

JUNIPER OPEN LEARNING PRESENTS:

3-SESSION FREE TRAINING SERIES

ON

CREATING A JUNIPER LAB WITH EVE-NG



SESSION 1: APRIL 09, 9:30 AM EDT

SESSION 2: MAY 13, 9:30 AM EDT

SESSION 3: JUNE 11, 9:30 AM EDT

Who's that guy?

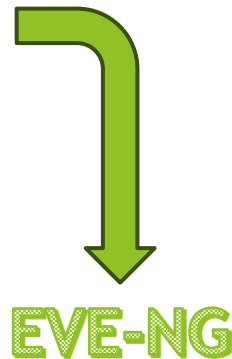
Christian Scholz (@Netzwerkonkel)

„That guy who loves Networking,
EVE-NG and IPv6“

Teamlead CC-NIA
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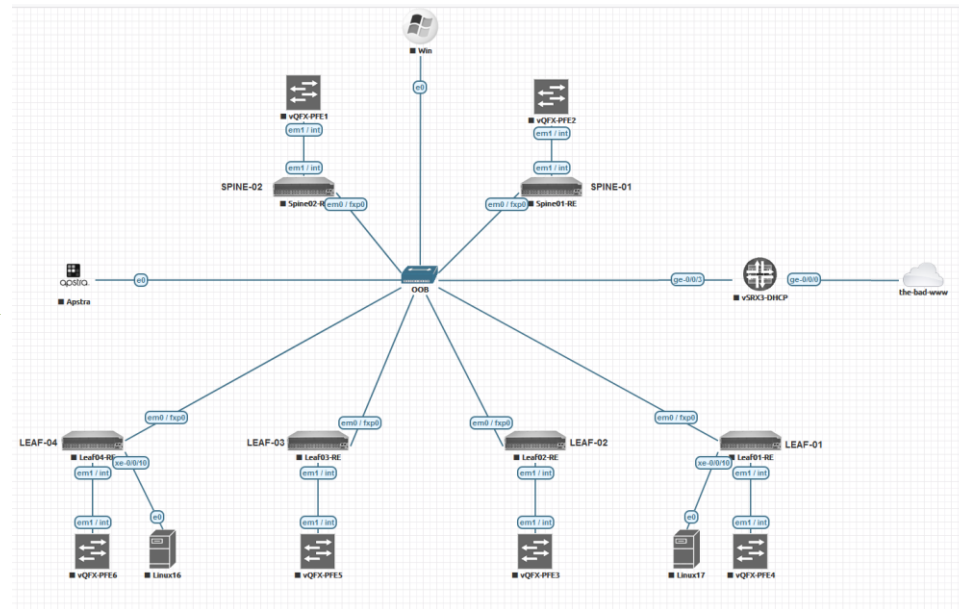


EVE-NG

Why EVE-NG? | Why Virtual Labs?

Why EVE-NG | Why Virtual Labs

Save Power / Rackspace

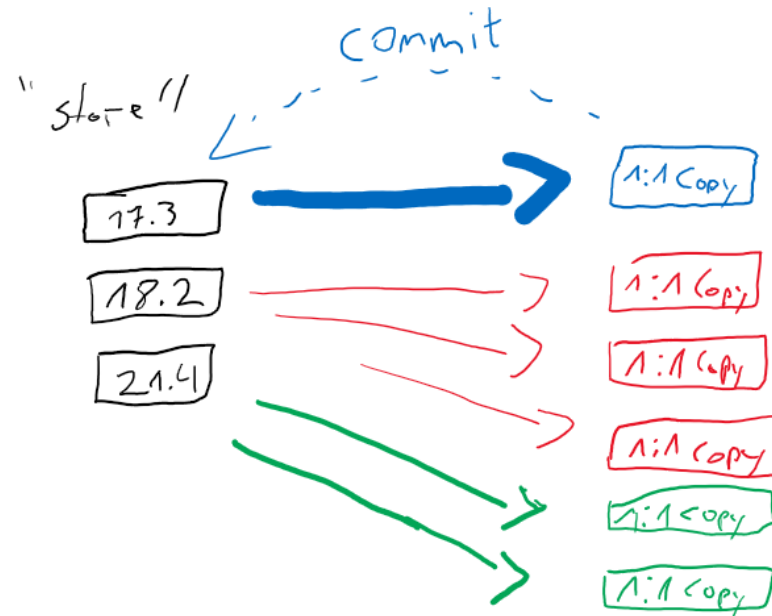


Why EVE-NG | Why Virtual Labs

- ▶ Quickly Lab / Test a new Design
- ▶ GREAT for Certification 😊 → Combine with vLabs and AATP
- ▶ Get started for free with the Community Edition
- ▶ Vendor-Neutral! No Focus on a particular Vendor
- ▶ Extremely Flexible (Bare-Metal, VM | On-Prem | Colocation | Cloud)

Design Considerations - Planning a Lab

- Number of nodes (**CPU**, **RAM**, **HDD**):
For each node, eve uses the base-node and needs additional harddisk-space for the changes. RAM and CPU can become a problem if Labs get bigger.



Design Considerations - Planning a Lab

- ▶ Number of nodes (**CPU**, RAM, **HDD**):
For each node, eve „copies“ the image and therefore needs harddisk 😊
- ▶ Number of images on EVE host | „Data Grave“ | Clean Policy
- ▶ Number of needed satellites - are any needed? Clustering needed?
Pro needed? VM or Bare?

Flavors?

- ▶ Ubuntu installed on BMS

Hardware

Hypervisor
(KVM) [EVE]

Juniper vDevices
+ Standard

- ▶ ESXi installed on BMS and EVE as VM inside ESXi

Hardware

Hypervisor
(ESX)

Hypervisor
(KVM nested) [EVE]

Juniper
Standard

- ▶ Windows Client running VMwareWorkstation, running EVE (EVEception)

Hardware

OS
(Windows)

Hypervisor
(Workstation)

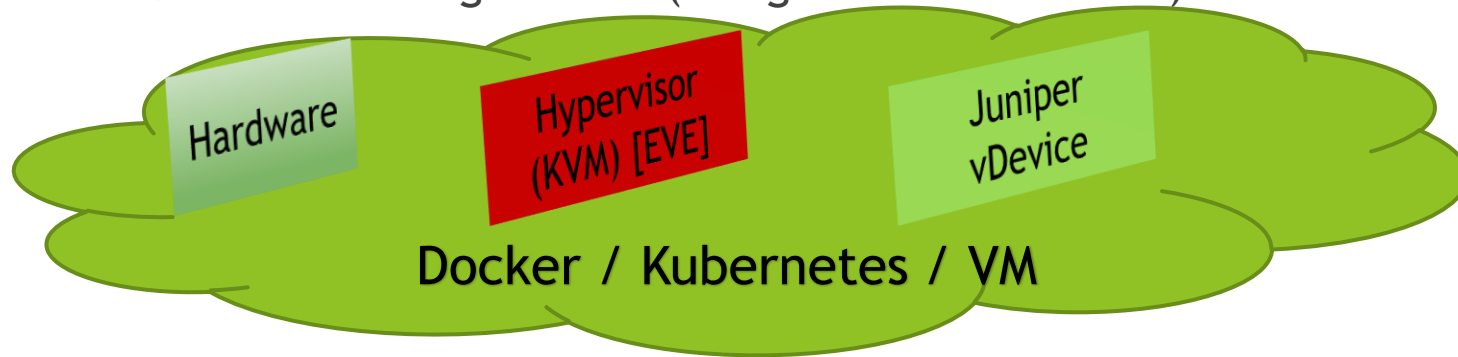
Hypervisor
(KVM nested) [EVE]

Juniper
Standard?



Flavors?

- ▶ EVE running on GCP (Google Cloud Platform)



Flavors?

- ▶ EVE Hybrid (run multiple flavors of eve in a cluster)

EVE MASTER Bare Node



EVE SAT1 VM Node



EVE SAT VM Node on GCP



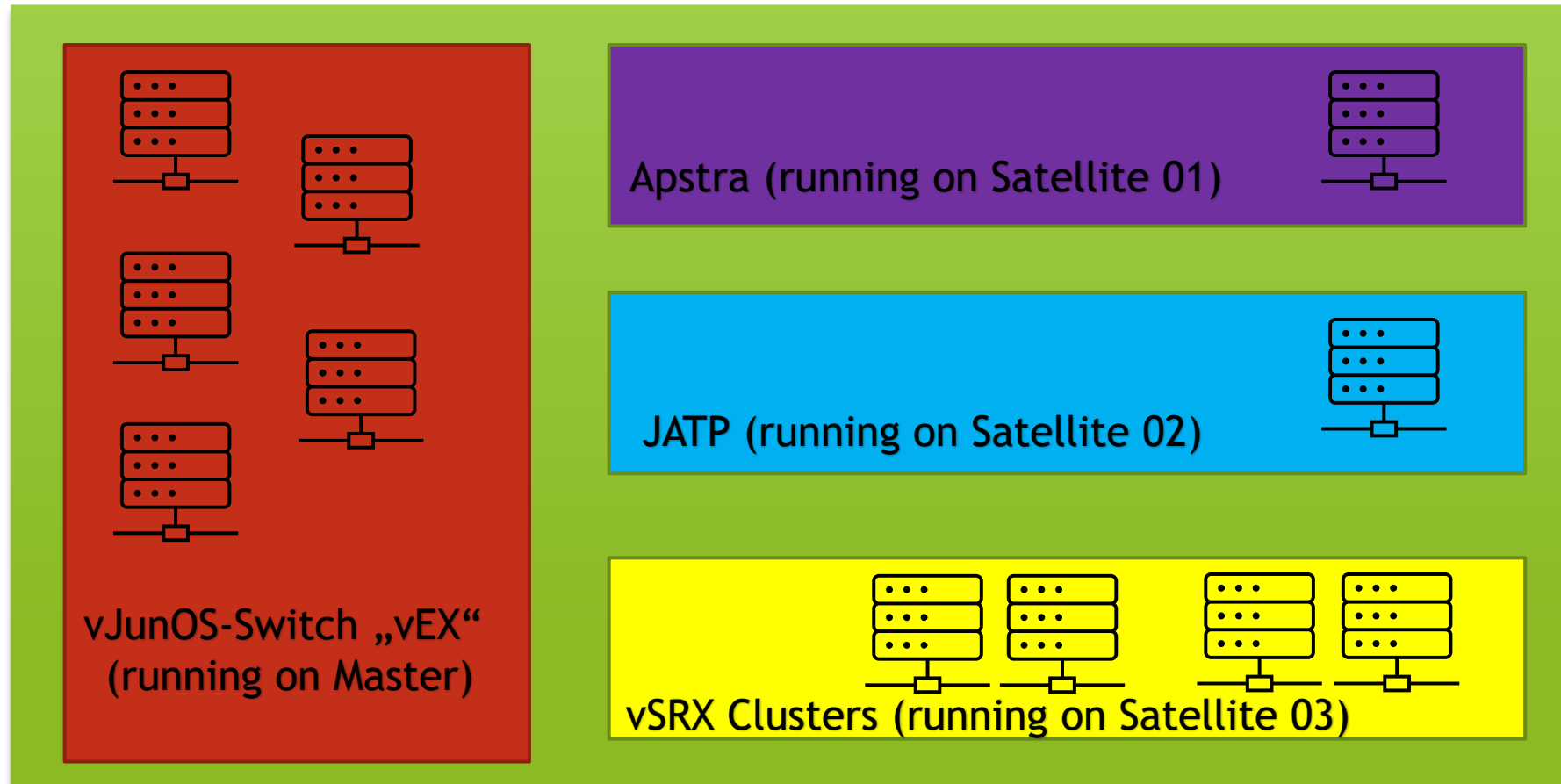
EVE SAT VM Node



Laptop

- ▶ Allows for easy scaling the Lab (need more resources? Throw more servers in)
- ▶ Allows part of your huge nodes to run on different servers (Space, Apstra, JATP)

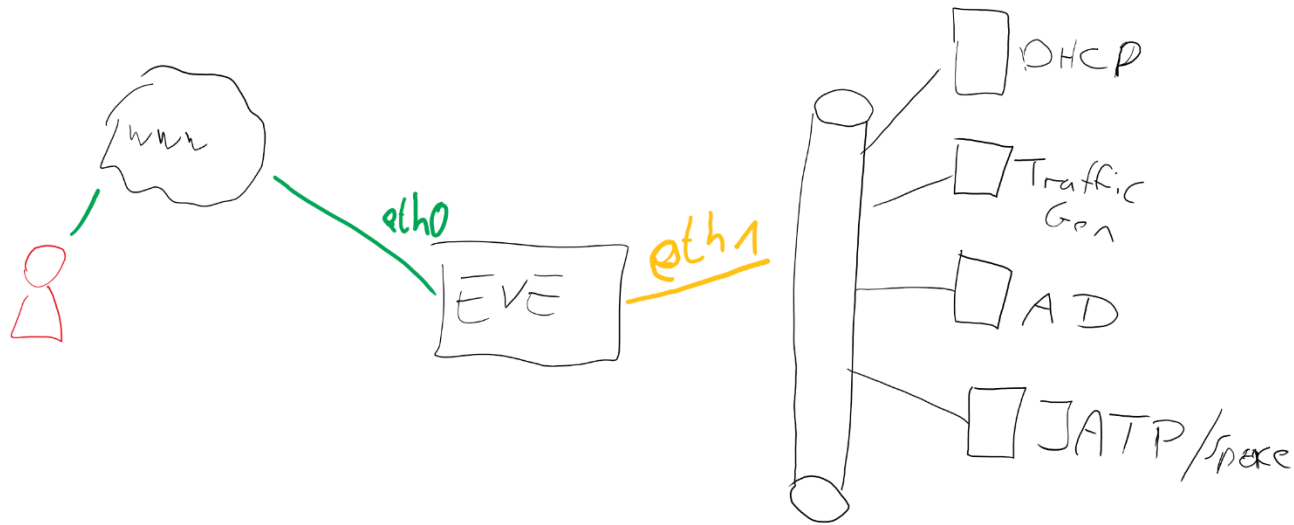
Example Topology



Design Considerations

- ▶ Number of nodes (CPU, RAM, HDD):
For each node, eve „copies“ the image and therefore needs harddisk 😊
- ▶ Number of images on EVE host | „Data Grave“ | Clean Policy
- ▶ Number of needed satellites - are any needed? Clustering needed?
Pro needed?
- ▶ How to Access your EVE-NG Server? VPN in Front? IP-Whitelisting?
- ▶ How many **concurrent** Users needed?
- ▶ Hardware that needs to talk to EVE / Separate Management Network?
- ▶ Backup?

Separate Link for Management Network



Design Considerations

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Strike Plan for Today

- ▶ Download EVE-NG
- ▶ Mount iso
- ▶ Install Ubuntu / EVE-NG
- ▶ EVE-NG initial Setup

Our Scenario for the sessions

- ▶ Bare-Metal-Server „Master“ (HP)
Cheap eBay Server
- ▶ Nothing installed so far
- ▶ Access to virtual Console (to mount the iso-File)
- ▶ EVE-NG iso (Community Edition for this Session, Pro Edition for Sessions 2+3):
→ <https://www.eve-ng.net/index.php/download/>
- ▶ Minimum of 1 connected wired Port to access the EVE-NG repository



Fetch EVE-NG

► <https://www.eve-ng.net/>

Download Links and info for EVE-NG

[EVE-NG Professional](#)[Free EVE Community Edition](#)[Windows Client Side](#)[Apple OSX Client Side](#)[Linux Client Side](#)[Resource Calculator](#)

EVE-NG Professional/Learning Center Version 6.2.0-20

This edition requires to buy license. To buy a license please go to our Buy Section

EVE-NG Pro installation Full ISO Download Size: 8.06 Gb (With dockers package):

- [EVE-NG-PRO Full ISO – MEGA Mirror](#)
- [EVE-NG-PRO Full ISO – Direct](#)
- [License Required](#)

ISO	Algorithm	Checksum
	SHA1	78a0c278b4ace251d07d5300e744906a910245b8
	SHA256	0df7960c6915abe0b812992aa5b73c7c895b179868a58f687906541de6099fb0

VM Ware Workstation Player:

[Download VMware Workstation Player \(free\)](#)

[Read here the End User License Agreement:](#)

[EULA](#)

Free EVE Community Edition Version 6.2.0-4

EVE-NG Community Full ISO: 3.2 Gb

- [EVE-NG-PRO Full ISOS – MEGA Mirror](#)
- [EVE-NG CE Full ISO – direct link](#)

ISO	Algorithm	Checksum
	SHA1	32b189ab6570aed6fa61f202e090c3a4cf962077
	SHA256	a1c035135d618ea86975c9e8d03df549889999adbaec9bfaba480a2b11e8f347

VM Ware Workstation Player:

[Download VMware Workstation Player \(free\)](#)

► <https://customers.eve-ng.net/eve-ce-prod-6.2.0-4-full.iso>

Install EVE-NG

- ▶ <https://www.eve-ng.net/index.php/documentation/community-cookbook/>
- ▶ Mount the iso to your Server (or even use a DVD)
- ▶ Install the iso
- ▶ Configure EVE-NG Management
- ▶ Enjoy 😊

Q&A

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