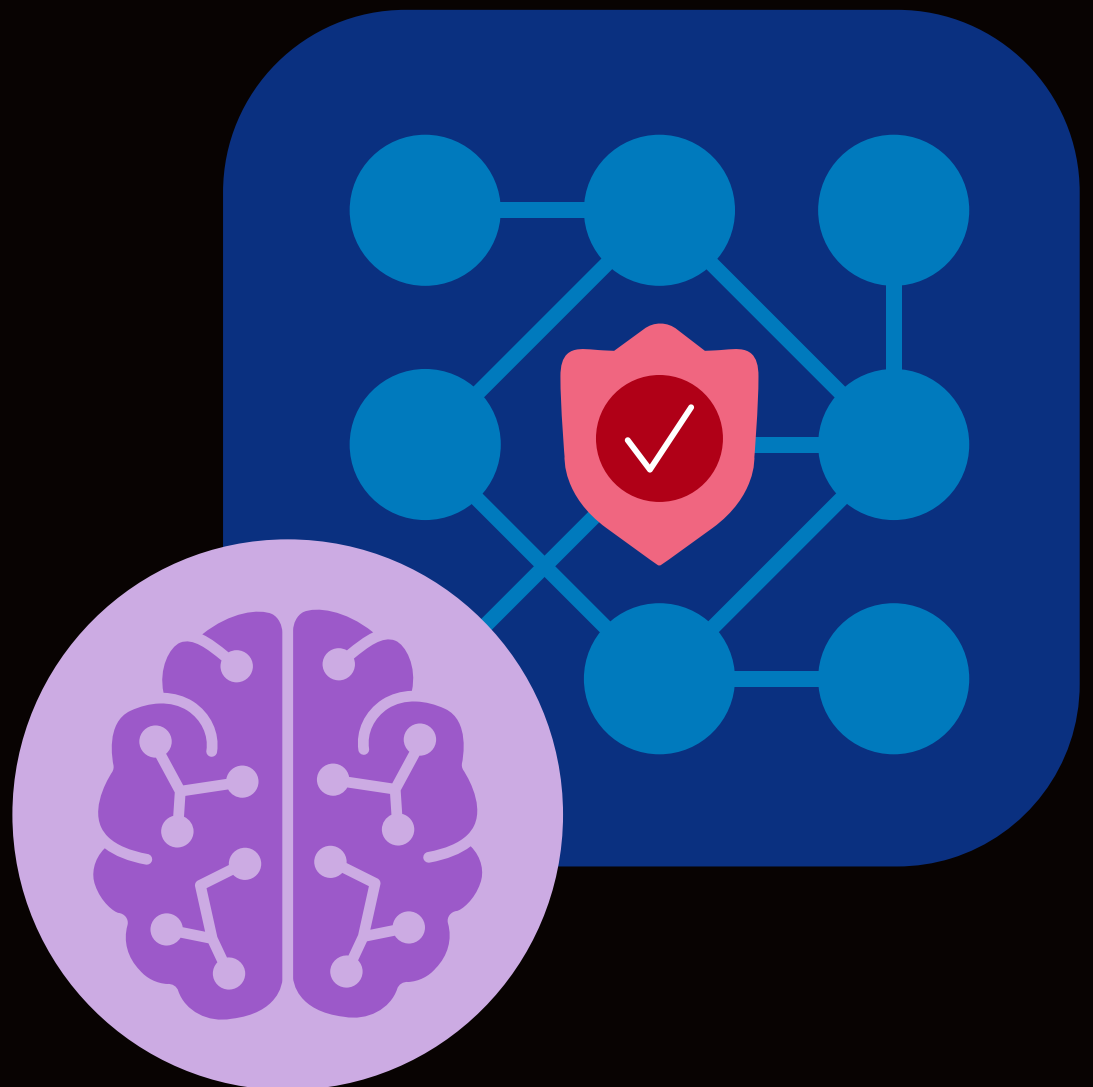


# Secure AI Data Delivery Solution

The Secure AI Data Delivery Solution enables secure and efficient movement of data through all aspects of AI applications, including data ingestion, storage load balancing, and model training and validation. The solution is designed to meet the unique needs of AI workloads, providing enhanced security, scalability, and optimized data management for AI factories.



## Key Benefits

### Optimized for AI Workloads

Tailored for the growing demands of AI, the Secure AI Data Delivery Solution ensures secure and seamless data movement across elements of an AI application, including data ingestion, storage, load balancing, and model training and validation.

### AI App and Data Security

Safeguards sensitive AI data from security threats by deploying encryption, access control, and automatic attack mitigation to protect data while in transit, ensuring the AI app is secure and available.

### Scalability and Flexibility

Built on the latest generation of F5 hardware, the massively scalable solution ensures your infrastructure can handle the growing data and workload demands of AI apps.

### Enhanced Network Performance

Optimize network performance of data movement between multiple storage clusters and app components to ensure maximum efficiency of AI apps.

**Existing networks require new capabilities to handle the vast volumes of data movement required for AI workloads to prevent network congestion and bottlenecks.**

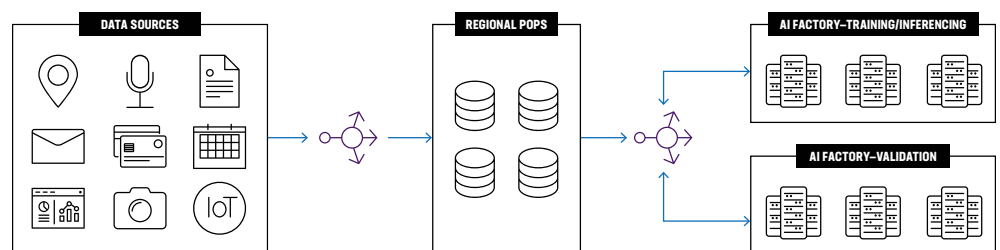
# Bottlenecks Facing Enterprise AI Workloads

AI capabilities can significantly boost an enterprise's growth, but they also bring a distinct set of challenges that need careful management. One primary issue is that massive amounts of data are generated from various locations and stored in multicloud environments, leading to latency problems between different cloud vendors and private data centers. Additionally, existing networks require new capabilities to handle the vast volumes of data movement required for AI workloads to prevent network congestion and bottlenecks.

Moreover, robust security measures are essential to safeguard sensitive data and prevent potential breaches. These include encrypting data transiting untrusted networks like the Internet, limiting access to AI app components, and quickly mitigating attacks before they can impact app performance. Maintaining security at high scale is critical for AI applications.

## Secure Data Delivery and Network Performance Optimization

Designed to meet the sophisticated needs of modern enterprises seeking to harness the power of AI, the Secure AI Data Delivery Solution ensures secure and efficient load balancing and data transfer from diverse data sources to a centralized enterprise AI data lake, and subsequent movement of that data throughout the AI app architecture. The F5 solution incorporates the latest generation of F5 hardware, combined with security and application delivery software, optimized to meet the needs of companies building out high scale AI solutions.



**Figure 1:** The Secure AI Data Delivery Solution enables high volume, low latency AI data transmission from data sources to AI factories for training, inferencing and validation.

By leveraging robust encryption protocols and network security functions such as firewall, DDoS attack mitigation, and intrusion prevention, enterprises can guarantee the integrity, confidentiality, and availability of data as it moves through AI app components.

It is critical to manage data flows for AI apps and prevent network congestion at high scale, particularly within core networks and across multiple locations. Scaling up to 6 Tbps in a single chassis, F5 can handle the demands of modern AI workloads, which involve increasingly complex and large volumes of data traffic. F5® VELOS® enables secure, resilient,

**Scaling up to 6 Tbps in a single chassis, F5 can handle the demands of modern AI workloads, which involve increasingly complex and large volumes of data traffic.**

and high-performance load balancing that optimally routes AI data across systems, ensuring rapid processing and uninterrupted availability. This means that data reaches the intended destination swiftly and securely, facilitating overall improved AI application performance.

## **Optimized Data Delivery for AI Workloads**

In the rapid evolution of AI and its numerous applications, secure and efficient management of data movement is crucial to successful deployments. As the industry leader in application delivery and security, F5 is setting new standards in this age of AI. The Secure AI Data Delivery Solution meets the specific needs of AI workloads, ensuring high performance and security of data in transit. This solution allows organizations to enhance their AI application efficiency and achieve their strategic objectives faster and more effectively.

## **Next Steps**

**Find out how** the Secure AI Data Delivery Solution and F5 solutions can enable you to achieve your goals.

