

IN THIS WEEK'S ISSUE: The Intent-Based Career; Wait For SD-Access To Mature; Turn on those images, we aim for amusing (though sometimes we miss).



PACKETPUSHERS

Human Infrastructure Magazine

A Newsletter About a Life in Networking

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The "Free advice" issue.

Thought For The Week:
"I'm going to Wakanda this weekend."

1. The Intent-Based Career

by **Ethan Banks**

What's your career plan? Do you have one? If it's "I want to earn more money and someday retire," that's not a plan.

A plan implies intent and a purposeful course of action. A plan is a series of steps that moves you from where you are now to where you'd like to be.

And to understand where you'd like to be, you have to know your ambition. Everyone's ambition is a little different. Maybe you want to be an executive. Maybe you want to start your own business. Maybe you want to write a book.

For the sake of example, let's say that your company has an architecture group. You want to be on that team. So 'Network Architect' is your ambition.

Now, you need a plan. What might the elements of this plan be? That depends on the job qualifications. My informal job description for a Network Architect, a position I've held a few times, goes like this.

The Network Architect shall...

- *have 10 or more years of experience engineering complex, geographically diverse networks.*
- *demonstrate masterful knowledge of key networking protocols.*
- *understand application delivery systems, and the role networking plays therein.*
- *effectively communicate with business leaders as well as IT engineering and operations teams.*

Considering these requirements, how do you attain the skills listed in this description?

1. **Patience.** Experience only comes with time and work. Obtaining 10 years of experience in network engineering isn't just 10 years in IT. It's 10 years doing the right sort of work--network engineering work, in my description. That means you might have to work years before getting into an engineering job, and then begin building your engineer credentials.
2. **Education.** I've met engineers who use protocols. I've met engineers who can explain protocols. You need to be the latter to be an effective architect. That only comes through diligent reading supported by real-world experience.
3. **Perspective.** In an architecture role, deep knowledge of a single discipline isn't enough. You need to understand how your specialty impacts, and is impacted by, the other parts of the IT stack. That's the job. Someone in storage started talking about distributed architecture? You better have a clue. Someone in compute wants to host AD in Azure? You better not just smile and go back to scrolling through memes.
4. **Communication.** When you're an architect, you need to come up with a design that will support the business. That means listening and understanding business leaders. You also need to communicate with fellow IT professionals about your design to be sure your ivory tower isn't too high up in the clouds. Writing, speaking, listening, documenting, editing, and revising are all core tools you'll need.

Now you've got a specific ambition. You've noted specific skills you need to achieve. With that career intent clearly defined, you're ready for a plan. Everyone's plan will look a bit different, because each of have different personal circumstances and abilities.

Perhaps you're a decent speaker, but a poor writer. Take a night class to improve that skill.

Perhaps you've achieved some difficult certifications through hard work and study, but perhaps you fell into IT accidentally and are missing fundamental theory. Time to beef up that library and take some tests.

You get the idea. Identify where you fall short, and assemble a purposeful plan to fill in the holes. Write down the goals. Write down the steps you must follow to achieve those goals. Get feedback on your plan from someone who understands your ability to execute.

Oh, right! **Execution** is the last step to achieving your intent. Execution is also the hardest step, because it requires focus and self-discipline. Make no mistake--doing something different from what you're doing now is hard work. But in the case of career, evolution doesn't just happen. You need to be intentional.

Sponsor: Talari

SD-WAN User Session

SD-WAN deployments are driving a new era of resiliency, agility, and cost efficiency. In fact, Gartner believes that 50%+ of WAN refresh initiatives will start with an SD-WAN architecture. SD-WAN is a relatively new technology, so it's important to gain knowledge now about best practices that will guide you through your initial deployments.

Fortunately, Talari Networks, the leader in Failsafe SD-WAN technology, has paved the road and are available to give you first-hand knowledge of successful SD-WAN deployments. We encourage

you to attend our Bay Area User Session: "[Learn about how to successfully deploy 'Failsafe' SD-WAN technology.](#)"

Complimentary lunch and beverages will be provided for this event, which will start with a session hosted by Andrew Longsworth, Driscoll's IT Infrastructure Engineering Manager. Driscoll's was an early pioneer in broadly deploying Talari's SD-WAN offering, and will discuss overcoming the challenges that can help you move toward a successful implementation.

[Register here.](#)



2. Wait As Long As You Can For Cisco SD-Access

by Greg Ferro

PLEASE stop emailing about Cisco SD-Access.

Here's the TL/DR:

1. Do not buy any part of Cisco's SD-Access right now; it's unfit for sale or use.
2. I have deep misgivings about the complexity of LISP as an overlay protocol.
3. Excessive sales comp -> over pitching, over selling, and unhappy customers.
4. The strategy is sound, the SDN controller software looks good, and the platform has useful features.
5. Wait ~3 years for Cisco to finish and test the product.

Trigger Alert: This article is critical of a product from Cisco. It is not a criticism of Cisco itself. In case you can't tell the difference.

1. Unfit For Sale

Cisco brings internally developed products to market too early. Cisco doesn't know what customers want, so its standard practice for an in-house product is to ship it early, when the product is unfinished, buggy, and lacks features.

Unreliable, unpredictable: There's a high likelihood you will have a product that doesn't work well. Many upgrades will cause operational problems and frustrations. Features may be removed, substantially changed, or enhanced. This can create operational problems as you are forced to keep changing procedures and workflows (which costs you money in time).

Features: It will not have the features promised in the sales cycle. Yes, Cisco really means to implement those features, but they might never deliver, or deliver them differently, or take years to complete. Not a good way to do business.

Ship early = incomplete, buggy: I'm all in favor of taking risks, but buying an SDN controller requires a complete rewriting of your org

chart, retraining of people, and an overhaul of your process within the team and between teams. Most organizations do not want this expense. Yes, it can reduce current work times but it will create work in other areas e.g. desktop provisioning, security audit, printers, WiFi setups, and so on.

The correct approach is to regard Cisco's SD-Access product just like you would a product from a small startup, because that is how Cisco operates internally. This product may die if no one buys it.

2. I Have Deep Misgivings About The Complexity Of LISP

Cisco has chosen LISP for a form of hardware-dependent overlay network. LISP has been rattling around inside Cisco for more than a decade. It failed to take hold in Nexus 7K and no other business unit has picked it up.

I'm surprised BGP EVPN wasn't chosen. BGP EVNP is simpler, more direct, has wide industry support, and there is existing code in other Cisco SDN controllers that could have been used instead of rewriting all new code for LISP.

Why choose what is effectively a proprietary protocol? I don't know. Perhaps to prevent whitebox makers or standalone network apps from entering the market. Given that a large number of campus networks are already committed to Cisco, I suppose it makes sense to trap them early.

3. Internal Pressure Drives Overselling

It's standard Cisco practice to drive early profits, so there are significant incentives to sell SD-Access. I hear strong rumors of triple accelerators, minimum sales targets, and "sacked if you don't sell."

That means customers will be under a lot of pressure from Cisco sales

reps to buy. It doesn't really matter whether you want it or need it, there is strong pressure (the keeping-your-job kind) to sell SD-Access.

Note: Cisco does not discount new products to make them attractive. It's more common to charge more due to a self delusion about product management.

4. The Strategy Is Sound

Cisco is moving into network automation for the campus before competitors can enter the space. There is a lot of revenue that Cisco can capture and prevent competitors like Arista/Juniper from taking away, as has happened in the data center.


Demos of the product are really interesting. Automation workflows will replace the tedious and boring work of configuring STP in the underlay and attempting to configure LISP in the overlay. Integration with identity management, security group tags (proprietary) ,and firewalls should lead to much improved security in the campus by enabling micro-segmentation to prevent lateral privilege escalation.

Cisco is spending some money on user experience and it shows. The interface looks pretty (perhaps too pretty) but simple tasks like device upgrades are one-click tasks based on advisory data from Cisco's support (no more TAC calls for recommendations on what code to use).

The Etherealmind View

I think Cisco has been smart and innovative with SD-Access as a strategy. I have strong opinions around their ability to execute based on previous experiences (see ACI) and on their choice of activating technologies.

On that basis, I suggest waiting as long as you can for SD-Access to mature and be fit for use.



Sponsor: Linux Foundation

Attend Open Networking Summit in March for Dev Forums, Technical Sessions and Deep Dive Training

Attend [ONS](#), March 26 - 29 in Los Angeles, and join other technical experts working in networking and orchestration for Developer Forums from LFN ([FD.io](#), OpenDaylight, ONAP, OPNFV, PNDA, and SNAS), ONF (CORD & ONOS), and the Acumos Project.

In addition, ONS features technical sessions in Enterprise DevOps and Service Provider & Cloud Networking tracks, with a total 75+ conference sessions covering 5G, AI, Automation, CI/CD, Containers, Data Plane, Edge, Network Operations, Security, SDN/NFV, Standards, VNF and more. Close out the week with deep dive training on ONAP & OPNFV.

[View the full schedule and register by March 10 and save \\$605!](#)
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Thanks, Internet

All kinds of amusing things wash up in our social feeds.



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Packet Pushers Virtual Design Clinic

Sign Up Now!

The Packet Pushers will host a [Virtual Design Clinic](#) on Tuesday, March 20, 2018. This live, online event will offer engineering deep dives on network challenges and solutions.

It will feature presentations from the Packet Pushers, independent speakers, and sponsors. After the event, we'll make the presentations available free for [Packet Pushers members](#).

[Register here](#) to reserve your space.



PACKET PUSHERS
VIRTUAL DESIGN CLINIC


The Packet Pushers' Virtual Conference

Skip the travel, focus on engineering content, and bring a lot of intelligent people (and a few chaos monkeys) together to make IT a more tolerable profession.

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Tuesday, March 20, 2018
10:00 am - 4:00 pm est



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 Drew Conry-Murray

My name is David Flink, I'm a leader in tech, and I'm an alcoholic

David Flink describes what it was like to be a high-functioning alcoholic while also maintaining a career in tech. He also talks about his reasons for giving up drinking, the daunting work to stay sober, and where people who are struggling with their own addiction can go for help.

[LINK](#)

How Self-Sufficient Do You Want to Be?

Ivan Pepelnjak reminds us that as networking systems get more and more abstracted, we might enjoy more ease of use, but we also risk more pain if and when something goes wrong.

"...carefully consider how you plan to deal with the magic new technology once it breaks, and (paraphrasing Gartner) start investing into premium people instead of premium vendors."

[LINK](#)

A promotional banner for Packet Pushers membership. The background is a dark blue image of a server rack with glowing lights. On the left is a red and orange geometric logo. The text is white and orange. At the bottom, there is a small navigation bar with numbers 27, 28, 29, 30.

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

Product News

Find out about interesting new products, or get essential information about things you might already be using.

Juniper Woos The Enterprise With New Products

Juniper Networks is wooing enterprise buyers with a [fresh-baked batch of new products](#) and a strategy built around multicloud.

That is, Juniper wants to be able to connect enterprise workloads regardless of where they are, and enable the requisite policies and

security controls to extend from the premises data center into and across the public cloud. And do it simply and effectively.

[LINK](#)

ExtraHop Jumps Into Security With Reveal(x) Anomaly Detection Appliance

Extrahop, a network performance monitoring company, has announced its first-ever security product, [Reveal\(x\)](#).

The goal of the product is to spot anomalous behaviors, provide useful insight and context around those behaviors, and speed security investigations.

[LINK](#)

Aerohive Networks Announces 802.11ax APs & The Atom AP30

Aerohive Networks has announced a [new family of access points](#) based on the 802.11ax standard.

The company has also announced the Atom AP30, a small AP that can be plugged into a standard power outlet.

802.11ax, which is expected to be ratified in 2019, aims to boost the efficiency of APs to enable them to serve more clients with more consistent performance, particularly in dense environments such as stadiums and airports.

[LINK](#)

Briefings In Brief: A New Packet Pushers Podcast

Want more tech news? [Subscribe](#) to our newest podcast channel, [Briefings In Brief](#). We take five minutes or less to summarize and analyze tech news, product announcements, or other interesting items that come across our desks.

[LINK](#)

Recent Podcasts

The last five podcasts published on Packet Pushers

PacketPushers.net - The Last Five

[PQ 139: Why AT&T Is Building An Open Source Network OS](#)

[Datanauts 121: A Professor Takes Us To Machine Learning School](#)

[Network Break 171: Cisco Issues Critical Patches; Vendors Launch New Products](#)

[Show 376: How Did MPLS Get Its Start?](#)

[PQ 138: Inside Open vSwitch](#)



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The End Bit

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