

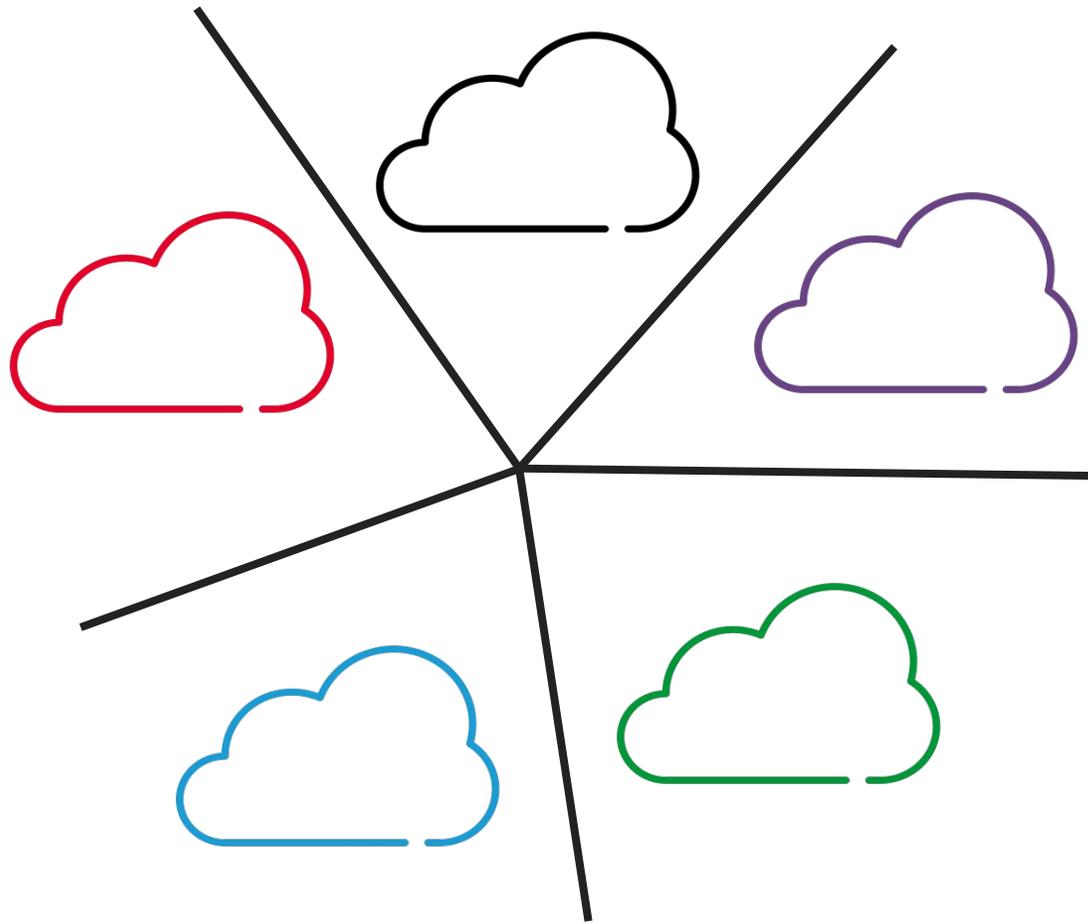
# Busting the myth that competing clouds can't connect

Dennis de Leest

June 30th, 2022

# Modern Workloads

# From Multiple Clouds ...



Siloed operations

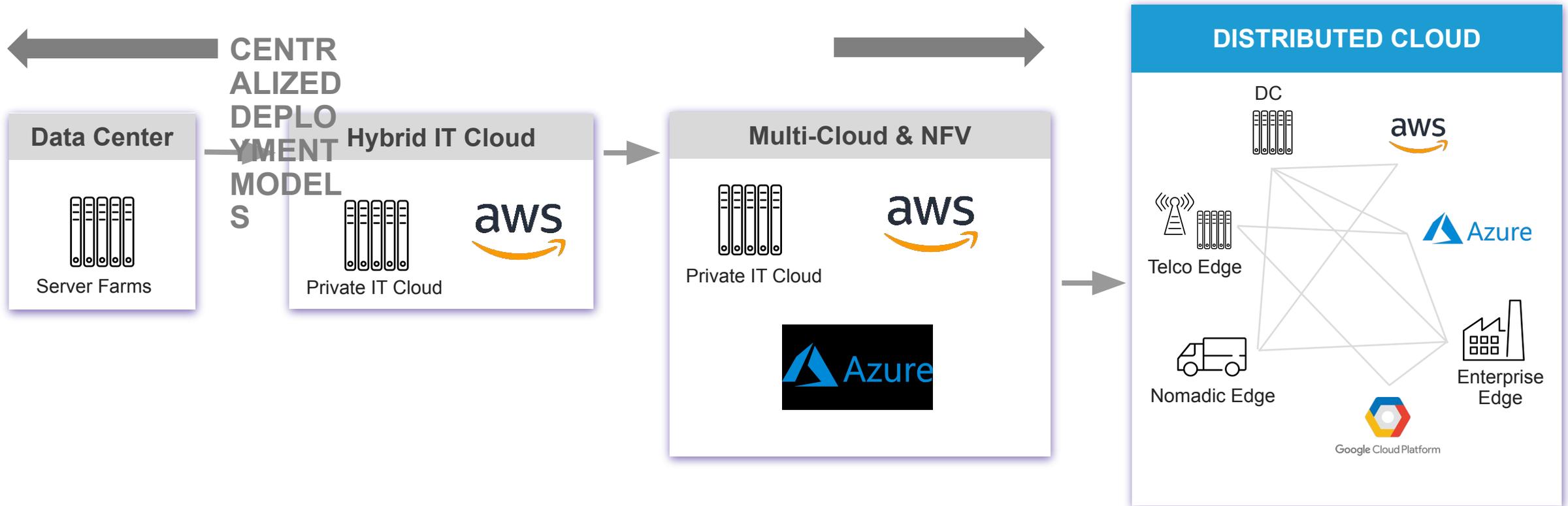
# ... to Multi-Cloud



Integrated operations

# Modern Workloads require a Distributed Cloud

CENTRALIZE WHEN YOU CAN, DISTRIBUTE WHEN YOU MUST



Deploying, interconnecting and securing applications

# Why Current Approaches to Multi-Cloud Networking Fall Short

# How Organisations Address Multi-Cloud Networking Today

TRADITIONAL TECHNOLOGIES DO NOT MEET THE NEEDS

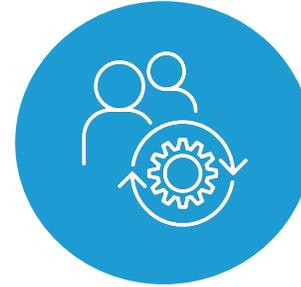
- Using automation tools
- Interconnection-oriented architectures
- Extensions to SDN platform
  
- Do nothing (too difficult)
- Using just one public cloud (instead of multi-cloud)
- Everything on-premises data center, some SaaS



# Multi-Cloud Networking Challenges



Cloud networking interest



Not DevOps ready



Different public cloud providers



Limited native networking capabilities

Source: Market Guide for Cloud Networking Software, Gartner, 2021

**Gartner**<sup>®</sup>

**The market needs a different approach – Functional and operational**

# Operational Challenges for Distributed Applications

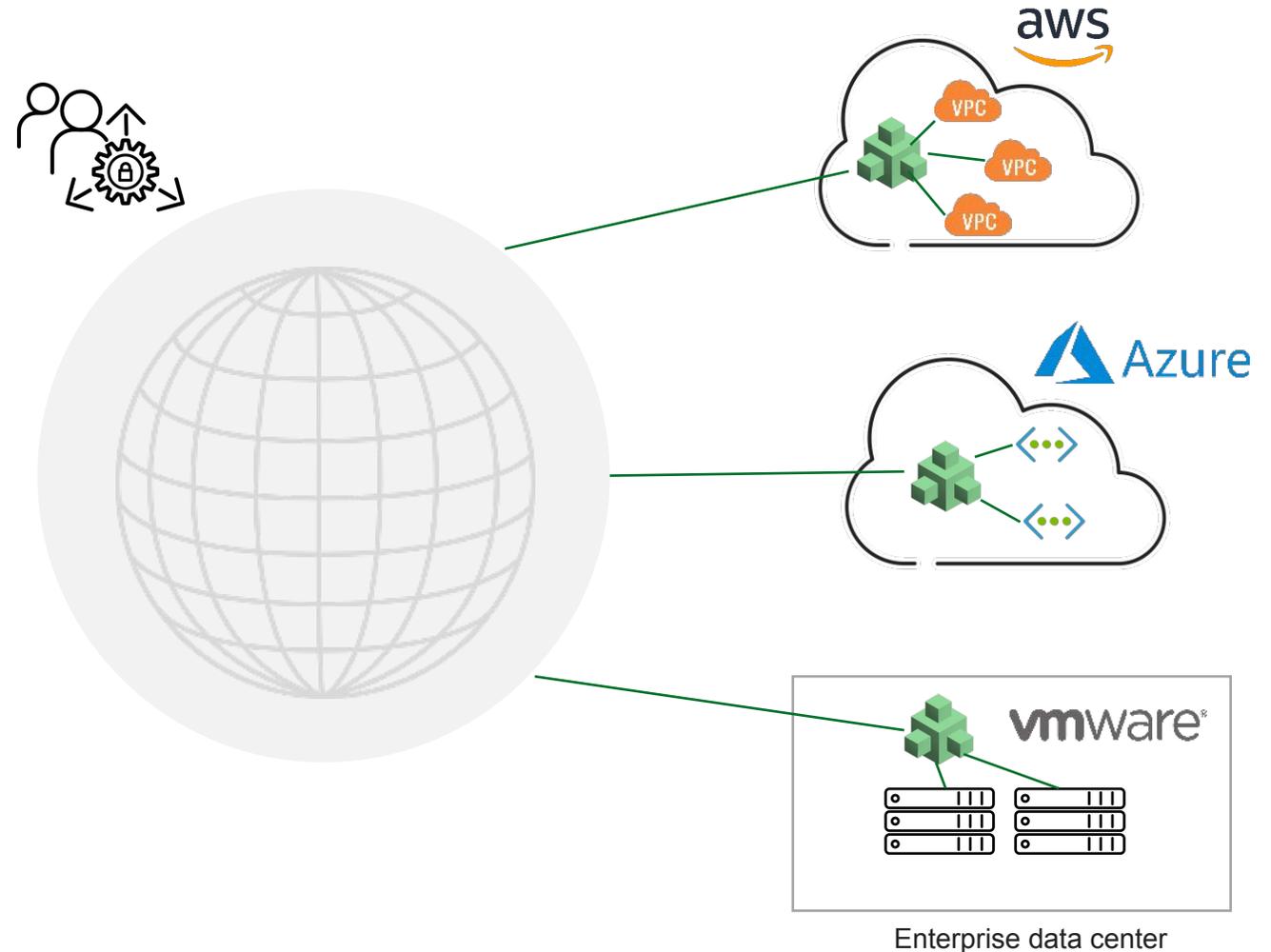
ADDRESSING A TRUE OPERATIONAL PAINPOINT

## Operational challenges

- Different networking capabilities
- Complex configs

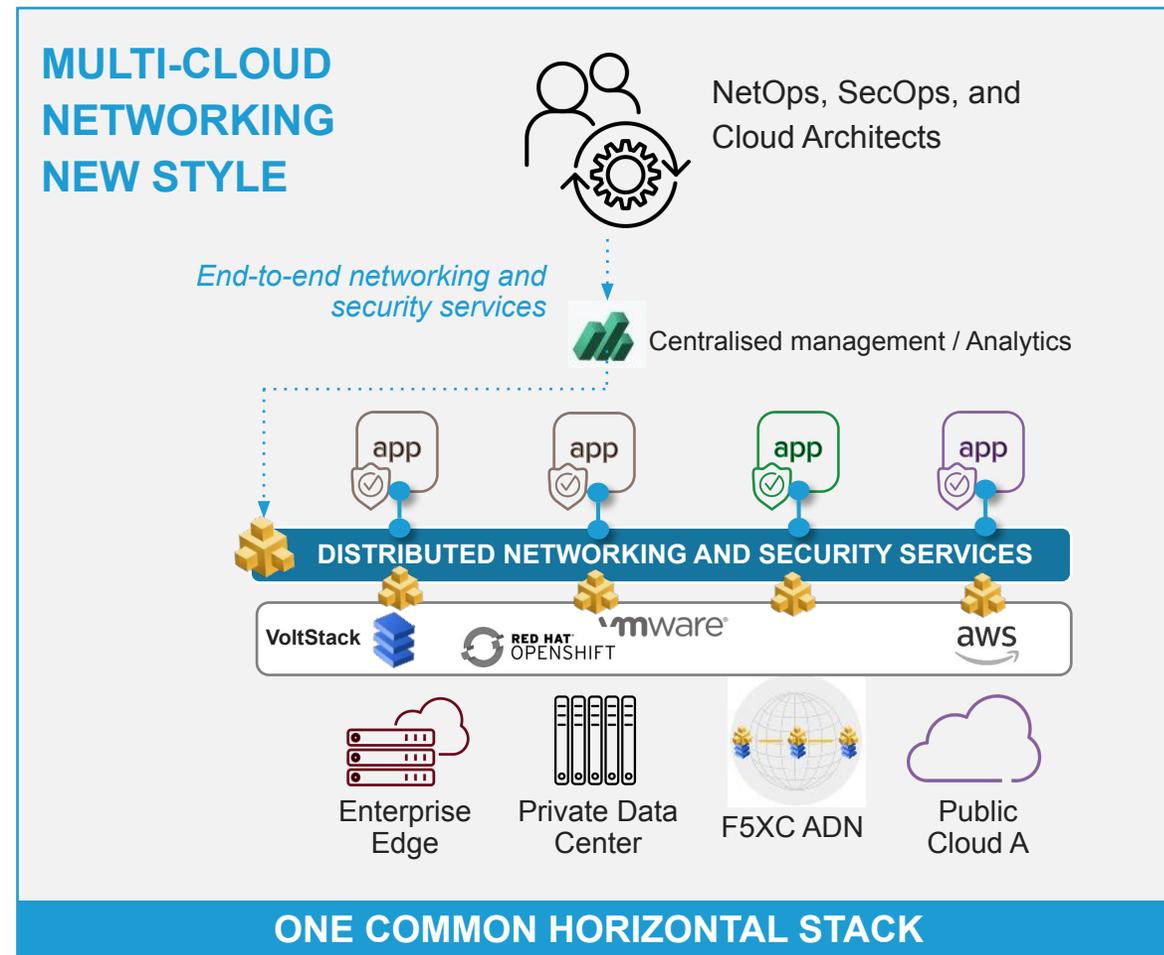
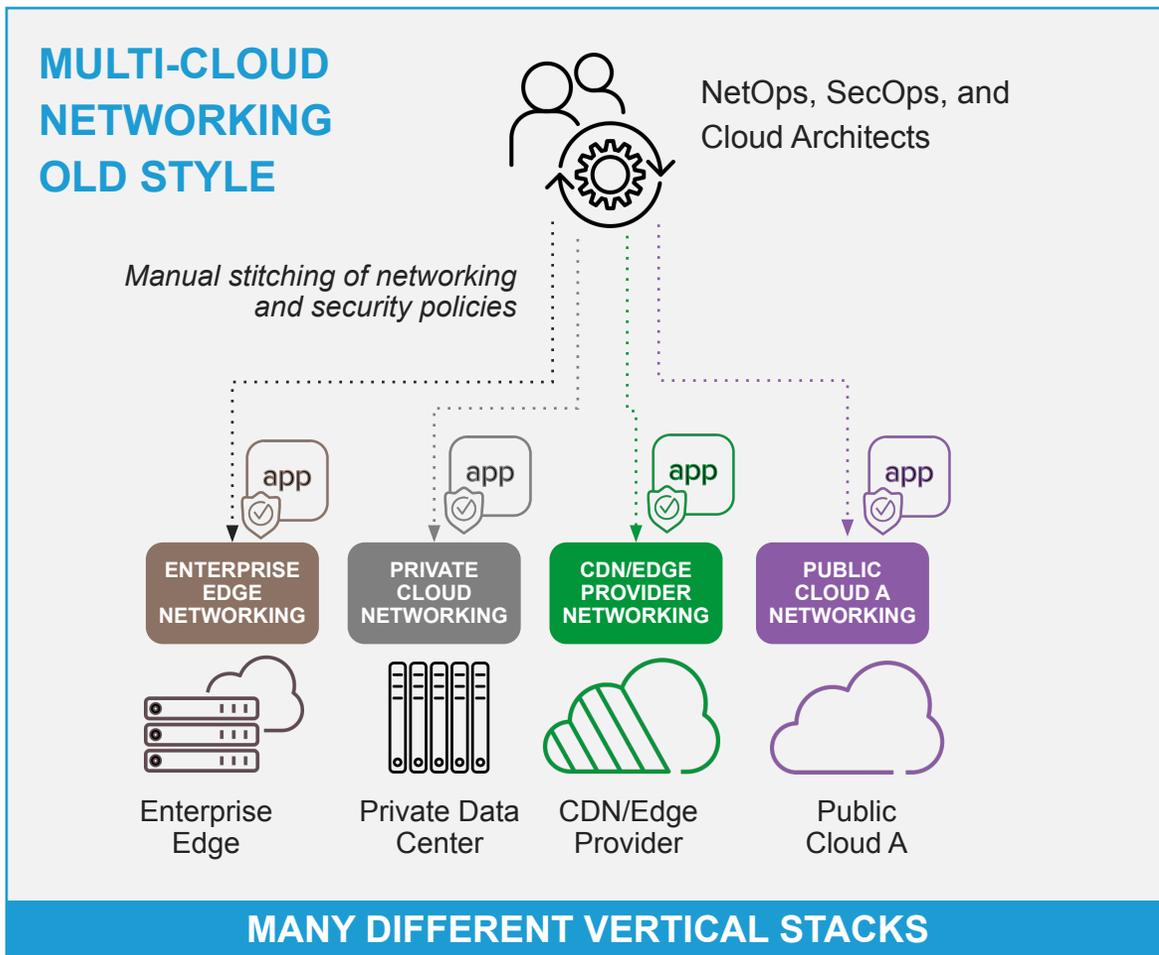
## Solution requirements

- Abstracting away complexity
- Centralized policy
- Different approaches (network vs apps)



# The Solution

EASY BUTTON FOR SECURELY INTERCONNECTING APPLICATIONS ACROSS DIFFERENT CLOUDS

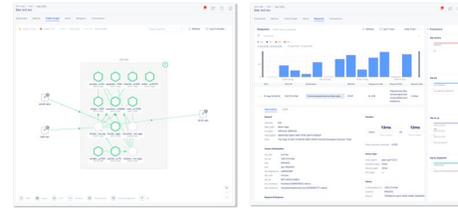


# Use Case examples

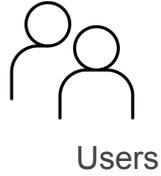


### SaaS Portal

- User Interface
- RBAC
- AnO + API
- Analytics / Reporting



https://myapp.com/



Users



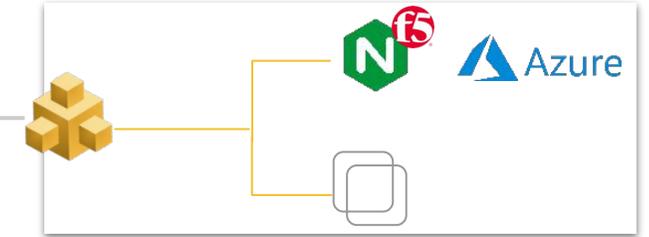
Terraform



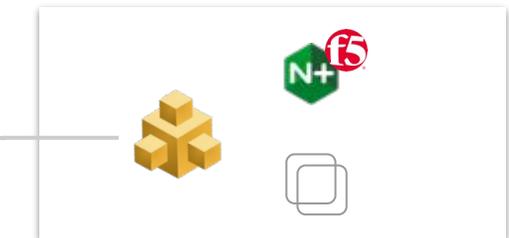
F5XC Global Network (ADN)



Public Cloud



Public Cloud



On-Premises

VoltMesh deployed in each zone and connected to Volterra's Global Network

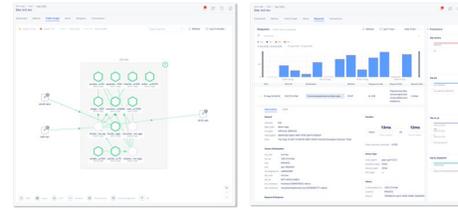
- Anycast IP address
- L3/L7 LB





### SaaS Portal

- User Interface
- RBAC
- AnO + API
- Analytics / Reporting



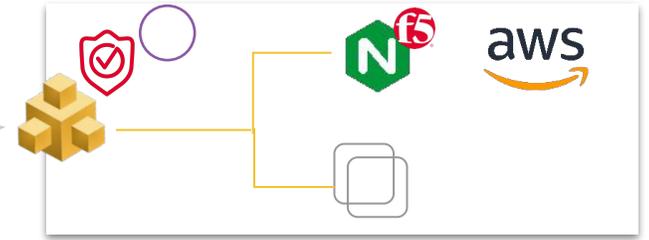
https://myapp.com/



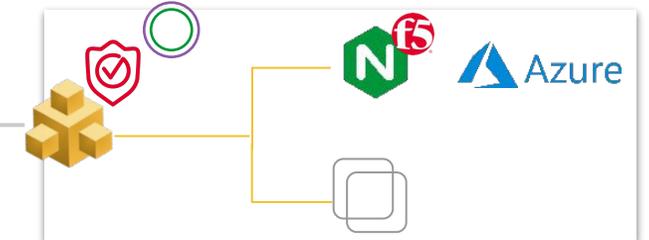
Users



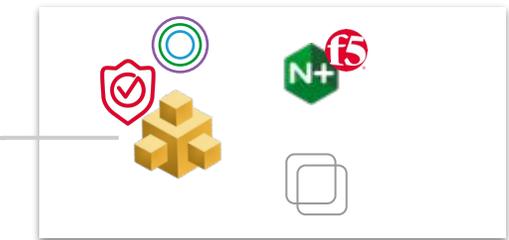
F5XC Global Network (ADN)



Public Cloud



Public Cloud



On-Premises

Voltterra Security stack deployed in VoltMesh

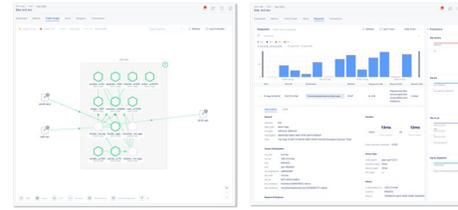
- DDoS L3/L7
- Client Challenge
- WAF (Positive and Negative Sec)
- Rate Limiting



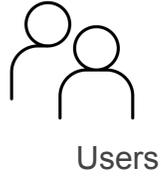


### SaaS Portal

- User Interface
- RBAC
- AnO + API
- Analytics / Reporting



https://myapp.com/



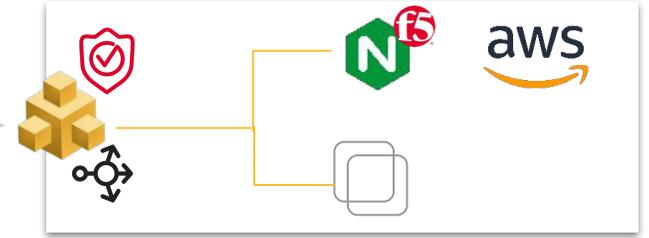
Users



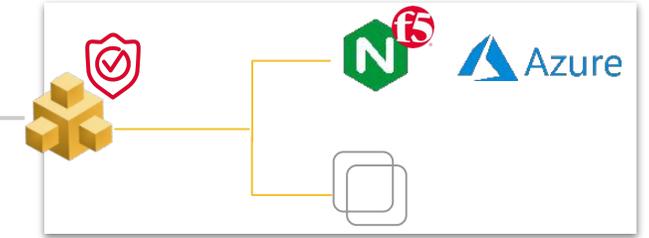
Terraform



F5XC Global Network (ADN)



Public Cloud



Public Cloud



On-Premises

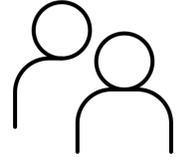
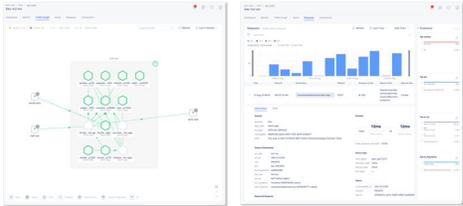
VoltMesh to publish internal LB so that internal resources can talk together

- AWS app can reach on-premises DB
- This LB is only known internally





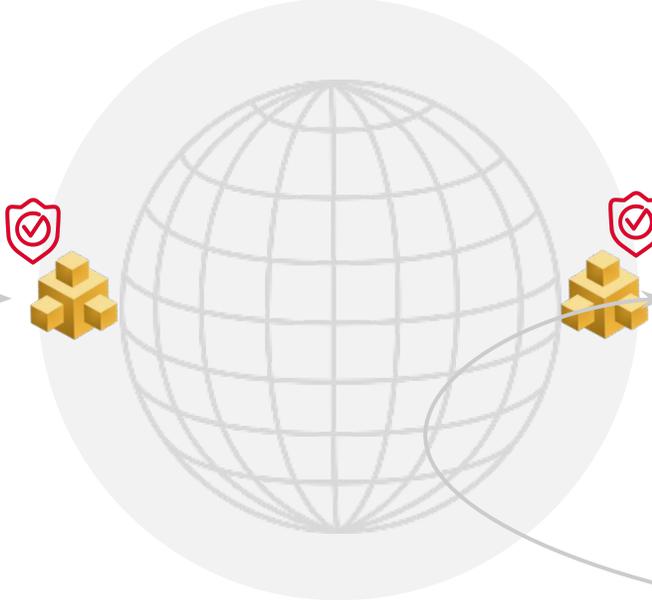
- SaaS Portal**
- User Interface
  - RBAC
  - AnO + API
  - Analytics / Reporting



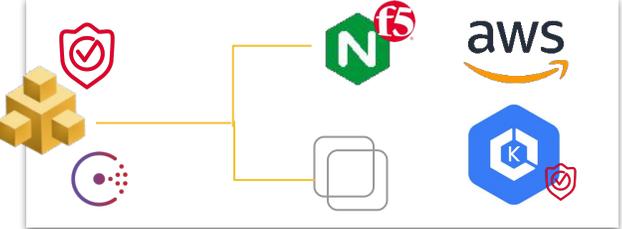
https://myapp.com/



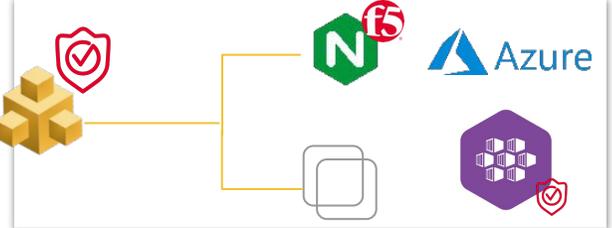
Users



F5XC Global Network (ADN)



Public Cloud



Public Cloud



On-Premises

VoltMesh to discover K8S services and make them available everywhere

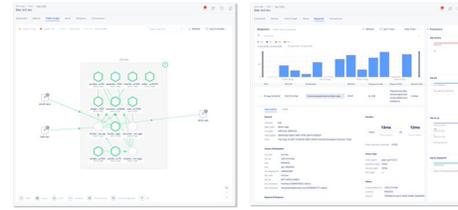
- Azure AKS can consume services from AWS EKS
- Users can connect directly to the AWS or Azure Voltterra Node (CE)





### SaaS Portal

- User Interface
- RBAC
- AnO + API
- Analytics / Reporting



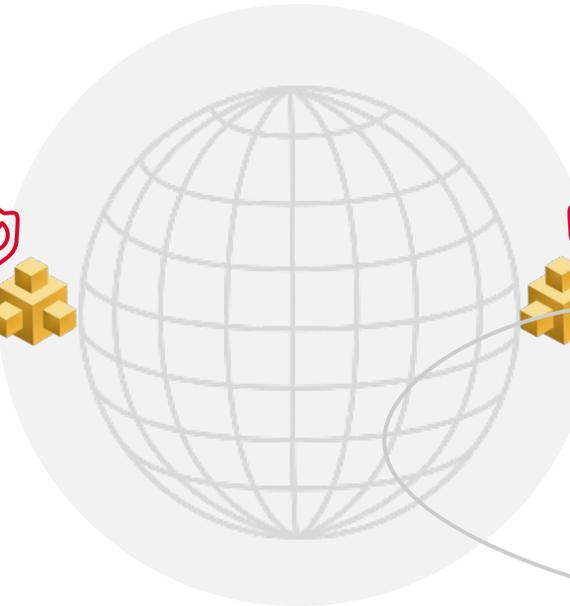
https://myapp.com/



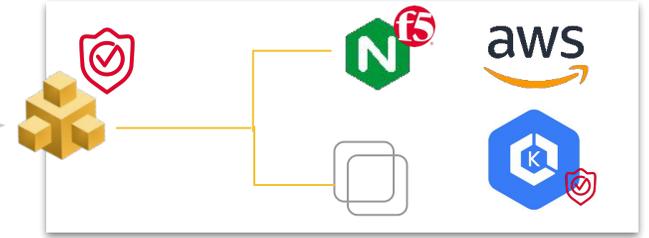
Users



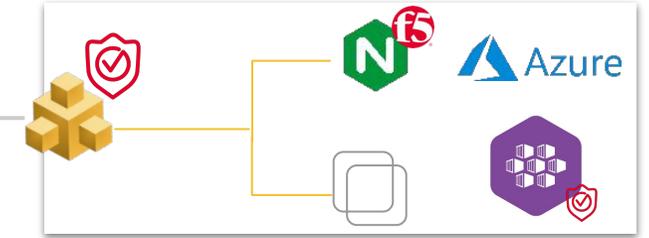
Terraform



F5XC Global Network (ADN)



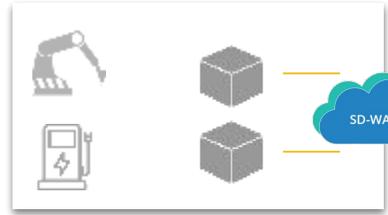
Public Cloud



Public Cloud



On-Premises



Nomadic Edge



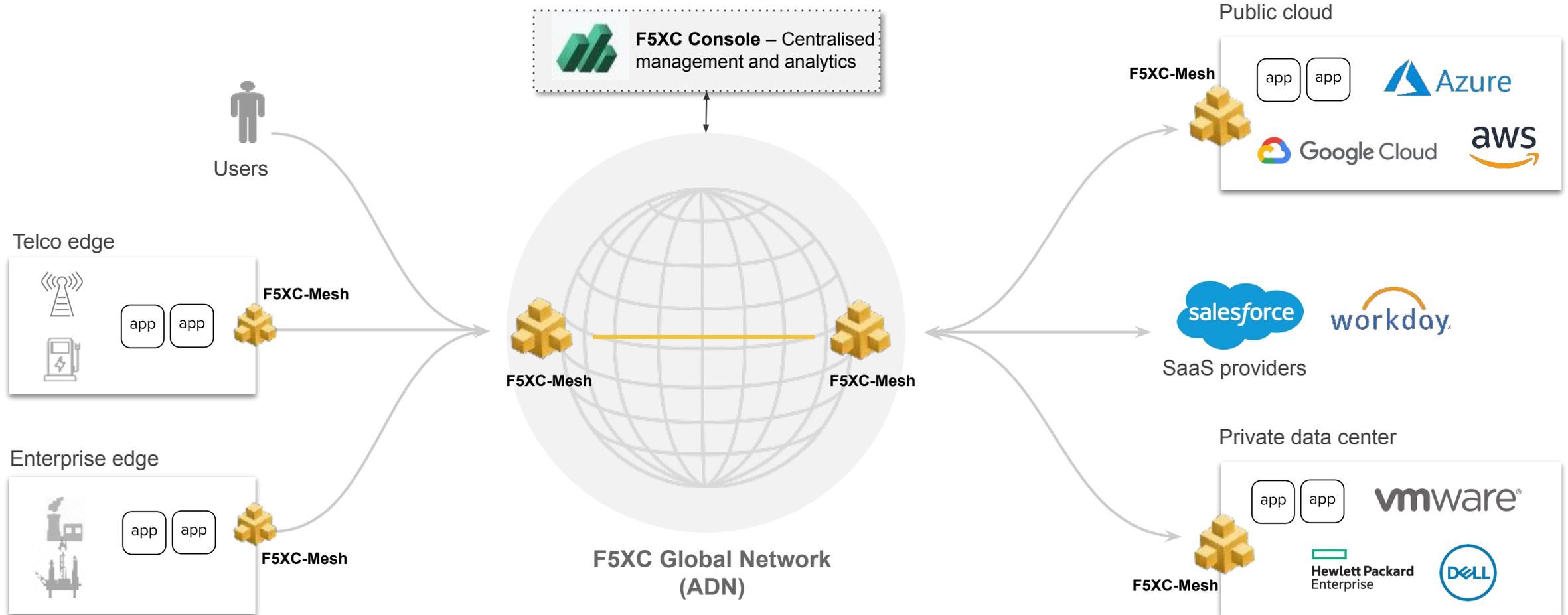
Physical Edge



# Summary

# Putting It All Together

SECURELY DISTRIBUTE YOUR APPS AND DATA WHERE YOU NEED THEM



# From Multi-Cloud Networking to Multi-Cloud Application Mesh



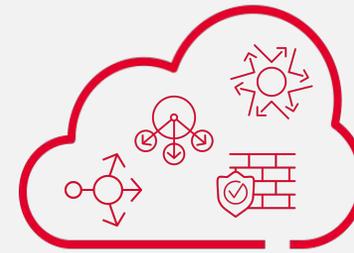
**Network-centric and app-centric  
multi-cloud networking**



**Easy to use and cloud agnostic  
centralised operations and  
analytics platform**



**Global backbone with private  
peering to major public clouds  
and SaaS platforms**



**Full L3-L7 services stack with  
advanced security functions  
and cloud-native integration**

