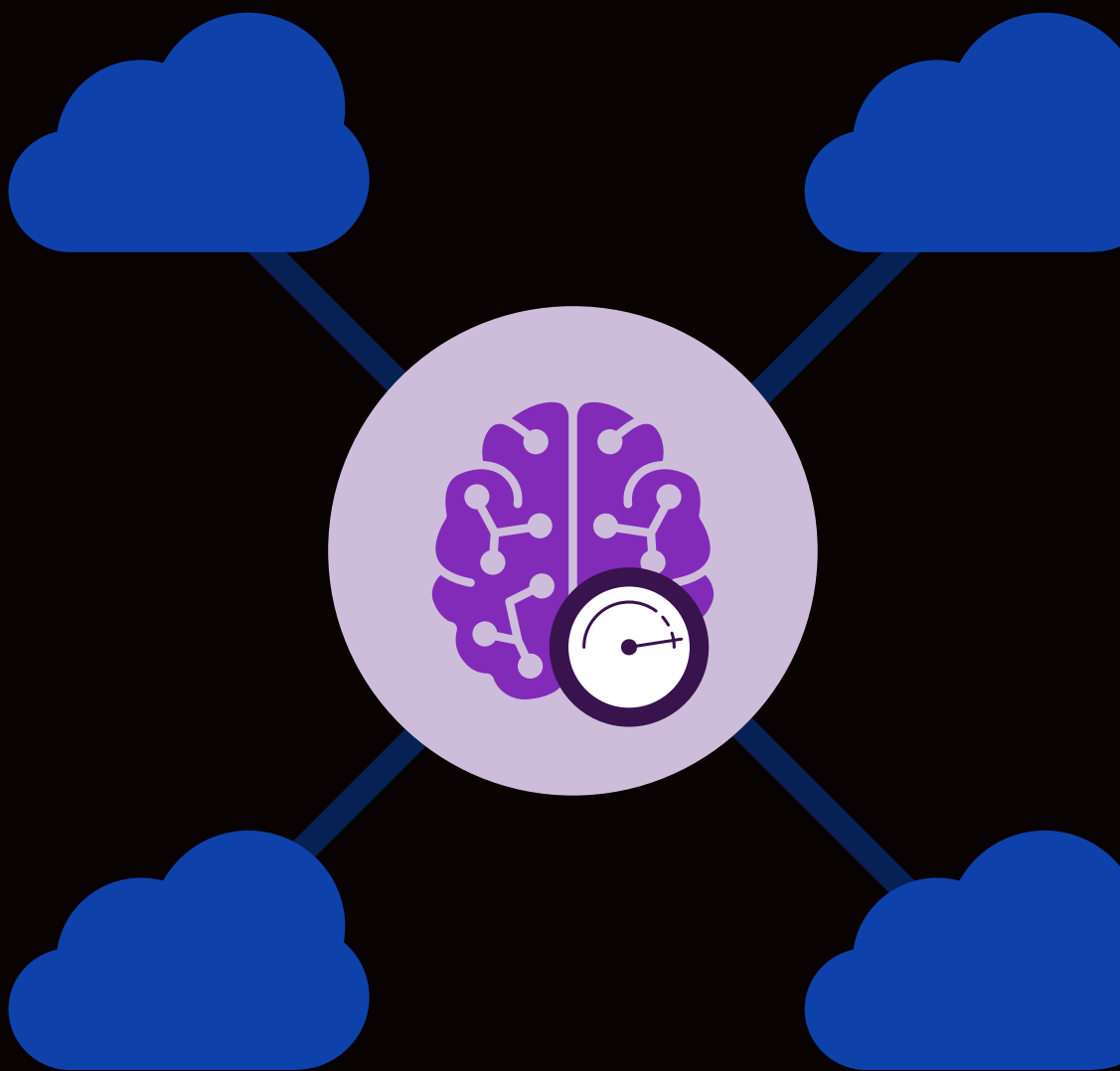




# Enhance AI with seamless multicloud connectivity

Build resilient and scalable AI infrastructure that securely connects more data, services, and apps.



## Key benefits

### Enhance the value of AI investments

Effortlessly migrate data across zones and regions while maintaining responsive AI performance and data coherency.

### Protect data at rest or in transit

Safeguard proprietary enterprise data with granular security controls and restrict access to only authorized AI models.

### Reduce operational complexity

Maintain AI apps, models, and data repositories from cloud to edge with centralized management tools and easy-to-use dashboards.

### Deploy powerful use cases fast

Create connections between cloud and on-premises environments quickly and easily to support innovations such as retrieval-augmented generation (RAG).

# Multicloud strategies unlock the full potential of AI

Organizations are increasingly distributing their workloads across hybrid multicloud infrastructures. Recent industry analysis showed that 94% of surveyed organizations deploy apps in multiple environments,<sup>1</sup> often to pursue cost advantages and specialized AI services from various providers. This multicloud strategy unlocks greater flexibility and scalability, helping teams develop and iterate their own AI services faster.

Deploying AI initiatives in multicloud environments make it harder to ensure fast, reliable connectivity across services. New threats such as prompt injection, jailbreaking, and model theft, present new challenges for organizations to scale AI initiatives securely across environments. Further adding to the complexity is the need for organizations to migrate and connect distributed AI data sources across storage vendors and regions.

Overcoming these challenges requires modern infrastructure components that work together seamlessly to deliver secure, high-performing AI pathways, including:

- **A private connectivity backbone** provides secure, reliable communication pathways that are separate from the public Internet and maintain high performance.
- **Intelligent traffic management** with sophisticated routing and optimization capabilities that support and streamline AI's complex traffic patterns.
- **Unified security frameworks** apply AI-specific, policy-based protections and consistent authentication and encryption across multiple clouds and on-premises resources.
- **End-to-end observability** across all environments provides actionable insights into performance, security, and resource utilization.

By implementing these essential components, you can build a foundation for secure, high-performance AI applications deployable across hybrid multicloud environments.

## Key features

### Create secure multicloud connections

Enable AI services over a distributed, low-latency, private network featuring optimized routing and multiple points of presence globally.

### Centralize and streamline operations

Enforce policies over a single control plane and deploy encryption and authentication that work consistently across cloud boundaries.

### Maintain and improve AI responsiveness

Overcome bottlenecks and increase availability with intelligent traffic distribution, API discovery, rate limiting, and AI response caching.

### Enhance control and visibility

Respond to issues fast with unified dashboards, predictive analytics, comprehensive logging, and resource tracking.

## F5 and AWS simplify multicloud connectivity for AI

The partnership between F5 and AWS helps address the unique challenges of AI in multicloud environments. F5 solutions complement the AWS services you depend on, including AI-optimized instance types, Amazon Bedrock for managed AI models, and Amazon SageMaker for building, training, and deploying AI.

F5 supports flexible deployment options for AI workloads across hybrid multicloud and edge environments with these key offerings:

- **F5® Global Network** delivers high-performance, secure, private connectivity between environments without public Internet exposure.
- **F5® AI Gateway** enables intelligent traffic management with security and validation mechanisms that protect AI models from abusive tactics.
- **F5® Distributed Cloud Services** provide consistent visibility and control across all environments and deployment locations.



**Figure 1:** The F5 Global Network empowers you to securely connect diverse environments without public Internet exposure.

Additional benefits of the F5 and AWS partnership include:

### **Secure and accelerate RAG deployments**

RAG represents one of the most powerful use cases for enterprise AI, leveraging your organization's proprietary data to boost model accuracy and response relevance.

Distributed Cloud Services unify data for RAG through one-click deployments that connect cloud and on-premises environments. [F5® Distributed Cloud Network Connect](#) safeguards proprietary data with secure layer 3 connectivity and supports Amazon S3 protocols. You also benefit from TCP and HTTPS load balancing that prevents network issues such as IP collision.

### **NetApp storage integration**

F5 and AWS work with NetApp storage solutions, including NetApp BlueXP and NetApp ONTAP, to unify data management and secure data connections for AI workloads.

### **Bring AI workloads to the edge**

AI workloads are increasingly moving beyond centralized data centers to edge locations, where you can process data closer to the source for faster results and lower latency.

F5® Distributed Cloud Customer Edge securely connects edge locations to centrally managed models and data in Distributed Cloud Services. You can also run AI Gateway at the edge to leverage its Kubernetes-based architecture for AI-aware load balancing and security. These solutions work with AWS edge services like AWS Local Zones and AWS Outposts, creating a seamless experience that spans from cloud to edge.

## **F5 and AWS address multicloud AI challenges together**

F5 and AWS deliver solutions to build, secure, and optimize AI-powered applications. Backed by a robust portfolio and over a decade of joint engineering and innovations, F5 and AWS provide an easier path to innovation while protecting both your sensitive data and the user experience.

**Contact F5 to get started or learn more at [f5.com/aws](https://f5.com/aws).**

1 F5, [2025 State of Application Strategy Report](#), April 2025.

