

## Have we reached the end of the internet?

The end is near and soon we will be running out of internet addresses. How can that be? Well, this is one of the "Chicken Little" scenarios that are gaining attention in the blogosphere and the national network news space.

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Story line: We're running out of internet addresses and soon the internet will stop growing because all of the addresses are gone! Numbers will be sold on the black market to the highest bidder and e-commerce will come to a screeching halt! OMG!

So, let's try to clear up a few things. Yes, the internet is a numbers-based addressing system that, in essence, gives you a presence on the web. (A good place to look up the technical explanation for internet addresses is Wikipedia. Start with [http://en.wikipedia.org/wiki/IP\\_address](http://en.wikipedia.org/wiki/IP_address).)

And, yes, when you have a numbers-based system that has a digit limitation, at some point you will run out of numbers. It is simple as that. The system that we are using today is IPv4 which means Internet Protocol version 4. (Hmmm, let me think, what came before v4?) IPv4 has a limit of about four billion internet addresses and they are being consumed very fast. Of course in hindsight, when you think of the global economy, who thought four billion addresses would be enough? It wasn't me!

There is an improvement that is rolling out and it is known as IPv6. This new protocol increases the numbering scheme from a 32 bit format to a 128 bit format and that means a MO-HUN-DOUS number of addresses. The street has it that the new format has been impeded by a slow adoption rate (i.e. "Do I really have to change?"). Thus there is a concern that we might run out of numbers before it is fully implemented. Get serious.

With as much as we depend on the internet locally, domestically, and globally, at the first sign that the internet is going to be adversely impact commerce, everybody—from developers to regional registries—will be screaming to speed up the adoption process and President Obama will make it a national priority. (See the Wikipedia link [http://en.wikipedia.org/wiki/IPv4\\_address\\_exhaustion](http://en.wikipedia.org/wiki/IPv4_address_exhaustion).)

My take on all this: We will run out of breathable air first. The internet will continue to grow beyond our wildest expectations.

The Wombat!

### About the Author

Dan Fisher is president and CEO of The Copper River Group, a consulting firm headquartered in Fargo, N. D., that focuses on technology and payment systems research and consulting for community financial institutions. For nearly 30 years, Fisher has worked in the financial industry using technology to improve the bottom line. He was CIO of Community First Bankshares (now part of BancWest), has served as a director of the Federal Reserve Board of Minneapolis, the chairman of the American Bankers Association Payment Systems Committee, and was a member of the Independent Community Bankers of America Payments Committee. Fisher has written numerous articles on banking technology and the payments system. He has authored or co-authored six books and recently published a book titled, "Capturing Your Customer! The New Technology of Remote Deposit." You can contact Fisher at [dan@copperwombat.com](mailto:dan@copperwombat.com).

P.S. To understand Dan's nickname, check out "About the Wombat" on his website, [www.copperrivergroup.com](http://www.copperrivergroup.com)