



LFN Developer & Testing Forum

Anuket RI-1 with SDN

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Related Talk

- TF Architecture:
<https://wiki.lfnetworking.org/x/rwADA>
[W](#)

- RI-1
- Openstack
- SDN: TungstenFabric
 - Support the lack of SDN with existing RI in OPNFV
 - Airship.
- Testing:
 - Functional Testing.
 - Xtesting
 - Performance Testing.
 - VSPERF.

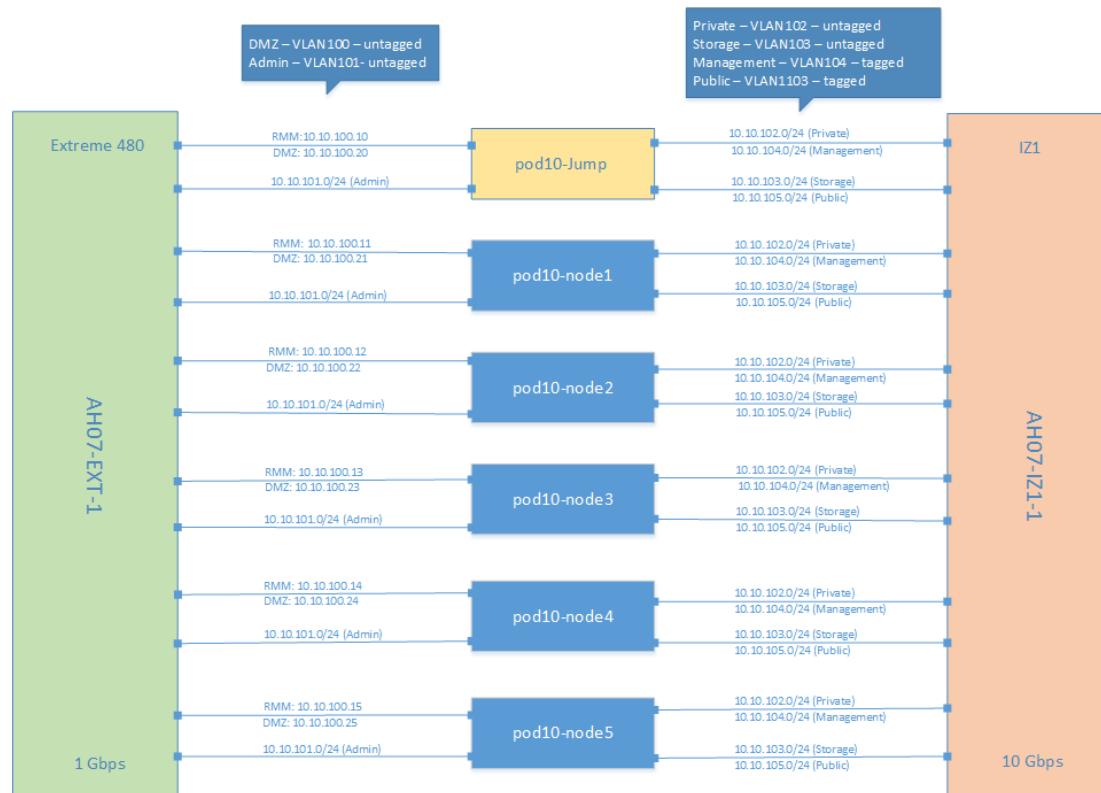
Openstack + TungstenFabric

- Replace and augment many of the networking components of a standard OpenStack cloud and provides features such as:
 - Distributed virtual routing
 - DHCP and Metadata services
 - Policy-based access control
 - Compatibility with security groups
 - ... and more
- Forwarding plane supports MPLS over GRE, VXLAN, L2/L3 unicast and L3 multicast for interconnection between virtual and physical networks

Testbed

Intel POD10 is used. Detailed description - <https://wiki.opnfv.org/display/pharos/Intel+POD10>

Network 10.10.100.0/24 for Control plane
Network 10.10.102.0/24 for Data plane



Deployment Architecture

vMX

vMX – Virtual MX Router to provide routing between virtual address space and fabric network

TF Controller
Openstack Controller

3 TF controllers in HA mode
1 Openstack controller to simplify deployment
1 compute with TF vrouter

TF Controller

TF Controller

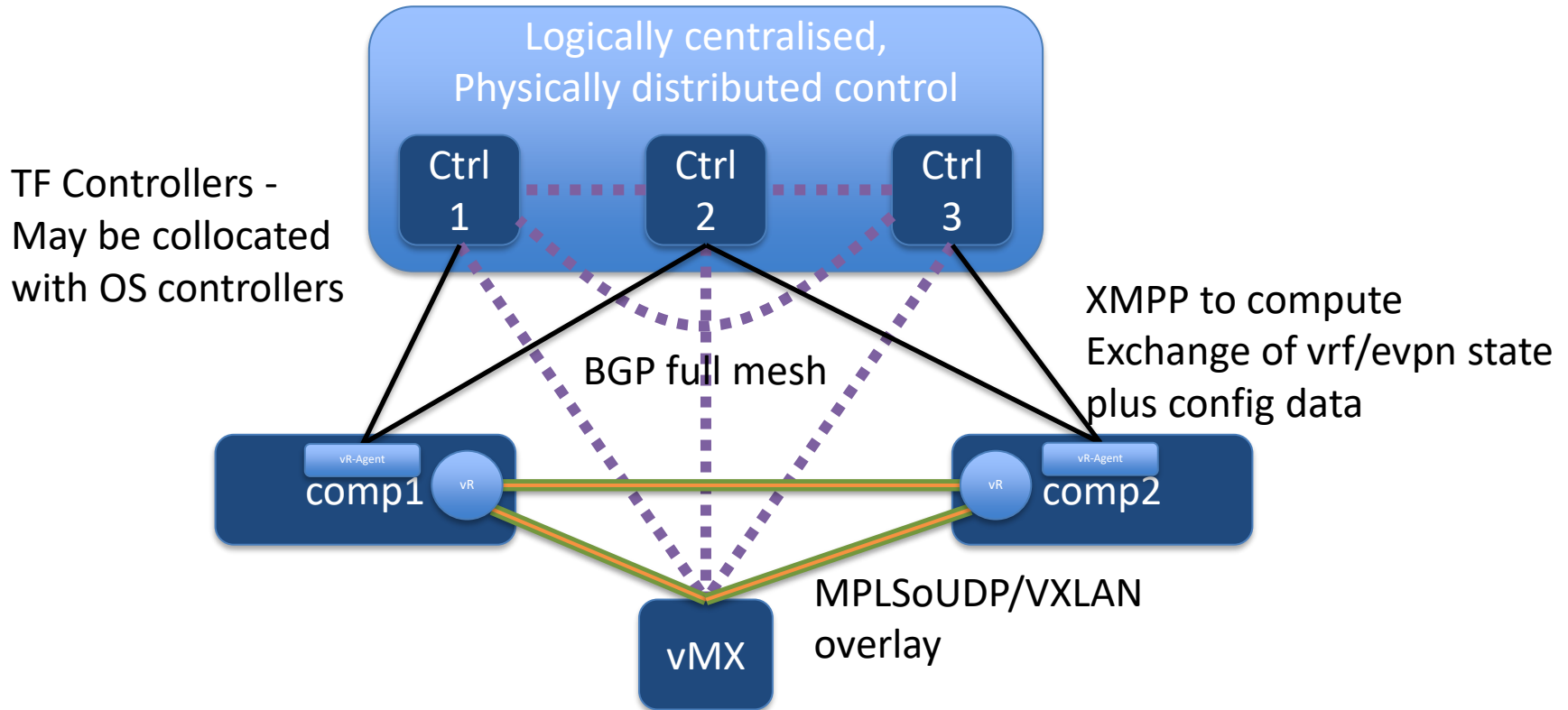
Deployment tool <https://github.com/tungstenfabric/tf-devstack>
Deployment method – ansible with overridden options
ORCHESTRATOR, CONTROLLER_NODES, CONTROL_NODES

Compute

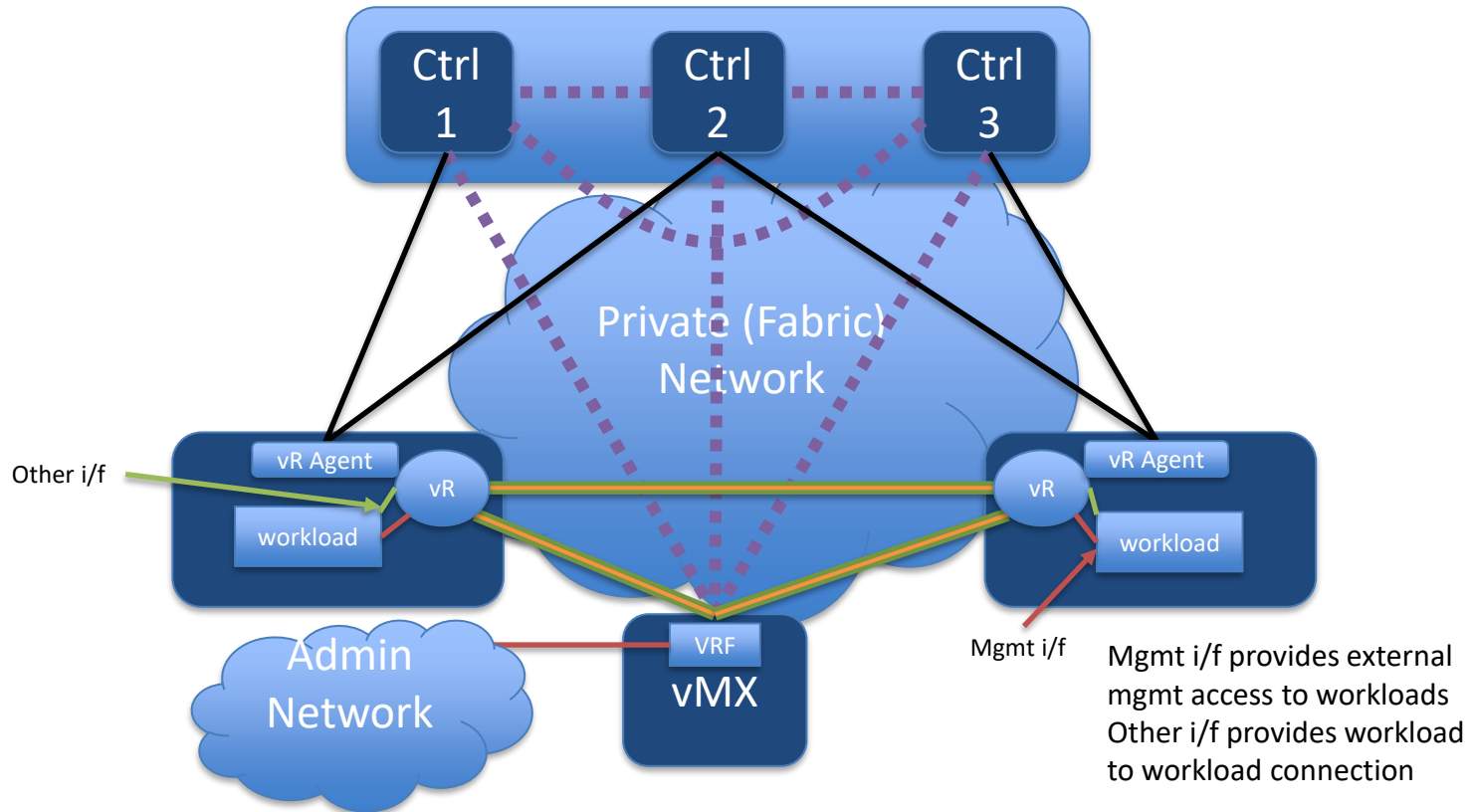
Challenge

- External Access to Workloads.
- Solution: VMX.

Logical Architecture



Logical Architecture



Current Status

- Deployment is successful.
- External access through VMX is also ready.
- Started with Functest
- Not started with performance tests.
 - [Due to hardware failure, we have only one compute]



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