TF DDF 2019: K8s enhancements for Telco applicability Kubernetes Service Chaining

Date

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Minutes

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- **While the slides are all about Contrail, please note that all of this functionality is in Tungsten Fabric**
- What's a network function service chain?
    - Routing in the dataplane (via vRouter) to steer traffic through a speciied set of network functions
    - TF abstracts away the complexity
    - Independent of workload, location, and form factor of the network function
    - Only constraint: must be anchored to Virtual Networks
- Telcos use this…
    - …to add value added functions inside the datacenter of a service provider
    - Add resiliency
    - Add scale, and load balance across all the instances of network functions
- CSRX: Next gen firewall in a docker container
    - Containerising network functions
        - Run an L7 firewall inside a small container that boots in seconds
        - Could do this on every host if you desire, minimising exposure of network to bad traffic
    - Only possible because of service chaining
- But the problem with k8s, ports with multiple interfaces aren't supported in vanilla upstream k8s
    - Network functions typically need multiple interfaces
    - Juniper dev team is working on this, and to upstream it to k8s
    - Also working to add service chaining in k8s
- Problem with Multus in k8s
    - Designed to enable multiple network providers on interfaces to pods
    - But does not allow for single provider on a single pod
    - TF Pod will be able to to this
    - Have enhanced the pod manifest and yaml files
    - Also have a custom resource definition to help define what network a pod should connect to
- Questions
    - None, it's demo time

Action items

- [ ] Aniket DaptariSend the slides so they can be attached to this page