

## IPv6 is a necessary and structure-delivering change for enterprises

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A good 10 years ago, researchers and computer & Internet specialists announced that the day would come when there would not be enough IP addresses to go round. At the time, few enterprises were willing to listen. But with the incredible growth of the Internet and the fact that an increasing number of devices have an IP address, it turns out they were right: if we decide to keep the same IPv4 on which the Internet currently rests, we may, in the next three or four years, simply run out of IP addresses. In short, an enterprise will no longer be able to install new servers, deploy new Internet/Intranet/Extranet sites, or develop communication tools. Happily, such a catastrophe will not occur as engineers across the world have worked to develop a new protocol, IPv6, whose standard was adopted in 1998 and which is gradually being deployed. IPv6 is both revolutionary and at the same time very conventional in its design.

Revolutionary since it provides a very large number of new IP addresses, which should keep us going for about another 10 years if the specialists are to be believed. And also let us integrate the billions of communicating devices that tomorrow will be part of our everyday life.

For although today the Internet is still synonymous with computer or mobile phone, very soon our entire personal environment will be connected to the web, exchanging information: your car, home heating system, fridge - which will draw up lists of products to be replenished - without mentioning home health monitoring systems. But IPv6 is also very conventional in its workmanship as it has included and above all improved all the «patches» added over the years to IPv4. Many IP contributors have also seized on the opportunity to add new functionalities that render IPv6 more robust, efficient and secure. For once in the high-tech sector - and this is sufficiently rare to warrant mention - we therefore have a ready-for-use technology recognized as a necessity by the entire computing community, truly more efficient than its previous version and whose promotion has not been driven by marketing considerations.

But let's be careful to keep our feet on the ground: installing IPv6 is not a painless operation for an enterprise. Like all infrastructure technology, IPv6 is complex to install and integrate. For IT departments it constitutes a huge change that cannot be implemented without upstream in-depth preparation and downstream staff training. Certain enterprises are still hesitating and back-pedaling in the face of the technological difficulties or economic constraints.

But although their reserves are legitimate, they must understand that it is better to engage in a gentle transition today than be forced into a sudden transition tomorrow. Particularly given that all is now in place for the switch to be conducted in an optimal manner. Acutely aware that sudden technological changes often end in failure, thousands of IPv6 designers had the intelligence to create a new protocol that can be used alongside the old IP in the same infrastructure. This dual mode, which runs the two protocols in parallel, aims to facilitate transition to the better of the two systems, and allow for rapid adoption by enterprises. For their part, suppliers and integrators are ready to help organizations make the switch. They have all the know-how required to efficiently help their customers make this structural change.

Enterprises should not let this opportunity pass them by. If they want to continue to exist on the Internet, and therefore to exist economically, they should immediately begin the process of switching to IPv6 for this is not a constraint but is a fantastic opportunity to grow, offer customers new services and enter new markets (mobility, home automation, e-health, etc.), in short, be more competitive and more productive. Today, more than ever, IPv6 is a necessary and structure-delivering change for enterprises.

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Founded in 2004, BSO Network Solutions is the leading Next Generation Operator providing Network services, Hosting and Integration. With its rapid growth, BSO Network Solutions is already serves 15 countries (Germany, Australia, Belgium, Brazil, Canada, Dubai, Spain, USA, France, UK, Hong-Kong, Italy, Netherland, Russia et Switzerland) and has offices in Paris, London, Ireland and Hong Kong. BSO Network Solutions administers and operates its own Nx10Gbit/s network which has been crafted to be compatible with future 100Gbit/s interfaces. Thanks to a range of very high added value services and to comprehensive facilities management and validation offerings, BSO Network Solutions provides its customers with guidance and assistance from the most upstream phases of their projects, in terms of advice and expertise, to the most downstream, including the daily administration, upgrading and adaptation of their infrastructure. All its services are covered by extremely robust Service Level Agreements (SLA) tailor-made to match each problem addressed.