



**Internet Society of Australia**  
**A Chapter of the Internet Society**  
ABN 36 076 406 801  
**PO Box 152, Civic Square ACT 2608**

## ***MEDIA RELEASE***

### ***Internet Society Statement on IPv4 Depletion***

**The Internet Society of Australia marks the final allocation of IPv4 addresses to the Regional Internet Registries, who, in turn, now hold fewer than 5% of the world's IP addresses. This is the wake up call for enterprises to stop holding off on migration to IPv6 without which our move to a digital economy incorporating the Internet of Things will stall. Without more IP addresses, no more devices can be connected to the Internet.**

"Australia's international competitiveness will depend heavily on how quickly implementation of IPv6 can be arranged throughout the community, including government and business", said Tony Hill, President of the Internet Society - Australia, Chair of the Australian IPv6 Summit and the Asia Pacific IPv6 Task Force. "The Australian Government already has an implementation strategy that will see almost all services available on IPv6 by the end of 2012. This lead should be followed by the rest of the Australian ICT community".

ISOC-AU will be spearheading the Australian participation in World IPv6 Day to be held 8 June 2011. "We hope the Australian government and enterprises will be major sources of IPv6 content and services continuing to showcase the continuing contribution Australia makes to the Internet.

ISOC-AU is a non-profit society founded in 1996, which promotes the Internet development in Australia for the whole community. ISOC-AU is a chapter of the worldwide Internet Society and is a peak body organisation, representing the interests of Internet users in Australia.

ISOC-AU's fundamental belief is that the Internet is for everyone. We provide broad-based representation of the Australian Internet community both nationally and internationally from a user perspective and a sound technical base. We have a longstanding and ongoing commitment to the effective representation of these interests in the telecommunications, domain name and Internet-related services industries.

**Media contact:**

**Tony Hill**

**President, ISOC-AU**

**0412 128 755**

**[President@isoc-au.org.au](mailto:President@isoc-au.org.au)**

**Narelle Clark**

**Vice President, ISOC-AU**

**0412 297 043**

**Member ISOC Board of Trustees**  
**[Vice-President@isoc-au.org.au](mailto:Vice-President@isoc-au.org.au)**  
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*The Internet Is For Everyone*  
<http://www.isoc-au.org.au>

## **Internet Society Statement on IPv4 Depletion**

*Leslie Daigle, Internet Society Chief Internet Technology Officer*

The Internet Assigned Numbers Authority has just announced the long-expected final allocation of IPv4 addresses to the Regional Internet Registries. This begins the final chapter in the history of IPv4, as each of the five regions of the world have their final blocks of addresses to allocate for use in new network developments. Different regions will themselves run out of IPv4 addresses at different times, after which the only new IP addresses available for Internet growth will be IPv6. The current IPv4-based network will, of course, continue to function as usual, but future growth is constrained by the limited remaining availability of unused IPv4 addresses.

The amazing growth and development of the Internet over the past four decades is a testament to the success of the approach taken to managing IPv4 addresses. As a prime example of the Internet Model, IP addresses are managed through a distributed, multi-stakeholder approach. This enables coordination of key global Internet resources and permissionless innovation by Internet users today, and will continue to do so in the future.

As the next stage of the Internet's ongoing evolution begins, Internet Society applauds the efforts of early adopters and promoters of IPv6. Major Internet content providers have made their websites IPv6 accessible. Network providers around the world already have implemented, trialed, or announced IPv6 deployment plans. Governments have laid out plans with near-term timelines for adopting IPv6 for their own Internet-connected networks and services. A more complete list of the significant steps already taken to implement IPv6 is available at: <http://www.internetsociety.org/ipv6adoption>

Each of these adopters have recognized the fundamental key to the Internet's success – the unification of networks through global addressing – and have stepped up to deploy IPv6. This momentum must be continued to ensure the Internet does not become balkanized, disadvantage new entrants to the market, or leave markets, people and online content unreachable in ways entirely inconsistent with the Internet service upon which we have become dependent.

But more remains to be done. We hope the milestone announced today sparks other

organizations to plan for and deploy IPv6 as part of a strategy to ensure they are connected to a growing future Internet that is as dynamic and vibrant as today's.

As part of its work to encourage the timely deployment of IPv6, the Internet Society is coordinating World IPv6 Day on 8 June 2011. [Google](#), [Facebook](#), [Yahoo!](#), [Akamai](#) and [Limelight Networks](#) will be amongst some of the [major organisations](#) that will offer their content over IPv6 for a 24-hour "test drive". The goal of the Test Drive Day is to motivate organizations across the industry – Internet service providers, hardware makers, operating system vendors and web companies – to prepare their services for IPv6 to ensure a successful transition as IPv4 addresses run out.

For more information about World IPv6 Day or about IPv6 deployment, please visit <http://www.internetsociety.org/worldipv6day/>

## **IETF Statement on IPv4 Depletion**

*Olaf Kolkmann, Chairman of the Internet Architecture Board (IETF)*

The allocation of the final IPv4 free address blocks to the regional registries is both a significant and an insignificant event.

It is significant in that this moment has long been anticipated. The IETF, the standards organization for Internet protocols, started to work on an IPv4 successor almost 20 years ago, and IPv6 as we know it today was standardized 15 years ago and has matured ever since.

This event is insignificant in that next week the Internet will not be significantly different than it was a week ago. If we were to run out of license plates it would not prevent us from driving. Similarly, there will not be any notable short-term effects caused by the exhaustion of the IPv4 free address pool.

Therein lies the danger.

In the long term, the application providers (and their clients) that use IPv4 addresses are likely to encounter issues because of the many kludges needed to keep those apps running. Meanwhile, applications that can communicate over IPv6 enabled networks will be more likely to encounter transparent end-to-end communication, enabling the continued development of innovative applications and services.

Let's compare the Internet of today with the Internet in 10 years time.

If we continue to remain dependent on IPv4 we will need to spend increasing resources to operate an increasingly brittle and non-transparent network incorporating NATs, ALG, CGNs, and other mechanisms needed to help the IPv4 network keep up with demand. Such an Internet is likely to grow increasingly less capable of serving our needs than it is today. Rather than maintaining the "status quo", the IPv4 Internet is likely to degenerate.

On the other hand, with an IPv6 based Internet, endless possibilities lie ahead, because every human on this planet, and their gadgets and devices, will be able to communicate, play, do business, and supply services. This explosive Internet growth can only continue with the larger address space that IPv6 offers.

The transition to IPv6 will not be effortless and requires the attention of equipment vendors, ISPs, CTOs and CEOs, systems- and network administrators, content providers and many others across the industry. However, my mother, my neighbors and my children won't notice the difference. They will continue to be delighted by the ongoing innovation and expanded services made possible by the architecture of the IPv6 Internet.