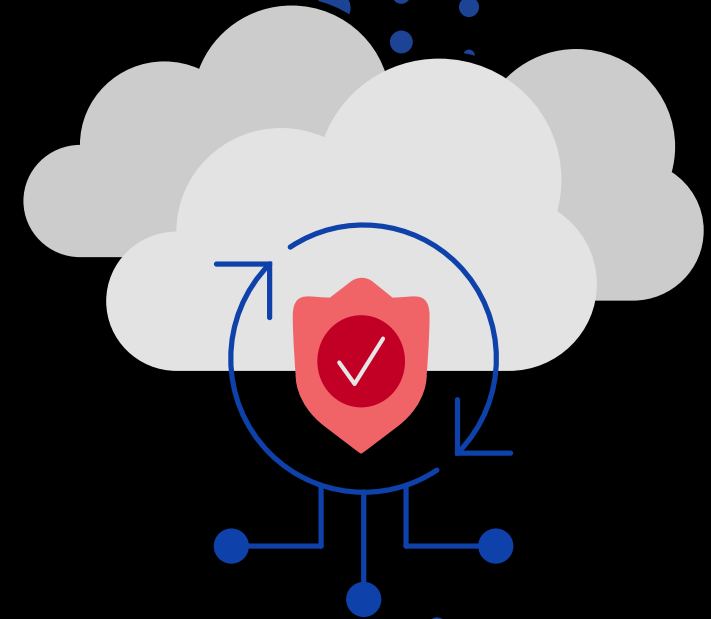# Achieve Multicloud Success with F5 Distributed Cloud Services and Google Cloud

Overcome complexity for apps that are secure, connected, and available anywhere you need them.

f5 | Google Cloud

Contents

Multicloud's Rising Popularity

Multicloud usage is growing rapidly, with nearly all enterprises planning to adopt it if they haven't already.

It offers tons of opportunity to scale your business, enter new markets, and take advantage of new technologies.
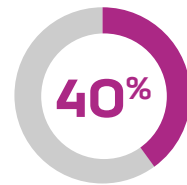
A survey of global enterprises found the top drivers for multicloud adoption were:[1]

98% of enterprises use or plan to use multicloud
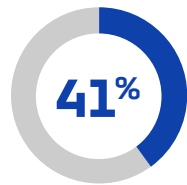
**41%** Data sovereignty/ locality

40% Cost optimization
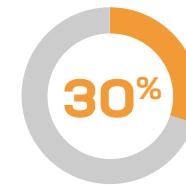
30% Business agility and innovation

Other notable advantages include the ability to use the best features of each provider while avoiding vendor lock-in. Moving to distributed architectures also increases reliability and redundancy in case of an outage.

Multicloud offers diverse features and locations for a truly distributed IT landscape.
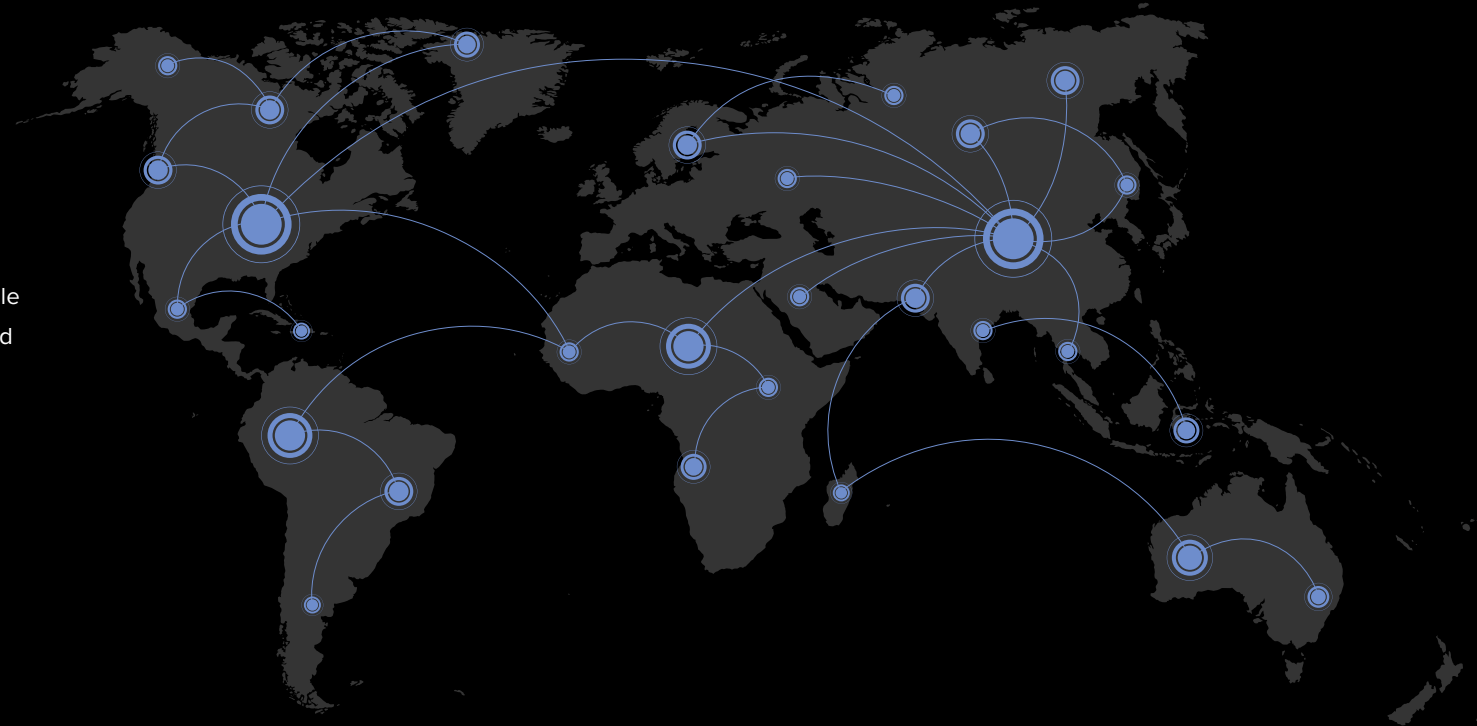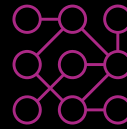
Challenges of Multicloud

While multicloud offers a number of benefits, it also comes with challenges. Different cloud providers have proprietary tools, increasing the complexity of management as well as security risk. Some of the top barriers to multicloud success include:

Security

While multicloud can offer redundancy, inconsistent policies and tools along with an expanded attack surface increase risk. From access controls to DDoS protection, multicloud increases security effort.

Connectivity

Cloud networking is often manual and complex. Connectivity was ranked the second-highest multicloud challenge, yet 83% of organizations use or plan to use interconnections.[2]

Complexity

Tool and API sprawl increase the time and skills needed to manage cloud environments. Managing this complexity was the top challenge in a 2023 survey.[3]

Personnel

IT and security teams are understaffed and may lack cloud experience. Nearly half of organizations said finding qualified candidates was the top challenge for addressing cloud skills gaps.[4]

Steps to Success

Your multicloud journey needs the right roadmap to overcome challenges and reach your goals.

Accelerate and secure modern app delivery

Build enterprise-grade containerized applications faster with best-in-class managed Kubernetes and serverless platform on cloud and on-premises environments. Integrate security from the start to protect your applications and APIs.

Protect against automated threats

Stopping automated attacks like DDoS requires intelligent, real-time protection with accurate detection of legitimate versus harmful users. Scale protection and increase its sophistication with AI to prevent outages, slowdowns, and fraud.

Connect apps and clouds

Network not just your clouds but the apps themselves to create a robust distributed architecture. Create automated connections that are self-sustaining with built-in observability to maximize performance.

Simplify management of apps and data

Manage app delivery and security from a single console, no matter where apps live. Tool consolidation and end-to-end visibility minimize multicloud complexity.

F5 and Google Cloud are working together to help customers achieve multicloud success. F5's portfolio of automation, security, performance, and insight capabilities empowers enterprises to create, secure, and operate applications anywhere to reduce costs, improve operations, and better protect users. F5 and Google Cloud's vision for multicloud success includes frictionless security that complements performance, automation, and insight to deliver and scale the application experience.
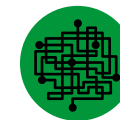
Explore how in these four use cases:

Deliver and protect apps

Block automated threats

Connect clouds

Reduce complexity

Deliver and Protect Apps

App modernization is still an ongoing journey for most organizations, with only 40% of the average app portfolio classed as modern.[5] F5 and Google Cloud provide a secure app modernization journey that lets you take advantage of flexible architectures and multicloud deployment with confidence.

Modernize apps

Google cloud offers a consistent development and operations experience for hybrid and multicloud environments. Integrate F5 security into your CI/CD pipeline to deliver new or modernized secure applications from the start.

Manage and secure APIs

Take an API-first approach to accelerate app modernization. Google Cloud's API management platform lets you govern, analyze, and get visibility into all your APIs across hybrid and multicloud environments, while F5 offers API discovery and security for every environment.

Secure apps everywhere

F5 can protect apps anywhere they run by using web application firewalls (WAFs) to protect against threats such as the OWASP Top 10. Seamlessly connect Google Kubernetes Engine to F5® BIG-IP® Virtual Edition (VE) to automatically inherit rules and security policies.

F5 lets you augment Google Cloud security as well as extend consistent app security everywhere while maintaining centralized visibility and management.

Block Automated Threats

Bots and other automated attacks can cause serious harm, including outages and fraud. The average business loses $85.6 million annually to bot attacks, representing a significant increase in recent years.[6] Malicious bots are behind DDoS attacks, ticket scalping, inventory hoarding, and credential stuffing. They can also add to your bandwidth costs by hogging the network. These automated attacks quickly retool to evade defenses, but F5 and Google Cloud solutions can reduce or eliminate bad bot traffic to protect your business.

Mitigate DDoS attacks

With the help of bots and IoT devices, DDoS attacks have massively increased in scale, with Google Cloud recently stopping one of the largest DDoS attacks ever, clocking in at 398 million requests per second.[7] Attacks have also shifted to target the application layer, requiring effective DDoS protection for levels 3 through 7. Combining volumetric DDoS protection from Google Cloud Armor with intelligent layer 7 protection from F5® Distributed Cloud DDoS Mitigation or F5® BIG-IP® Advanced WAF provides a complete DDoS solution.

Block malicious bots

Stop bots that perpetrate fraud or aid attackers with F5 and Google Cloud. F5® Distributed Cloud Bot Defense uses AI to analyze traffic and identify bots even when they quickly retool. Combine F5's sophisticated defenses with Google Cloud tools such as reCAPTCHA to protect sites and apps from bot fraud without causing user friction.

Proven protection from F5 and Google Cloud keeps malicious bots out of your networks for a better, safer customer experience and lower costs.

Connect Clouds

When your multicloud environment includes multiple providers, connectivity becomes complicated. Each environment has its own toolset, and interconnection can potentially be a messy ad hoc network that's hard to secure. IP address collisions and routing issues are common challenges, and visibility is disjointed at best. F5 can connect Google Cloud and the apps within to your other environments without complexity.

Multicloud networking

F5® Distributed Cloud Network Connect easily connects Google Cloud with other environments over a private backbone or the F5 Global Network. The network-centric approach creates an L3 VPN fabric to simplify connectivity without sacrificing security. Automated provisioning easily connects clouds with granular traffic control and hub-and-spoke orchestration.

Connect apps and services

App-to-app or service-to-service connectivity requires more than just a network—it also needs service discovery. F5® Distributed Cloud App Connect can link services across your entire hybrid environment with self-maintaining, fully automated connections. When used with F5 Distributed Cloud Customer Edge, it can connect apps in private clouds or data centers to your Google Cloud apps.

F5 offers unified connectivity and observability to keep applications operating at peak performance with increased uptime and reliability, whether they run on Google Cloud or at the edge.

Reduce Complexity

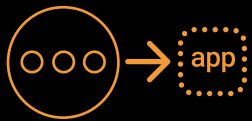Multicloud complexity stems from multiple factors, including:

Tool sprawl

Interoperability issues

Inconsistent security policies

Overcoming complexity requires consistency for visibility, policies, and management. F5 and Google Cloud provide a consistent platform that makes it easier to build and operate a distributed multicloud environment.

Tool consolidation

Deploy and secure apps in Google Cloud, on premises, or at the edge with a single toolset. Consolidation removes interoperability issues and reduces effort for your IT and security teams.

Unified management

F5 offers centralized management no matter where your F5 services are deployed. Automation, dashboards, and end-to-end visibility further simplify operations, letting skilled resources focus on innovation.

Consistent policies

Whether you use F5 BIG-IP or F5 Distributed Cloud Services, you can use the same policies in Google Cloud as on premises for fast, secure, and compliant apps.

F5 and Google Cloud enable frictionless security for both your users and IT teams that boosts application performance and modernization in hybrid and multicloud environments.

Reach Multicloud Success with F5 and Google Cloud

F5 and Google Cloud provide the app modernization, connectivity, and security needed for multicloud success. No matter where your apps run, you get a simplified path to digital transformation that includes centralized management, consistent policies, and zero trust networking. Together, F5 and Google Cloud accelerate your multicloud journey so you can reach your goals faster.

Ensure your apps and APIs are always:

Connected   **Available**   **Secure**

Learn more about F5 and Google Cloud at f5.com/gcp.

The F5 and Google Cloud Partnership

- **6+ years** of collaboration

- **Over 50 listings** in the Google Cloud Marketplace

- **Joint expertise** across security, networking, and industries

Sources:

1   451 Research, Multicloud in the Mainstream, Feb 2023

2   ibid.

3   F5, 2024 State of Application Strategy Report, 2024

4   451 Research, Closing the cloud skills gap: A perennial problem for businesses, Mar 2023

5   F5, 2024 State of Application Strategy Report, 2024

6   Infosecurity Magazine, Bot Attack Costs Double to $86m Annually, Sep 2023

7   Google Cloud, Google mitigated the largest DDoS attack to date, peaking above 398 million rps, Oct 2023

ABOUT F5

BRINGING A BETTER DIGITAL WORLD TO LIFE

F5 is a multi-cloud application services and security company committed to bringing a better digital world to life. F5 partners with the world's largest, most advanced organizations to secure and optimize apps and APIs anywhere—on premises, in the cloud, or at the edge. F5 enables organizations to provide exceptional, secure digital experiences for their customers and continuously stay ahead of threats.

For more information, go to f5.com. (NASDAQ: FFIV).

Learn more about F5 and Google Cloud at f5.com/gcp