Netzwerke mit Proxmox und Open vSwitch

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SLAC 2016

Proxmox VE

- Virtualisierungslösung für Server
- KVM
- LXC
- Seit 2008
- Debian-based

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Open vSwitch

- Virtual Switch

- Integriert in Openstack, XenServer 6, …

- Seit 2009

- Support durch Proxmox VE ;-)

- Featureliste länglich
  - Auch GRE-Tunnel

GRE

- Generic Routing Encapsulation

- 1994

- Von Cisco

- Tunnel

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Proxmox Default

- Bridges

- Okay (und VLAN-Fähig), aber
    - Manchmal etwas zickig bei Windows-VMs
    - Sind halt „nur" Bridges

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Wanted Setup

pmn1

deb1

vmbr1
gre

tep adm
eth vmbr0

tep: 10.0.2.11
adm: 192.168.122.11

pmn2

deb2

vmbr1
gre

tep adm
eth vmbr0

tep: 10.0.2.12
adm: 192.168.122.12

pmn3

deb3

vmbr1
gre

tep adm
eth vmbr0

tep: 10.0.2.13
adm: 192.168.122.13

Netz

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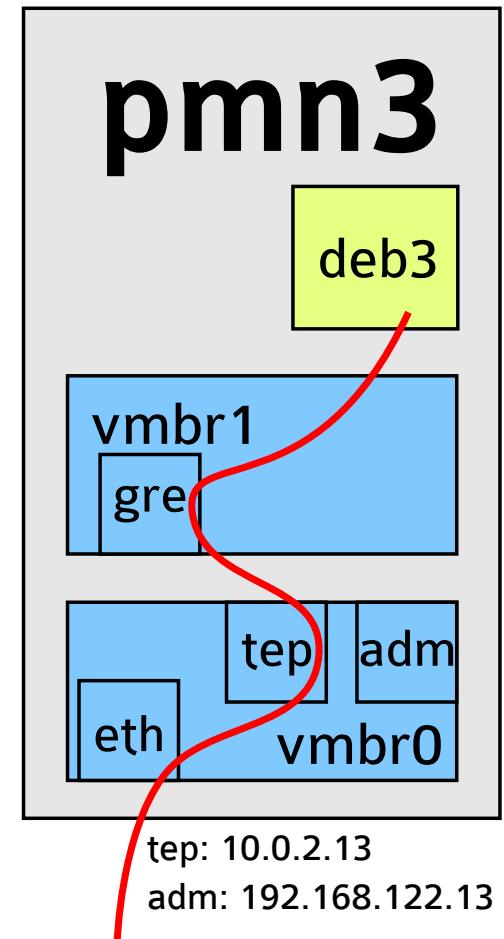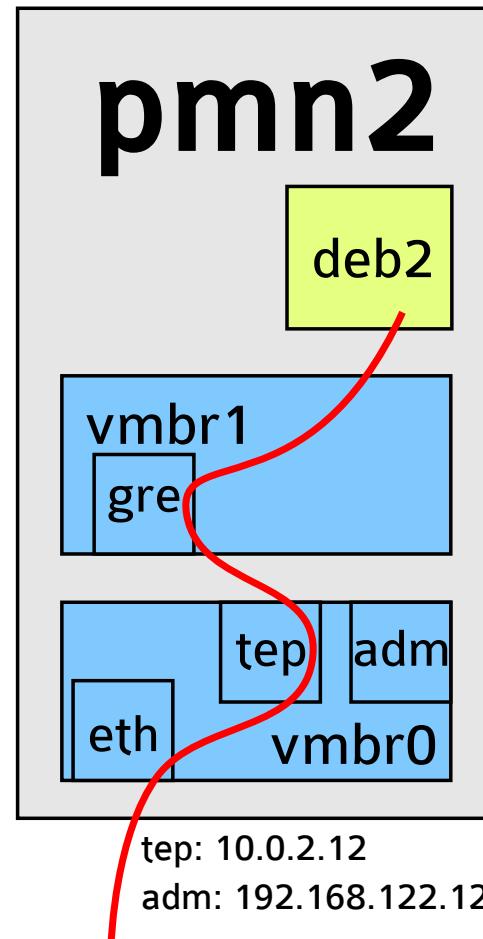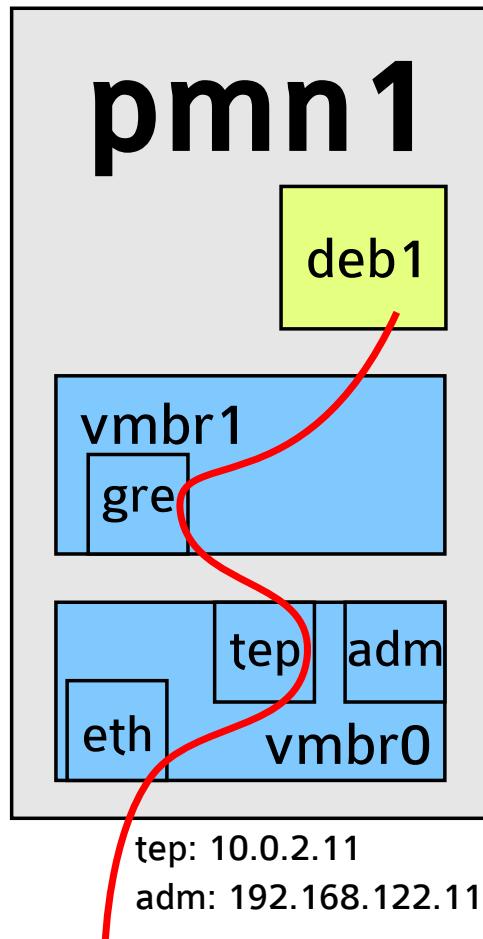
Tunnelsetup
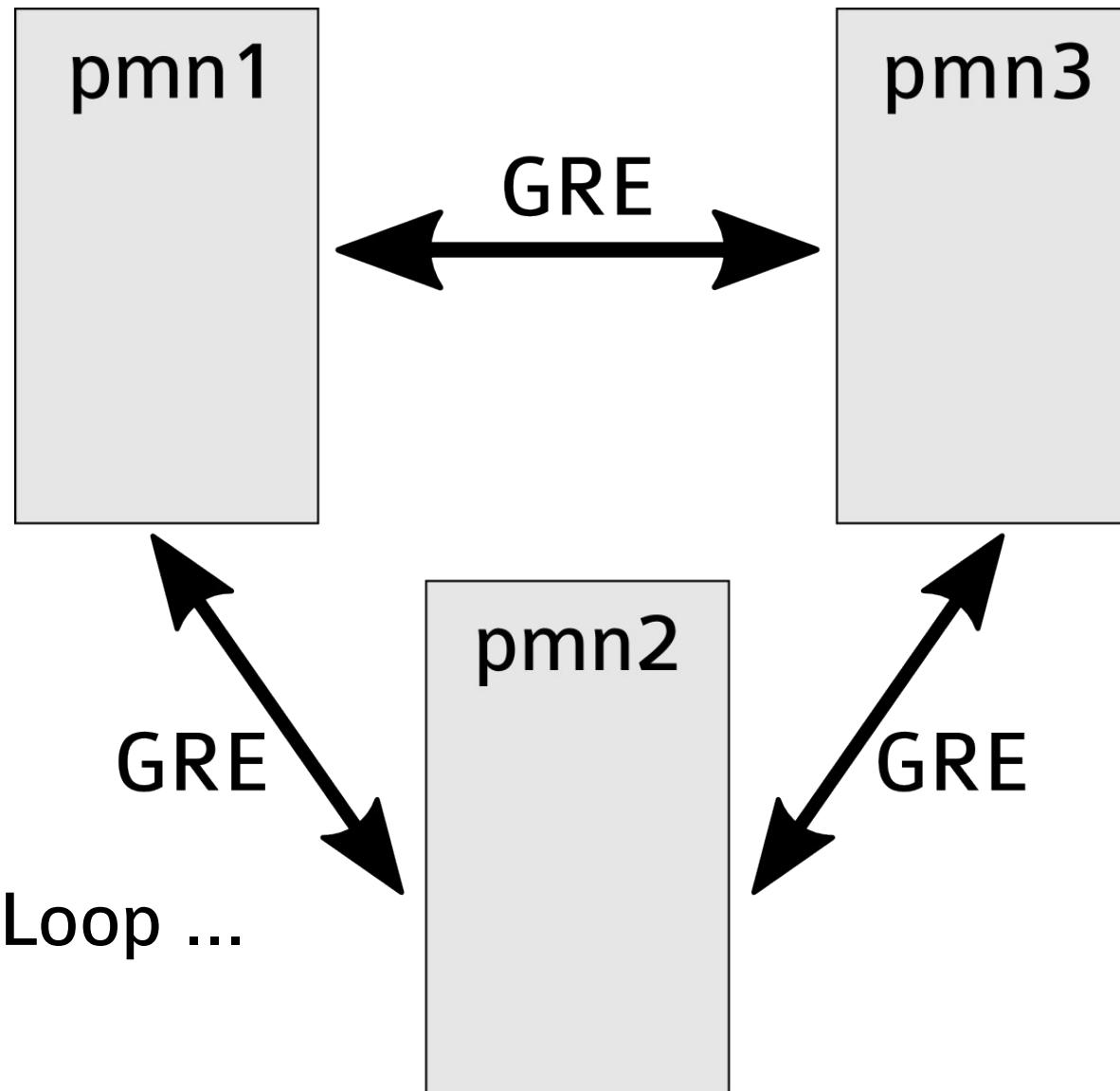
- Bridge Loop ...
- STP!

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

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Diskussionsteil

- Fragen

- Anmerkungen

- …

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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 tep0


auto vmbr1
allow-ovs vmbr1
iface vmbr1 inet manual
  ovs_type OVSBridge
  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-vmbr0 tep0
iface tep0 inet static
  address 10.0.2.11
  netmask 255.255.255.0
  ovs_type OVSIntPort
  ovs_bridge vmbr0
```

gre1.sh

```bash
#!/bin/bash

ovs-vsctl set bridge vmbr1 stp_enable=true
ovs-vsctl add-port vmbr1 gre1112 -- set interface gre1112 type=gre options:remote_ip=10.0.2.12
ovs-vsctl add-port vmbr1 gre1113 -- set interface gre1113 type=gre options:remote_ip=10.0.2.13
```

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