



Scale Microservices Management with F5 Aspen Mesh

Built upon CNCF's Istio project, F5 Aspen Mesh enables enterprises to deploy a microservice-based infrastructure, simplifying the migration of traditional on-premises monolithic services for cloud-native or hybrid application delivery.



KEY FEATURES

Full-featured

Open source Istio capabilities with traffic control and policy enforcement.

Robust security by default

Configuration provides for strict security capability out of the box.

Full support

24x7 white-glove support and training.

Built-in visibility

Aspen Mesh Packet Inspector enables service mesh visibility with traffic capture.

Ideal for complex large-scale workloads

Multi-cluster, multi-cloud, and multi-tenant. High-availability or disaster recovery configurations.

MICROSERVICES AND MICROSERVICES MANAGEMENT CAN HELP TO SHORTEN THE DEVELOPMENT, TESTING, FINE-TUNING, DEPLOYMENT, AND UPGRADE CYCLES FOR NEW APPLICATIONS.

Cloud-native applications can play a pivotal role in helping enterprises

reduce their overall network costs during the transition to business digitalization. F5® Aspen Mesh enables them to deploy a microservice-based infrastructure, simplifying the migration of traditional on-premises monolithic services and the deployment of cloud-native or hybrid-application delivery methods. Microservices and microservices management can help to shorten the development, testing, fine-tuning, deployment, and upgrade cycles for new applications. Operational savings are realized through greater code reuse, automation, and scalability, resulting in a faster time to market for new applications.

Why is this important?

Enterprises are moving to digitalize their businesses to provide new offerings, find new customers, and to interact with legacy customers in new ways. Competition, the need to improve operational efficiency, and the continuing need to reduce the overall cost of doing business stack up as clear drivers to move to a microservice deployment platform. Additionally, as they modernize, there is often the need to preserve or extend the life of existing on-premises applications—such as databases. They also need the ability to satisfy high availability and disaster recovery scenarios, as well as to satisfy data and service visibility to serve highly regulated industries. These requirements map directly to the capabilities of a service delivery platform based on microservices. This allows the enterprise to move at the speed of the customer, and in a secure manner.

How F5 Can Help

In a move from monolithic to hybrid, whether your goal is to preserve legacy applications, develop and deploy new cloud-native microservices, or address high availability and disaster recovery scenarios, F5 can help.

The Aspen Mesh solution controls service-to-service communication in a microservices architecture, enabling policies and configurations to be updated at once in real time for all data planes within the service mesh. It provides observability, security, and traffic management for the east/west traffic flowing within and between Kubernetes clusters and provides the tools to ensure network security and visibility.

Aspen Mesh Packet Inspector fills a crucial gap by providing clear visibility into services and their interactions, presented in a format easily comprehensible to analytical tools. The sidecar captures CNF traffic directly, including intra-node CNF traffic, reducing the SSL decryption load. This integrates seamlessly with the existing service assurance infrastructure, enabling comprehensive packet visibility across the service mesh and service-based

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architecture. Moreover, this solution is both scalable and extensible, with support for existing packet broker APIs. Aspen Mesh offers this unique capability which plays a pivotal role in automating the deployment environment. Aspen Mesh, a microservice deployment platform, will enable you to modernize your infrastructure, speed up digitalization, and deploy microservices at scale for:

- Developing, testing, fine-tuning, and deploying new cloud-native offerings.
- Ensuring compliance with government regulation and internal auditing requirements.
- Deploying complex large-scale or complex workloads, including:
 - Multi-tenant deployments with diverse services, access levels, and security.
 - Multi-cluster deployments for expansion and large-scale operations.
 - Multi-cloud deployments to secure services across a multi-cloud environment.
- Achieving service visibility to aid fault-finding and configuration verification.
- Addressing high availability and disaster recovery scenarios.

Conclusion

The Aspen Mesh solution is based on Istio which makes it ideal for enterprises moving from a monolithic to a hybrid environment, or for deploying cloud-native microservice-based applications, because it takes the open-source work of Istio but then goes one step further.

Suited for large scale multi-cluster, multi-tenant, or multi-cloud deployments, Aspen Mesh offers white-glove support and training options as part of the package. It enables the modernization of an internal infrastructure and the move away from monolithic services, resulting in shorter development, testing, and upgrade cycles for new applications. This transformation leads to operational savings, greater automation, and reduced time to market.

Aspen Mesh distinguishes itself through its commitment to white-glove support, training, and visibility capabilities. It incorporates a range of unique features to simplify deployment and management. Following a “security-first” mantra, unlike other service mesh implementations, Aspen Mesh is secure by default and embraces a zero trust approach, helping to protect your multi-cloud deployment from reputational harm, revenue loss, and government-imposed fines.

**To learn more, contact your F5 representative, or
visit <https://www.f5.com/products/aspen-mesh>.**

