ETHEREALMIND
Human Infrastructure Magazine
A Newsletter on a Life in Networking

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The "Just Got Off The Plane" Edition

Thought for the Week:

An Overlay meets an Underlay in a bar and says "Lets get physical"

Where Am I ?

Home. Safely ensconced in my "palace of productivity" where the scary people can't get me.

Kidding. As a moderate introvert, its good to be home again and recharge my emotional batteries. I love to travel and the stimulation of interacting with people, but it wears me down quickly.

This week I'm writing whitepapers, presentations and blog posts while recording podcasts. I'm feeling snarky so look for my random outbursts on **Twitter**.

Being Too Stupid To Quit

Last Friday, in **Show 237 - Too Stupid To Give Up Now - Our 5th Anniversary**, we went public with the news that Packet Pushers is a full time business. If nothing else, this is a clear sign that I'm stupid.

Looking back, Packet Pushers has been in "sweat equity" mode for about 18 months. We have invested hundreds of hours in building business processes and accounting systems while pumping out shows and delivering on our day jobs. **Now, it's just Packet Pushers.**

Because we are too stupid to quit and get real jobs (which, frankly, would be a whole lot easier), we are in full startup mode. We are planning how to grow the business into new areas, hire a few staff and generally reach the first stage of growth. With full time commitment, we have been able to "fill the sales funnel" and starting to invest more time in content quality.

What Does This Mean To You ?

In the short term, not much will change. We are committed to maintaining our independence & integrity - an absolute requirement. We will have more time to work on content through research, reading and discussion and this should improve the show quality.

You should see shows arrive more regularly, and the sponsored content will be smoothed out. We actually have some hopes that we can reduce the sponsored podcast content by widening the revenue stream. In the longer term, we need to diversify the income so that we are not depending on vendors & sponsorship. We want to be in a strong position to say "no" when something doesn't sit right with us. And committing to a single revenue source from podcast sponsorship seems unsafe to us. For example, this newsletter/magazine is testing out advertising in this format and see how it works. I finally have the time to do it.

What Does This Mean to Me ?

Oh, lots of things. Grateful, relieved, excited, a little worried. Grateful to have the chance, worried that we have taken a risk that might impact our families. Relieved that so much effort has turned into something awesome. And EXCITED.

For the first time, Packet Pushers is the only thing I am doing. I'm not juggling multiple clients and projects, just focussed on delivering for a single "project." And it's something I really want to be doing.

The stress has become much more manageable, and my life is much more joyful. What more could I ask for ?

What's Next Then, Greg ?

We have lots of ideas on growing but we know that we can pick only one. Focus is key to succeeding in a small business and we must be confident that we have picked a winner. The spare time is working on those new projects. And I will you about them right here in this newsletter.

ONS2015 program features 3 Keynotes, 3 Panels, 3 Plenaries and 9 tracks and covers use-cases and deployment experiences across service providers, enterprises, cloud and datacenters. Keeping with the 'Open Networking' theme, ONS2015 will emphasize all leading Open Networking projects: OpenDaylight, OPNFV and Open Network Operating System (ONOS) via talks, developer tracks and tutorials for each. Speakers from incumbent AND startup vendors will also share their experiences and visions.

Head over to www.OpenNetSummit.org and get a 10% discount on registration using code PACKETPUSHERS.

The result of 3 weeks travelling is a huge amount of new information from across the industry. Speaking with vendors helps me to understand their perspective and meetings with Dell, Arista, Cisco, CloudGenix, Viptela, AppViewX, HP, Brocade and many others means a flood of new information.

At the same time, I bounced around with other speakers and met a whole much of people who live in the real world. I got to talk about their networks and problems. Mostly this makes me feel a bit stupid, and often jealous. Some of things that these people are doing is hugely exciting.

I started about a dozen blog posts to work out my thoughts, but couldn't finish any of them. So I wrote this presentation and recorded a screencast while I talked through the latest information.
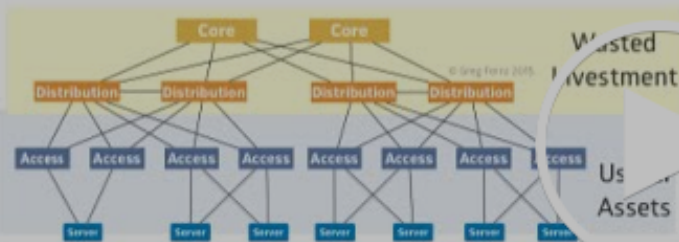
A "15 Minute" Presentation on where SDN is today. In 35 minutes or less.

Question & Answer - Job Evaporation

Question:

I'm concerned in another ten years "enterprise" IT will largely have evaporated, and all networking/IT jobs will have moved to large consolidated 'internet' corporations providing relevant software via the web. "Enterprise" infrastructure will consist of maybe a LAN for printing and not much else. Offices will be setup by contractors and then remotely managed, with all of this consolidation and remote management of networking infrastructure, I'm concerned the number of jobs will shrink dramatically leaving a glut of intelligent but otherwise useless people in the market...what do you think? Should we be putting more thought into how we adapt and survive this coming onslaught?

Answer:

In the last 25 years, I have have been through at least 5 career transitions. Originally Novell Netware, then WINNT, then networking. When I started in networking, IP was rarely used outside of university campuses, and enterprises used IPX and NetBEUI. Simply getting a WAN connected over an ISDN connection was considered a major achievement.

The point is that I have been adapting and changing to technology for 25 years. The transition to cloud technologies is just another one. I'm not bothered. There will be jobs for us because technology continues to grow and expand. There are more smartphones, tablets and laptops than ever.

I will have to change somehow, somewhen and something. I'm always looking for the next thing. It will be slow enough for you to see the change and take steps in a new direction.

Not a good answer, but the best I can do.

Internets of Interest

Webpages that have caught my attention in the last couple of weeks.

HTTP/2: A New Excerpt from High Performance Browser Networking

A free ebook from O'Reilly on HTTP2 protocol.

> The new HTTP/2 standard is finally here. Approved earlier this year, HTTP/2 adds a new binary framing layer that will help make applications faster, simpler, and more robust. This chapter from

the new release of High Performance Browser Networking provides a brief look at this updated protocol

Shop.oreilly.com

I have my OReilly account linked to my Kindle and Dropbox accounts. As soon as I buy a book, it appears in my kindle and dropbox folders. This is way cool.

NEC SDN Space

NEC America has created a blog "SDN Partner Space" which contains a lot of good content. This page is a particular example on using Progammable Flow (or OpenFlow) to build a service chain.

> Service chaining is the act of dynamically inserting networking services into the path of applications. Recall that as network engineers, we would normally achieve this by physically cabling appliances such as firewalls together which would mean maintenance windows to schedule potential down time inhibiting infrastructure agility. Service chaining aims to logically chain networking services together on-demand while minimizing service interruption. Note that this is different from network functions virtualization or NFV which targets virtualizing networking services as opposed to running them on dedicated hardware appliances. Service chaining may leverage both physical and virtual appliances.

SDN Experts Exchange Blog | Service Chaining

Nuage Networks Integrates the Overlay and Underlay (no hardware)

Nuage Networks has announced its latest features

> What we are demonstrating today is that not only is it possible to achieve visibility in an overlay deployment, but that this is doable without any hardware lock-in to any vendors strategy and without any need for reinventing new protocols or APIs. There are simple solutions that are based on open protocols and standards, and by combining those with an intelligent correlation layer, one can achieve full operational visibility.

The solution is something I discussed on a podcast a couple of years ago. The Nuage Networks application/controller is a listener to OSPF / BGP. From this, it can build a graph model of the network architecture, and any changes in the RIB databases are used to detect problems in the underlay. Once you have a model and state changes, you can establish where the overlay paths are and perform correlation.

An amazing software feat. I will be interested to see more about this in the future.

It's Overlay O'clock ! Do You Know Where Your Packets Are? - Nuage Networks

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True Zero Downtime HAProxy Reloads

This article from Yelp's engineering team talks about the use of HAProxy as a web scale load balancer. Note that they don't pay for branded load balancing products, but spend the money on DevOps and testing to get a "free" product working exactly how they need it.

Your F5 LTM, A10 and Netscaler load balancers are fine products but have serious competition.

Yelp Product & Engineering Blog | True Zero Downtime HAProxy Reloads

Unified Mouse and Notepad

This is a combined notepad and mousemat that I bought as a trial (I have a fetish for stationary and pens).

1. The back is slightly tacky so its sticks to the desk.
2. The sheets are glued on the right and bottom so the page stays in place.
3. I write reminders to myself of things that I am supposed (but probably won't) to do.
4. Rhodia makes good paper and this is fine for fountain pens.

Rhodia clic bloc mouse pad

Here are the last seven articles from my blog.

EtherealMind.com Latest

Logical Razors Can Take on Corporate Babble - **Link**
Canned Response to BGP Networking Questions – Reddit - **Link**
IETF RFC 8374 BGPsec Design Choices and Summary of Supporting Discussions - **Link**
Net Neutrality Hasn't Ended, We Don't Know When - **Link**
Next Market Transition ? Cheaper Buying, Less Selling - **Link**
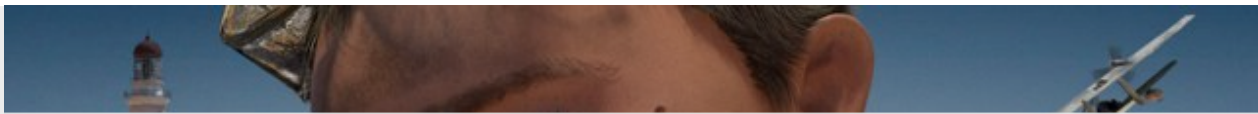Video – Enterprise IT is Luxury Market, Stop Whining About The Price - **Link**
BPF, eBPF, XDP and Bpfilter… What are these things and what do they mean for the enterprise? – Netronome - **Link**

I welcome your feedback, questions and corrections. Send an email to **humaninfrastructure@packetpushers.net** and I will write a response.

Just For Fun
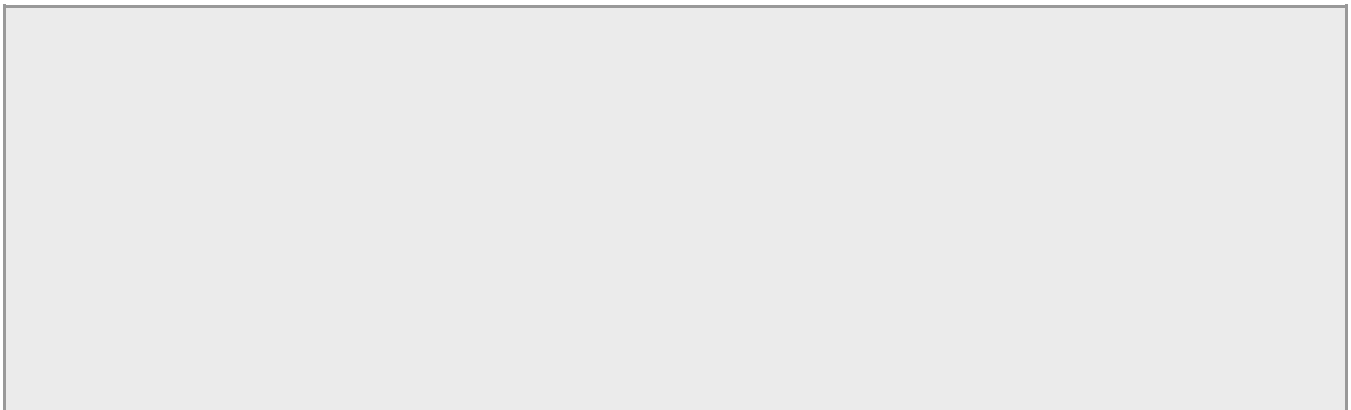
After the seas have disappeared, a courageous pilot fights against vicious sky pirates for control of the last remaining source of water: the clouds.

About Piece of A Human Infrastructure

A strongly curated newsletter produced by Greg Ferro that contain observations and thoughts on IT Infrastructure with a networking focus that he has seen, done, discussed, reviewed or just simply found on the Internet.

The format is structured but flexible (like any magazine) and will change over time as I settle into a routine of capturing ideas, topics that seem relevant and ultimately finding patterns that seem to be interesting to you. Your feedback will drives changes so don't hesitate to email with feedback or ask followup questions for the next edition.

About Greg Ferro

Greg is a co-host of the Packet Pushers Podcast a weekly podcast on Data Networking which has over 8000 subscribers. He blogs regularly at EtherealMind.com for the last eight years and is pretty well known these days. He also write as an analyst for Network Computing and Gigaom Research. He speaks at major events on Data Centre Design, SDN and life in technology. He moderates panels, advises customers and technology companies.

He works as a part-time network engineer in the UK on a freelance basis. Because real work configuring routers and switches remain not only a passion but important to keeping touch with the industry.