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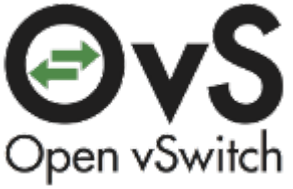

Dreamteam Proxmox und Open vSwitch

Eike Holtz – Infratix GmbH

Chemnitzer Linux Tage 2017

Open vSwitch

- Virtual Switch
- Integriert (und in Openstack, XenServer 6, ...)
- Gibt es Seit 2009
- Featureliste länglich
  - Auch GRE-Tunnel

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GRE

- Generic Routing Encapsulation
- 1994
- Von Cisco
- Tunnel
  - [...] a tunneling protocol allows a network user to access or provide a network service that the underlying network does not support or provide directly [...] (Wikipedia)

Proxmox Default

- Bridges
- Supereinfaches „Setup“
- Okay (und VLAN-Fähig), aber
- Sind halt „nur“ Bridges

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Wanted

- Proxmox Cluster
- Verteilt auf drei Standorte
- Transparenz der Struktur für die VMs
- Selbstgehosteter verteilter Storage
  - Hier mit ceph

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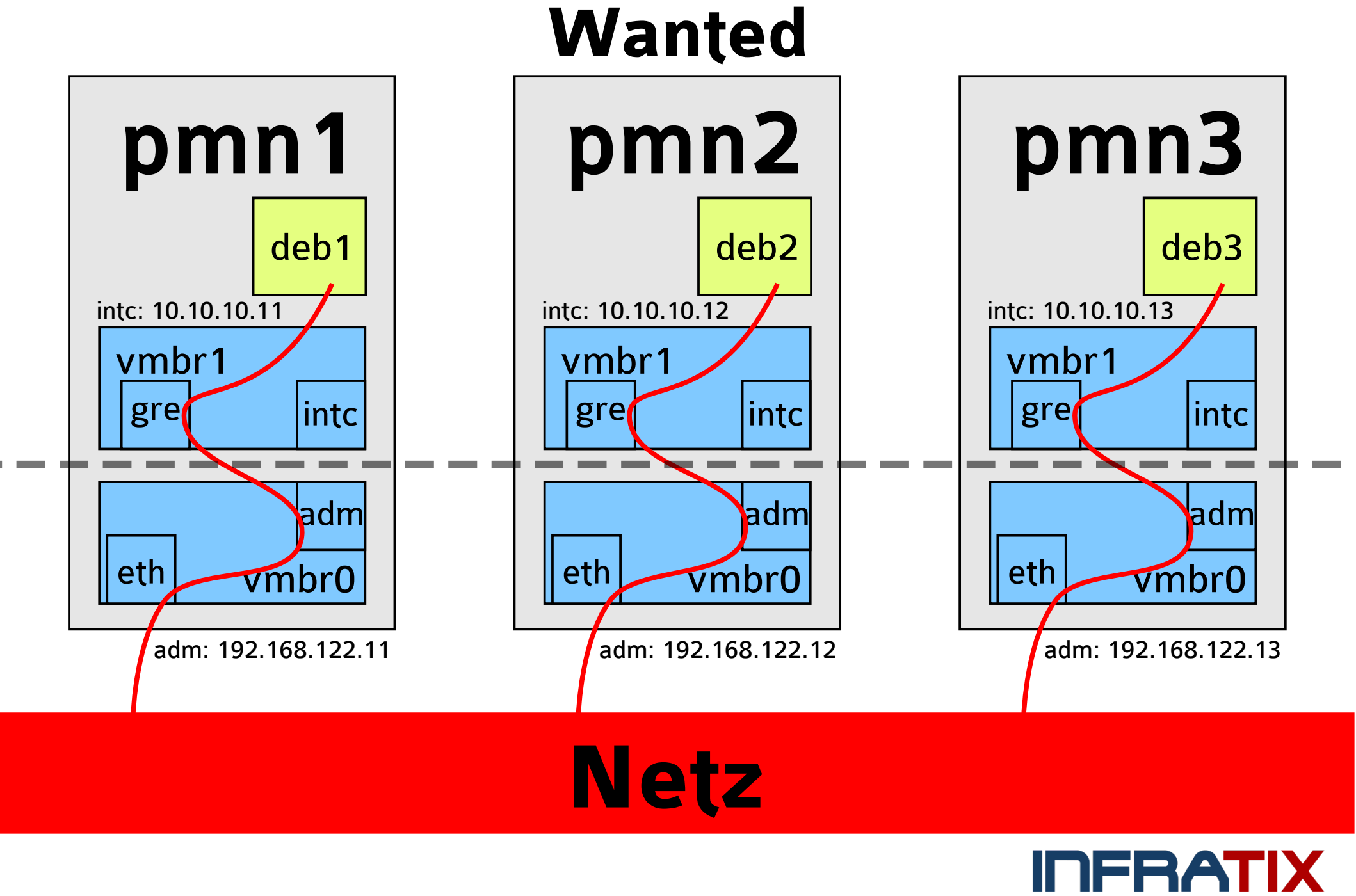
Wanted
pmn1
deb1
intc: 10.10.10.11
vmbr1
gre
intc
adm
eth
vmbr0
adm: 192.168.122.11
pmn2
deb2
intc: 10.10.10.12
vmbr1
gre
intc
adm
eth
vmbr0
adm: 192.168.122.12
pmn3
deb3
intc: 10.10.10.13
vmbr1
gre
intc
adm
eth
vmbr0
adm: 192.168.122.13
Netz

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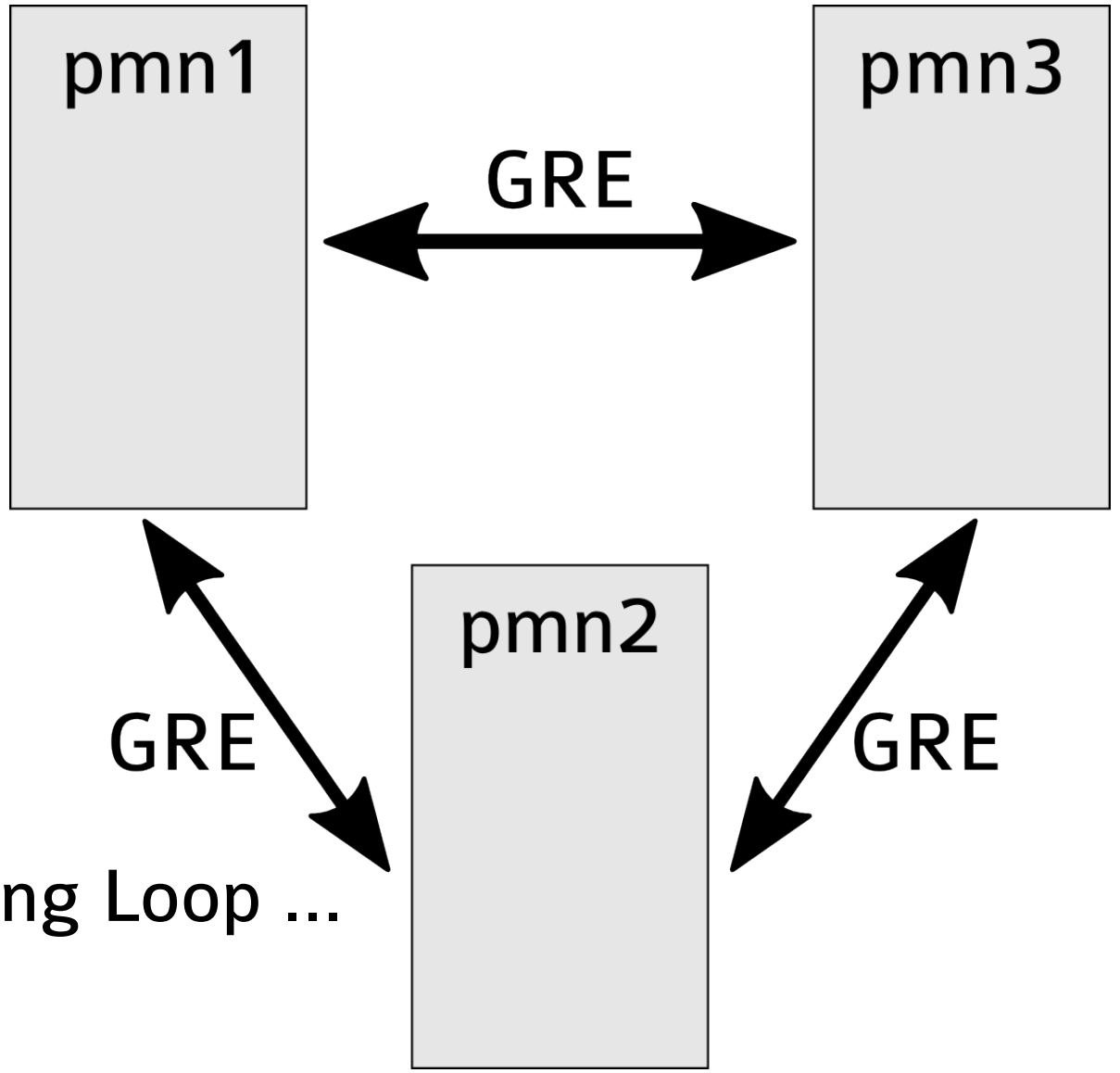
Tunnelsetup



- Switching Loop ...
- RSTP!

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Steps

- PVE Repo einrichten
  - Subscription vs no-subscription
  - deb http://download.proxmox.com/debian jessie pve-no-subscription
- Open vSwitch-Pakete installieren
  - apt-get -y install openvswitch-switch ethtool

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Steps

- /etc/network/interfaces
  - Live Demo
- Ceph setup
  - http://pve.proxmox.com/wiki/Ceph_Server

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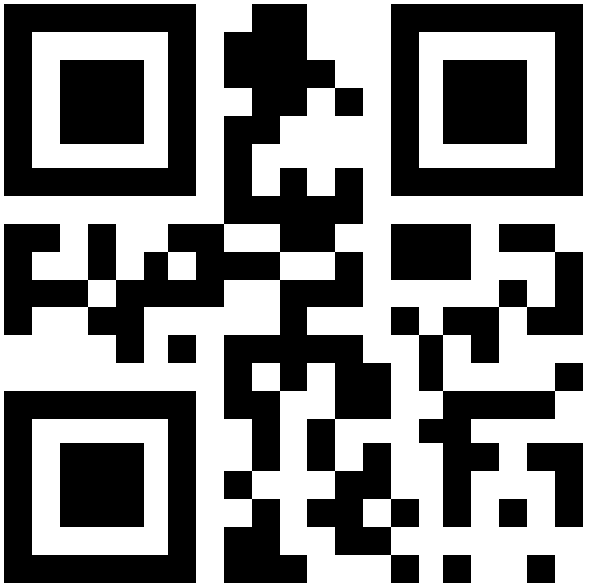
Diskussionsteil

- Fragen
- Anmerkungen
- ...



- Folien: eholtz.de
- eike.holtz@infratix.de

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/etc/network/interfaces

```
auto lo
iface lo inet loopback

auto vmbr0
allow-ovs vmbr0
iface vmbr0 inet manual
  ovs_type OVSBridge
  ovs_ports eth0 admin0

auto vmbr1
allow-ovs vmbr1
iface vmbr1 inet manual
  ovs_type OVSBridge
  ovs_ports interconnect
  post-up /root/ovs/gre1.sh

auto eth0
allow-vmbr0 eth0
iface eth0 inet manual
  ovs_bridge vmbr0
  ovs_type OVSPort

allow-vmbr0 admin0
iface admin0 inet static
  ovs_type OVSIntPort
  ovs_bridge vmbr0
  address 192.168.122.11
  netmask 255.255.255.0
  gateway 192.168.122.1

allow-vmbr1 interconnect
iface interconnect inet static
  ovs_type OVSIntPort
  ovs_bridge vmbr1
  address 10.10.10.11
  netmask 255.255.255.0
  post-up /sbin/ip link set interconnect mtu 1450
```

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gre1.sh

```
#!/bin/bash

date > /tmp/gretun
ovs-vsctl set bridge vmbr1 rstp_enable=true
ovs-vsctl add-port vmbr1 gre1112 -- set interface gre1112 type=gre options:remote_ip=192.168.122.12
ovs-vsctl add-port vmbr1 gre1113 -- set interface gre1113 type=gre options:remote_ip=192.168.122.13
ovs-vsctl set int interconnect mtu_request=1450
```