- Engaging stakeholders
- Establishing an IPv6 Marketplace
- Setting up IPv6 industry exemplars

IoT and the transition from IPv4 to IPv6

- In my opinion in the next two years, EETT the regulator should launch a consultation on the internet of things (IoT), seeking to explore how the Greece can invest and innovate in the connected world.

- The consultation should proceed in policy areas relating to the IoT, such as
  - management and allocation of radio spectrum usage;
  - resilience and network capacity;
  - the transition from IPv4 to IPv6;
  - data privacy and regulation and even, potentially, managing phone numbers.

- The regulator wants to understand if it should adopt a more proactive role to begin with, and if the industry considers there are any new areas of policy where it may need to take a role.

- Such areas, it suggested, could include potential barriers to the successful and useful exploitation of big data to benefit Greece citizens and businesses.

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Thank you!

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