ALERT: The Internet Has Run Out of IP Addresses!

Will your Hotel Computers Still Work? If they are from before 2007, they may not.

Although it sounds like an Internet scam, it's true. With millions of people coming online the number of IP addresses is exhausted and a new standard for identifying computers and devices has come online: IPv6. What is an "IP" address anyways and what will this NEW addressing system mean to you? First, let's start at the beginning:

Every computer or device on a network has a unique identifier known as an IP address. The address is just like your home address; it acts an a unique identifier so other computers can send and receive information to you. Most computer networks, including all computers connected to the Internet, use the TCP/IP protocol to communicate (think of it as a common language all computers use to talk to one another). The IP part of the "TCP/IP" is your IP address or unique identification number. In order for all communication to work, every computer connected to the Internet or within its own private network must have a unique IP address.

Until the recent IPv6, there was only one standard for an IP address, which is made uip of four groups of numbers separated by dots. For example: 216.27.61.137. This numbering convention gas 232 possible combinations, or 4.3 billion unique addresses. Back in the early 80's when the Internet was just getting rolling, that was considered more than enough. Now with well over a billion people online and each person owning multiple decides requiring IP addresses, 4.3 billion just isn't enough.

IPv6 uses a 128-bit addressing system (where IPv4 used a 32-bit addressing system) creating a massive number of possible new addresses and combinations. That massive new total is 2 to the 128 power, or 340,282,366,938,463,…. (How could you even say that number?)

Fortunately, most devices and PCs manufactured within the last 5 years should have no problem processing IPv6 addresses. However, older legacy systems that were engineered without IPv6 in mind will have problems. The companies most affected will be companies providing mobile devices and ISPs, particularly those in emerging markets who are bringing on thousands of new customers for cable TV, smartphones and voice over IP phone systems.

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