OPEN SOURCE NETWORKING DAYS

Tungsten Fabric Overview and Intel Contributions

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What’s Tungsten Fabric?

Tungsten Fabric is an open source automated secure multi-cloud multi-stack network virtualization SDN and security solution for providing connectivity and security for virtual, containerized or bare-metal workloads.

Tungsten Fabric supports integrations with the following orchestrators:

• Openstack
• Kubernetes
• Redhat Openshift
• VMware vCenter
Tungsten Fabric Vision

RULE THEM ALL WITH ONE
automated secure open SDN

- Public & Private IaaS
  - openstack
  - aws
  - Windows

- CaaS & PaaS
  - Mesos
  - Kubernetes

- VMs or Metal
  - VMware
  - KVM

- Tungsten Fabric
Tungsten Fabric Controller
Tungsten Fabric Control Node in Controller
Tungsten Fabric Can Meet Cloud Trends and Challenges

**SELF-DRIVING CLOUD** Automates Ops
Complexity of Cloud Interconnection, Operations and Service Delivery

**COGNITIVE CLOUD** Analyze Data for Insights
Complexity in Monitoring and Control

**SECURE CLOUD** Secures Applications
Complexity in Securing Cloud Applications
Tungsten Fabric Can Integrate with Multi-vendor Clouds
Tungsten Fabric Installation

- Ansible
- OpenShift
- Helm
- Docker
Tungsten Fabric Microservices
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<td>Yandex</td>
<td>YOUR LOGO HERE</td>
<td>#marketing on our Slack!</td>
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Tungsten Fabric Contributors

- Juniper Networks
- Mirantis
- Яндекс
- orange Business Services
- Cloudwatt
- Intel
- codilime
- Semihalf
- IPnet
- CertusNet
- eNovance

Multi-Cloud experts
Tungsten Fabric Community

**Governance Working Group**
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- Greg Elkinbard (Juniper)
- Ian Rae (Cloud Ops)
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- Doug Marschke (SDN Essentials)

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- Heqing Zhu (Intel)
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- Valentine Sinitsyn (Yandex)
- Masood Ul Amin (Aricent)
- Sukhdev Kapur (Juniper)
Goal: Optimize TF vRouter DPDK performance
- Upgrade supported DPDK versions
- Support more cores and Rx/Tx queues
- Use batch processing and flow cache to boost performance (>50%)
- Offload some functions to NIC (DDP)
- OpenLAB for performance test and verification on IA platforms