

Human Infrastructure 102: I Used To Think / Now I Think



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I Used To Think / Now I Think...

By Ethan Banks

When you're ushered behind the curtains to witness Oz making sausage, your understanding of reality matures. In that context, I present these viewpoints as technical person with a media job eating a steady diet of Yellow Brick Road Bratwurst.

As you read how my views have changed, consider that they aren't the only things I feel about these topics. There

are always exceptions. My viewpoint is broader than the bitter nuggets I've encapsulated here. Mostly, I just want you to have a laugh...or a cry, as the case may be.

Enjoy the sausage.

On Standards

I used to think standards served the entire IT community. Now I think standards serve vendors who can only sell to certain large customers who insist on a standard before buying.

I used to think standards bodies deliberated to find the best solution. Now I think that standard bodies craft compromises that cater to pre-existing vendor tech.

I used to think standards bodies would coordinate competing projects and rally around a single best answer. Now I think that ineffective governance and egomania turn standards bodies into a diversity of bully pulpits.

I used to think standards would drive interoperability. Now I think that we'll never have true interoperability unless customers demand it, because standards are, by design, loosely written and subject to interpretation.

I used to think standards existed because they solved problems poignantly experienced by practitioners. Now I think that standards are often pushed to prop up egos or personal agendas.

On Conferences

I used to think conferences were financially neutral events created mostly for the benefit of attendees. Now I think that they are businesses emphasizing profit earned over value provided.

I used to think conferences were places to learn about technology and further your career. Now I think they are primarily marketing tools designed to stuff attendees into as many sales funnels as possible.

I used to think speaking at a large conference was an honor bestowed only upon the most worthy. Now I think conferences use sessions for profit by underpaying speakers who will drive registrations.

On Sales & Marketing

I used to think vendor webinars were useful ways to communicate technical information to curious people. Now

I think they are marketing tools designed to capture leads while sharing selling points designed to “resonate.”

I used to think certifications were the best way to get ahead in an IT career. Now I think they are vendor sales tools designed to increase market share by creating an army of sycophants.

I used to think vendor whitepapers were educational documents, helping technologists make informed decisions. Now I think they are marketing hype inventing problems that match solutions conveniently on offer.

I used to think performance numbers reported in a product data sheet were meaningful. Now I think performance numbers are gamed to present the best possible scenario.

On Media

I used to think tech news reported on important announcements via careful curation. Now I think tech news is driven by ad revenue, so any PR content stuffed into inboxes gets published to generate traffic.

I used to think analyst reports and magic quadrants were useful distillations of a given technology. Now I think

reports and quadrants are self-selecting based on who's paying for the report and the parameters they defined.

On Buyers

I used to think companies would make decisions based on which technology served them the best. Now I think companies make decisions based on whether their boss will sign off without a lot of discussion.

I used to think RFPs were unbiased representations of an org's technical requirements. Now I think RFPs are carefully constructed to eliminate all vendors except the ones the RFP issuer wants to do business with.

On Products

I used to think open source projects were altruistic community efforts meant for the greater good. Now I think open source projects are driven mostly by vendors to further their commercial interests.

I used to think GA software releases meant the product had been thoroughly tested. Now I think that GA releases are where real testing begins, as actual users deploy in real-world scenarios.

I used to think that vendors would lead customers with breakthroughs to help their businesses. Now I think that vendors offer barely adequate solutions to squawking customers, because vendors lack real-world insight.

On Support

I used to think that vendor support consisted of experts who existed to solve problems. Now I think that vendor support consists mostly of ticket-closing stat junkies who act as a barrier between callers and the competent support professionals at the next tier.

I think I could go on, but that's plenty of grumpiness for this missive. If you're feeling depressed now, get yourself a cup of coffee, and look outside for a few minutes. That bright thing in the sky is the sun! I hear it will cheer you up...if you stare into it...or something. 🌞🙌😊

Tech Blogs: How To

Cisco to MikroTik – Switching and VLANs - StubArea51

<https://www.stubarea51.net/2019/02/06/cisco-to-mik...>

Kevin Myers continues his ongoing series translating the Cisco IOS commands many of us know into MicroTik commands. This article focuses on L2 magic. The piece is detailed, with lots of CLI input and output examples. - Ethan

Working with ExaBGP 4 - Das Blinken Lichten

<http://www.dasblinkenlichten.com/working-with-exab...>

Jon Langemak walks through installing and firing up ExaBGP 4 on a Linux box, and then making it speak BGP to a pair of Juniper MX routers. This is classic Jon, with great diagrams, configuration code blocks, and clear explanations. - Ethan

Dealing with Performance Brownouts - NetCraftsmen

<https://www.netcraftsmen.com/dealing-with-performa...>

Pete Welcher shares tips on how to troubleshoot the most common outage IT engineers face: the brownout. It's not

completely broken. Perhaps it's mostly working. But something is definitely wrong. How do you fix that? Pete discusses diagrams, lists, documentation (seeing a theme here?), scoping, and evidence gathering, all in the context of a case study. - Ethan

Understanding CICD: Continuous Integration/ Deployment/ Delivery - kumul.us

<https://kumul.us/understanding-cicd-continuous-int...>

If you've been wondering what CI/CD is, this is the article for you. Fundamental, clear definitions accompanied by helpful diagrams. < 1 minute to read. - Ethan

WTF is an API? – A Cloud Guru

<https://read.acloud.guru/tech-talk-api-74075a21d1e...>

If you're new to IT or are just beginning your non-CLI explorations, this is a helpful piece explaining APIs, requests, responses, and authentication at a high level, along with a short glossary of terms. - Ethan

AWS Nitro System - Perspectives

<https://perspectives.mvdirona.com/2019/02/aws-nitr...>

If you want to geek out over AWS's custom ASIC, called Nitro, this blog post and the accompanying video will scratch your nerd itch. Nitro runs on all of AWS's EC2 servers. According to the blog, millions of these ASICs are consumed every year, even though Amazon is the only company using them. - Drew

How to set up continuous deployment in your home project the easy way - freeCodeCamp.org

<https://medium.freecodecamp.org/how-to-set-up-cont...>

Walk through making a Dockerfile, pushing your project to GitHub, building a docker image on Docker Hub automatically, and downloading + launching an image using Watchtower. An easy read. Makes some assumptions about your knowledge level. Doesn't fill in all the details. But for most self-starters, this will be all the push you need. I've bookmarked this one. - Ethan

NVMe in the Data Centre 2.0 Now Published - architectingIT

<https://blog.architecting.it/nvme-in-the-data-cent...>

Chris Evans has released this report that might interest some of you. Behind a regwall, but they promise not to share email addresses with anyone. Thanks to [Dr. J Metz's blog](#) for this link. BTW, [J did a deep-dive on NVMe over Fabrics during our 3rd Virtual Design Clinic](#). Available to all Ignition members (probably you, since you're reading HIM.) - Ethan

Virtual Design Clinic: Join Us March 14th!

The Packet Pushers are hosting a new Virtual Design Clinic on Thursday, March 14th

This is a live, online event that includes technical presentations, Ask Me Anything sessions with industry experts, and a sponsored presentation.

It's free to register and attend. [Sign up here](#).

If you can't make the 14th, we'll post the full event on our membership site, Ignition, which is also free to join. You can check out previous VDCs at [Ignition](#) at your leisure.



Tech Blogs: Opinion

There and Back Again: Why PaaS Is Passé (And Why It's Not) - Brave New Geek

<https://bravenewgeek.com/there-and-back-again-why-...>

https://twitter.com/tyler_treat/status/1093571972808802305

Tyler Treat points out that infrastructure-focused people get wrapped around the axle when it comes to how we're delivering apps. But in his view, "Compute is a commodity, and I don't care how my workload runs so long as it meets my business's SLOs and other requirements." Read the article and this [Twitter thread](#) before deciding if you agree with Tyler. His position is well-thought out and nuanced, and he's not alone in holding it. - Ethan

AI Ops: Is DevOps Ready for an Infusion of Artificial Intelligence? - The New Stack

<https://thenewstack.io/aiops-is-devops-ready-for-a...>

Mary Branscombe gives an overview of what the industry thinks AI Ops is going to be as the field develops. I get the big idea--make sense of how an application deployment is going to impact infrastructure, and proactively prepare. But I'm less convinced that such a tool can be shrink-wrapped due to snowflake infrastructures. I guess that's where the AI and ML will (or won't) prove itself over time. Mary

shares perspective in an interview with [Josh Atwell](#). -
Ethan

Drowning, Not Waving... - Thom Langford

<https://thomlangford.com/2019/02/18/drowning-not-w...>

Thom talks about how his work life affected his mental health:

“So I did what every self respecting professional does, and started to self medicate with alcohol. It was, for the most part free from British Airways and Hilton, or on expenses (see above). It wasn’t a problem as i had a good tolerance, was a happy (maybe even hilarious) drunk, and while stupid things were done, it only bought us closer and more effective as a team.”

More than once, I’ve been close to this situation. I was lucky enough to come to a self-realization and change something about my worklife. Too much commitment to the job and focus can lead to serious health problems like this. Talking about mental health will help to remove the stigma so it becomes normal, because that’s what it is. -

Greg

Intent Based Networking Hype: Don't Throw the Baby Out with the Bathwater - Network Phil

<https://networkphil.com/2019/02/02/intent-based-ne...>

Intent-Based Networking is the flavor *du jour* in networking, so much so that vendors are slapping “IBN” on their products like used car salesmen slapping a new coat of paint on an old jalopy. Phil Gervasi makes the argument that IBN is in fact a distinct technology, so networkers shouldn't just dismiss it because of the ridiculous way the term has been co-opted. - Drew

Learn to Code? - Rule 11 Reader

<https://rule11.tech/learn-to-code/>

No one brags about their ability to use a hammer or a saw--it's what you make with those tools that matters. In the same vein, learning to code isn't about coding, in Russ White's opinion. “Learning to code can multiply your skills as a network engineer. But if you do not have network engineering skills to start with, multiplying them by

learning to code is not going to be the most useful exercise.” - Ethan (BTW, Russ and I wrote a [book](#) together. You might like it.)

Who should protect you from Cyber Threats? - Information Security Automation

<https://avleonov.com/2019/02/13/who-should-protect...>

A simple piece from Alexander Leonov, a security wonk I've been following recently. He asks, “Regularly, we can hear about exploitation cases that often lead to significant damage. Who should protect us from cyber threats and cybercrime?” He opines that the government should be, although he goes on to cite the shortcomings of this idealistic view. - Ethan

The Lulz

Candy Heart messages written by a neural network - Letting Neural Networks Be Weird

<http://aiweirdness.com/post/170685749687/candy-hea...>

Janelle Shane says, “I collected all the genuine heart messages I could find, and then gave them to a learning algorithm called a neural network. Given a set of data, a neural network will learn the patterns that let it imitate the original data - although its imitation is sometimes imperfect. The candy heart messages it produced... well, you be the judge.” - Ethan



Tech News

AT&T/as7018 now drops invalid prefixes from peers - NANOG Mailing List

<https://mailman.nanog.org/pipermail/nanog/2019-Feb...>

Sure to be controversial, but decidedly interesting. “The AT&T/as7018 network is now dropping all RPKI-invalid route announcements that we receive from our peers.” Don’t know much about BGP RPKI? You’re not alone, but we have [some RPKI content for you on PacketPushers.net](#). - Ethan

AT&T's Kubernetes Bet Tests Network Virtualization's Limits - Light Reading

<https://www.lightreading.com/nfv/containers/atandt...>

Mitch Wagner reports on how AT&T aims to use Kubernetes to orchestrate container-based virtual network functions (VNFs) in its 5G network. These containers will run on OpenStack. That’s a lot of open-source software to manage, so the telco has inked a deal with Mirantis to provide expertise on managing OpenStack and Kubernetes, as well as provide knowledge transfer so AT&T’s own teams can develop their own open-source

chops. I admire AT&T pushing the boundaries of network operations, but running OpenStack, Kubernetes, and VNFs together seems...ambitious. I'm curious to see how this plays out. - Drew

Huawei founder: US cannot crush technology firm - The Guardian

<https://www.theguardian.com/technology/2019/feb/18...>

Big companies do a lot of posturing and bragging. I think this is that. Huawei appears to have a strong business and is winning deals outside the US. - Greg

Secure machine learning for network analytics - APNIC Blog

<https://blog.apnic.net/2019/02/13/secure-machine-l...>

This short report covers, “an interest in using Deep Learning (DL) within the networking and network security communities to improve efficiency and to reduce the risk of mistakes with detecting anomalies in network data.” Understanding the state of AI/ML/DL research is useful, as

marketing departments have begun sprinkling ML all over their literature. - Ethan

New Products & Industry Takes

Nokia expands Anyhaul transport portfolio with 25 Gbps speeds to support operator network investment for 5G rollouts - Nokia

<https://www.nokia.com/about-us/news/releases/2019/...>

The 5G parade marches on with a slew of new products from Nokia that target telcos and carriers building out their 5G networks. The products include transceivers, optical gear, and a new router, the 7250 IXR-e. With Huawei essentially out of the picture in the United States, and getting additional scrutiny in Europe, the traditional incumbents of Nokia, Ericsson, Juniper, and Cisco have a fresh opportunity to get their hooks into 5G rollouts. - Drew

Forward Networks Announces Support of Cisco ACI - Forward Networks

<https://www.forwardnetworks.com/forward-networks-a...>

Forward Networks, a startup that focuses on network modeling and verification, now integrates with Cisco ACI. What exactly does that mean? From the press release: “ACI allows customers to define policies by assigning virtual applications to security groups, called end-point groups (EPGs). Virtual network policies are assigned to EPGs. Forward Enterprise verifies policies and displays how the network will behave and can translate the EPG policies from ACI into the Forward Networks’ system and show or verify the resulting network behavior. Forward Networks’ technology can then go on to compare the resulting behavior to intent and see if there are any deviations that should be addressed.”

This is a useful integration because it provides another level of visibility and helps verify that any changes being made are the changes you actually want. - Drew

Eternity Networks Releases Affordable, All-Programmable 100G ENET vRouter - Eternity Networks

<https://www.ethernitynet.com/news/ethernity-networ...>

Ethernity announces a COTS router paired with an FPGA NIC that does fancy offload to get 100G throughput. I don't know much about this company, but another entrant in this increasingly option-laden space is interesting. "Affordable" and "programmable" are terms typically aimed at carriers who are big on cost optimization and require hardware to be integrated with their gargantuan home-grown orchestration systems. I suspect most enterprises won't need this product, but large enterprises just might. - Ethan

Micro-segmentation as a Composition Challenge - Apstra

<https://blog.apstra.com/micro-segmentation-as-a-co...>

<https://blog.apstra.com/micro-segmentation-as-a-composition-challenge-part-2>

Sasha Ratkovic, Apstra CTO and Founder, tackles mapping the needs of microsegmentation onto an intent-based networking framework. This is a worthwhile read, as it provides a clear context for thinking meaningfully about IBN. I suspect Sasha has thought more about IBN than anyone else in the networking industry, and this series

typifies his deep thoughtfulness. Read when you have opportunity to focus. You might also like [Phil Gervasi's whitepaper on Intent Based Networking](#), available to premium Ignition members. - Ethan

Enterprise WAN for the Cloud Era - Juniper Networks

<https://forums.juniper.net/t5/Enterprise-Cloud-and...>

This piece is marketing cotton candy, but valuable in the sense of demonstrating Juniper's strategy for enterprise WAN. Read between the lines--you'll see Juniper take their diverse WAN products and present them as a unified whole suitable for enterprise consumption. Maybe. My gut sense is that significant integration work will be required to maximize the value from these Lego bricks Juniper is offering. Maybe I'm wrong. - Ethan

Qubes OS 4.0.1 has been released!

<https://www.qubes-os.org/news/2019/01/09/qubes-401...>

Qubes is a secure Linux-based desktop OS. Launch individual tasks in their own Xen VMs. Attach one of several networking stacks to the VM, depending on what level of obfuscation you're looking for. For example, you might like to route traffic for a given VM through the Tor network. Qubes tooling makes this easy...if you're a Linux nerd. For those of you wearing tinfoil hats because you need to, you should know about Qubes. - Ethan

Free e-Book: Containerize Your Apps with Docker and Kubernetes - Microsoft Azure Resource Center

<https://azure.microsoft.com/en-us/resources/contai...>

Gabriel Schenker has published an e-book through Packt Publishing. If you hit the link above, you can download the e-book through your Microsoft account. Or with a little searching, you'll [find the PDF on Microsoft's site](#). - Ethan

5 Real world use cases of Closed Loop Automation - Anuta Networks

<https://www.anutanetworks.com/5-real-world-use-cas...>

Anuta Networks writes "80% of unplanned network outages occur annually due to a network configuration change. Only a mere 3% get rectified before they cause network disruptions. These disruptions also result in a loss of more than \$46 million annually. Modern-day networks generate thousands of alerts per device resulting in a deluge of notifications, making pro-active management arduous. Imagine the complexity when this manifest itself in a multi-vendor network. Consequently, there is a need for assurance, automation along with abstraction and [Closed Loop Automation](#) to improve network management and lower the associated OpEx. The result is a network that is more consistent, predictable and reliable with an increased awareness of network behavior." Get details on 5 use cases where Closed Loop Automation can make a difference. - Drew

The End Bit

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If you'd like to contribute, email Drew
at drew.conrymurray@packetpushers.net.

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