

Forum:[Hack Forums](#)

Thread: [IPv6 what is it for?](#)

tarash - July 3, 2016, 3:30 am

Hi

While looking for a good VPS server for my hosting site i came across the offer something like this.

1 vCore
512MB RAM
10GB Disk
1 IPv4
2 IPv6

I know IPv4 is what i need, but what is IPv6 for especially for my use and need? Do I really need it?

Thank you

Nerdi - July 3, 2016, 5:39 pm

There's only so many possible combinations of IPv4 so IPv6 was created so the world could have more IPs. Without IPv6, people would have to share IPv4s or wait in line for a unique IP.

Nerdi - July 4, 2016, 2:53 pm

(Jul 3, 2016 05:41 PM)?Cheridon Wrote: [\[CITE\]](#) Spoiler ([Click to View](#))1.) More Efficient Routing
IPv6 reduces the size of routing tables and makes routing more efficient and hierarchical. IPv6 allows ISPs to aggregate the prefixes of their customers' networks into a single prefix and announce this one prefix to the IPv6 Internet. In addition, in IPv6 networks, fragmentation is handled by the source device, rather than the router, using a protocol for discovery of the path's maximum transmission unit (MTU).

2.) More Efficient Packet Processing

IPv6's simplified packet header makes packet processing more efficient. Compared with IPv4, IPv6 contains no IP-level checksum, so the checksum does not need to be recalculated at every router hop. Getting rid of the IP-level checksum was possible because most link-layer technologies already contain checksum and error-control capabilities. In addition, most transport layers, which handle end-to-end connectivity, have a checksum that enables error detection.

3.) Directed Data Flows

IPv6 supports multicast rather than broadcast. Multicast allows bandwidth-intensive packet flows (like multimedia streams) to be sent to multiple destinations simultaneously, saving network bandwidth. Disinterested hosts no longer must process broadcast packets. In addition, the IPv6 header has a new field, named Flow Label, that can identify packets belonging to the same flow.

4.) Simplified Network Configuration

Address auto-configuration (address assignment) is built in to IPv6. A router will send the prefix of the local link in its router advertisements. A host can generate its own IP address by appending its link-layer (MAC) address, converted into Extended Universal Identifier (EUI) 64-bit format, to the 64 bits of the local link prefix.

5.) Support For New Services

By eliminating Network Address Translation (NAT), true end-to-end connectivity at the IP layer is restored, enabling new and valuable services. Peer-to-peer networks are easier to create and maintain, and services such as VoIP and Quality of Service (QoS) become more robust.

6.) Security

IPSec, which provides confidentiality, authentication and data integrity, is baked into in IPv6. Because of their potential to carry malware, IPv4 ICMP packets are often blocked by corporate firewalls, but ICMPv6, the implementation of the Internet Control Message Protocol for IPv6, may be permitted because IPSec can be applied to the ICMPv6 packets.

Just so we're clear, you copied and pasted all of that from this page:

<http://www.networkcomputing.com/networking/six-benefits-ipv6/1148014746>

Good info for sure, but at least give credit where it's due man!

Infinity. - July 5, 2016, 6:24 am

(Jul 4, 2016 02:53 PM)Nerdi Wrote: [\[CITE\]](#) Just so we're clear, you copied and pasted all of that from this page:

<http://www.networkcomputing.com/networking/six-benefits-ipv6/1148014746>

Good info for sure, but at least give credit where it's due man!

Damn son, you got him

Infinity. - July 5, 2016, 7:09 am

(Jul 5, 2016 07:00 AM)?Cheridon Wrote: [\[CITE\]](#) OK? Would you like some milk & cookies with that also?

No it just proves that you're a leecher and cant reply anything original.

Nerdi - July 5, 2016, 8:01 am

(Jul 5, 2016 07:09 AM)Infinity. Wrote: [\[CITE\]](#) No it just proves that you're a leecher and cant reply anything original.

Lol kinda lame that he deleted his posts too.