

*IN THIS WEEK'S ISSUE: The Real Cost Of Sales, Breaking Social Media Changes, Perils Of Working From Home, & Performance Drugs At The Office. Please remember to enable the images; the magazine looks a lot better that way!*



# PACKETPUSHERS

## Human Infrastructure Magazine

A Newsletter About a Life in Networking

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**Issue Number 33**

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The "Productivity can be complicated" issue.

#### **Thought For The Week:**

"...the ruin of any work is a divided interest. Concentrate-concentrate. One thing at a time." - Mark Twain

# 1. The Cost of "Sales" Isn't Free

by Greg Ferro

A 3Q16 [financial report](#) from Palo Alto Networks (PAN) showed that PAN is spending more than 50% of its revenue in sales:

Product Revenue: \$345 Million  
Sales & Marketing: \$202 Million

So I took a look at Cisco's [cost of sales](#) as a comparison because PAN's number seemed high.

Product Revenue: \$11.9B  
Sales & Marketing: \$2.2B

## What This Means To You

Why should you care how much a company spends on sales? Because the actual cost of selling products is paid for by the customer in the price of the product. We can extrapolate that **20-40% of a product's price is the cost of selling it.**

Man, those sales grunts and pre-sales engineers are costing you a lot.

## Reading Those Tea Leaves

As a network architect, I look at company numbers to evaluate the company's focus and long-term position. From this information I conclude that PAN has a lot of extra resources as they bet heavily on growing the business. **If they are successful, then the head count will stay as is.** If there is a drop in IT security spending, PAN would have to shrink.

Cisco is a mature, non-growth business. Its sales expenses of 20% of revenue

is still very high compared to other markets, but has been steadily decreasing (down \$200MM since this time last year). Cisco is cutting back on sales/marketing.

**So one question to think about: Would this affect my ownership of their product?**

- If my vendor drops sales engineers, would that affect my projects?
- Am I depending on the sales team to support my deployment?
- Do I need to hire people to replace those lost resources, and how do I recover that cost from vendors?

## The Price of Sales

This discussion doesn't include distributor/reseller profits. Every company on the food chain adds about 10-15% to the product price.

As an observation, I wonder why we still rely on using humans instead of simply buying these products from Amazon or [Walmart Online](#). It would be a much more efficient use of project time to simply buy from the Web and avoid endless purchasing meetings.

How much is that "free sales support" really worth?

## A Whitebox/Whitebrand Angle

Avoiding sales cost is clearly a big part of the price differential of whitebox switches. If you look at whitebrand/britebox, you'll notice the 30-50% markup that is the "expense of sales" cost.

## The Internet Removes Middlemen

The Internet has a way of removing middlemen companies. Amazon replaced retail sales costs and also removed warehousing & distribution. Could the Internet replace resellers and sales people in IT infrastructure?

I wouldn't be surprised. The more we move to converged & hyper-converged

systems, the simpler the buying process becomes as the decision shrinks to "small, medium or large, and would you like fries with that?"

## 2. Breaking The Chains Of Social Media

by Ethan Banks

Followers of the Packet Pushers or Citizens of Tech podcasts have heard me mention the book [\*Deep Work\*](#) by Cal Newport. The book addresses the growing difficulty information workers have in generating breakthrough products because their focus is constantly disrupted by alerts. Worse than that, information workers are addicted to this data stream of inputs - to "likes," if you will.

If we as information workers are addicts, then the situation is more than a simple nuisance. For many of us, social media has grown into a crisis beyond our ability to control. Thinking about social media as an addiction has helped me recognize the destructive power it can have over my work.

### Resistance Isn't Useless

To break the chains of social media, I've had to re-train my brain. I've taken some cues from *Deep Work* to launch this re-training process. Mostly, this is in the form of resistance. I resist the urge to check social media feeds or my inbox. I resist the urge to stab at my phone when I have a moment of idle boredom, such as standing in a line. I enforce resistance with an app called Anti-Social. As my resistance muscles grow stronger over time, I've been able to produce work more effectively.

Additional perspectives have helped break social media's chains. For instance, I see social media for what it is: a way for the platform owners to make money off of my behavior. I resent that! Remember that no service is free — especially when it costs no money.



longer run Twitter on my phone except for conferences. This single change has helped break the addiction more than any other thing. I find my phone tempting to look at when loaded with all the social apps, but much less so if I've removed those apps.

Resisting social media is also easier if you have a goal. For me, that goal has been increased deep thought and productivity. I can also complete the next phase of projects in one hearty session of work if I am not interrupting myself with alerts and squirrel artifacts. This has been worthwhile for me, and I think could be for you, too.



**DON'T PANIC!**  
But DO Take The Packet Pushers 2016 Survey...  
please!!!

 **PACKETPUSHERS**  
Where Too Much Networking Would *NEVER* Be Enough

Now that the Packet Pushers have gone full time, we need to know about our audience, so we wrote a [short survey](#). We'd really appreciate if you took a few minutes to fill it out.

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# The Network Break



[Network Break](#) is a weekly podcast that delivers news & analysis on the networking industry in a fun, fast-paced style.

# 3. Working From Home? Better Stay In The Loop

by Keith Townsend

Most engineers dream of the day they can give up their cube and work uninterrupted from a home office.

Whether it's creating a new installation script or analyzing telemetry data, the thought of putting one's head down and working without the usual walk-up interruptions is appealing. Wearing your bathrobe and not having to commute is also attractive. However, there are drawbacks.

Both HPE and Yahoo made headlines for changing their remote work policies. To improve collaboration (and their fortunes, as both companies have struggled in their respective industries), HPE and Yahoo now require employees to report physically to an office.

While I poked fun at these changes, there's some validity to the idea of having employees work in the same physical location.

Engineers should consider the nature of their projects and the culture of their organizations before agreeing to work from home. If your job is static and has a well-defined scope, working from home is less of a concern.

If your job scope is fluid, however, tread carefully. Many work cultures naturally lend themselves to physical interaction. The benefits of body language, water cooler conversations, and impromptu collaboration sessions are difficult to re-create remotely.

Some of my biggest projects and decisions started as a result of a hallway conversation. It's difficult to stay in the loop and influence the direction of projects from home because many decisions result from these informal interactions.



If you find yourself in the latter group but still want to work from home, over-communication becomes your friend. Actively interact with your peers. Use tools such as Skype, IM, and Slack to recreate some of the spontaneous conversations that happen in hallways and break rooms. Most importantly, get into the office as much as possible.

## 4. Performance Drugs At The Office

by Drew Conry-Murray

Doping is frowned on in professional sports (at least officially), but it's highly encouraged in the office—in the form of caffeine-rich coffee, energy drinks, and soda.

Most of us rely on caffeine to start the day, beat the afternoon slump, and provide focus and energy to get through a gnarly project. Caffeine is so deeply enmeshed with work that it seems ridiculous to question whether it's a good idea. In fact, lots of offices provide free caffeine to employees to boost productivity and get more work out of them.

So what if instead of coffee, your office started handing out Adderall or Modafinil? These drugs were originally developed to treat ADHD and narcolepsy, but it turns out that when you give these drugs to people who aren't hyperactive or narcoleptic, the drugs boost attention, sharpen concentration, and provide other cognitive benefits.

What if your coworkers started taking these drugs, and you (and your bosses) saw their productivity kick up a couple of notches? Might you feel some pressure to join in?



## Coffee break!



The technology industry worships at the altar of productivity, and there's lots of anecdotal evidence that techies and would-be startup titans are popping Ritalin or [experimenting with a category of unregulated supplements](#) called "nootropics."

At present, this use of performance-enhancing substances is off the books when it comes to official corporate policies. But a [recent article in the Harvard Business Review](#) looks at the implications of "smart" drugs in the workplace, and asks some difficult questions.

For instance, if these drugs are generally safe, wouldn't it make sense for professionals such as surgeons and airline pilots—for whom a lapse in concentration could have catastrophic consequences—to take them?

It also asks if smart drugs become commonplace, might the enhanced productivity lead to less work? The article speculates:

*"In theory, we could work shorter hours in a more focused and productive manner, rather than long hours in an unfocused and unproductive way."*

With the extra time saved from productivity-boosting drugs, we could devote more hours to personal and family pursuits.

That's a laughable theory. The rise of computers has generated massive productivity gains, but very few people will tell you they have less work to do. The fact is, work follows a kind of devious gas law, in which it will always expand to fill your available time.

Which gets us back to the original issue. If we've normalized coffee as a productivity tool, will pills be next? And if so, are you willing to swallow them?

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## Internets Of Interest

A collection of pre-loved links that might interest you. "Pre-loved" because I liked them enough to put into this newsletter. It's not *true* love.

By Greg Ferro

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### The REAL State of Cloud

Greg Knieriemen writes about why the private cloud is going to be bigger than Gartner analysts think.

**From Greg's blog:** *"The more important question is not "which," but "when": When public, when private and when hybrid? This is where actual research and some data are needed for context."*

Public cloud is well suited to SaaS applications, which you rent monthly. If you don't want to own it, don't spend money on the hardware. Greg collects the data from 451 Research, which highlights that private cloud will be bigger than public cloud.

[LINK](#)

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## Master (DevOps) Builders Need Collaboration Too

Lori MacVittie at F5 has a good blog post that reminds developers about the dependencies that will affect their applications and why Dev and Ops need to coordinate. There's also a reference or two to the *Lego Movie* for fun.

**From Lori:** *"One of the best examples is that just about everything depends on core network services being deployed first. That's true not only for the application and its dependent components, but for the security and higher-order (app) services that deliver the app. Load balancing, web application security, and even the firewall rely on network attributes to function. Understanding those dependencies (the coupling factor) between systems and services managed by different groups (silos) within IT can go a long way toward forwarding the need to communicate and collaborate to achieve even the resemblance of continuous deployment."*

[LINK](#)

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## Automated Cars And Log Data

Tesla Motors is relying on log data collection to assert that a driver, rather than a Tesla vehicle, was at fault in a recent crash. An article in Technology Review looks at how data collection from automobiles will affect the development of self-driving cars--and the insurance industry.

**From Technology Review:** *"Companies such as GM are open about their interest in expanding the range of data they collect on driver actions to open up new business opportunities."*

[LINK](#)

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## WEEKLY SHOW

Where Too Much Networking  
Would **NEVER** Be Enough

[The Weekly Show channel](#) is our one-hour deep dive on networking technology.



## Priority Queue

Where Too Much Networking  
Would **NEVER** Be Enough

[Priority Queue](#) tackles niche and nerdy tech topics and cutting-edge research projects.

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## Research Notes

Data to feed into your design processes.

By **Greg Ferro**

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### Ericsson Mobility Report

I've often talked about how much change will happen in the Wide Area Network and this report puts gasoline on that fire:

**From Ericsson:** *"In this Ericsson Mobility Report, we continue to describe the evolution towards the Networked Society."*

- *Internet of Things (IoT) is expected to surpass mobile phones as the largest category of connected devices in 2018*
- *Between 2015 and 2021, IoT is expected to increase at a compounded annual growth rate (CAGR) of 23 percent, making up close to 16 billion of the total forecast 28 billion connected devices by 2021.*
- *LTE subscriptions grew at a high rate during Q1 2016. There were 150 million new subscriptions during the quarter, reaching a total of 1.2 billion worldwide."*

This report also highlights how comparatively weak the Cisco VNI report is (see the following article).

[LINK](#)

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## Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2015–2020 White Paper

This report from Cisco has lots of data about the growth of mobile networking. I'm very dubious about the source, and the methodology leaves me thinking that the outcomes is slanted in a particular direction. But still, data is data.

[LINK](#)

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## RE-THINKING THE NETWORK

An article from Kelly Herrell at Brocade struck a chord:

**From Kelly:** *"Our limitation is not technology, it's us. Humans are prone to something cognitive psychologists call "anchoring," where our answers to new thought challenges cling to old frames of reference. We don't swing far enough away from that anchor in order to discover where the real answers lie."*

This article is really worth your time.

[LINK](#)

## Recent Articles

The last five articles published on [EtherealMind](#) and [Packet Pushers](#)

### [EtherealMind.com Latest](#)

[Logical Razors Can Take on Corporate Babble](#)

[Canned Response to BGP Networking Questions – Reddit](#)

[IETF RFC 8374 BGPsec Design Choices and Summary of Supporting Discussions](#)

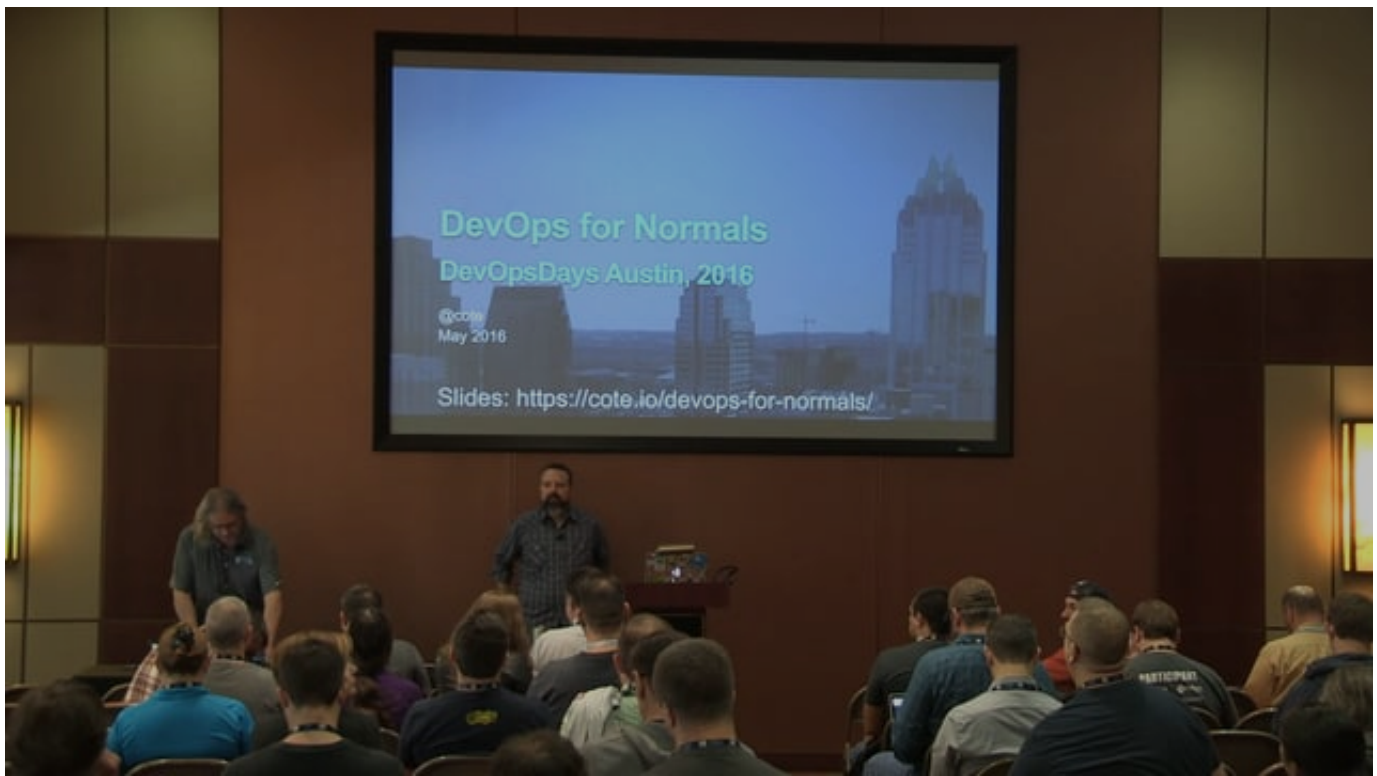
[Net Neutrality Hasn't Ended, We Don't Know When](#)

[Next Market Transition ? Cheaper Buying, Less Selling](#)

## Watch This!

Where we collect some videos that make us reflect, think about our inner lives, or just entertain us.

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This presentation on DevOps is outstanding. The presenter does an excellent job of understanding where we are today and how DevOps can be applied in most organizations.



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# Quick Survey: Network Disaggregation

How interested are you in network disaggregation (the separation of network hardware from network device's OS)?

[A. So interested we buy and use separate hardware & software](#)

[B. We're playing around with it](#)

[C. Definitely curious](#)

[D. Meh](#)

## Did We Miss Something?

Got an link or an article to share? Email it to [humaninfrastructure@packetpushers.net](mailto:humaninfrastructure@packetpushers.net)

### The End Bit

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**Human Infrastructure is bi-weekly newsletter with view, perspectives, and opinions. It is edited and published by Greg Ferro and Drew Conry-Murray from PacketPushers.net. If you'd like to contribute, email Drew at [drew.conrymurray@packetpushers.net](mailto:drew.conrymurray@packetpushers.net).**

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