

## PRESS RELEASE

### 6-Plug, the 1<sup>st</sup> world-wide IPv6 automation system

**Madrid, January 16, 2004** – Consulintel, a leading Spanish SME, announces the availability of the 1<sup>st</sup> worldwide service for automation and remote control, based on IPv6.

Up until now, home automation systems, and in general remote control, monitoring and surveillance, have not been wide-spread mainly due to the fact that they have required expensive leased lines or direct dial-in to the system to be controlled.

Even with today's Internet, there are a number of difficulties, which do not allow straightforward solutions for such systems. The difficulties basically revolve around end-to-end security and addressability.

IPv6, the new version of the Internet Protocol, overcomes these difficulties by allowing every individual device to have its own IP address. As a consequence of IPv6, any device can be directly addressed and therefore contacted, in a secure way, by the 6-Plug system.

The patent-pending 6-Plug system provides the means for a new offering of worldwide services, which enable users, even when travelling, to stay connected with an unlimited number of devices, and be able to administer and manage any alarm situation that the devices may detect.

One immediate example of the system capabilities concerns home automation. With the system, the user is able to control, monitor and manage elements such as blinds, lights, heaters/air-conditioning, valves, cameras, thermostats, fire/smoke/gas/water detectors, intrusion detectors, pet-car appliances and effectively any other appliance, both locally and remotely.

The 6-Plug system provides the capability to enable IPv6 on existing devices connected by means of any of a wide number of different technologies already available, such as X10, EIBus, Batibus, PLC, Ethernet, RF, WiFi, and RS-232/422/485.

Even if IPv6 connectivity is not directly available, the 6-Plug service uses transition mechanisms, for example IPv6 in IPv4 tunnels, to establish a secure communication between the user and the devices to be controlled. Consequently, the system to be managed only requires regular broadband access.

The 6-Plug system can be installed in existing personal computers, but will also be available as a stand-alone unit, which will nevertheless provide IPv6 connectivity to the complete network to which it is connected.

The user of the system needs only install a web-based application in any kind of terminal (PC, laptop, PDA, etc.). The user application will also soon be available for Java-enabled cellular phones.

The 6-Plug system is completely modular and configurable, and can be customised according to each user's specific needs. The provision of the system is targeted mainly to system integrators, utilities, building constructors, security and service providers. It provides a completely new way to generate revenues and customer satisfaction, opening the door to new business.

The 6-Plug system is the first commercial result of the Research and Development work of Consulintel in several IPv6 related projects, co-funded by the IST programme of the European Commission, which include

6POWER and Euro6IX, and is being demonstrated for the first time as part of the Eurov6 showcase during the Global IPv6 Service Launch event, 15-16<sup>th</sup> of January, in Brussels.

## **BACKGROUND**

In February 2002, the European Commission adopted the Communication entitled 'IPv6: Priorities for Action'<sup>1</sup>. The Communication called for a European action plan to accelerate the rollout of Internet Protocol version 6 (IPv6) - a key technology for the Next Generation Internet. The current generation of the Internet does not have sufficient 'Internet addresses' for the long-term future of the global Information Society. IPv6 provides a huge increase in the number of Internet addresses available.

## **ABOUT IPv6**

IPv6 is an upgrade to the data networking protocols that power the Internet. The Internet Engineering Task Force (IETF) developed the basic specifications during the 1990s after a competitive design phase used to select the best overall solution. The primary motivation for the design and deployment of IPv6 is to expand the available 'address space' of the Internet, thereby enabling billions of new devices (PDAs, cellular phones, appliances, etc.), new users (countries like China, India, etc.), and new, 'always-on' technologies (xDSL, cable, Ethernet-to-the-home, fibre-to-the-home, PLC, etc.).

While the existing protocol, IPv4, has a 32-bit address space that provides for a theoretical  $2^{32}$  (approximately 4 billion) unique globally addressable hosts, IPv6 has a 128-bit address space that can uniquely address  $2^{128}$  (about 340 sexillion<sup>2</sup>) hosts. In practice, the number of global IPv4 addresses that can be used is far less, due to inefficiencies in their allocation and use. IPv4 simply cannot support an Internet scaling to many billions of globally connected hosts. Network Address Translation (NAT) has extended IPv4's life in conjunction with private IPv4 addresses. However, NAT complicates application deployment and, more importantly, cannot support new Internet growth areas including those 'always-on' and 'peer-to-peer' services that require connections be established to devices in home networks.

## **ABOUT CONSULINTEL**

Consulintel, one of the founder members of the IPv6 Forum and a leading company in networking and telecommunications technologies, including integration of systems, consultancy, and maintenance/support services.

Consulintel is also member of the European and Spanish IPv6 Task Forces, and participates in a number of R&D activities related to IPv6, both in Europe and worldwide.

Consulintel provides leading technologies and solutions for any kind of networking area and specific solutions to Telcos, financial institutions, ISPs, Internet, e-commerce, among others.

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<sup>1</sup> [http://europa.eu.int/eur-lex/en/com/cnc/2002/com2002\\_0096en01.pdf](http://europa.eu.int/eur-lex/en/com/cnc/2002/com2002_0096en01.pdf)

<sup>2</sup> Actually 340,282,366,920,938,463,463,374,607,431,768,211,456 addresses.