CLOUDIFY

Cloudify:

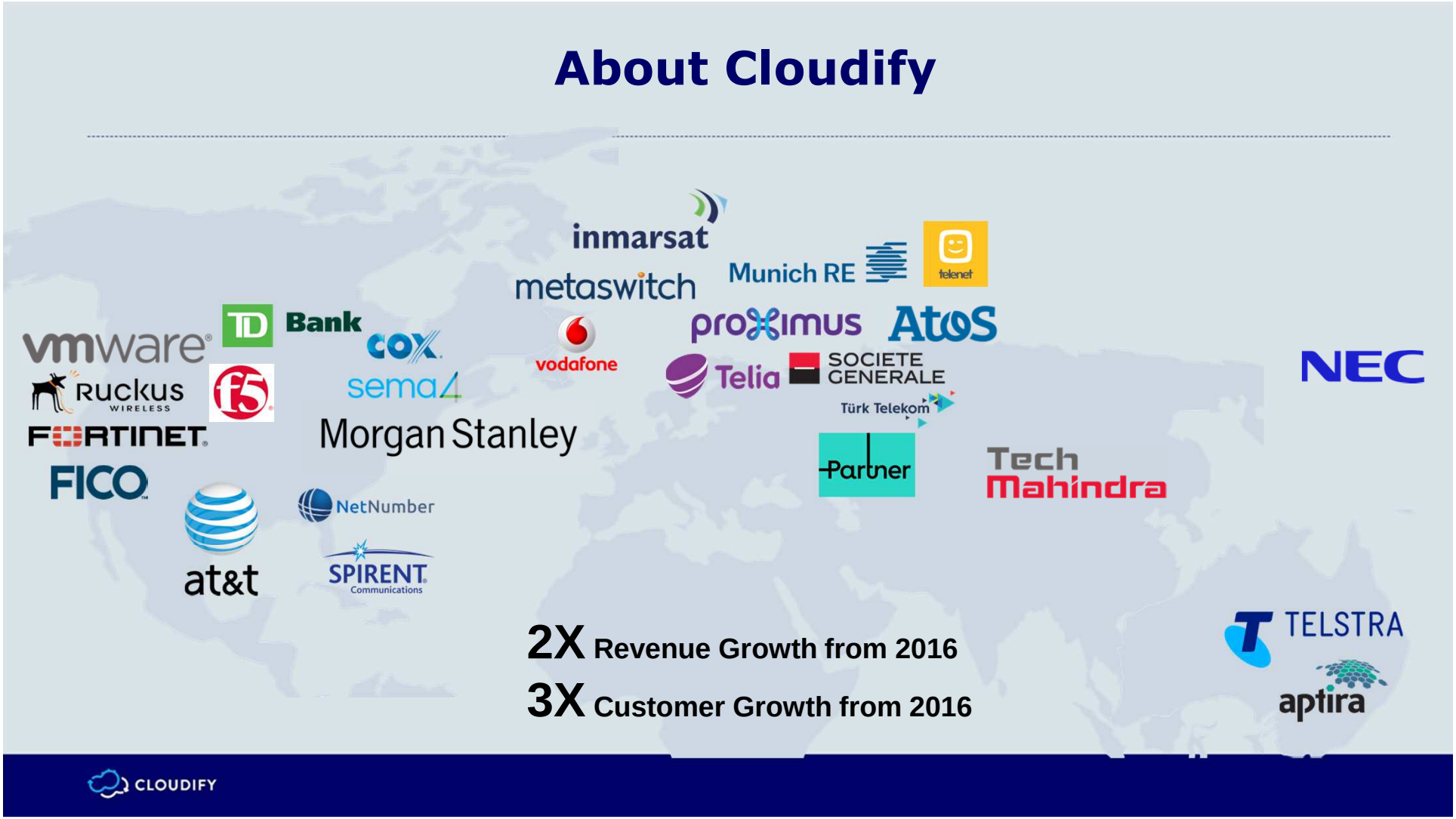
Automating Operations for Applications and Network Services using TOSCA Open Orchestration

March 2018

Agenda

1. Introduction to Cloudify
2. Overview of Cloudify/ONAP strategy
3. Demo - Edge Orchestration with ONAP / Cloudify / Akraino
4. SEBA Provisioning
5. OSAM
6. OSAM & ONAP integration

About Cloudify



2X Revenue Growth from 2016

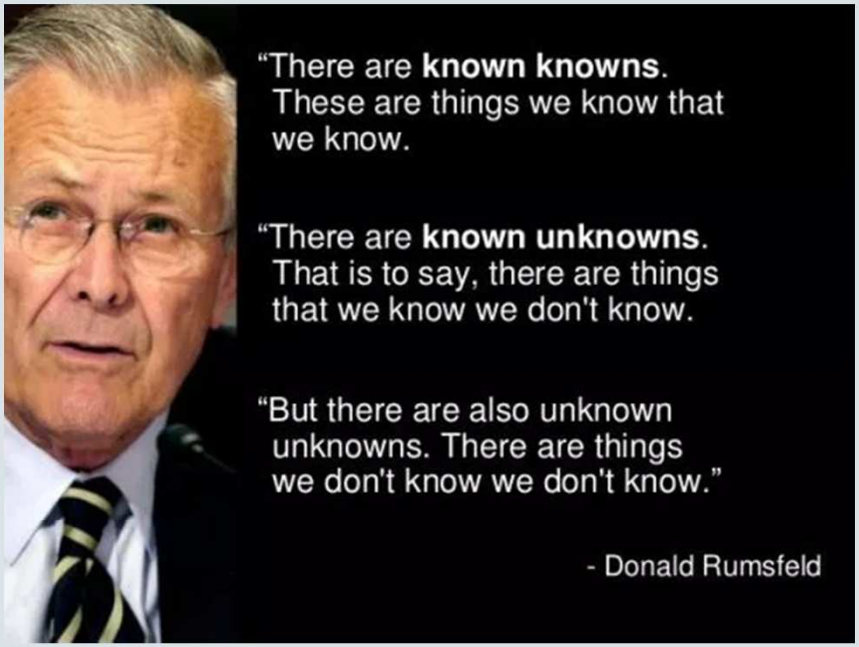
3X Customer Growth from 2016

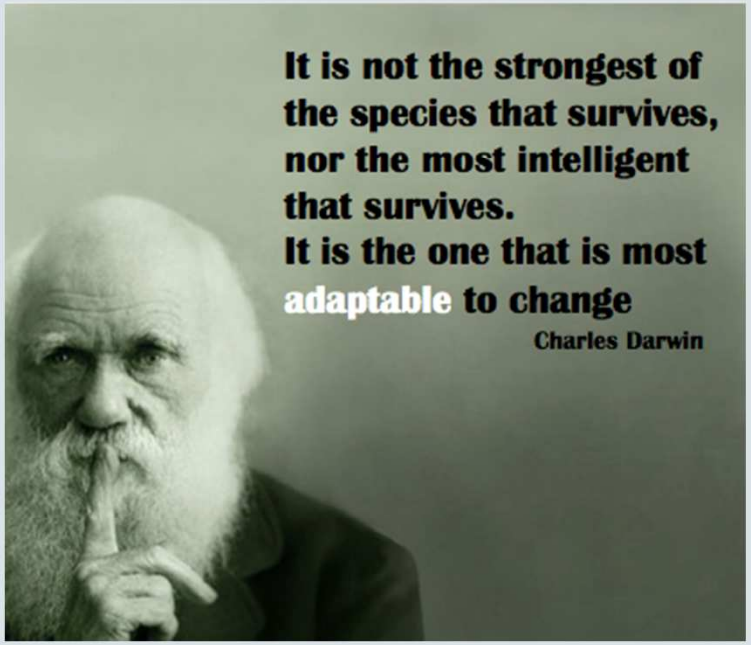
Leading Open Source Orchestration

Container Orchestration

Network Orchestration

Change is the only Constant!

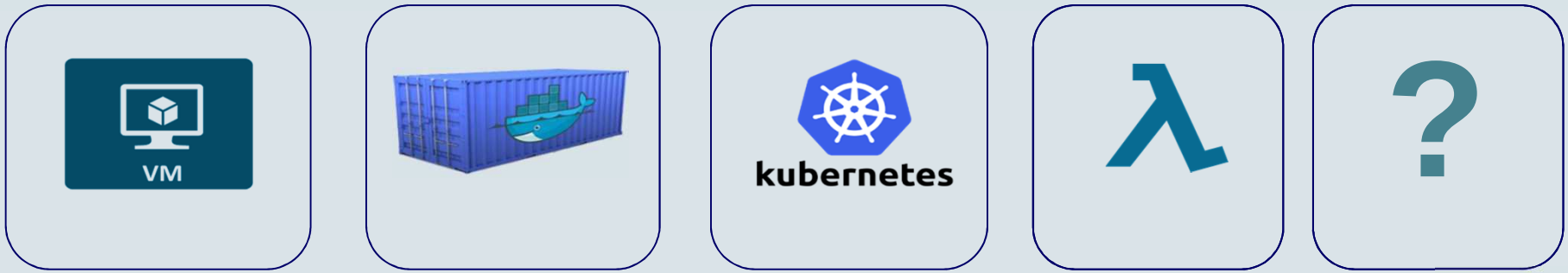


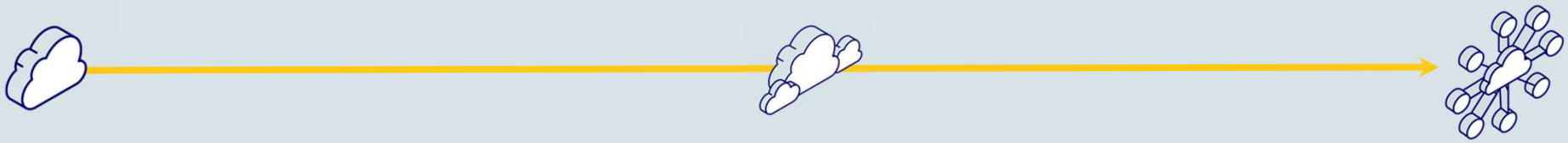


Successful Cloud Native transformation depends on:
The speed in which you can adopt, integrate and automate new services

The Cloud Transformation Disruption

Virtual Machines | Containers | uServices | FaaS | ...



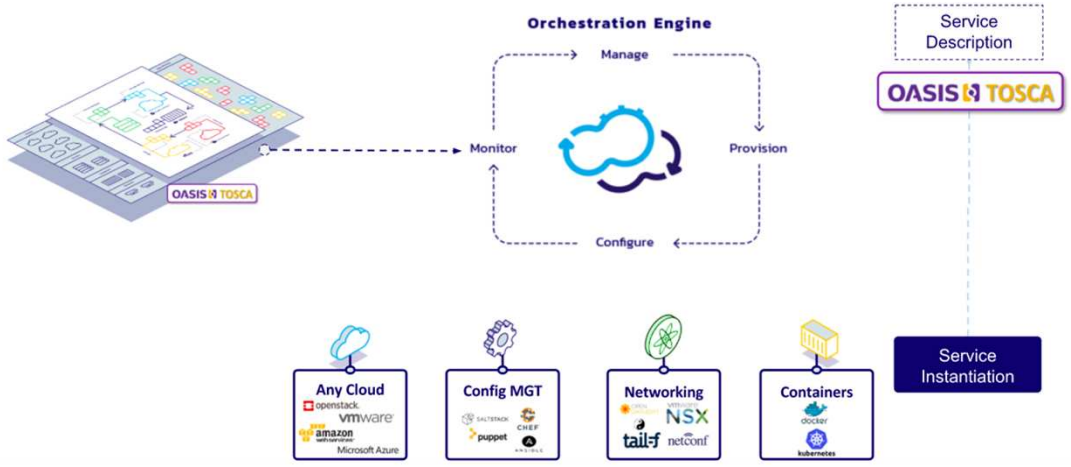


80% Respondents to a recent Ovum Global: IoT and Cloud survey saying they will be using hybrid cloud by 2019.

2 to 3 Ideal number of core cloud providers; companies are reluctant to be 100% reliant on a single supplier.

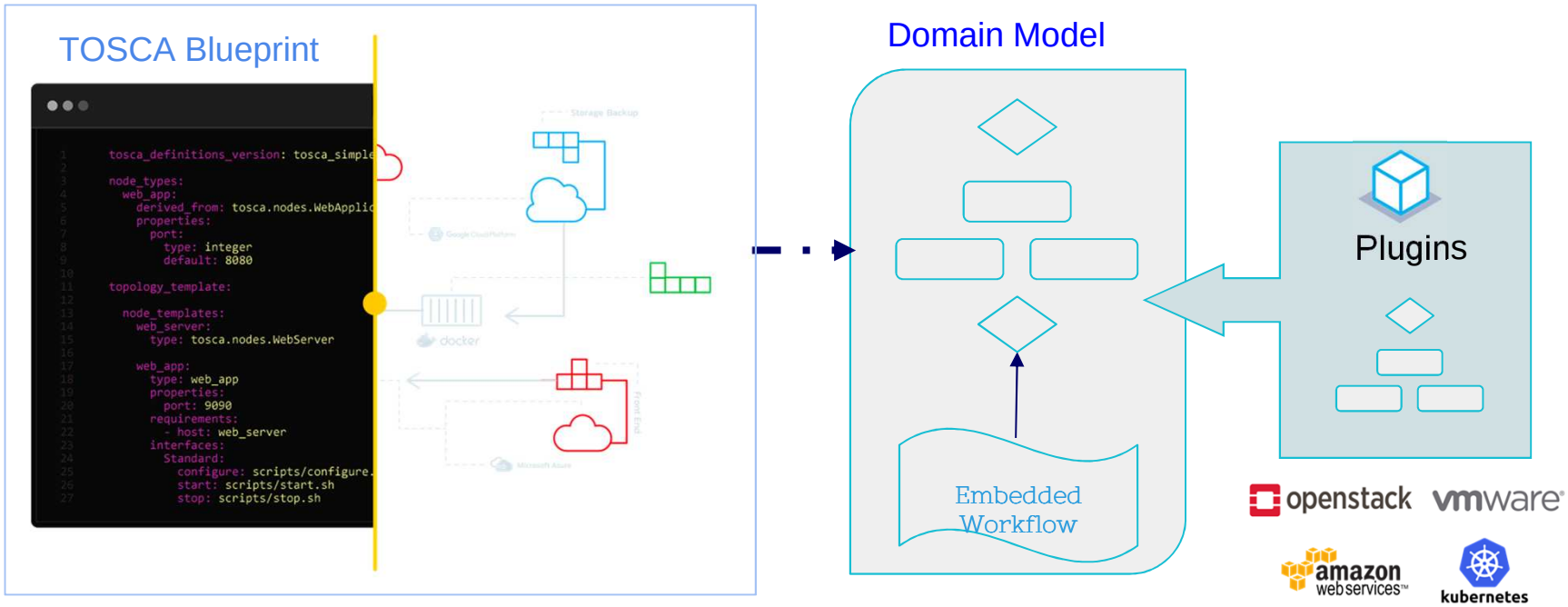
Cloudify - Multi Stack & Cloud Automation

- **Automation / Orchestration First**
  - Intent based (Focus on What not How)
  - Model/Service Driven Multi Cloud
  - Model/Service Driven Automation
  - Model/Service Driven Governance
  - Model/Service Driven Networking
- **Federated Model**
- **Open Source , Standard**



Automating the deployment, configuration and remediation of application and network services

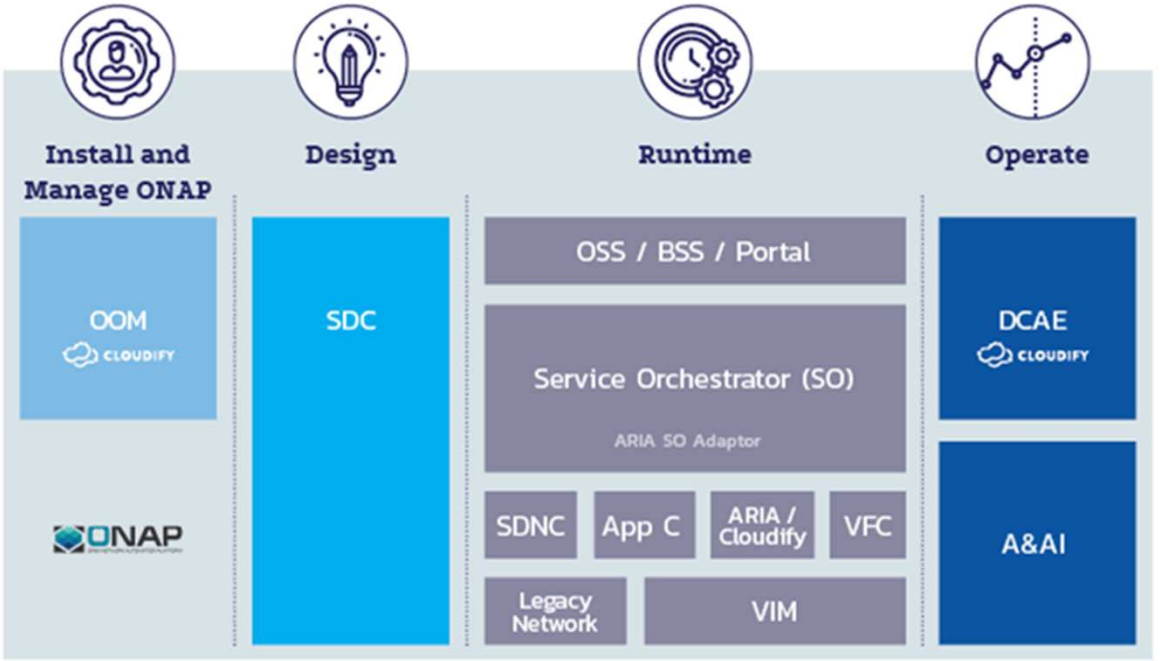
Model Driven Automation



Full Life Cycle Application Modeling and Automation

Cloudify & ONAP

- Founding Platinum Member
- Current contribution
  - SO (Cloudify/Aria)
  - OOM (Cloudify)
  - DCAE (Cloudify)
- Indirectly
  - Multi VIM



OSAM SEBA Management

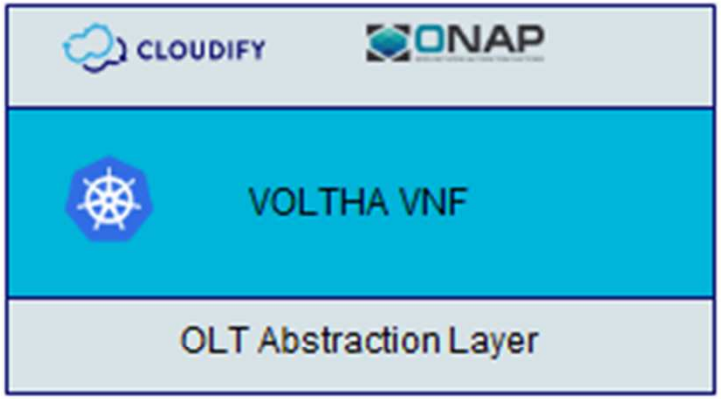
Production implementation of VOLTHA

Built on Open Source - ONAP, Kubernetes and Cloudify

Cloud Native

Add Production Grade Capabilities

- Scalability through federated architecture
- Security (encryption, multi-tenancy)
- Rich management and monitoring
- HA
- Whiteboxing framework and compatibility testing
- DevOps - Continues upgrade, deployment



ONAP
OPEN NETWORK AUTOMATION PLATFORM

AI

Portal

Subscriber Management

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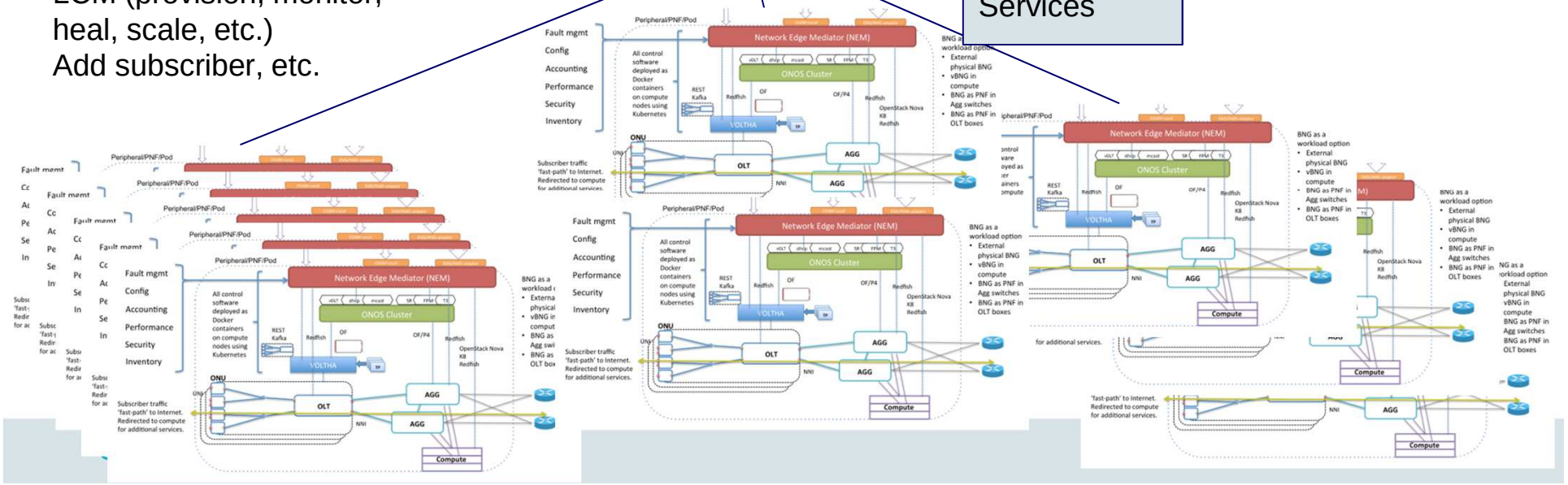
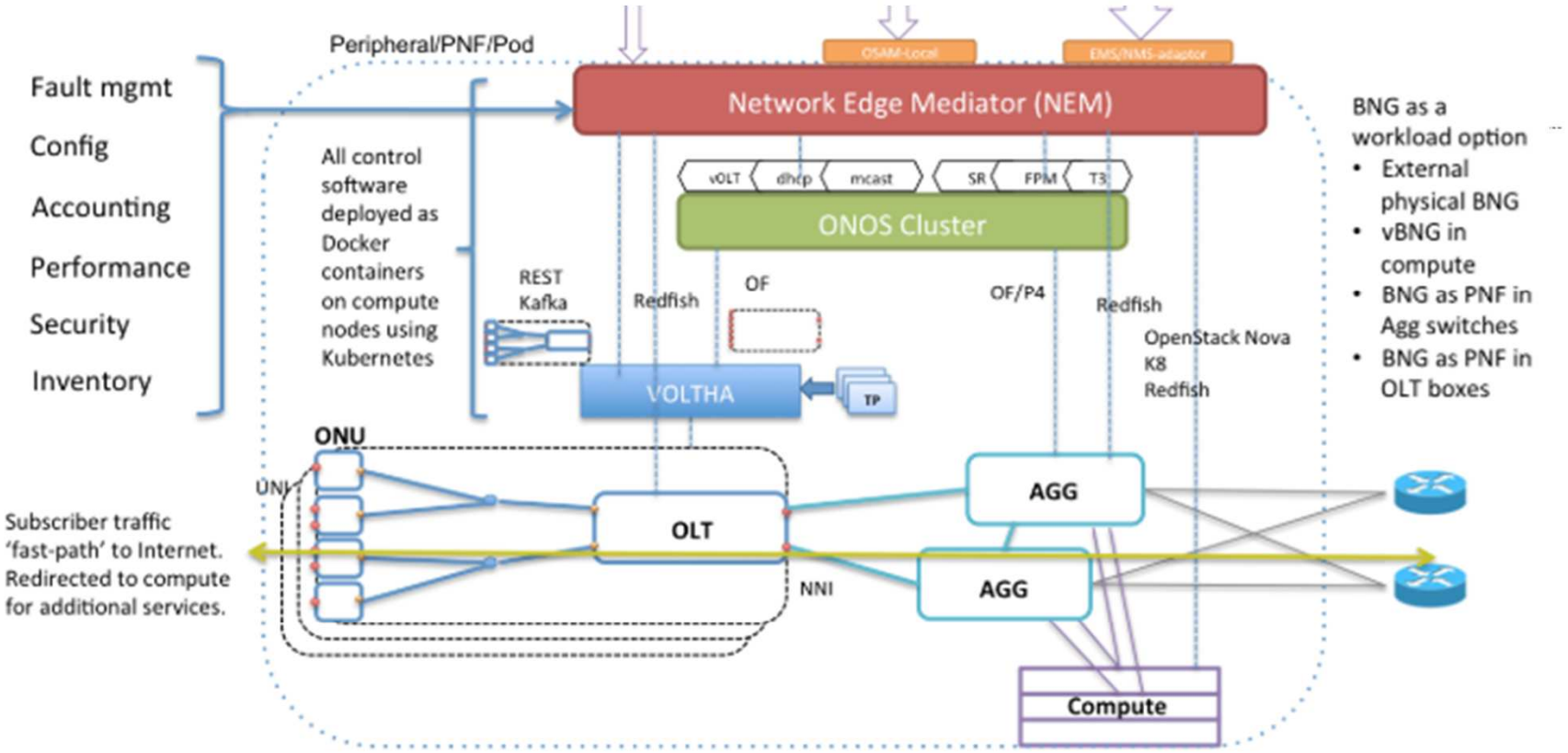
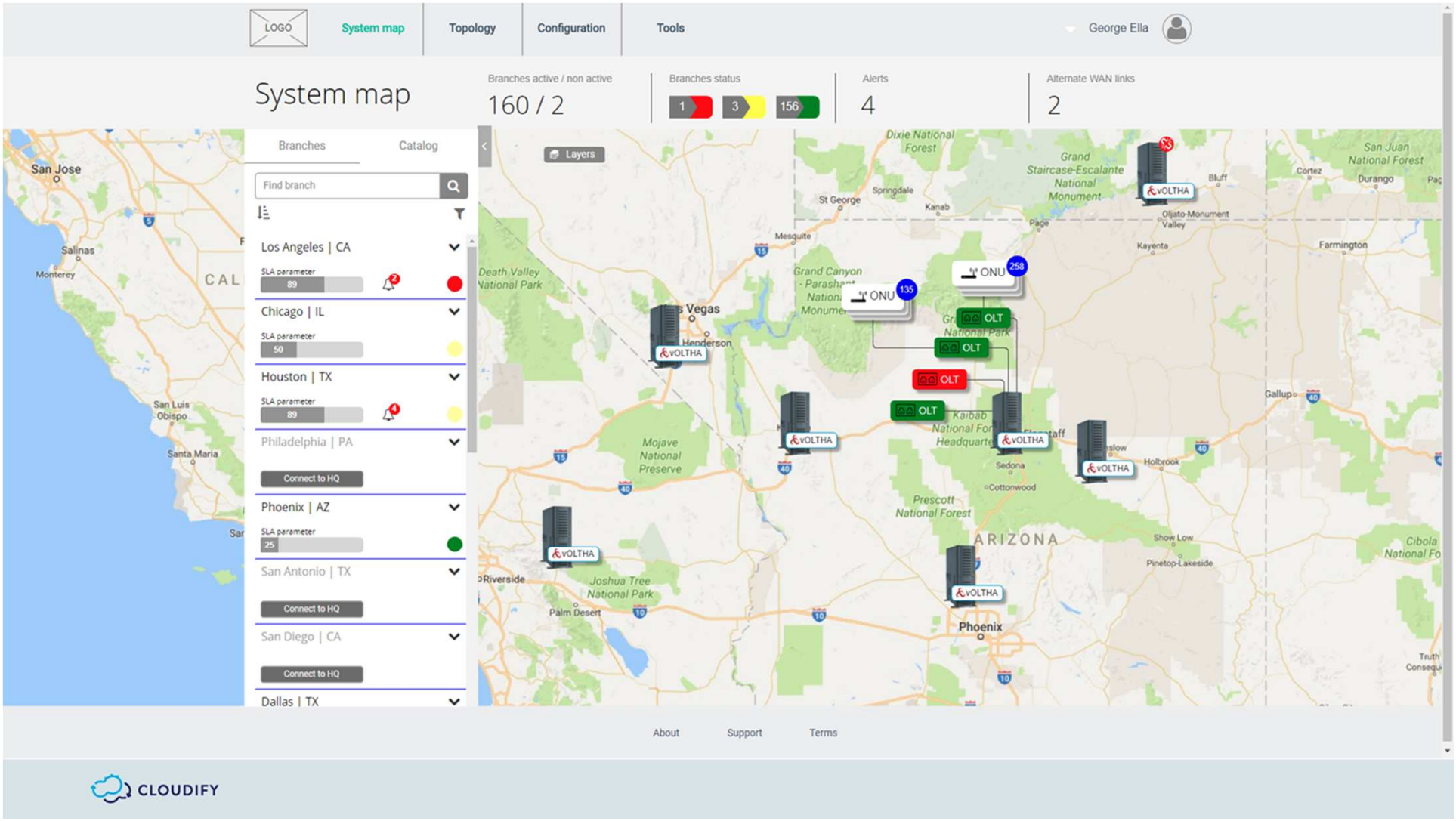
Service Assurance

Backend Services

vOLTHA Orchestration
LCM (provision, monitor, heal, scale, etc.)
Add subscriber, etc.




Peripheral/PNF/Pod
Fault mgmt
Config
Accounting
Performance
Security
Inventory
All control software deployed as Docker containers on compute nodes using Kubernetes
OSAM-Local
EMS/NMS-adaptor
Network Edge Mediator (NEM)
vOLT
dhcp
mcast
SR
FPM
T3
ONOS Cluster
REST
Kafka
Redfish
OF
OF/P4
Redfish
OpenStack Nova
K8
Redfish
VOLTHA
TP
ONU
UNI
OLT
NNI
AGG
AGG
Compute
Subscriber traffic 'fast-path' to Internet. Redirected to compute for additional services.
BNG as a workload option
• External physical BNG
• vBNG in compute
• BNG as PNF in Agg switches
• BNG as PNF in OLT boxes


LOGO
System map
Topology
Configuration
Tools
George Ella
System map
Branches active / non active
160 / 2
Branches status
1
3
156
Alerts
4
Alternate WAN links
2
Branches
Catalog
Find branch
Los Angeles | CA
SLA parameter
89
Chicago | IL
SLA parameter
50
Houston | TX
SLA parameter
89
Philadelphia | PA
Connect to HQ
Phoenix | AZ
SLA parameter
25
San Antonio | TX
Connect to HQ
San Diego | CA
Connect to HQ
Dallas | TX
Layers
ONU
258
ONU
135
OLT
OLT
OLT
OLT
vOLTHA
Las Vegas
Henderson
Phoenix
ARIZONA
Sedona
Cottonwood
Flagstaff
Holbrook
Show Low
Pinetop-Lakeside
Gallup
Farmington
Cortez
Durango
Bluff
Page
Kayenta
Mesquite
St George
Springdale
Kanab
Oljato-Monument Valley
Palm Desert
Joshua Tree National Park
Riverside
Mojave National Preserve
Prescott National Forest
Kaibab National Forest
Grand Staircase-Escalante National Monument
Dixie National Forest
San Juan National Forest
Death Valley National Park
San Jose
Salinas
Monterey
San Luis Obispo
Santa Maria
About
Support
Terms
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