A High-Performance VNF for Accelerated Application Delivery & Security

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RELIABLE SECURITY ALWAYS


PROTECTING THE BIGGEST BRANDS
#1
CLOUD PROVIDER PROTECTION
#1
HIGH PERFORMANCE APP & NETWORK SECURITY SOLUTION PROVIDER
TOP 3
SERVICE PROVIDERS IN NORTH AMERICA & JAPAN
2 OF 3
LARGEST CLOUD PROVIDERS

An INTERNET Minute in 2020's



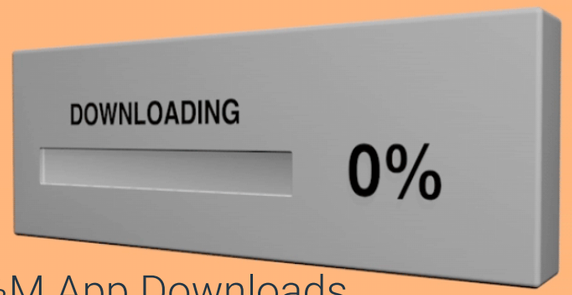


USERS

28.5 Billion USERS

(>3X Global Population)

APPLICATIONS



>½M App Downloads

NETWORK



>10 PB Data

SECURITY



>30 DDoS Attacks

DISTRIBUTED COLLABORATIVE AUTOMATED

A10 Networks Application & Security Services

HARMONY CONTROLLER
(Multi Cloud, Multi Tenant, Multi Service Management & Analytics)

SECURITY



SSLi

- SSL Insight
- URL Filtering
- Cloud Access Proxy



TPS

- DDoS Detection
- DDoS Mitigation
- Threat Intelligence



CFW

- DC Firewall
- Gi/SGi Firewall
- IPsec VPN
- Secure Web Gateway

APPLICATION DELIVERY



ADC

- Adv. Load Balancing
- SSL Offload
- GSLB
- WAF



LADC

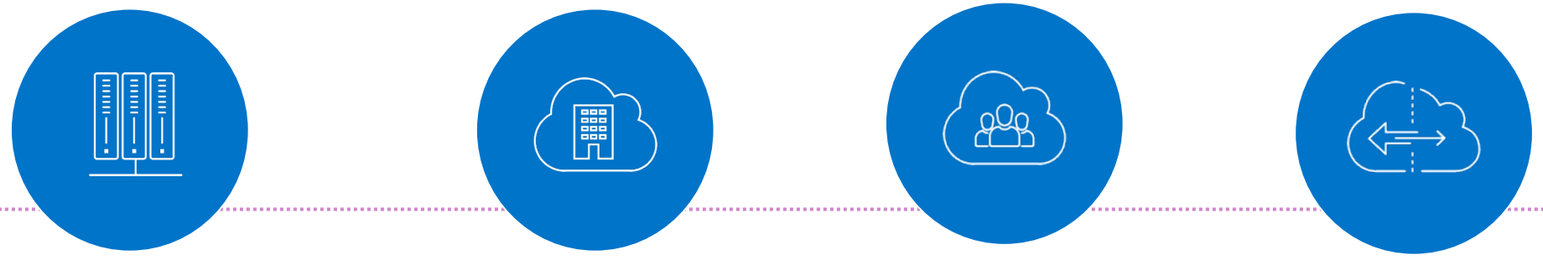
- L4/L7 Load Balancing
- Microservices Apps
- Kubernetes & Secure
- Services Mesh (SSM)

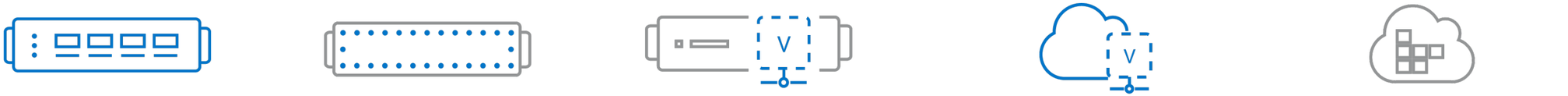


CGN

- CGNAT
- IPv6 Migration
- iDDoS

Enabling Applications Across Clouds



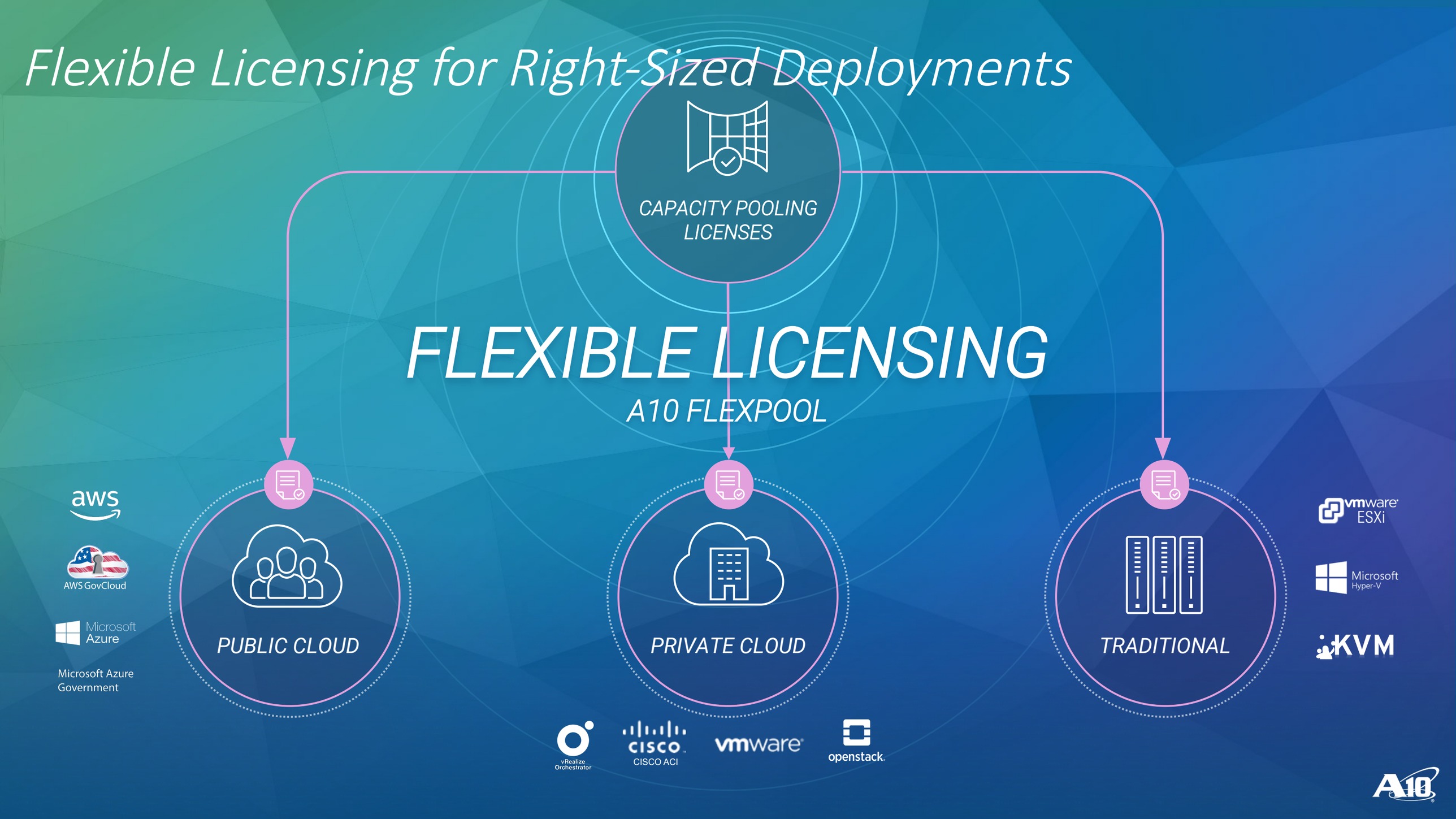


Appliance	Bare Metal	Virtual	Cloud	Containers
High Performance	*Optimal Performance*	*Instance Isolation*	*Cloud Instances*	*Cloud Native*

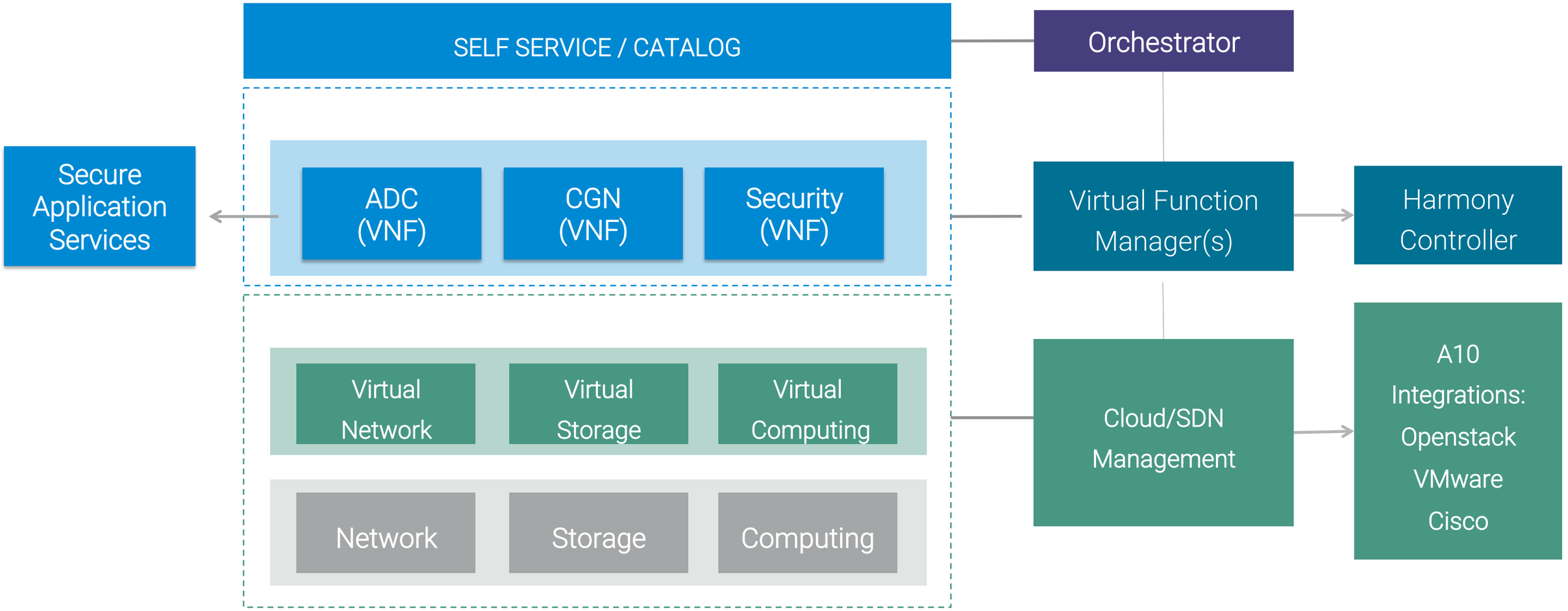


Open API

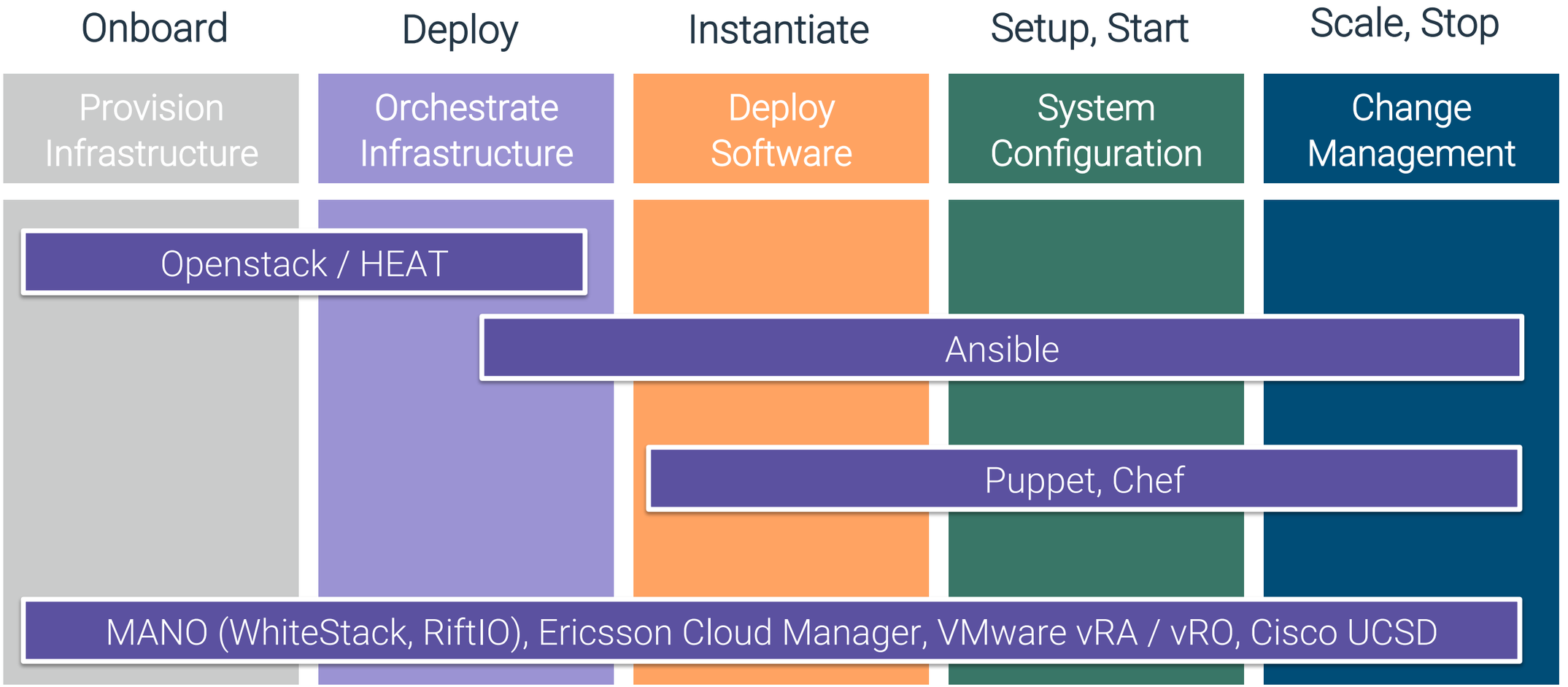
Flexible Licensing for Right-Sized Deployments



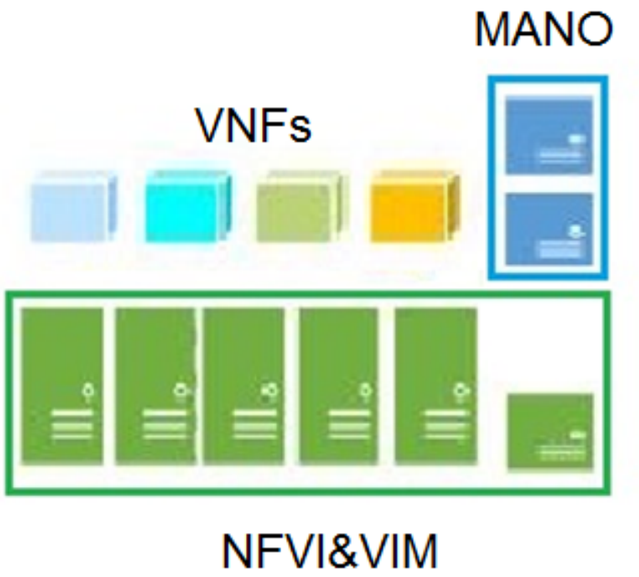
A10 NFV Solution Framework



End to End VNF Lifecycle Automation

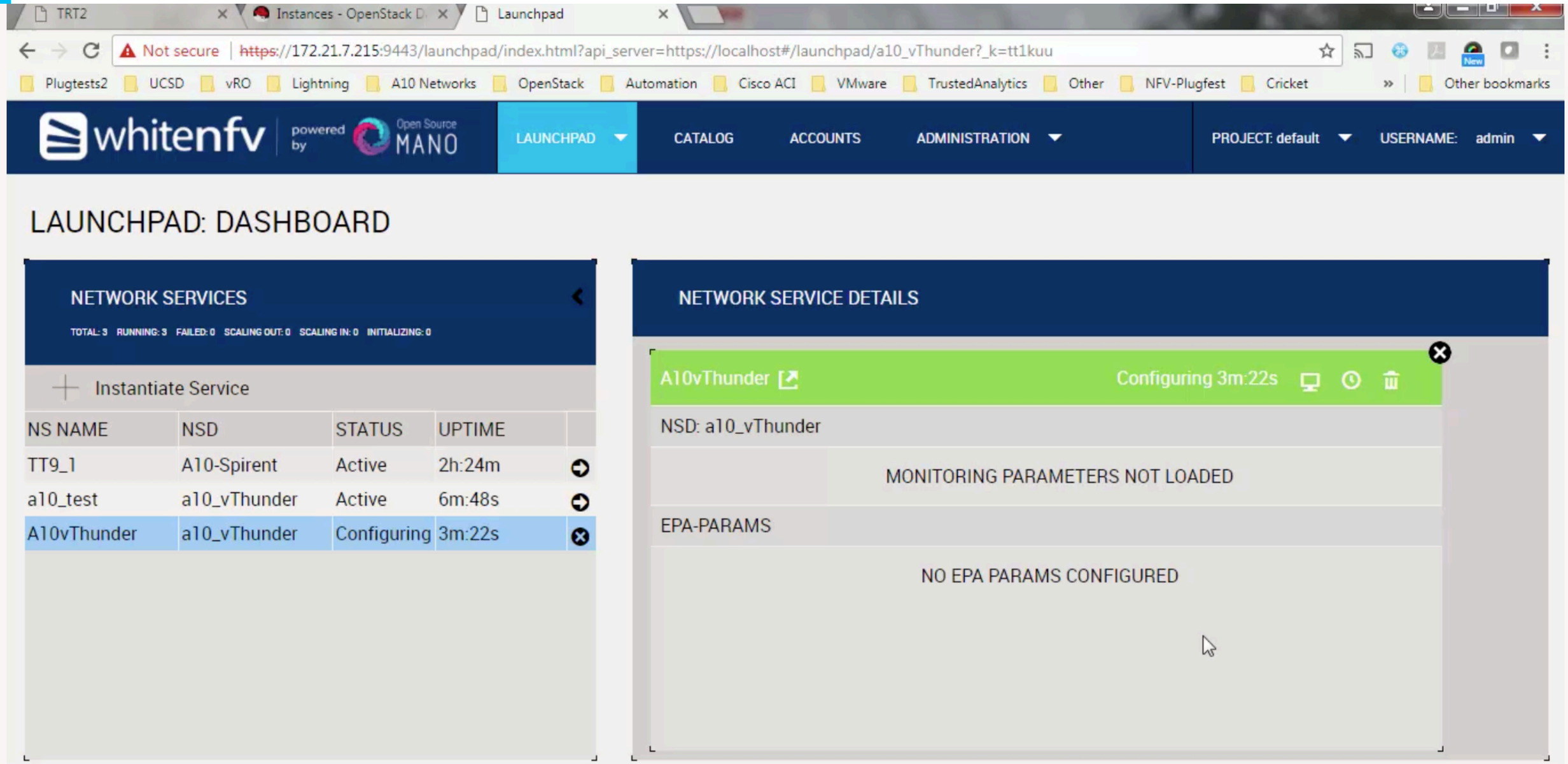


NFV Plugtests: Antipolis (May 2018)

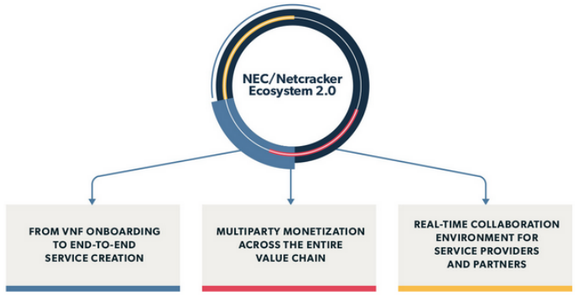


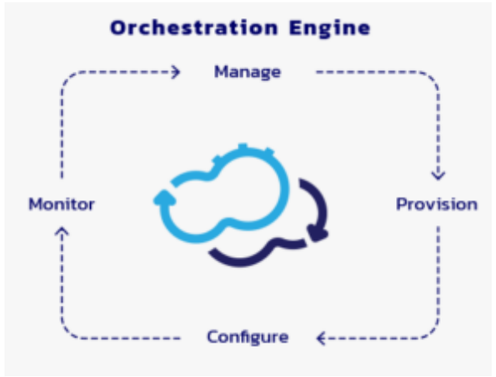
- The main components included:
  - Virtual Network Functions (VNF)
  - Management and Orchestration (MANO) solutions, providing pre-integrated NFV Orchestrator (NFVO) and VNF Manager (VNFM) functionality
  - NFV Platforms providing pre-integrated NFV infrastructure (NFVI) and Virtual Infrastructure Manager (VIM) functionality
  - Test and support VNFs were used to build the reference Network Services (NS) required to validate the proper behaviour of the Systems Under Test
- A10 conducted multiple tests with MANO vendors & other players
  - RIFT.io, WhiteStack – Open Source MANO (OSM)
  - Ericsson Cloud Manager
  - Cisco NSO
  - Fraunhofer FOKUS Open Baton
  - ADVA Ensemble Orchestrator
- A10 also conducted tests with multiple VIM and NFVi implementations
  - Red Hat and Lenovo – Red Hat OpenStack Platform 10
  - Canonical and Lenovo – Canonical OpenStack
  - Intel Wind River – Titanium Cloud
  - VMware – vCloud NFV
  - ADVA – Ensemble VIM
  - Telefonica – Open VIM

Elastic scale-out with Whitestack & RIFT.io



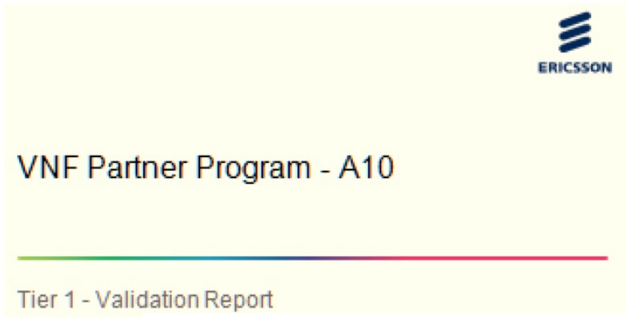
MANO Partnerships / Engagements













- Partner & Collaborate with multiple MANO vendors.
- A10 VNF components are successfully integrated into partnering ecosystems
- Part of VNF catalogues in multiple MANOs
- Validated VNF descriptors and Life Cycle Management process

Red Hat OpenStack Technology Partnership

CERTIFIED @ ETSI

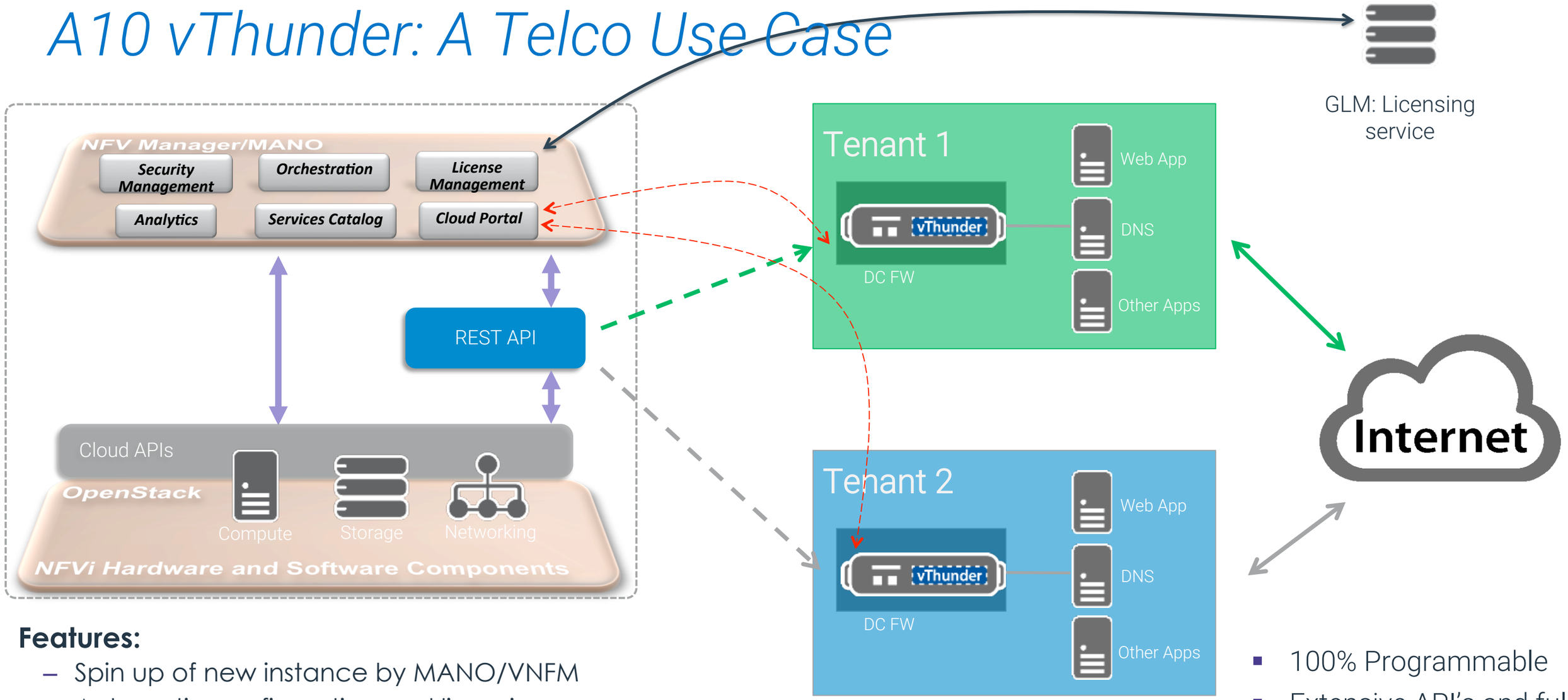


ETSI NFV Plugtests

REDHAT CERTIFICATION



A10 vThunder: A Telco Use Case

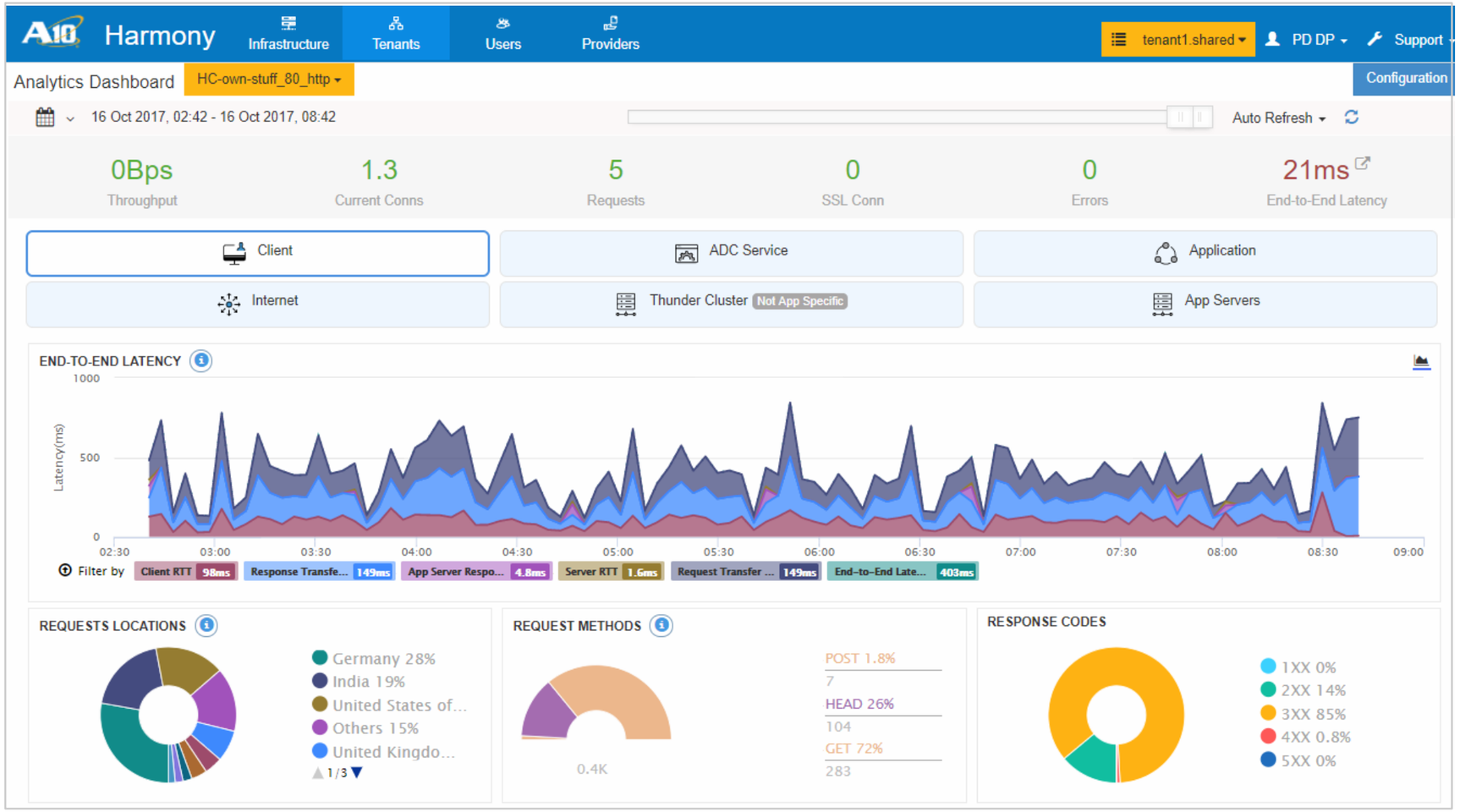


Features:

- Spin up of new instance by MANO/VNFM
- Automatic configuration and licensing
- Multi-VIM Environment
- Flexible Licensing mechanism

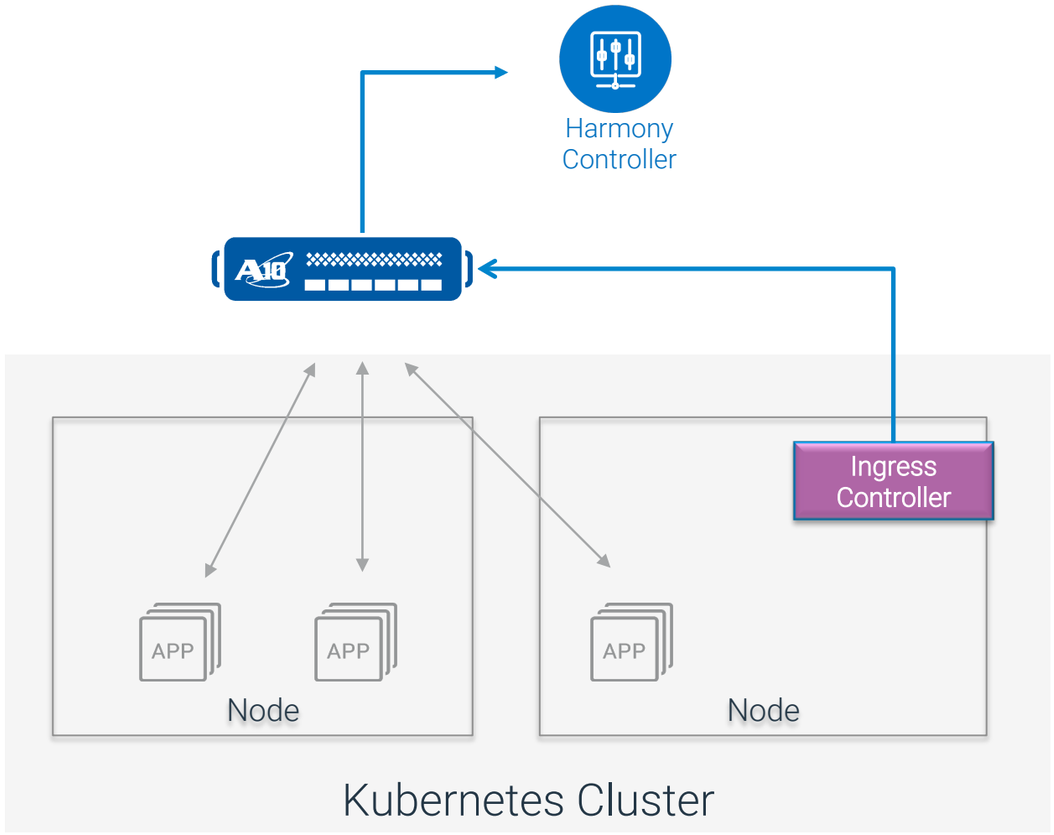
- 100% Programmable
- Extensive API's and full separation of traffic between tenants

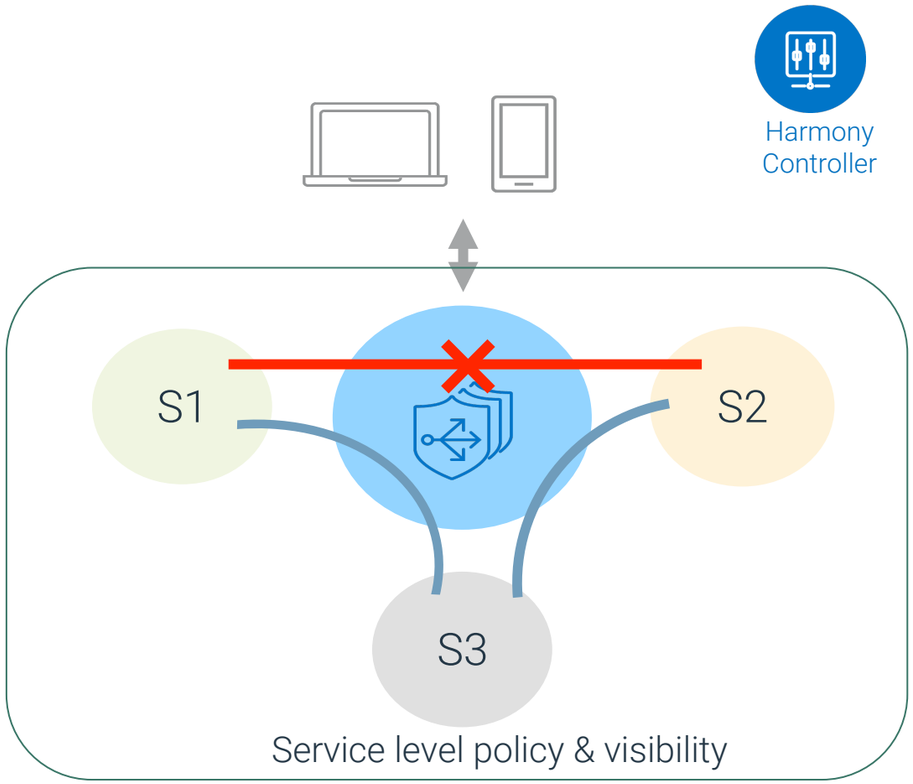
Multi-tenant Visibility at Per-App Level



- Comprehensive metrics & logs
- View, monitor and analyze
- Efficient troubleshooting
- Generate custom reports

Application Security for Containers / Kubernetes





- Ingress Controller for North-South traffic
- L4/L7 services, SSL
- Automated Discovery & Auto-Scale

- Secure Service Mesh for Kubernetes
- Microsegmentation, secure policy enforcement
- Visibility & Analytics for East-West traffic

A10 VNF's with Performance Acceleration

		ADC	CGN	CFW	vTPS*	MAX TPUT
VM Based vThunder	KVM	✓	✓	✓	✗	100G
	vmware ESXi	✓	✓	✓	✓	100G
	Microsoft Hyper-V	✓	✓	✓*	✓	8G
	amazon web services	✓	✗	✓*	✗	10G
	Microsoft Azure	✓	✗	✓*	✗	30G
Bare Metal	 COTS x86	✓	✓	✓	✗	60G

* - Refer datasheet

ADC : L4/L7 SLB, WAF, IAM/AAM, SSL offload, GSLB, HA, Integrated DDoS
CGN : Address Translation, Traffic Shaping & Policies, Integrated DDoS, Scale-out, Logging
CFW : ADC, CGN, GiFW, DCFW, IPSec, SSLi, URLF, Webroot

THANK YOU