

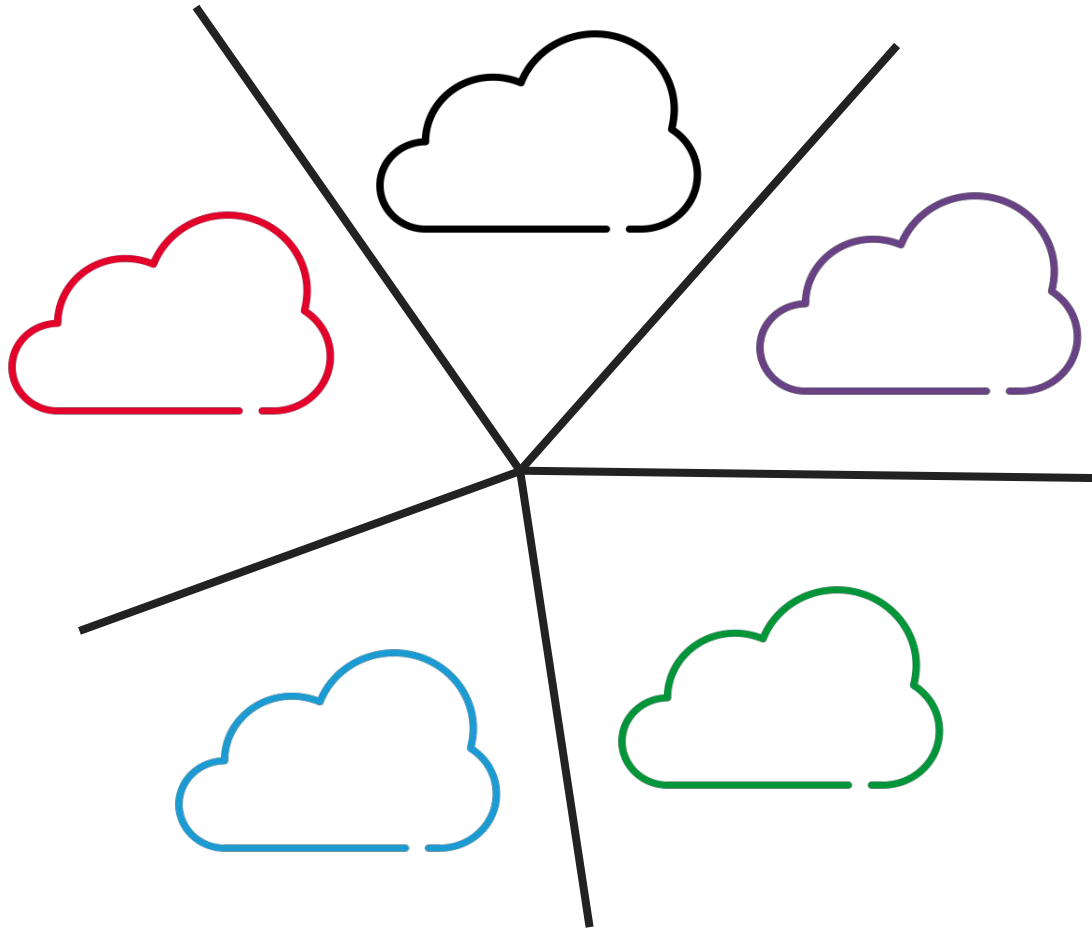
Busting the myth that competing clouds can't connect

Dennis de Leest

June 30th, 2022

Modern Workloads

From Multiple Clouds ...



Siloed operations

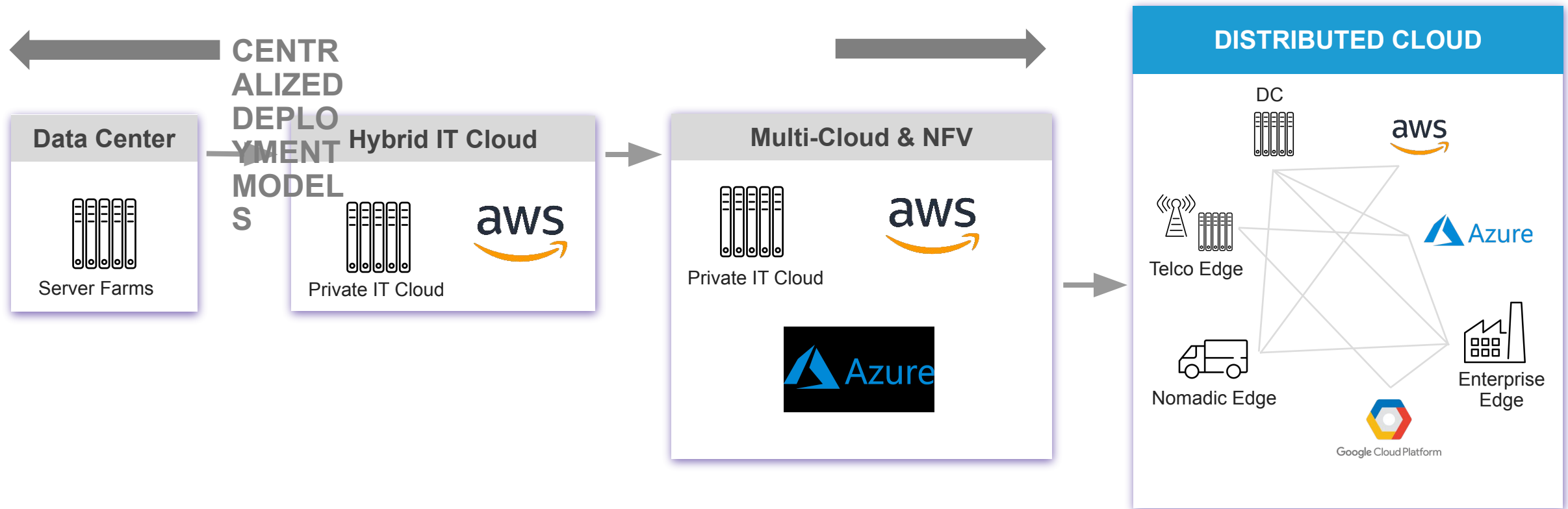
... to Multi-Cloud



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

The market needs a different approach – Functional and operational

Operational Challenges for Distributed Applications

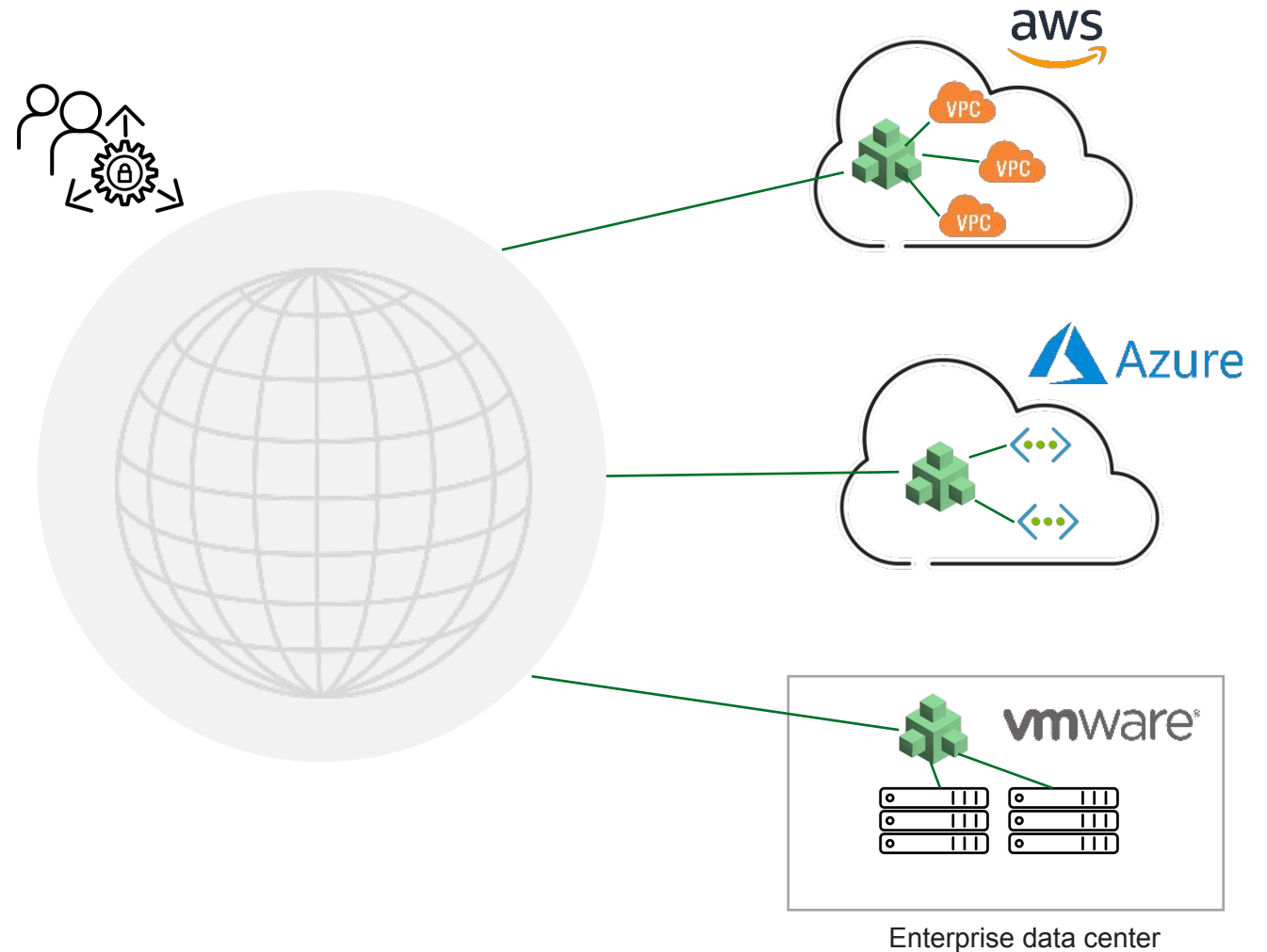
ADDRESSING A TRUE OPERATIONAL PAINPOINT

Operational challenges

- Different networking capabilities
- Complex configs

Solution requirements

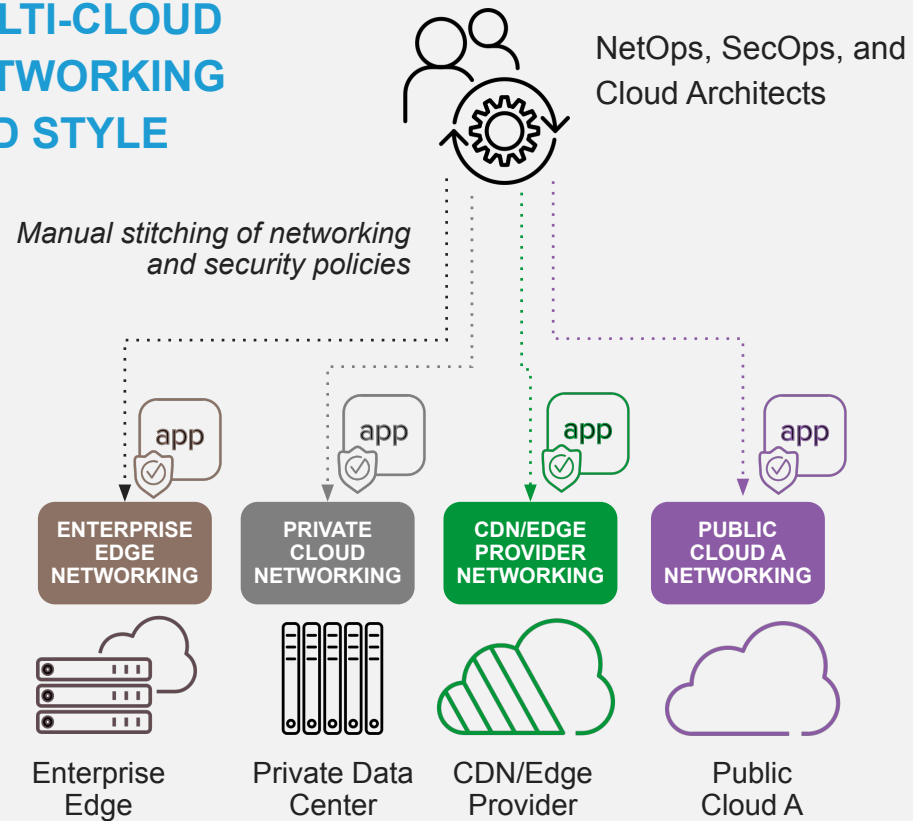
- Abstracting away complexity
- Centralized policy
- Different approaches (network vs apps)



The Solution

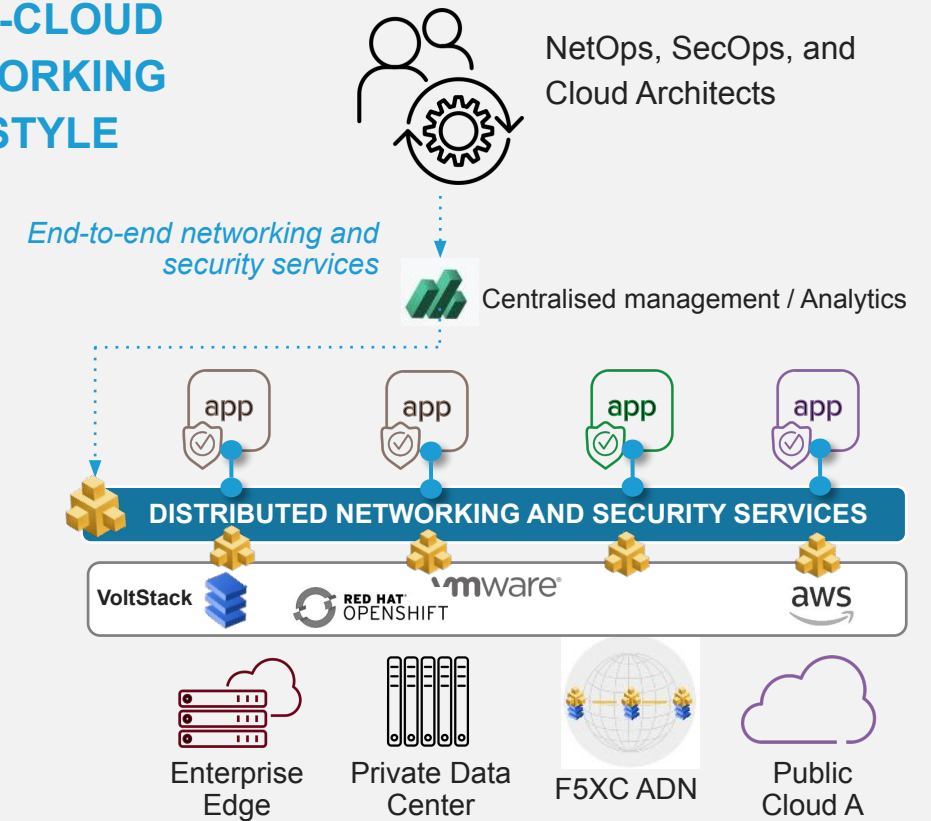
EASY BUTTON FOR SECURELY INTERCONNECTING APPLICATIONS ACROSS DIFFERENT CLOUDS

MULTI-CLOUD NETWORKING OLD STYLE



MANY DIFFERENT VERTICAL STACKS

MULTI-CLOUD NETWORKING NEW STYLE



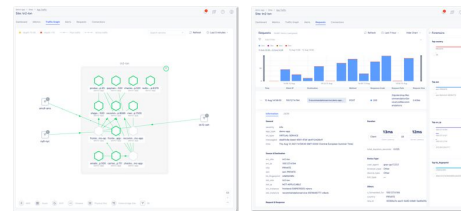
ONE COMMON HORIZONTAL STACK

Use Case examples



SaaS Portal

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



<https://myapp.com/>



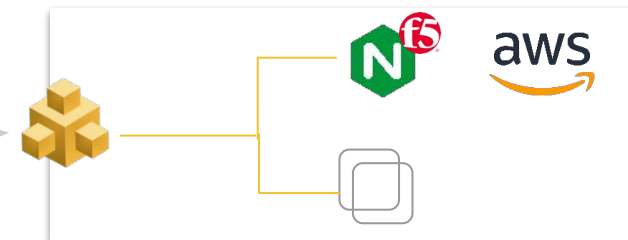
Users



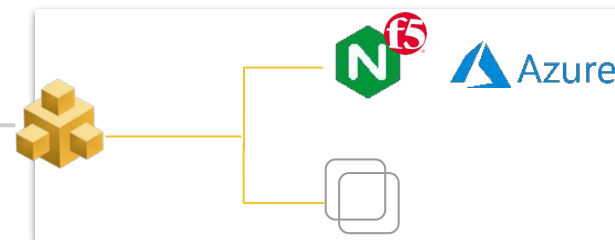
**F5XC Global Network
(ADN)**

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

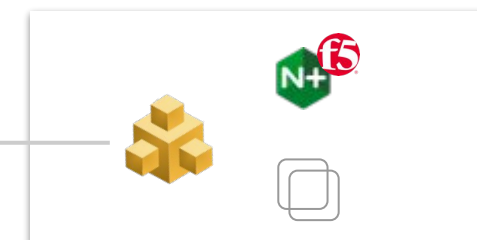
- Anycast IP address
- L3/L7 LB



Public Cloud



Public Cloud



On-Premises

Global
Distributed LB

Front Door
Protection

Cross
Tenant
Protection

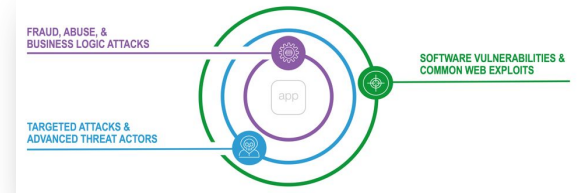
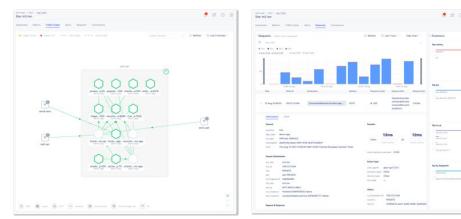
Cross k8s
protection

Edge 2.0



SaaS Portal

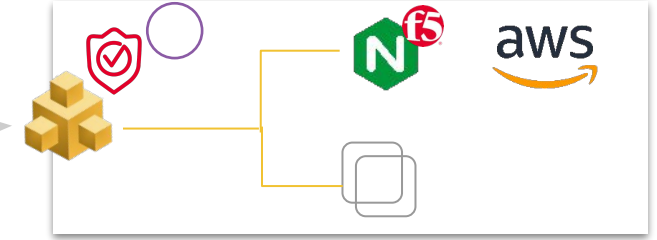
- User Interface
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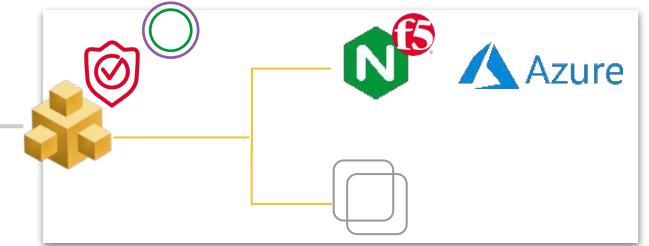
<https://myapp.com/>



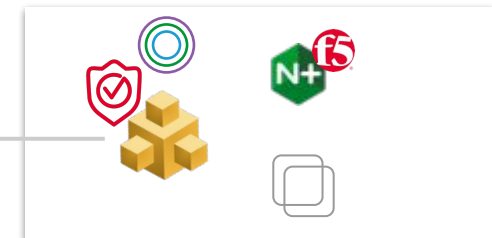
Users



Public Cloud



Public Cloud



On-Premises

**F5XC Global Network
(ADN)**

Voltterra Security stack deployed in VoltMesh

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

Global
Distributed LB

Front Door
Protection

Cross
Tenant
Protection

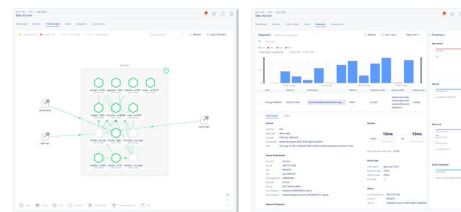
Cross k8s
protection

Edge 2.0



SaaS Portal

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



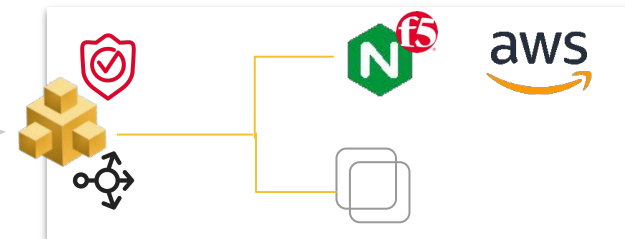
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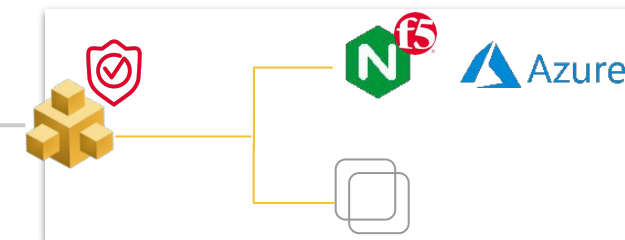
Users



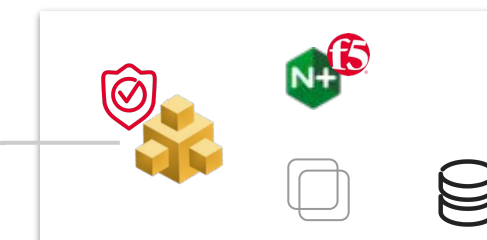
**F5XC Global Network
(ADN)**



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

Global
Distributed LB

Front Door
Protection

Cross
Tenant
Protection

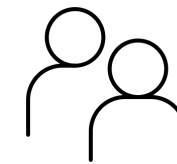
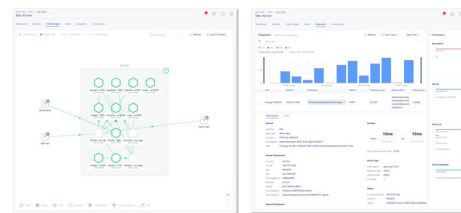
Cross k8s
protection

Edge 2.0



SaaS Portal

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



<https://myapp.com/>



Users



aws



Public Cloud



Azure



Public Cloud



On-Premises

F5XC Global Network
(ADN)

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 Votlerra Node (CE)

Global
Distributed LB

Front Door
Protection

Cross
Tenant
Protection

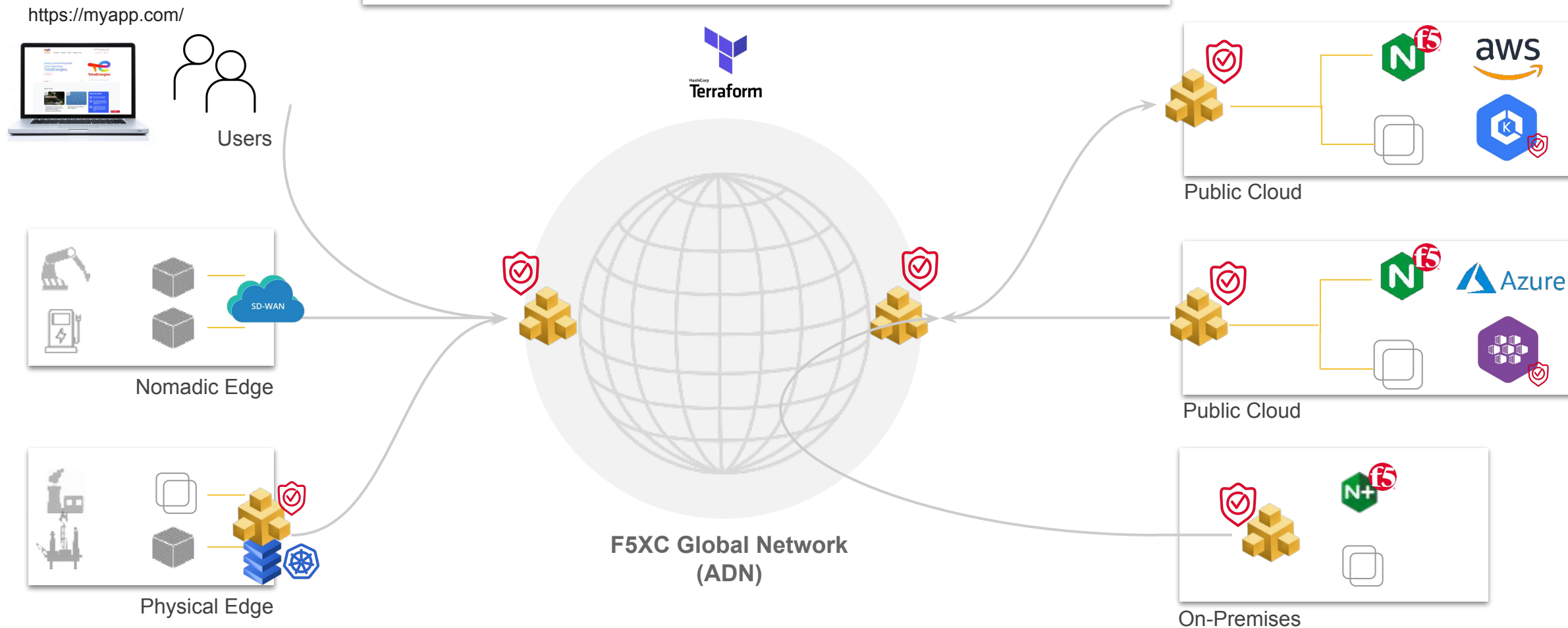
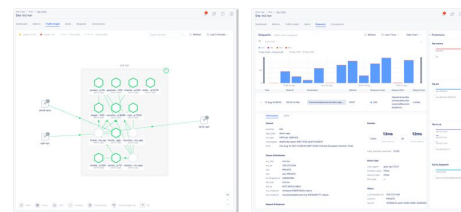
Cross k8s
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SaaS Portal

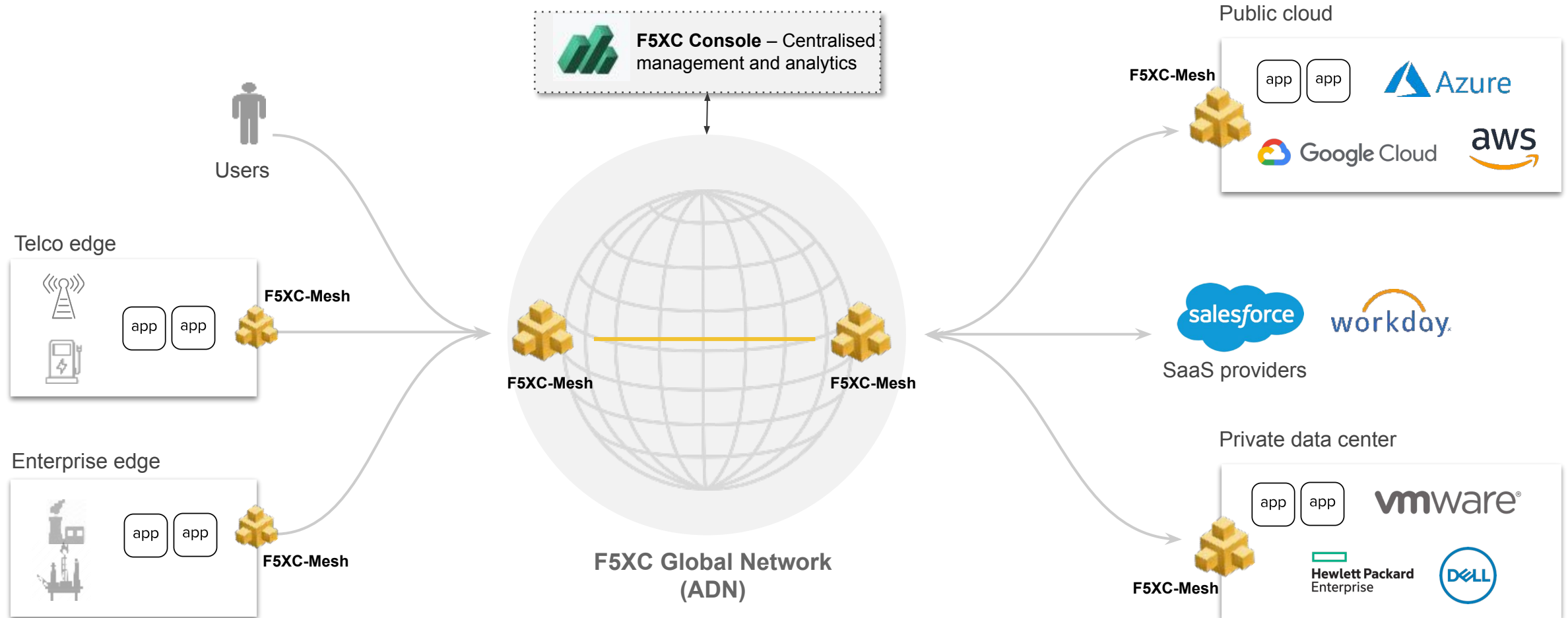
- User Interface
- RBAC
- AnO + API
- Analytics / Reporting



Summary

Putting It All Together

SECURELY DISTRIBUTE YOUR APPS AND DATA WHERE YOU NEED THEM



From Multi-Cloud Networking to Multi-Cloud Application Mesh



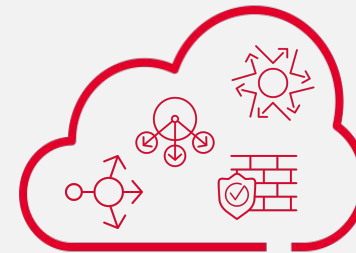
**Network-centric and app-centric
multi-cloud networking**



**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**

