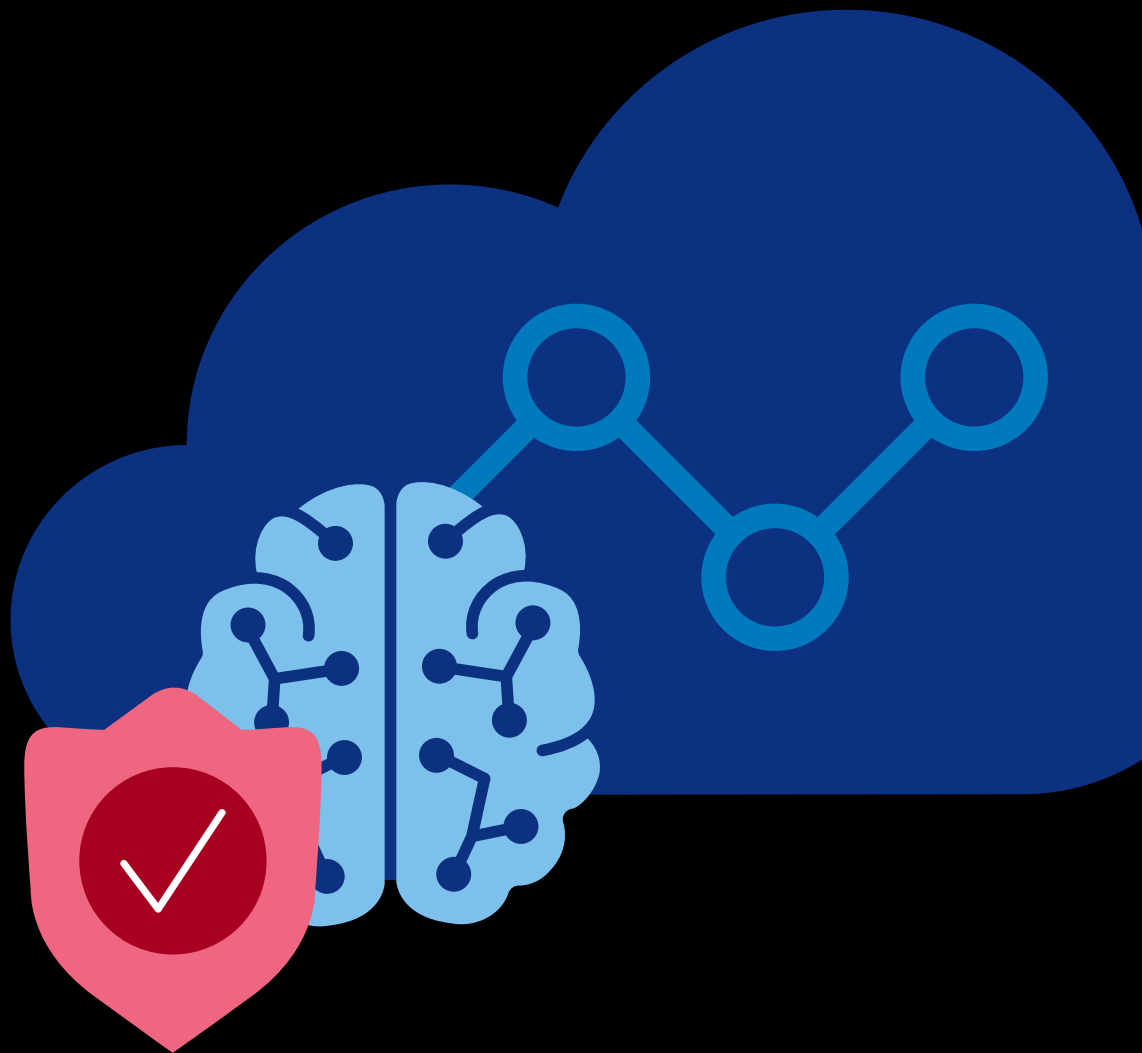


Ensure Connectivity and Security for Your AI Infrastructure



Key Benefits of Distributed Cloud App Stack

Improved App Performance and Connectivity

Enhanced Application Security

Edge Operational Efficiency and Simplification

Scalability for Quick Expansion

Key Capabilities

- Efficient management of application lifecycle and infrastructure across multiple sites.
- Single control plane across F5's global infrastructure, scalable for large application clusters.
- Seamless integration of web and API protection services within the platform.
- Enhanced performance for latency-sensitive applications, leveraging AI/ML at the edge and GPU as a Service.
- Streamlined Kubernetes operations from creation to maintenance.

Embracing Generative AI is a game-changer for today's businesses,

as it uses advanced technologies like large datasets and language learning models. AI applications now operate beyond the confines of the public cloud, collecting data and delivering insights at the edge. While AI adoption brings numerous benefits, managing and securing these distributed applications poses challenges that must be addressed before you expand AI investments

The forecasted growth of Internet of Things (IoT) devices to nearly 6.5 billion by 2030, especially those at the edge, highlights the increasing complexity. The adoption of AI further amplifies this trend as portable applications spread to remote edge sites. Although processing data at the edge reduces latency, it introduces new security challenges.

Dealing with a diverse set of devices and applications, often in harsh environments, is difficult. Managing sensors, actuators, and gateways with varied operating systems and protocols impacts consistent and comprehensive network security. Limited resources, computing power, and battery life in edge devices hinders the implementation of sophisticated security measures.

Ensuring Connectivity at Remote Sites

Remote sites, often lack access to traditional network services and present numerous connectivity challenges. Alternative options like satellite, cellular, or mesh networks may be more expensive but provide wider coverage. Deploying applications locally at these sites to deliver AI inference can improve the responsiveness of applications at the edge.

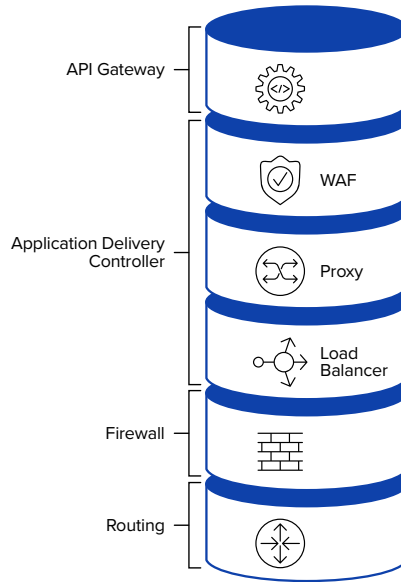
Maintaining Apps at Scale

As AI infrastructure becomes more distributed toward edge environments, maintaining software becomes complex due to the remote locations of devices, diverse configurations, and limited resources. Patching, deploying updates, and applying security measures are hard to do without a centralized policy management mechanism.

Simplifying Software Lifecycle Management and Security

F5® Distributed Cloud Services, a SaaS-based platform, addresses these challenges. It connects and secures applications across distributed environments, extending services to remote edge sites and branches. The platform simplifies application lifecycle management, allowing easy deployment of software updates across all sites.

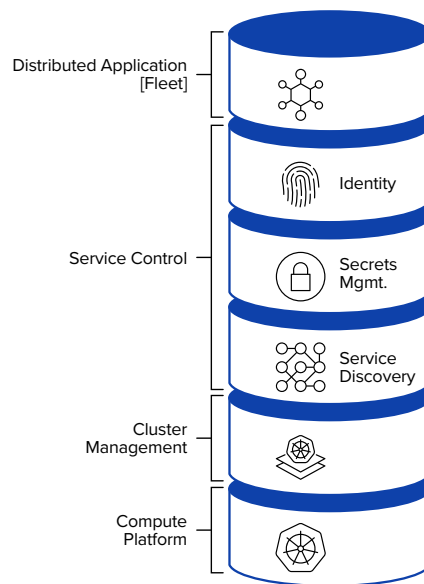
Figure 1: Mesh; Integrated High Performance Networking Stack [L3-L7]



The F5® Distributed Cloud Platform offers secure connectivity for AI services, spanning from the public cloud to remote edge sites. The global F5 network ensures native network security and increased privacy, supported by application services like web app firewall, bot detection, DDoS mitigation, and API security.

F5® Distributed Cloud App Stack is an integral part of the platform, and supports AI inference models at the edge, allowing hybrid deployment of these services across distributed environments with consistent app infrastructure.

Figure 2: App Stack; Simplified Application Infrastructure Stack



Distributed Cloud App Stack, deployable anywhere, stands out for scalability and flexibility, supporting various environments. The Distributed Cloud Platform can be placed along with Distributed Cloud App Stack anywhere from public cloud to customer edge locations. This combined package is an efficient solution for organizations navigating the complexities of deploying generative AI infrastructure, ensuring efficiency, security, and scalability across diverse environments.

To learn more, contact your F5 representative, or visit [F5.com](https://www.f5.com).

