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I. GENERAL PROVISIONS

Ministry of the Presidency

Order PRE/1716/2011, of 9th June, publishing the Council of Ministers Agreement of 29th April 2011, which approves the Development Plan for the Deployment of the IPv6 Protocol in Spain

The Council of Ministers meeting on 29th April 2011, at the proposal of the Third Vice-President and Minister for Territorial Policy and Public Administration and the Minister of Industry, Trade and Tourism, approved an Agreement for the Development Plan for the Deployment of the IPv6 Protocol in Spain.

For general knowledge, its publication is available as an appendix to this order.

Madrid, 9th June 2011 – Minister of the Presidency, Ramón Jáuregui Atondo

APPENDIX

Council of Ministers Agreement approving the Development Plan for the Deployment of the IPv6 Protocol in Spain

The information and communication technologies, particularly Internet, are becoming more and more widespread in our society, leading to the transformation of economic processes and social activities and forming what is called the Information or Knowledge Society. They are therefore a cornerstone for the modernization of our Public Administrations and the relationship model between these and citizens.

IP addresses represent the identification system that enables the different devices connected to the Internet to communicate with each other. IP addresses play a similar role on the Internet to that of telephone numbers in the traditional telephone service, allowing information to be exchanged between two or more points on the network.

Version 4 of the Internet Protocol (IPv4) has been used since 1981, offering around 4,295 million unique Internet addresses worldwide. This number of addresses was initially considered to be sufficient to cover all foreseeable Internet development needs.

However, these initial previsions were clearly lacking due to the tremendous growth of the Internet. Therefore, in 1998, the next version of the Internet Protocol, version 6 or IPv6, was developed, which extends the length of the IP address from 32 to 128 bits, so that the new IPv6 Protocol increases IP addressing space from 2 to 128, or in other words, 340.282.366.920.938.463.463.374.607.431.768.211.456 addresses.

The Internet deployment of the new IPv6 protocol which considerably increases the availability of IP addresses with a new format is an important global technological evolution, affecting all countries.

The new IPv6 addressing space satisfies the significant demand for addressing services such as Mobile Internet or the “Internet of Things”, in which the numerous and large variety of devices will be identified, managed and able to communicate with each other thanks to the IPv6 Protocol.

Therefore, the IPv6 Protocol introduces new functions and improvements to the networks and services that make up the Internet in areas such as security, stability, flexibility in the introduction of extensions, service quality, ease of network processing, mobility or network management.

In short, the IPv6 Protocol will put an end to the current addressing limitations of the devices on the Internet and will introduce enhancements which will enable the development of new services that will further promote the adoption of the Information Society, in general, and eGovernment, in particular.

As far as the practical deployment of the new IPv6 protocol is concerned, it must be pointed out that it is being implemented within a context of technical coexistence with the IPv4 protocol, which will be maintained for several years. In particular, the adoption of the appropriate technical transition mechanisms by operators and service providers will enable Internet users to continue enjoying their habitual and continued use of the Internet. These transition mechanisms allow the IPv4 and IPv6 protocols to coexist on the same network, whether IPv6 is present in native form or vice-versa, so that IPv6 can be used on a network infrastructure that operates by means of the IPv4 Protocol.

On the other hand, it is just as important to incorporate the new IPv6 addresses in the Domain Name System (DNS), so as to carry out the technical translation from the Internet domain name to the IPv6 address. This function for IPv6 addresses is carried out by AAAA (quad-A) records.

In the deployment of the new IPv6 protocol, there is a wide variety of actors worldwide that must act in order to ensure the success of this process. Therefore, Internet service and contents providers, communication equipment manufacturers, software suppliers or Internet access providers need to adapt their services to the IPv6 Protocol.

Within a global context, from the point of view of the development of technical standards, the role of the IETF (Internet Engineering Task Force) must be highlighted, which developed the specifications of the IPv6 Protocol in 1998, with the aim of tackling the shortage of IP addresses. The IETF has also developed technical standards to manage the coexistence of the IPv4 and IPv6 protocols on the networks.

In turn, the International Telecommunication Union has also been active in terms of IPv6 highlighting its Resolution 180 in October 2010, in which it called for the promotion of IPv6 and the deployment of IPv6 in the Public Administrations.

In the European field, the deployment of IPv6 has received a political boost through the European Digital Agenda and the European eGovernment Action Plan 2011-2015, establishing that the Member States must make their e-government services fully interoperable, overcoming organizational, technical or semantic barriers and supporting IPv6.

On the other hand, the Declaration of the European Union Council of Ministers for Telecommunications on 29th September 2010 is also worthy of mention, in which it stresses the need for the effective and timely deployment of IPv6 in the public sector, as well as promoting IPv6 integration and deployment measures in the private sector.

The conclusions of the Council of Ministers for Transport, Telecommunications and Energy of 3rd December 2010 follow the same lines, whereby they seek to join forces in the adoption of the "Internet of the future" as a catalyst of innovation and competitiveness, highlighting the importance of the integration of the IPv6 Protocol.

By virtue of the aforementioned, bearing in mind that ICANN (Internet Corporation for Assigned Names and Numbers) had fully assigned the global repository of IPv4 addresses in February 2011 and it is expected that all available IPv4 addresses in several of the different worldwide regions will be fully assigned throughout the year, the need to implement the Development Plan for the Deployment of the IPv6 Internet Protocol in Spain has been recognised.

This Plan will provide didactic information about the new IPv6 Internet protocol, develop training actions in relation to the aforementioned protocol and encourage interested agents to make the necessary technological changes for the effective deployment of this new Internet protocol. The Plan came about with the aim of promoting the benefits and opportunities offered by the evolution of the information and communication technologies, fostering the development of new services, ensuring the right of access to Internet for society and keeping Spain at the forefront in the deployment of the new technologies related to the knowledge society.

At the joint proposal of the Third Vice-President and Minister of Territorial Policy and Public Administration and the Minister of Industry, Trade and Tourism, the Council of Ministers, at its meeting on 29th April 2011, agreed to:

Approve the Development Plan for the Deployment of the IPv6 Internet Protocol in Spain, promoting the development of the information society, the deployment of new services and fostering technological innovation in Spain, under the terms set out below.

The Development Plan for the Deployment of the IPv6 Internet Protocol in Spain will be promoted by the Ministry of Industry, Trade and Tourism in general and in aspects related to the integration of the IPv6 Protocol in the Public Administrations, by the Ministry for Territorial Policy and Public Administration.

The aforementioned Development initially includes the following ten measures:

1. Incorporation of the IPv6 Protocol in the Internet services of the Ministry of Industry, Trade and Tourism. Initially, the IPv6 protocol shall be integrated on the http://www.ipv6.es portal and, later in the following contents and applications:

http://www.mityc.es.

https://sede.mityc.gob.es.

http://www.planavanza.es.

http://www.bandaancha.es.

http://www.televisiondigital.es.

http://www.usuariosteleco.es.

http://www.facturae.es.

http://www.emplazamientoatc.es.

http://www.lssi.es.

http://www.premiosprincipefelipe.es.

The IPv6 protocol will also be deployed on the 060 portal (www.060.es) offered by the Ministry for Territorial Policy and Public Administration. This will serve to obtain practical and real experience of the technical implications of the deployment of the new protocol in the General State Administration, and will serve as a reference for the deployment of the IPv6 Protocol in the other departments and bodies of the General State Administration. Its competences include the monitoring of this project which is the responsibility of the Permanent Commission of the Higher Council for eGovernment.

2. The Ministry of Industry, Trade and Tourism will offer the general public a specific Internet Portal about the IPv6 protocol under the domain name www.ipv6.es, which will contain explanatory and didactic information about IPv6 as well as relevant news from organizations in relation to IPv6 in the international field (European Commission, IETF, IANA, etc.). Likewise, the Ministry for Territorial Policy and Public Administration's eGovernment Portal (www.administracionlectronica.gob.es) will offer information on the IPv6 deployment process in the Public Administrations.

3. The Ministry of Industry, Trade and Tourism will organize theory-practical Workshops on the technical aspects of IPv6, free of charge throughout the state, covering all Self-Governing Regions. The Avanza 2 Plan contemplates subsidies for IPv6 training actions for ICT professionals in Small and Medium Sized Companies.

4. The Ministry of Industry, Trade and Tourism will foster public-private cooperation in raising awareness and training actions related to the IPv6 protocol. Priority will initially be given to establishing cooperation with associations or other types of business groups that carry out actions to raise awareness of the IPv6 Protocol.

5. The framework of the Avanza 2 Plan contemplates awarding subsidies to projects developed by the private sector aimed at the deployment of the IPv6 Internet Protocol on networks and services, considering that this new Internet Protocol provides the necessary bases for the deployment of the so-called “Internet of Things” and, in turn, for the development of new services and applications with a potentially positive impact on the sustainable growth models and the efficient management of the use of energy.

6. The Ministry of Industry, Trade and Tourism will ensure the full operation of the IPv6 Protocol in the domain name system under the “.es” territorial code, via the public business entity, Red.es.

7. The Ministry of Industry, Trade and Tourism will set up a “Working Group for the deployment of the IPv6 Protocol”, whose objective will be to contribute to the coordination of actions to monitor the evolution de IPv6 in Spain, acting as a forum for the exchange of related information. The Working Group will bring together business associations that are representative of the information technologies sector and users associations, without detriment to the inclusion of other interested agents.

8. The Ministry for Territorial Policy and Public Administration will promote the deployment of the IPv6 Protocol in the Public Administrations through the associations responsible for eGovernment. In particular, it will launch studies to provide the Public Administrations with IPv6 addressing, update the Administration’s addressing and network connection plan and the Interoperability Technical Standards and include the necessary measures, which are currently being drawn up, for the incorporation of the IPv6 Protocol in the SARA network in the General State Administration’s eGovernment Action Plan 2011-15. Similarly, training actions will be defined for those responsible for the Administration’s Internet services.

9. The Ministry for Territorial Policy and Public Administration will promote the incorporation of IPv6 as a requirement in the public acquisition of information and communication technology products and services, preferably using international standards and recommendations as a reference.

10. Given the global nature of the technological evolution of Internet, the Ministries of Industry, Trade and Tourism and Territorial Policy and Public Administration shall be responsible for the monitoring and coordination of European and international events related to the introduction of IPv6.