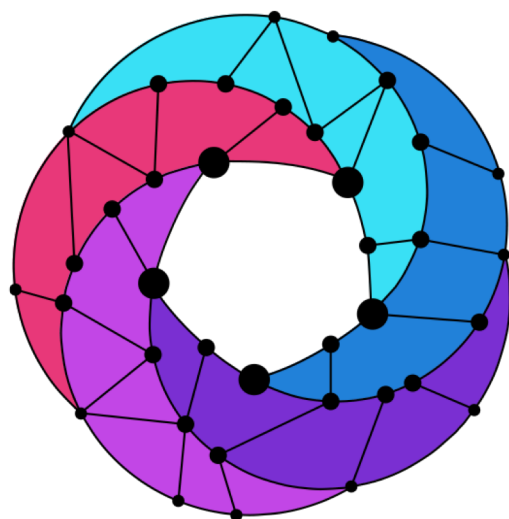




Open Source MANO

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OSM: ~~7~~ FULLY FUNCTIONAL DEMOS

Vanessa Little (VMware) - OSM TSC Chair
September 27, 2018 – ONS Europe, 2018

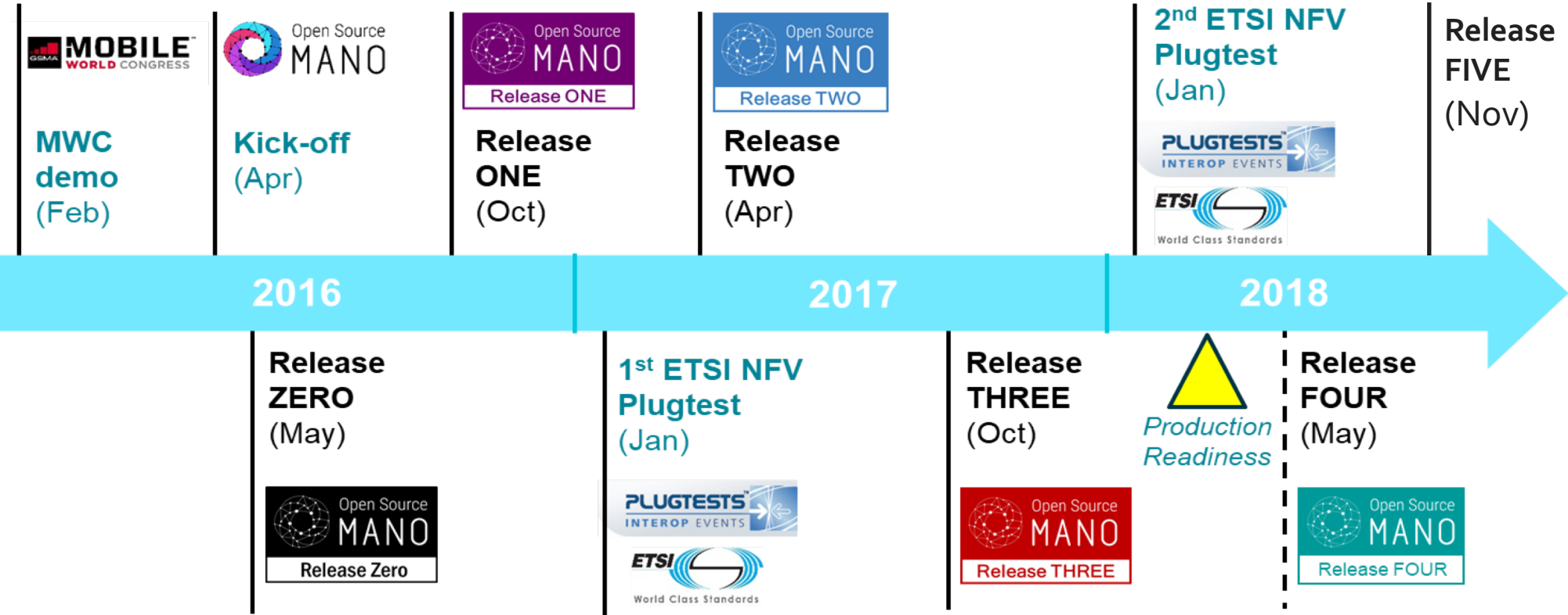
OSM COMMUNITY IS REALLY LARGE AND DIVERSE, WITH 106 MEMBERS TODAY...



- 11 Global Service Providers
- Leading IT/Cloud players
- VNF providers



OSM IS ABOUT TO DELIVER ITS 5TH RELEASE, AFTER REACHING PRODUCTION READINESS...



- The Open Source Mano community encourages members to design and deploy Proofs of Concept (PoCs) that are:
 - Relevant to contribute to further development of OSM
 - Showcase OSM in real-world useful scenarios and use cases
- Multi-vendor and/or component PoCs are welcome and encouraged

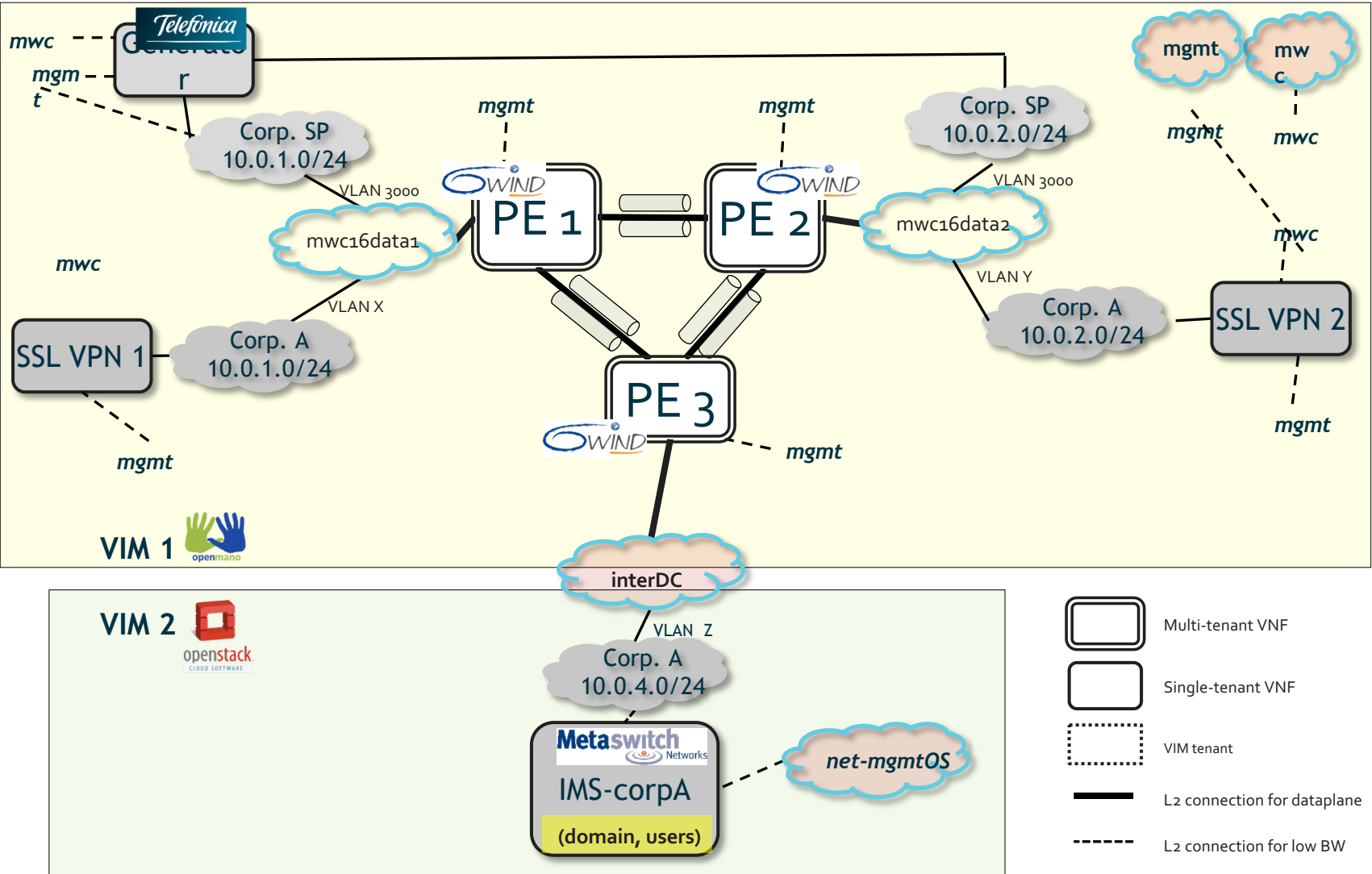


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RELEASE 0 DEMOS

- **BY:** 6Wind, Canonical, Indra, Intel, Metaswitch, Rift.IO and Telefónica
- **SCOPE:** A network core composed by 3 PE routers (multi-tenant VNF) is deployed with EPA characteristics and automatic dataplane underlay connectivity
- Multi site L3 VPN service with value added services
- A carrier VPN is provisioned and used to demonstrate 10 GbE line rate performance using a traffic generator.
- IMS Service deployed in a separate data center and call pinned up
- Video Available at: <https://www.youtube.com/watch?v=JJlxwJStkTk&t=105s>

DEMO 1 TOPOLOGY





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RELEASE 1 DEMOS

DEMO 2: LIFE CYCLE MANAGEMENT OF VIMS WITH OSM

- **BY:** xFlow Research, Metaswitch
- **Scope:** Deployment of Clearwater All-in-1 vIMS using OSM R#1 on OpenStack
- Deployment, configuration and management of full virtual IMS solution.
- vIMS NS/VNF package creation and deployment on OpenStack
- Video Available at:
<https://www.youtube.com/watch?v=x9zWQyRU2zY>

DEMO 3: OSM DEPLOYMENT IN TO PUBLIC CLOUD

- **BY:** xFlow Research
- **Scope:** Deployment of sample NS (CirrOS, VyOS) on Amazon Web Services using OSM Release1
- Explanation of various available components in AWS
- Comparison of AWS components with OpenStack components
- Deck available for download
here: [https://docbox.etsi.org/OSG/OSM/05-CONTRIBUTIONS/2017/OSM\(17\)000045_Public cloud - AWS.pptx](https://docbox.etsi.org/OSG/OSM/05-CONTRIBUTIONS/2017/OSM(17)000045_Public_cloud_-_AWS.pptx)



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RELEASE 2 DEMOS

DEMO 4: SERVICE ASSURANCE WITH VPROBES AND OSM

- **BY:** RADCOM
- **SCOPE:** OSM to deploy and configure MaverIQ vProbes
- Create and instantiate a vProbe via OSM
- Capture and monitor network traffic
- Verify vProbe's packet reception
- **More Details:** <https://osm.etsi.org/news-events/blog/16-radcom-s-maveriq-virtualized-customer-experience-management-service-assurance-on-open-source-mano>

DEMO 5: NETWORK SERVICES WITH INTEGRATED VNF VERIFICATION

- **BY:** Ixia, Canonical, DataArt Solutions, and Sonus
- **SCOPE:** Network Services with Integrated VNF Verification
- Automated deployment and execution of carrier-grade network testing and monitoring
- Packaging and modelling with OSM and Juju
- Using Ixia's Phantom Virtual Tap for network visibility
- Using Ixia's IxLoad Virtual Edition for comprehensive network testing
- Sonus Session Border Controller Software Edition to operate across diverse virtualized infrastructure



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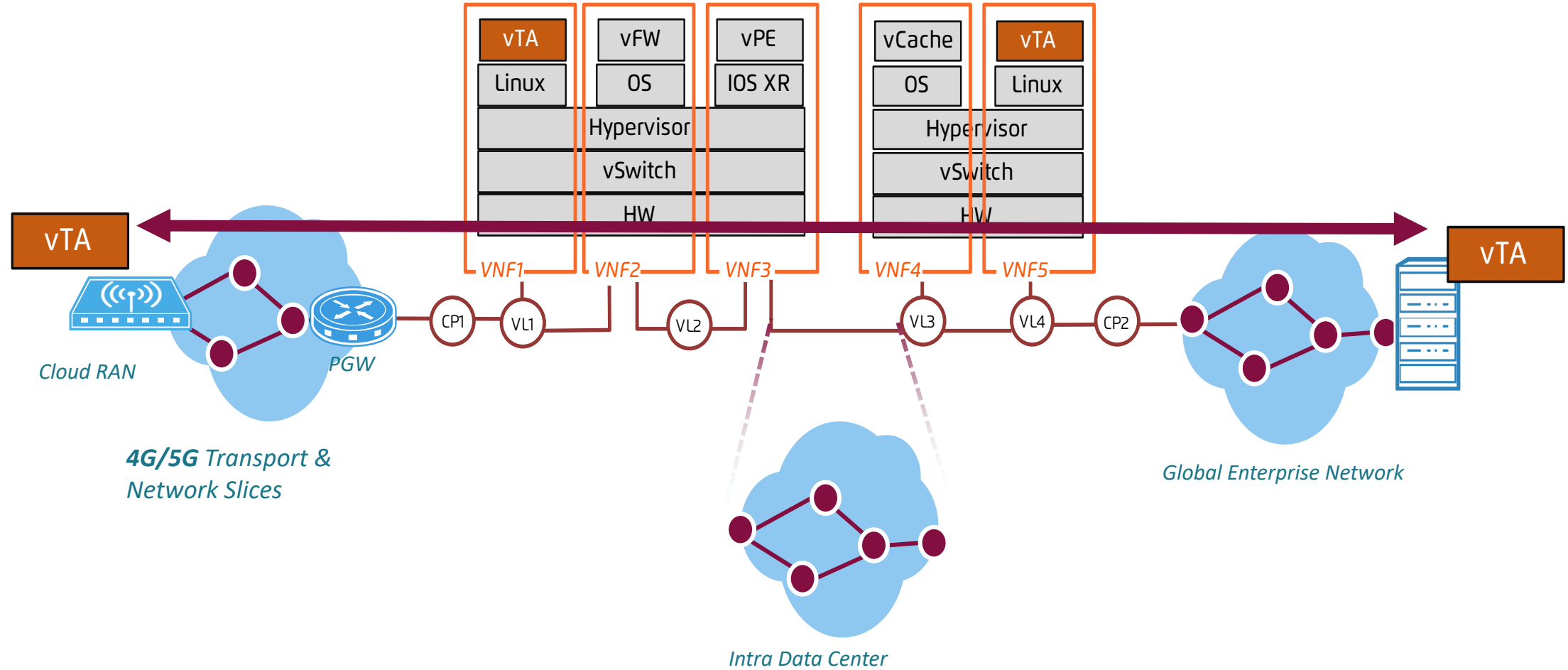
RELEASE 3 DEMOS

DEMO 6 (POC #1): DEVOPS IN SERVICE CHAINS AND 5G NETWORK SLICES



- **BY:** Telenor, Arctos Labs, Cisco, Intel, Netrounds, and RIFT.io
- **SCOPE:** Automation of active testing through DevOps approaches to network management during 5G network slice deployment.
- Dynamic control of virtual services and 5G network slices.
- Using OSM for advanced orchestration of virtual test agents as part of network service design (NSD) for full SLA assurance.

DEMO 6: TOPOLOGY



DEMO 6: RESOURCES

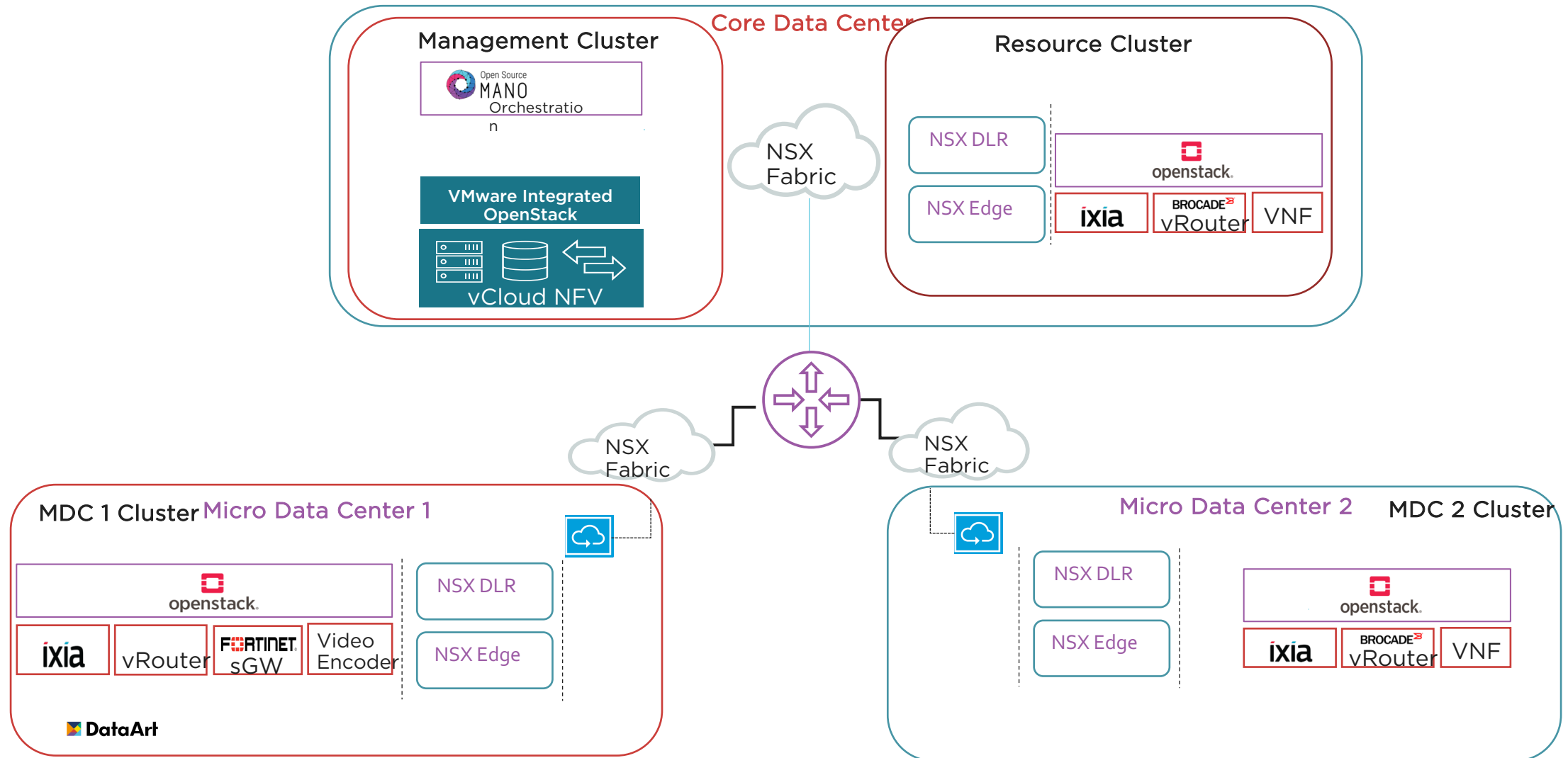
- Official OSM POC #1 Web
 - [https://osm.etsi.org/wikipub/index.php/OSM_PoC_1 - DevOps in Service Chains and 5G Network Slices](https://osm.etsi.org/wikipub/index.php/OSM_PoC_1_-_DevOps_in_Service_Chains_and_5G_Network_Slices)
- White Paper https://osm.etsi.org/wikipub/images/3/3c/PoC_1_White_Paper.pdf
 - https://osm.etsi.org/wikipub/images/3/3c/PoC_1_White_Paper.pdf
- Demo Video
 - <http://www.lightreading.com/devops/live-demo-devops-in-service-chains-and-5g-network-slices-poc/v/d-id/731647>

DEMO 7: (POC #2) OSM WITH VMWARE INTEGRATED OPENSTACK IN MEC ARCHITECTURES



- BY: VMware, RIFT.io, Fortinet, DataArt
- Additional Software used: ffmpeg, vyatta router, ixia traffic sim
- SCOPE: OSM Rel THREE as an orchestrator to deploy and maintain edge services in several different use cases including:
 - Video transcode at the network Edge with ffmpeg
 - Fortinet as an sGW in vRan edge scenarios
 - SD-WAN with vyatta vrouter
 - Operational intelligence for distributed architectures.

POC #2 TOPOLOGY

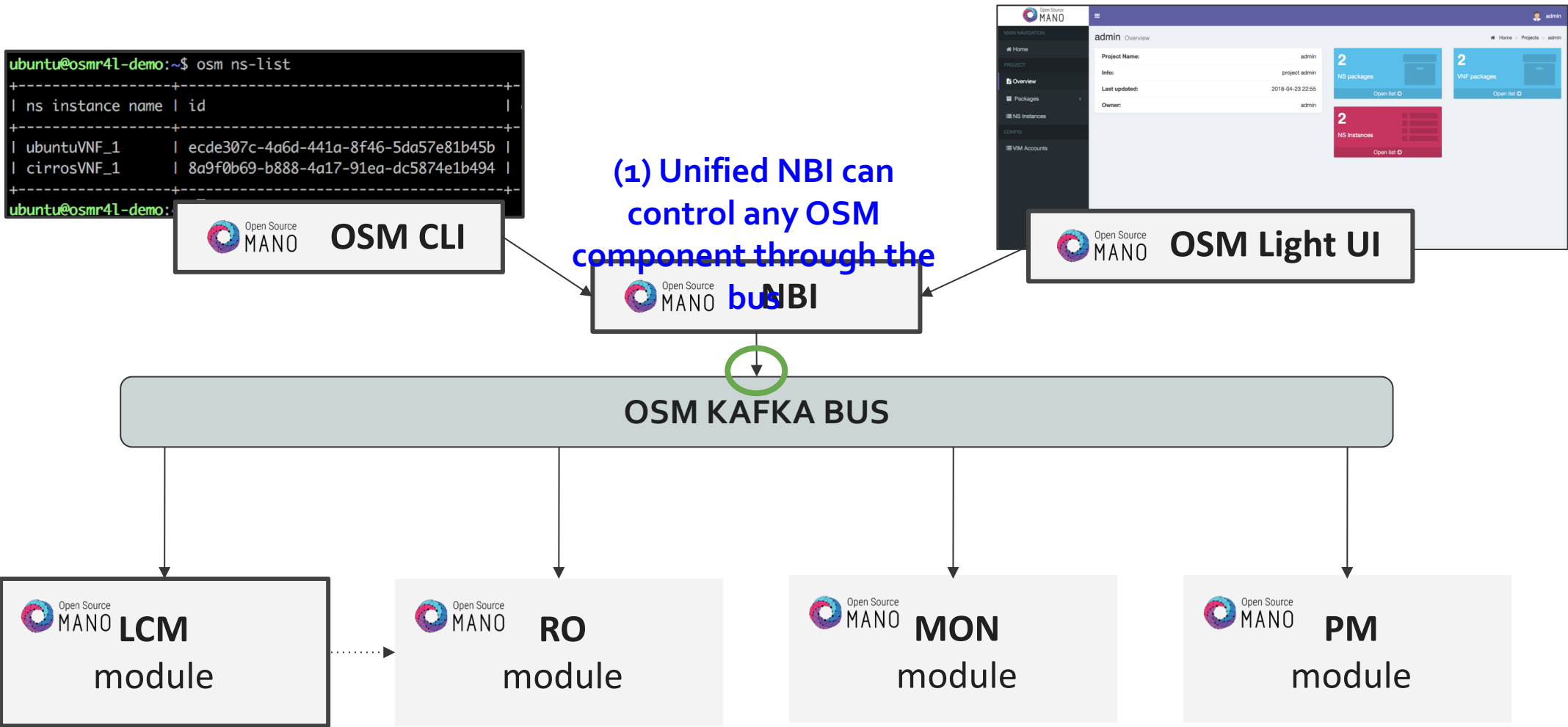




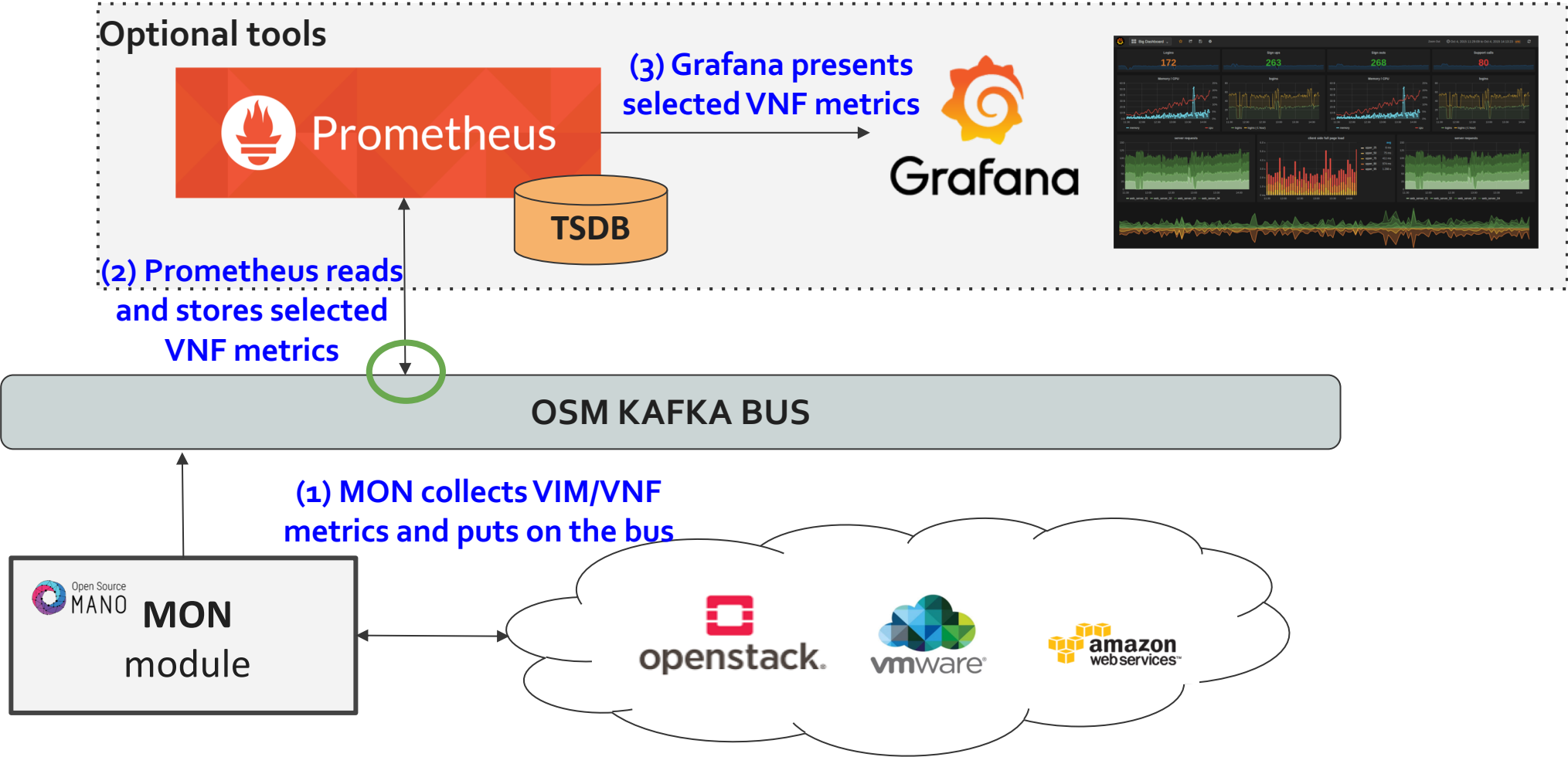
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RELEASE 4 DEMOS

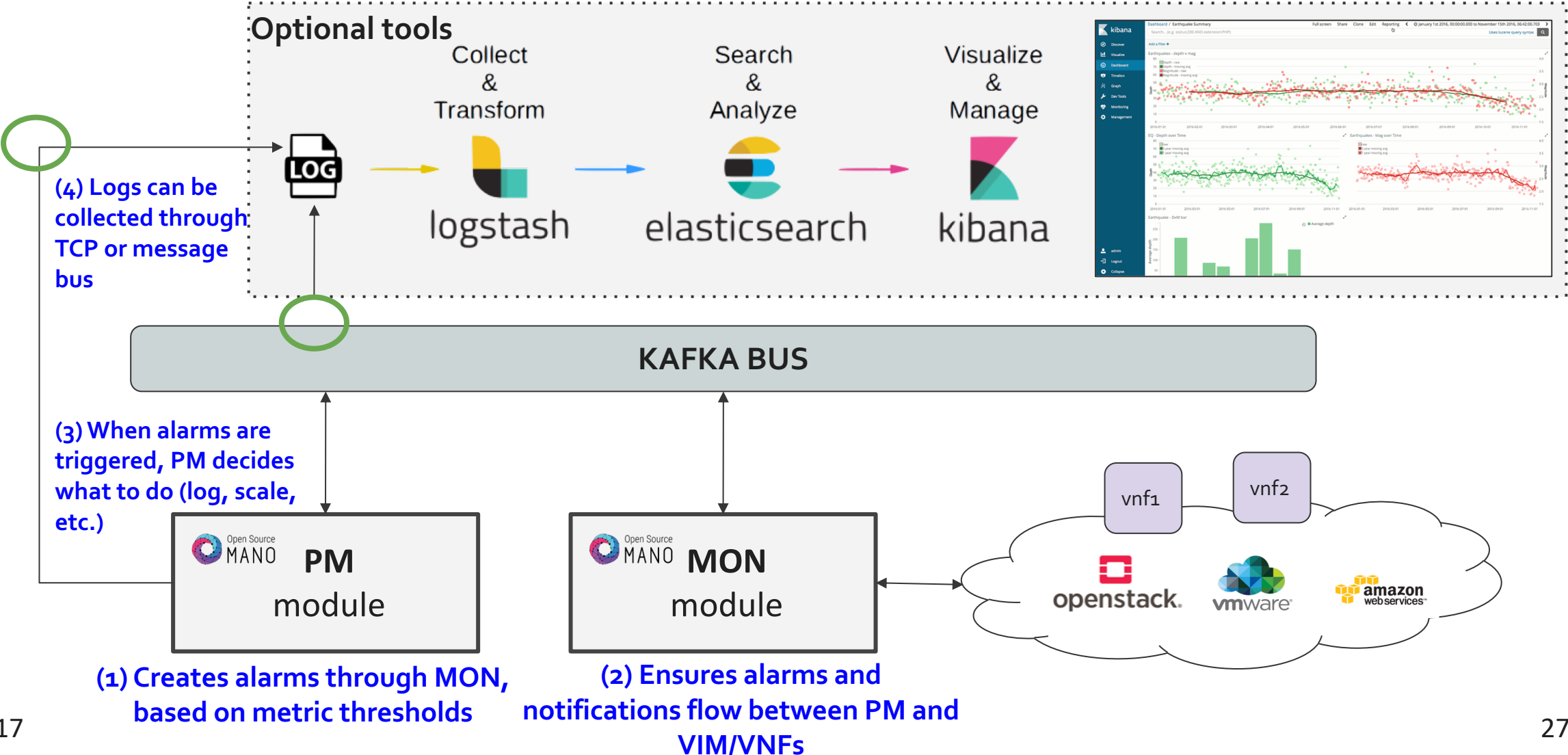
DEMO 8: NBI, *LIGHTWEIGHT* ORCHESTRATOR AND UI

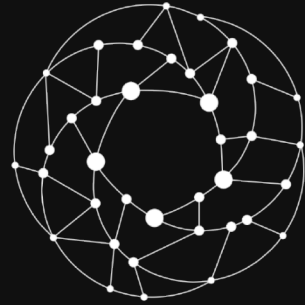


DEMO 9: METRICS COLLECTION AND VISUALIZATION



DEMO 10: EVENTS PROPAGATION AND VISUALIZATION





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THANK YOU

WEB: <http://osm.etsi.org>

SLACK: opensourcemano.slack.com