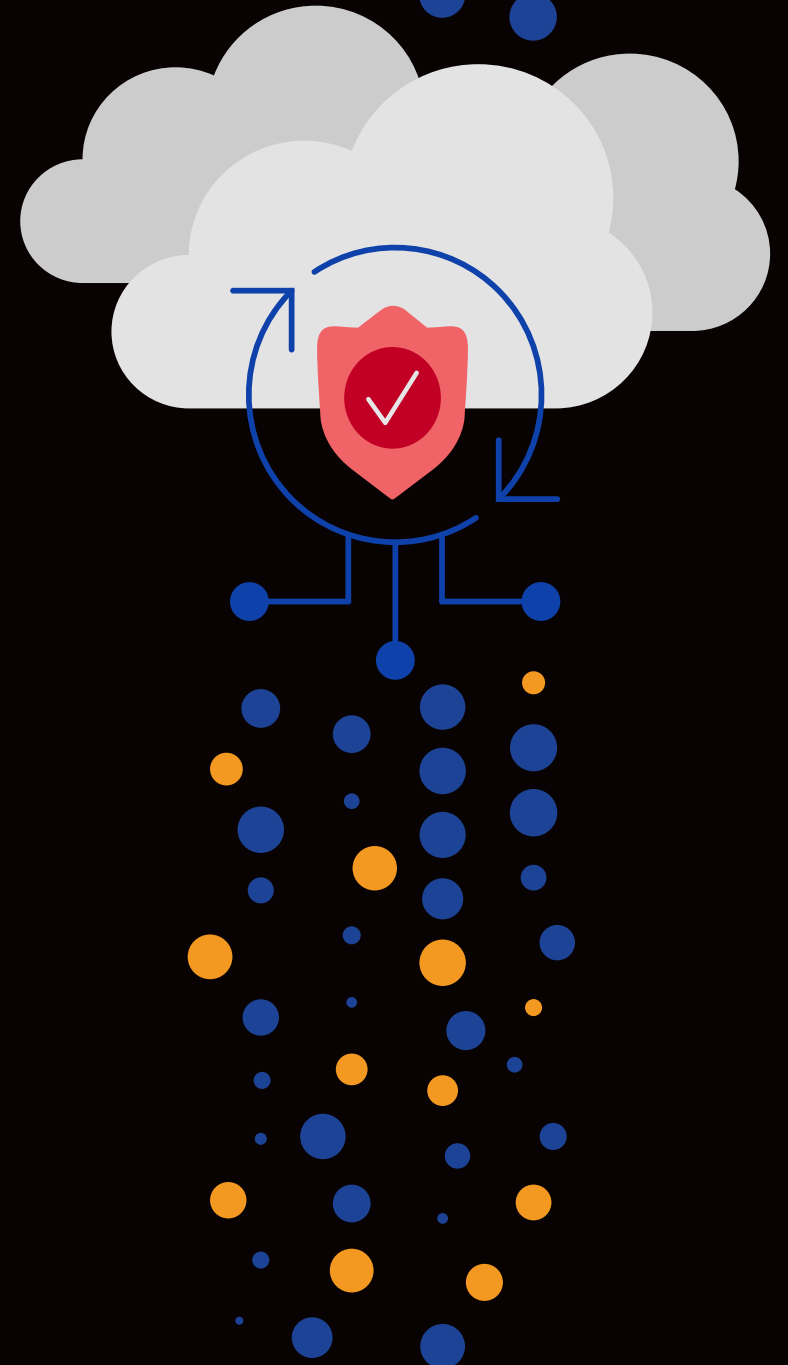# The Secure Multicloud Industry Guidebook

Modernize apps and accelerate your cloud journey, without compromise.

f5 | Google Cloud

Contents

The New Multicloud Reality

Multiple cloud deployments have become the new norm, offering a flexible approach to modernizing digital services. Favoring speed and innovation, organizations are fully embracing multicloud mindsets to extend unique, differentiated value to their users—moving beyond basic lift-and-shift approaches to go deeper with cloud-native services.

But, as applications and digital services sprawl across disparate cloud environments, today's businesses are encountering one simple truth: *managing and securing multiple clouds is complex.*

As sophisticated cyberthreats rise, today's organizations face new imperatives for app protection as they modernize in the cloud. Yet without centralized oversight and control in place, IT and security teams cannot keep pace. From siloed toolsets to lacking resources, organizations find themselves ill-equipped to adequately manage the unique infrastructure, configurations, APIs, and native controls each cloud presents—raising the risk profile for cyberattacks, introducing critical blind spots, and threatening application modernization efforts at large.

87%
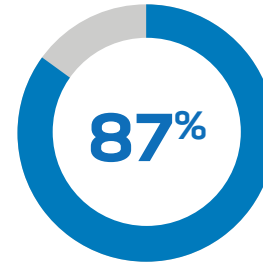
87% of organizations use multiple clouds[1]

95%
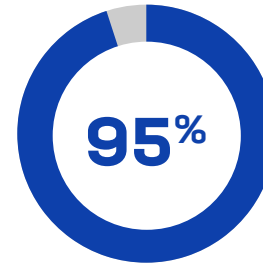
Yet, 95% worry about their security posture in the cloud[2]

Sources:
1) Flexera, State of the Cloud Report, 2024
2) Fortinet, Fortinet 2023 Cloud Security Report, 2023

Growing Attack Surfaces

Disparate, Proprietary Tooling

Insufficient Security Posture

Limited Resources and Expertise

f5 | **Google Cloud**

Block cyberattacks to protect user experience and privacy.

Drive reliability and performance, from app inception to production.

Stay resilient, reduce attack surfaces, and prevent cyberthreats.

Enable Multicloud Success

Consistent protection, across every cloud.

Together, F5 and Google Cloud enable a foundation to develop, secure, and manage applications across every industry. Designed with the modern business in mind, F5 and Google Cloud's joint solutions deliver centralized visibility and control for dynamic and complex hybrid, multicloud IT landscapes. With a rich portfolio of automation, security, and performance capabilities, organizations of every size can create, protect, and operate applications without sacrifice:

Deploy and run apps where you want—in data centers, clouds, and at the edge.

Consolidate management, with centralized and universal policies.

Streamline protections while keeping pace with ever-changing cloud environments.

Unify administration and oversight across disparate cloud and on-premises environments.

Reduce costs, improve operations, and better protect critical apps.

Drive application reliability and frictionless customer experiences.

Bolster security and actively defend against advanced and automated threats.

Unify Protection and Management with F5 and Google Cloud

GET PROVEN SECURITY AND CONTROL—FOR WHEREVER YOUR APPS LIVE.

Prevent Fraud and Abuse

Bot Defense | Authentication Protection Client-Side Defense

Identify and mitigate malicious bots and stay ahead of attacker retooling.

Accurately validate users, prevent account takeover, and eliminate unnecessary authentication steps.

Block browser-based attacks, including Magecart, formjacking, skimming, and PII harvesting.

Modernize Apps

Secure Multi-Cloud Networking | DNS Local Traffic Manager

Securely and reliably connect apps, services, clouds, and networks at scale.

Increase application resiliency and boost performance with real-time protocol and traffic management.

Accelerate deployments with secure, pre-built integrations.

Modernize Security

Web Application Firewall (WAF) | API Security DDoS Mitigation | DNS Protection SSL Orchestration

Block OWASP Top 10 threats and secure vulnerable or exposed APIs.

Safeguard networks and apps from volumetric L3–7 attacks and prevent downtime or cache poisoning.

Decrypt, encrypt, and inspect SSL/TLS traffic to surface threats.

F5 solutions are available on the Google Cloud Marketplace.

Financial Services

Enable secure, high-performing digital services.

Financial and banking institutions are defined by the performance and availability of their digital services. In fact, research shows that over half of consumers who switch banks do so in pursuit of better digital experiences.[3] With profitability directly reliant on application and network performance, financial institutions require proven solutions that ensure fast, reliable, and secure digital services that meet customer demands.

F5 and Google Cloud deliver trusted protection and performance for critical FinServ applications—in the cloud and beyond. With comprehensive security and management, F5 and Google Cloud enable businesses to mitigate cyber risks with zero-trust security protocols, protect users and PII from fraudulent activities, secure digital transactions to mitigate revenue loss, and deliver the frictionless experiences that exceed customer expectations.

Safeguard Data and Customer Trust
Secure customer-facing apps from exploit and maintain industry compliance with zero-trust security protocols.

Maximize Performance and Profitability
Keep apps and networks fast, connected, and resilient to minimize attack and accelerate revenue.

Secure Open Finance APIs
Securely manage APIs and third-party integrations across data centers and clouds.

F5 powers more than half of the world's applications.

Healthcare

Safeguard data, systems, and patient care.

Today's healthcare institutions are under constant threat with 88% of organizations experiencing at least one cyber attack in the past year alone.[4] As a top target for bad actors, today's healthcare providers need comprehensive security solutions to secure critical operations and manage patient data.

With F5 and Google Cloud, healthcare providers can simplify application security across dispersed cloud environments, to deliver more resilient and compliant patient care. Protect critical PHI from exposure, stop online fraud and account takeover, securely connect distributed networks and systems, and reduce the impact on patient care from cybersecurity vulnerabilities—including DDoS, OWASP Top 10, and zero-day attacks.

Secure Data From Breach

Protect critical PHI data from compromise, maintain industry compliance, and deny illegitimate login attempts.
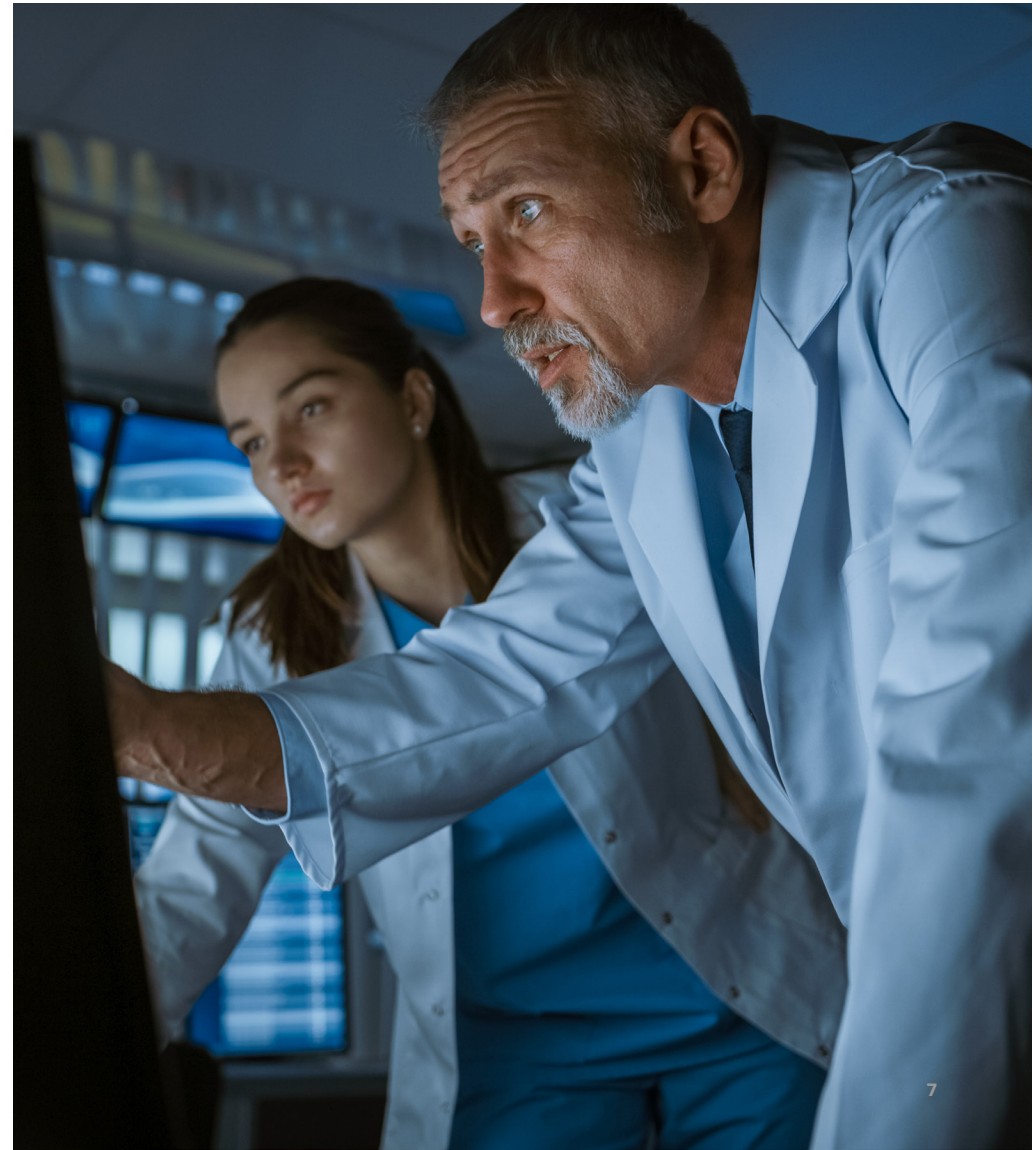
Protect Critical Operations

Drive resiliency and app availability to preserve healthcare operations and quality patient care.

Prevent Online Fraud

Safeguard systems, client portal access, and critical applications from account takeover, fraud, or outage.

F5 is deployed in **12 of the top 20 U.S. hospitals**.

Public Sector

Innovate faster without sacrificing security, compliance, or scale.
As legacy systems can no longer support critical business requirements, public sector agencies need application modernization. Yet as agencies look to transform through the cloud, they are often challenged with balancing speed, innovation, and security. And with over 5,000 public sector data breaches between 2022 and 2023 alone, it has never been more important to get digital transformation right.[5]

To accelerate app modernization efforts, government agencies and educational institutions require automated solutions that improve app delivery in the cloud without sacrificing security. F5 and Google Cloud fuel digital transformation journeys by ensuring mission-critical services stay secure, available, and fast across any environment. With F5 and Google Cloud, you can rapidly develop and deploy new services, actively defend apps, APIs, and networks from advanced attacks, and implement consistent security controls for uniform protection across new and legacy environments.

Defend Against Cyberattacks

Protect apps, APIs, and networks from automated attacks and OWASP Top 10 threats.

Develop and Deploy with Speed

Integrate performance, security, and compliance to drive innovation across app development pipelines.

Maintain Zero Trust Security

Meet stringent security and compliance protocols, such as NIST, FIPS140-2, CSfC, Common Criteria, and more.

All **15 executive departments of the U.S. Cabinet** rely on F5.

Telecommunications

Solve security, performance, and availability challenges.
As demand for new technologies surges, so do security risks. In the race to deliver cutting-edge digital services, telecom providers find themselves as a focal point for cyber exploits—experiencing millions of customer records leaked on the dark web each month.[6] To succeed, businesses must thwart motivated attackers seeking to evade security measures, compromise critical systems, and damage reputations and revenue streams.

F5 and Google enable service providers to securely deliver cutting-edge digital services in the cloud, while comprehensively protecting users and consumers from advanced threats. With F5 and Google, businesses get multi-layered defenses to defend apps from stealthy cyberthreats, discover and secure APIs, safeguard customer data and accounts from compromise, and confidently connect networks and systems while minimizing DDoS attacks.

Reduce TCO by **60% by consolidating your security functions** on your N6/SGi-LAN.[7]

Safeguard Services and Infrastructure
Unify protection across data centers, fixed-line, and cable operations.

Enable Digital Transformation
Outmaneuver competitors, secure applications, and virtualize S/Gi-LAN/N6 services.

Smoothly Transition to 5G
Access industry-leading 4G and 5G signal interworking with network control, security, and observability inside.

Retail

Safeguard customer experiences, revenue, and your brand.
As customer preferences change, retailers have rapidly evolved their services to deliver the e-commerce and remote retail experience today's online consumers expect. Yet, as businesses increase their reliance on digital transactions, new security risks are exposed. From e-commerce fraud to malicious account takeover, bad actors are exploiting retailers to tarnish customer experiences and deplete bottom lines. In fact, global e-commerce fraud is increasing, with losses exceeding almost $50 billion in 2023.[8]

With F5 and Google Cloud, retailers can comprehensively safeguard digital transactions from automated and manual attacks. With highly effective security and anti-fraud capabilities built-in, F5 and Google Cloud continuously adapt to thwart attackers without inconveniencing customers to preserve reputation, minimize losses, and ease friction for customers and employees.

Advanced Cyber Defense
Preserve e-commerce apps from credential stuffing, automated bots, and human-powered attacks.

Frictionless Customer Experiences
Prevent fraud without user frustration with intelligent, zero trust user access and authentication.

Drive More Revenue
Delight customers and ensure digital services are always available, ready, and performing at their best.

F5 protects over **4 billion online transactions** each week.

Reach Multicloud Success with F5 and Google Cloud

Together, F5 and Google Cloud deliver the security, protection, and connectivity needed for successful app modernization. From the data center to multicloud, F5 and Google Cloud's joint solutions are proven safeguard apps wherever they run—for consolidated management, consistent policies, and zero trust networking across every industry.

Ensure your apps and services are always:

Connected   **Available**   **Secure**

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] Flexera, State of the Cloud Report, 2024

[2] Fortinet, Fortinet 2023 Cloud Security Report, 2023

[3] PYMNTS, Most Customers Switch Banks for Better Digital Experiences Despite AI Concerns, 2024

[4] Ponemon, 2023 Ponemon Healthcare Cybersecurity Report, 2023

[5] Verizon, 2023 Data Breach Investigations Report, 2023

[6] Axios, Wave of Telecom Data Breaches Highlight Industry's Weaknesses, 2023

[7] F5, Edge Security Solutions for Service Providers, 2024

[8] Mastercard, Ecommerce Fraud Trends and Statistics Merchants Need to Know in 2024, 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