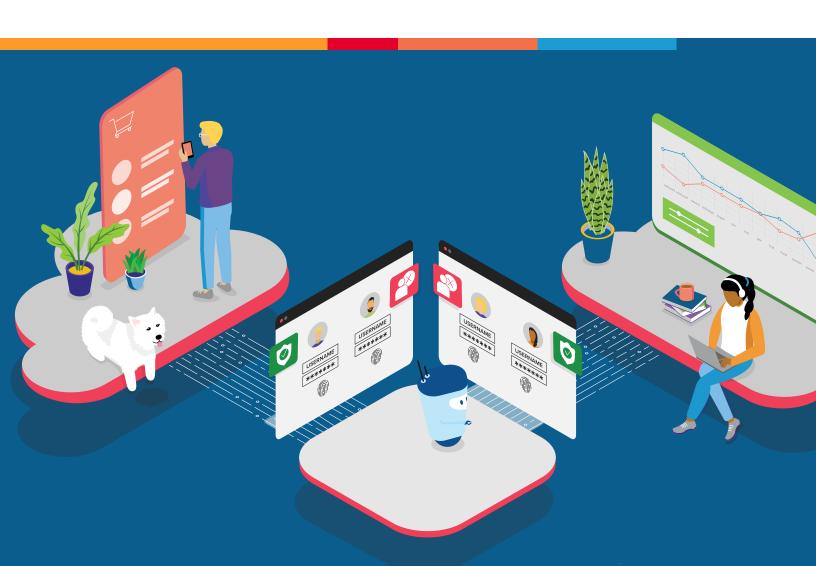


# Managing and Automating Multi-Cloud Environments



### 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.

F5® Distributed Cloud Services 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. F5 Distributed Cloud App Stack 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.

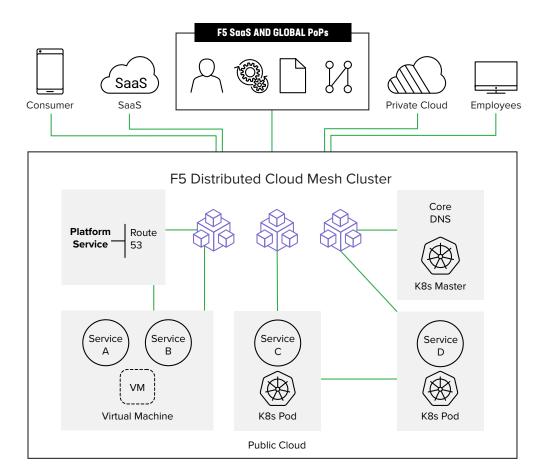


Figure 1: Distributed Cloud App Stack simplifies security across distributed Kubernetes deployments.

## APPLICATION AND NETWORK SERVICES CONSOLIDATION

Consolidate the multiple siloed application, security, and network tools used at each cloud deployment. F5 Distributed Cloud Mesh 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.

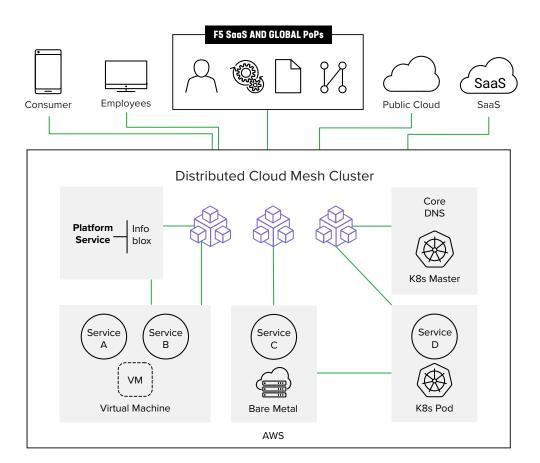
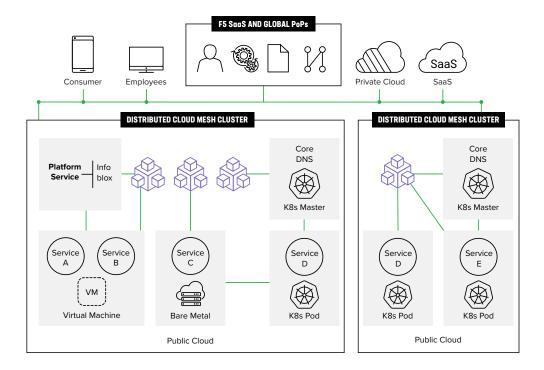


Figure 2: Distributed Cloud Mesh delivers consistent connectivity and security services across multiple clouds.

# **MULTI-CLUSTER SECURE MESH**

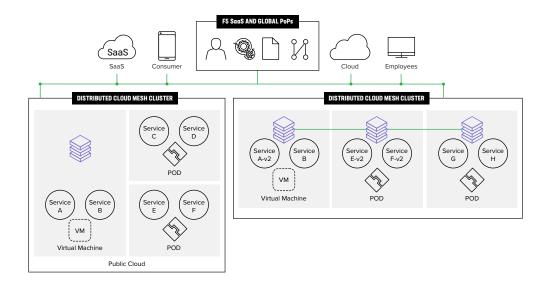
Securely connect traditional and modern applications across cloud sites and different providers. Distributed Cloud Mesh provides an end-to-end solution via service discovery, identity-driven security, networking, and API gateways deployed at each cloud site coupled with F5's global infrastructure and private high-speed backbone.



**Figure 3:** Distributed Cloud Mesh securely connects clusters across clouds and providers.

## **MULTI-CLOUD APPLICATION MANAGEMENT**

Simplify DevOps/SecOps for applications distributed across multiple clouds. Distributed Cloud App Stack 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:** Distributed Cloud App Stack provides a single interface for managing distributed applications.

# **About F5 Distributed Cloud Services**

F5 Distributed Cloud Services are SaaS-based security, networking, and application management services that can be deployed across multi-cloud, on-premises, and edge locations.

Learn more about F5 Distributed Cloud solutions:

Visit: f5.com

Contact Technical Sales: sales@f5.com

