PCI DSS v4.0 Compliance with F5 Distributed Cloud Services

A secured-server and client-application infrastructure reduces operational risks and assures compliance with the latest Payment Card Industry Data Security Standard (PCI DSS) v4.0 policies and procedures.

Key Benefits

Ensure secure transactions
To ensure secure transactions, F5 provides comprehensive, app security for client-side and server applications.

Assure trust with PCI DSS compliance
To mitigate risks, Distributed Cloud architecture and processes have been designed for, tested against, and validated to PCI DSS v4.0 standards.

Scale up transaction capacity with confidence
To meet seasonal and promotional capacity demands, Distributed Cloud Services security solutions easily scale up without compromising payment submission performance.

Building an Infrastructure that Complies with PCI DSS v4.0

To remain competitive, organizations work continuously to evolve their brand and expand their product and service offerings via distributed web applications hosted on cloud-based infrastructure. To rapidly augment functionality and improve performance, parts of the online payment process have been pushed out onto the consumers' (client-side) compute devices, along with using an extensive array of third-party JavaScript. Shifting data collection out to client-side applications has given attackers a new method for skimming personal and financial information that is not monitored or protected by IT security organizations. According to a U.S. Federal Trade Commission report, consumers in the United States filed 2.4 million fraud reports in 2022—a 30% increase over 2021.[1]

Payment Card Industry Data Security Standards (PCI DSS) have evolved rapidly over the last ten years to keep up with the quickening pace and increasing sophistication of cybercrime attacks. Because many of the latest attacks target consumers' compute devices, the OWASP foundation recently began publishing a list of top 10 client-side security risks. In response, PCI DSS v4.0 was introduced in March 2022 with a deadline of March 31, 2025 for building out (primarily) client-side protection and obtaining an audited compliance certificate. The recent changes to PCI DSS requirements (specifically sections 6.4.1 and 11.6.1) require merchants, other consumer payment collectors, and service providers to build out protection of payment card data for the client side of the transaction. Yet many organizations find this challenging as they often do not have the infrastructure, personnel, or processes necessary to successfully build out client-side transaction protection.

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Strong Security Ensures PCI DSS v4.0 Compliance

F5® Distributed Cloud Services—SaaS-based security, networking, and application management services that can be deployed across multi-cloud, on-premises, and edge locations—enables customers to deploy, secure, and operate their applications in a cloud-native environment wherever needed. Distributed Cloud Services provide full web app and API protection (WAAP) as well as security services for the consumer endpoints to provide true-to-end transaction security.

Organizations can accelerate time-to-service, lower their total cost of ownership, and increase security efficacy since all Distributed Cloud Services are cloud-based and fully integrated through a single data path, policy engine, and management console.

For PCI DSS v4.0 compliance, the Distributed Cloud Services team have built out and fully documented processes and procedures that assure the entire transaction process is consistent with reliable server and endpoint security. Client-side protection that adheres to PCI DSS v4.0, sections 6.4.1 and 11.6.1, has explicitly been built in to provide strong protection for client-side applications.
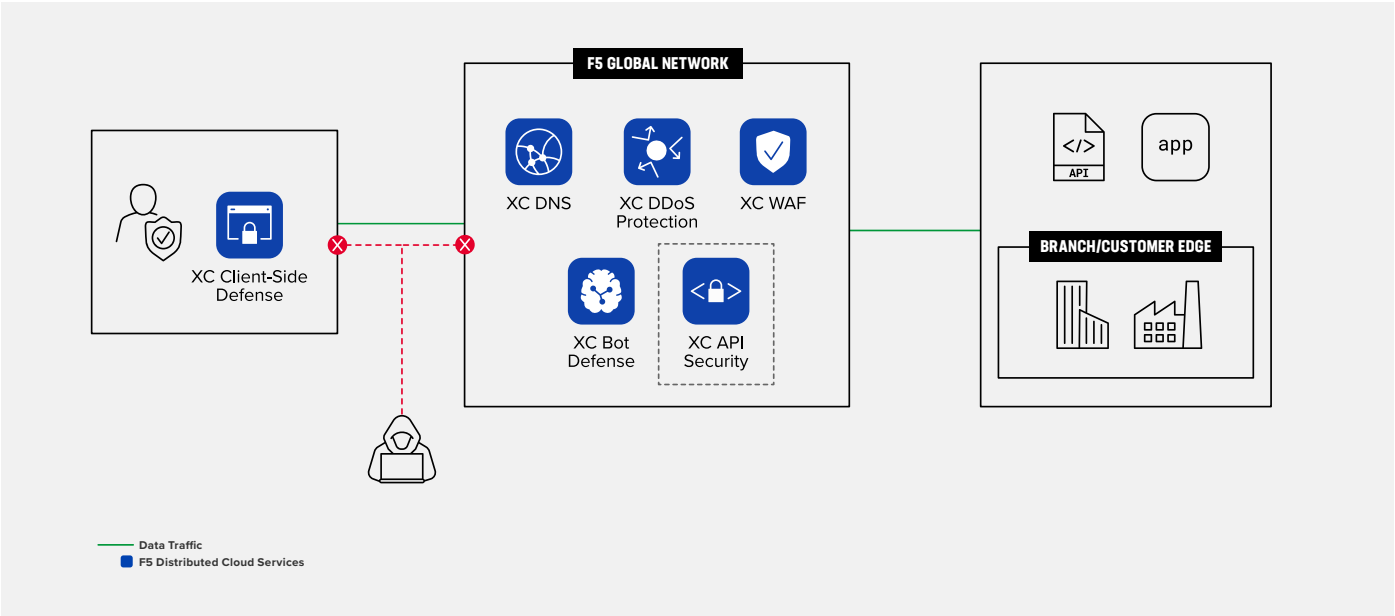

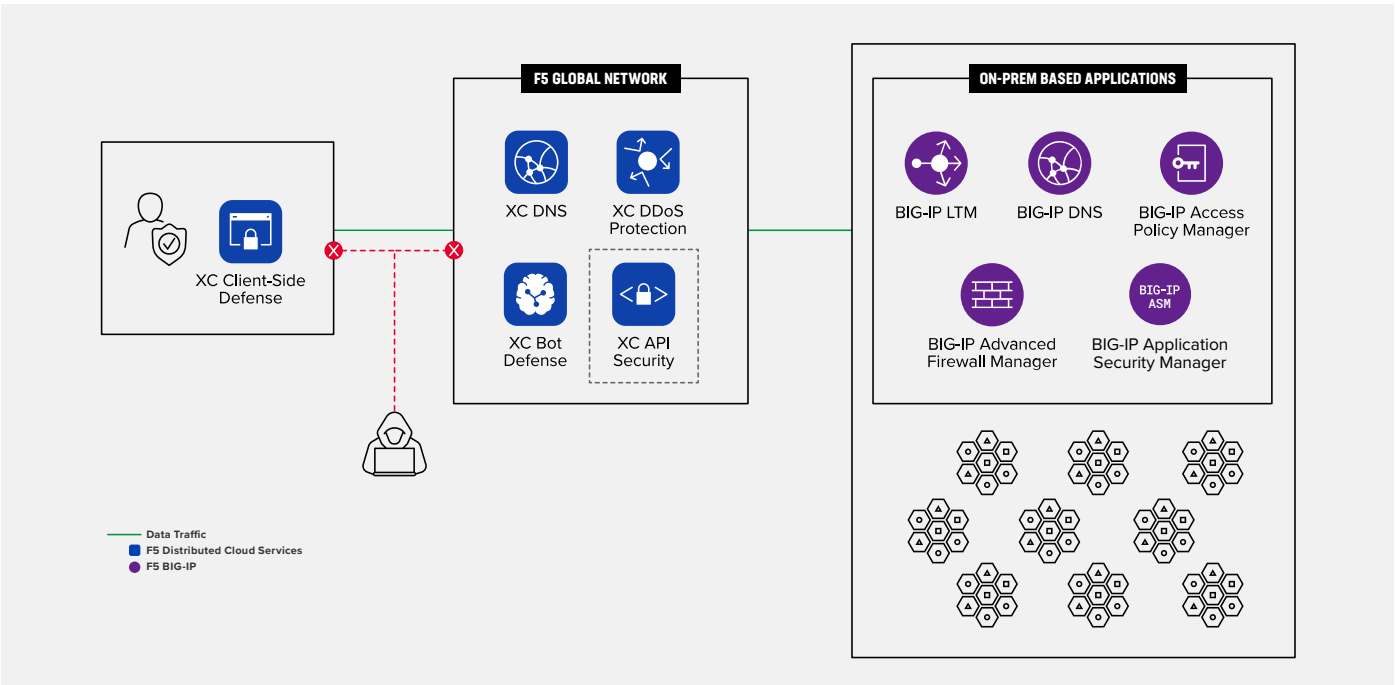**Figure 1:** F5 Distributed Cloud Services security solutions for PCI DSS v4.0 compliance

Figure 2: F5 Distributed Cloud Services in BIG-IP products for PCI DSS v4.0 compliance

Key Features

Protection for customer data

Assure PCI DSS v4.0 compliance, mitigate risk, and avoid customer fraud and compliance fines by monitoring—in real time—JavaScript libraries that run your web applications to quickly identify vulnerabilities and anomalous behavior that could compromise customers' personal and financial data.

PCI v4.0 Compliant Service Provider

Distributed Cloud architecture, policies, and processes have been carefully designed, documented, and audited to meet full PCI DSS v4.0, sections 6.4.1 and 11.6.1 requirements—for merchants, other consumer payment collectors, and service providers—and provide client-side protection from an array of attacks including Magecart, formjacking, and online skimming.

Scalable performance and security

Quickly identify and drop attacks at the network layer to ensure consumers have maximum access to applications without compromising security efficacy or payment submission performance.

PCI DSS v4.0 Compliance Boosts Operational Efficiency

PCI DSS v1.0 was introduced in 2006 to help organizations process electronic payments more efficiently and to secure those payments against cyberattacks. In March 2022, PCI DSS v4.0 was released with the goal of building secure client-side transactions, not only to reduce liabilities and costs, but to bolster customer satisfaction and reduce churn. Currently, PCI DSS v4.0 compliance is recommended as a best practice, with full compliance required by March 31, 2025. Failure to comply will severely impact the ability of non-compliant organizations to efficiently collect consumer payments and to effectively protect consumer financial and personal data, potentially resulting in the erosion of consumer trust. This, in turn, could negatively affect brand perception and damage an organization's ability to succeed in an increasingly competitive market.

Next Steps

- See how Distributed Cloud Services work with a free trial, start today.
- Contact F5 to find out how F5 products and solutions can enable you to achieve your goals.

[1] US FTC report, New FTC Data Show Consumers Reported Losing Nearly $8.8 Billion to Scams in 2022, found at https://www.ftc.gov/news-events/news/press-releases/2023/02/new-ftc-data-show-consumers-reported-losing-nearly-88-billion-scams-2022