

# Managing and Automating Multi-Cloud Environments



## KEY HIGHLIGHTS

### Secure and Reliable Connectivity

Leverage a global backbone and private network for high performance, highly secure connectivity between clouds.

### Simplified Environment

Simplify your multi-cloud environment via a common infrastructure stack, with policies and operations delivered through a SaaS-based model.

### Consistent Services and Security

Accelerate deployment and simplify ongoing operations across multiple clouds through a consistent set of platform services and security policies.

**Enterprises continue to transition their workloads** from on-premises data centers to public clouds. This migration has traditionally been done through a single cloud service provider (CSP) and one or select geographic locations. As cloud adoption and usage increases in maturity, more enterprises are taking a multi-cloud approach. Propeller Insights found in a 2019 global survey of over 400 clients, that 97% had or planned to take a multi-cloud approach to support workloads, with over 50% planning to use three or more cloud providers.

While the benefits of multi-cloud are multiple, there are also significant technical and operational challenges in taking this approach. Reliability, security, and a consistent platform and operational model are just a few of these.

Volterra, now part of F5, provides a broad multi-cloud solution supporting many use cases and initiatives—including the ability to create virtualized Kubernetes clusters that span multiple clouds and CSPs, a consistent network and security service platform across clouds, and secure, highly reliable cross-cloud connectivity.

## Challenges Addressed

- Secure and reliable connectivity between providers.
- Difficulty in establishing a multi-cloud operating model.
- Different security services or processes across providers.
- Cloud vendor lock-in due to unique platform services.

## Benefits

### Simplified Multi-Cloud Operations

Enable consistent deployments across multiple CSPs and locations, while maintaining common policies and operational procedures, by using a single SaaS-based management platform.

### Maximum Security

Simplify your multi-cloud environment via a common infrastructure stack, policies, and operations delivered through a SaaS-based model.

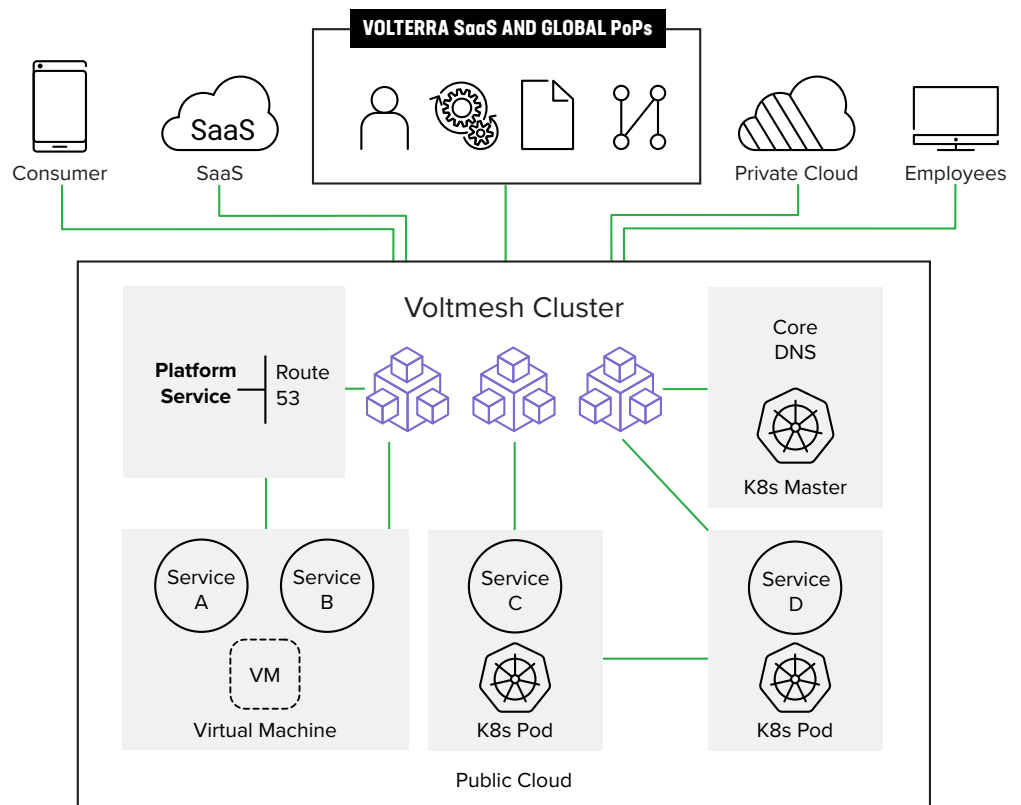
### Full Leverage Across Cloud Market

Take advantage of best-of-breed capabilities from each CSP, as well as meet your regulatory needs, while minimizing the operational burden of heterogeneous cloud providers.

# USE CASES

## SECURE KUBERNETES GATEWAY

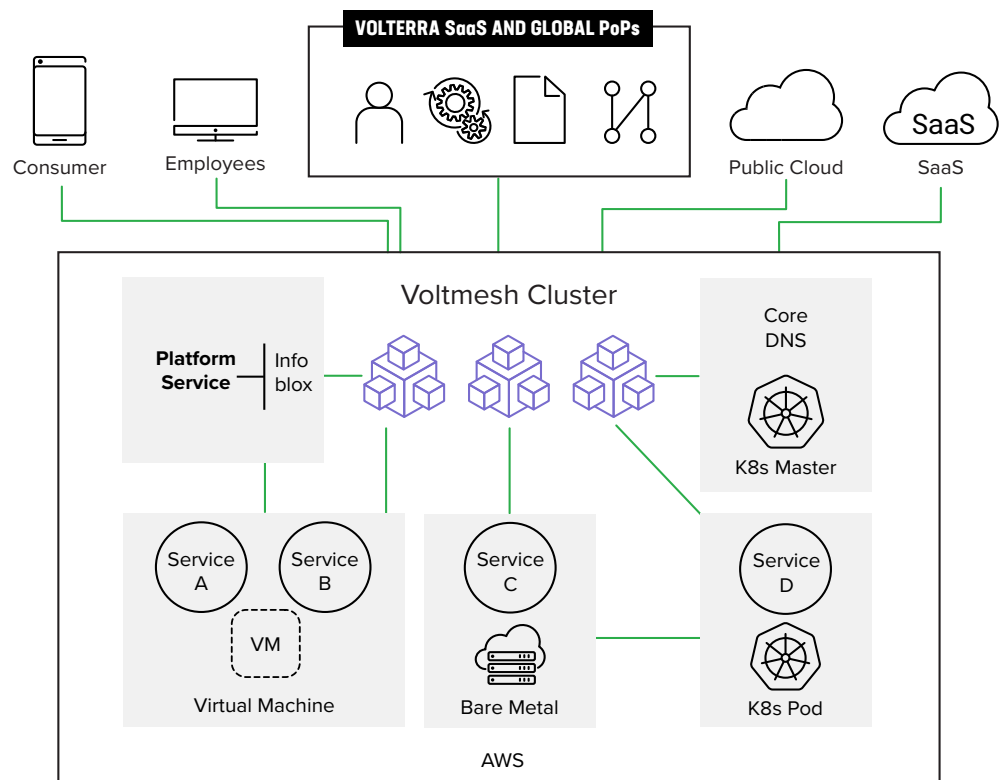
Simplify security and connectivity for Kubernetes deployments across multiple clusters, cloud locations, and cloud providers. VoltStack can be provisioned as an integrated Kubernetes gateway that provides identity authority, load balancing, and API routing. It automatically discovers services and provides health checks, and is SaaS-based for simplified operation and real-time observability.



**Figure 1:** VoltStack simplifies security across distributed Kubernetes deployments.

## APPLICATION AND NETWORK SERVICES CONSOLIDATION

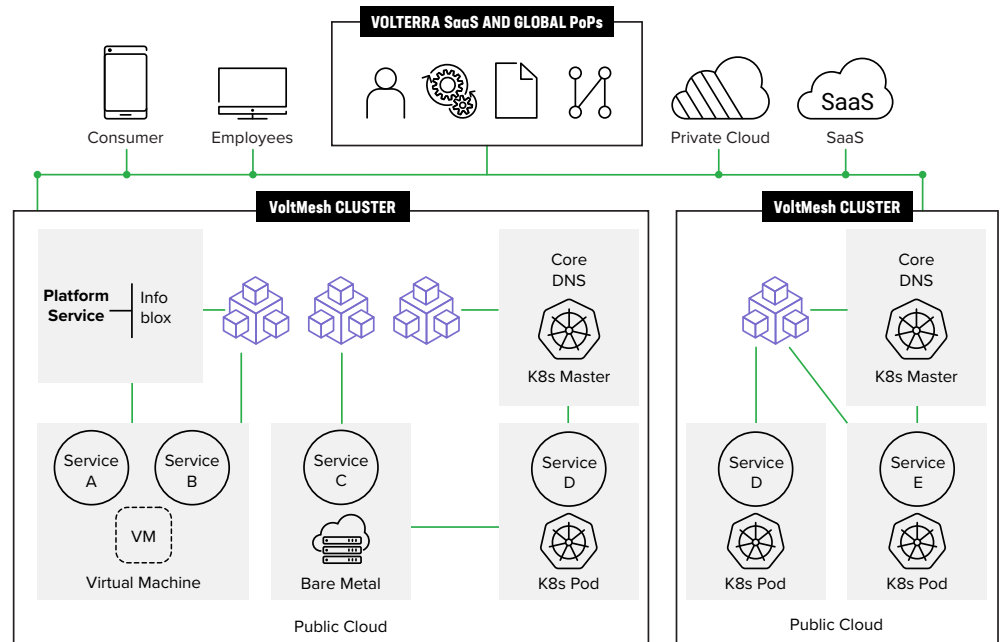
Consolidate the multiple siloed application, security, and network tools used at each cloud deployment. VoltMesh provides a comprehensive set of connectivity and security services on a single SaaS-based platform. It can be deployed at each of your cloud sites to provide consistent routing and VPNs, ingress security and policy enforcement, and egress filtering and compliance.



**Figure 2:** VoltMesh delivers consistent connectivity and security services across multiple clouds.

## MULTI-CLUSTER SECURE MESH

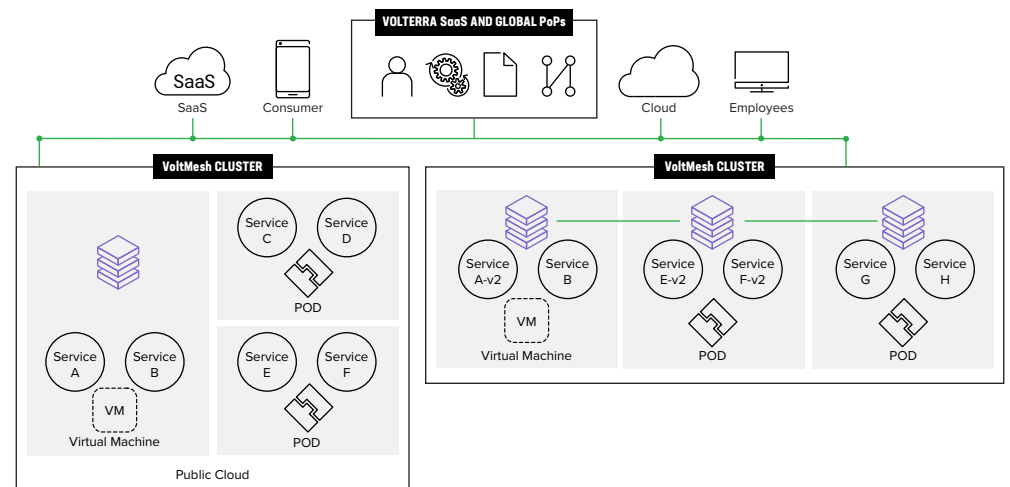
Securely connect traditional and modern applications across cloud sites and different providers. VoltMesh provides an end-to-end solution via service discovery, identity-driven security, networking, and API gateways deployed at each cloud site coupled with Volterra's global infrastructure and private high-speed backbone.



**Figure 3:** VoltMesh securely connects clusters across clouds and providers.

## MULTI-CLOUD APPLICATION MANAGEMENT

Simplify DevOps/SecOps for applications distributed across multiple clouds. VoltStack centralizes management, identity, and policy, and consolidates observability through a single virtualized Kubernetes interface that spans large volumes of distributed physical clusters. Key capabilities include multi-cloud portability, heterogeneous provisioning, and workload elasticity monitoring.



**Figure 4:** VoltStack provides a single interface for managing distributed applications.

## About Volterra

Now part of F5, Volterra provides a comprehensive SaaS platform to deploy, connect, secure, and operate distributed applications and data across multi-cloud and edge sites.

Learn more about Volterra Edge Cloud solutions

Visit: [volterra.io](https://volterra.io)

Contact Technical Sales: [sales@volterra.io](mailto:sales@volterra.io)

