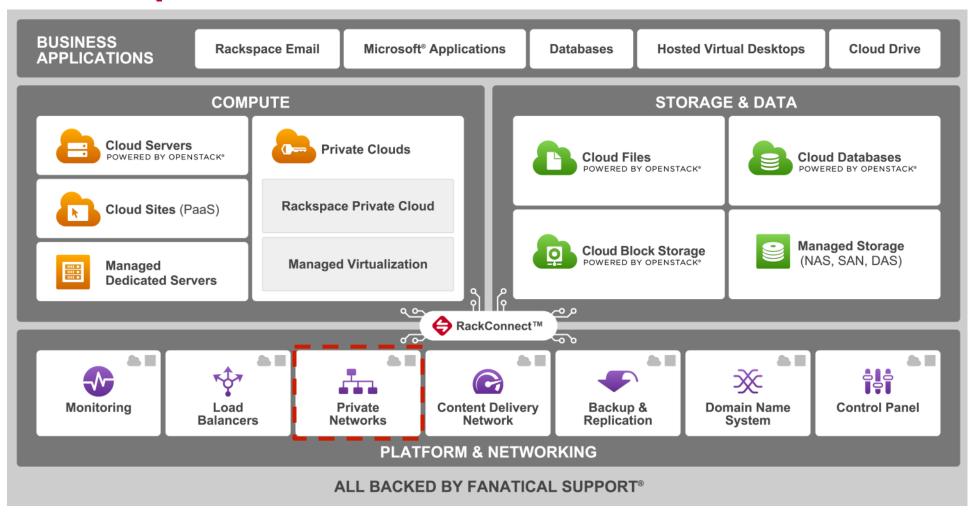
This packet lacks context

Created by: Brad McConnell, Principal Architect, Rackspace

August 23, 2013



Rackspace Portfolio





Current challenges

- When you use every major hypervisor, seamless network integration falls to a low common denominator (VLANs)
- Vertically integrated solutions for network services or service chaining have limited appeal
- SDN opens up new use cases for attaching metadata to packets, and we're using these today

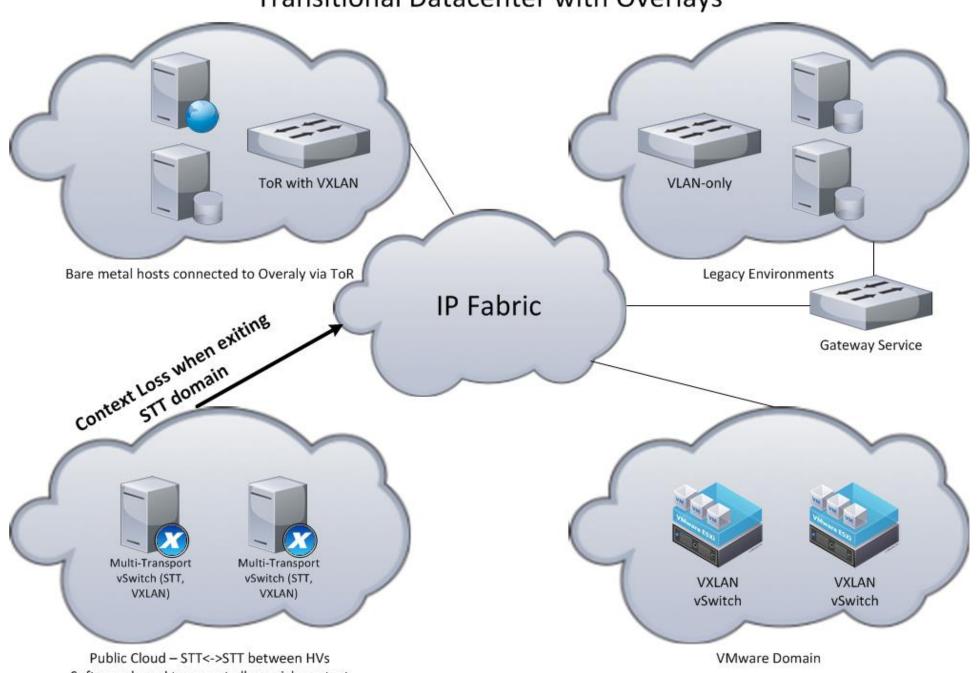


Data plane stitching today – Workable, not fancy

- VLANs for service stitching Doesn't scale well to hundreds of thousands of tenants
- Tunnels between services via MPLS
- Tunnels between services via VXLAN/NVGRE/STT



Transitional Datacenter with Overlays



Software-based transport allows rich context

What context will we share?

Anything you can't fit into an existing header that you don't want to extract with DPI at every service.

- UserID inserted by a trusted source.
- OAM (underlay discovery, packet debugs)
- Direction
- Pipeline stage index
- Version
- Compliance



Summary

- Service chaining isn't just about data plane
- Software switching leads to distributed pipelines that existing encapsulations aren't flexible enough for
- Let's stay outcome focused



THANK YOU



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