

TF DDF 2019: TF Roadmap

Date

18 Nov 2019

Minutes

- Nick Davey, PLM at Juniper, talking about Tungsten Vision & Futures
- Hoping to achieve in the future: One of the best, most performant, SDN solutions for telco, service provider, and next gen solutions
 - Improve NFVi deployments
 - Looking to improve dataplane perf
 - Improve vRouter portability
 - Position TF for 5G
 - Optimize TF for Edge Compute
- Operability will be key
 - "Don't fail quietly"
 - Improve dataplane perf by pushing it further down toward the kernel
- Deployment is hard
 - For distributed systems in particular
 - Takes a lot of time and expertise to do this right at the moment
 - Will be working on the operator framework within TF
 - More than just an installer; will be a lifecycle management tool for containers, the system, and its state
 - Will rely on other mechanisms w/in k8s to store and communicate that state
 - Hopefully will lead to smoother upgrades and operation
 - Guarantee the results of the operations
- Telco 5G transformation
 - A lot of edge compute's gonna be needed
 - Vendors are shipping VNFs in containers, so containerisation is key in a 5G environment
 - Looking to get dpdk perf, but for containers
 - Building on multi-interface support in k8s
 - Can connect multiple interfaces to arbitrary networks
 - Make the encrypted dataplane more robust
 - Already have this solution, but it's not particularly visible next
- Edge compute
 - Support for the OpenStack edge compute project
 - Intro support for real time hypervisors (want to test this? Talk to Nick!)
 - Looking to decouple things to make them more flexible
- Questions!
 - DH: Anything messaging outside of telco? Cloud native, for instance?
 - Lots of work happening in the cloud native deployments
 - Operator lifecycle management is going to help a lot with this
 - Better fold into the orchestrators we're working with
 - Will be bringing in support for service meshes this year
 - Support SMI, for instance, inside TF
 - Would be able to work for any service mesh
 - RLB: When will we get rid of the dependency on OpenStack Keystone?
 - No hard details on this, but it's definitely a black eye
 - On the radar, but need a plan
 - WS: More about that orchestration extension...?
 - It's about deployment and mostly installers
 - "What orchestrates the TF deployment?"
 - Things like Docker Compose and the like
 - Want an operator agnostic approach
 - Will leave the door open for other orchestrators themselves, of course
 - AA: Is it a problem for TF that k8s doesn't scale well beyond 200 hypervisors?
 - Have a lot of power here in multicluster peering and our seamless overlays
 - Wrap TF around all of the clusters, and it's easier
 - Don't get larger clusters, but get a lot more smaller clusters that act as one
 - More reachability across services



tf-ddf-2019-tf_roadmap.pdf

Action items

- ☒ Nick will send slides ASAP after this so we can attach them to this page