Case Study of A Leading Global Agribusiness Company

PROJECT: F5 Silverline to F5 XC Migration

CLIENT: A Leading Global Agribusiness Company

LEADING GLOBAL AGRIBUSINESS COMPANY Background

LEADING GLOBAL AGRIBUSINESS COMPANY Ltd. is a global leader in sustainable agriculture products and solutions, committed to
transforming agriculture by reducing environmental impact, enhancing food security, and supporting farmers worldwide. The LEADING GLOBAL AGRIBUSINESS COMPANY operates in over 130 countries, providing innovative,
environmentally sustainable products that enhance crop protection, nutrient management, and post-harvest solutions.

Leading Global Agribusiness Company's mission is to advance agriculture through technological innovations and sustainable practicesto address the pressing challenges of climate change and global food security.
LEADING GLOBAL AGRIBUSINESS COMPANY Ltd. focuses on providing solutions that improve agricultural productivity and profitability whileminimizing the environmental footprint. With a strong presence in global markets and research-
driven innovations, LEADING GLOBAL AGRIBUSINESS COMPANY Ltd. has consistently promoted sustainable growth in the agricultural sector.

CHALLENGES

1. Inefficiency of Legacy Systems
2. Complex Application Security Needs
3. Data Protection and Compliance
4. Increasing Bot Traffic and Automation Attacks

Need for Solution

As LEADING GLOBAL AGRIBUSINESS COMPANY Ltd. continues to expand its global agricultural solutions, the need for a secure, scalable, high-performance, and reliable cybersecurity infrastructure has become critical. Cyberattacks targeting web applications are one of the leading causes of data breaches, and despite stringent security measures and patch management processes, a significant portion of applications remain vulnerable around the clock. LEADING GLOBAL AGRIBUSINESS COMPANY required a solution capable of inspecting all incoming traffic andproviding comprehensive protection against vulnerabilities and web-based attacks, while safeguarding sensitive data and ensuring compliance with global regulatory requirements.

The introduction of **F5 XC** was necessary to mitigate these risks. F5 XC offers advanced capabilities, such as detecting and blocking sophisticated threats that legacy solutions may miss. Its dynamic threat detection covers a wide range of attacks, including those listed in the **OWASP Top 10**, through features like guided configurations, intelligent learning engines, and customizable policies tailored for microservices and APIs. These capabilities protect Leading Global Agribusiness Company applications from a variety of
application-layer attacks, such as cross-site scripting (XSS), SQL injection, and cookie poisoning.

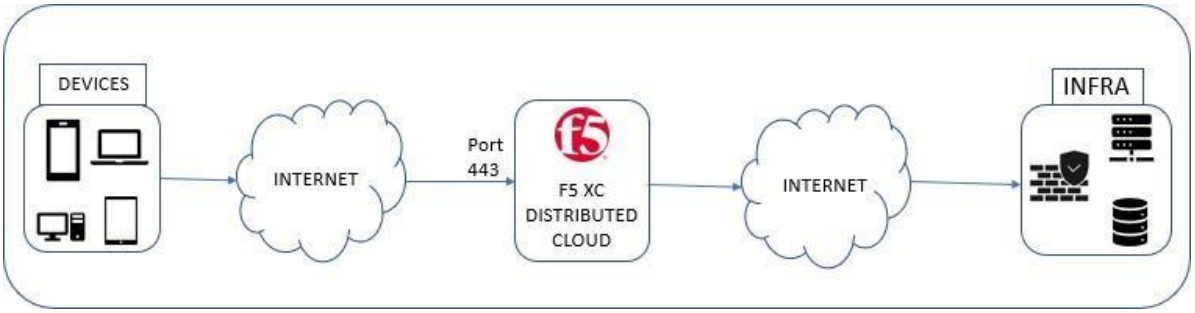
F5 XC delivers advanced protection, leveraging behavioral analytics, Layer 7 DDoS mitigation, and API security, ensuring Leading Global Agribusiness Company systems are shielded from:

- **Application-Layer Attacks**: Advanced threats that evade traditional signature-based security.
- **Web App and API Attacks**: Rising threats due to the growing adoption of APIs like GraphQL, requiring dedicated protection.
- **Security Automation for DevOps**: Faster application delivery with reduced cost and enhanced security effectiveness.
- **Automated Attacks and Bots**: Solutions to counter high-volume automated attacks and bots that overwhelm application resources.
- **Credential Theft**: Defending against attacks aimed at stealing credentials or exploiting compromised accounts.

The migration from **F5 Silverline to F5 XC** provided LEADING GLOBAL AGRIBUSINESS COMPANY with stronger security, better scalability, andimproved protection for their global operations, ensuring minimal disruptions and maximum threat visibility.

Traffic Flow with XC:

Below is a diagrammatic Representation of how a request would flow when XC in in Picture. This is for example purpose only.



When we host applications on F5 XC WAAP, we receive an address known as a CNAME. In order to redirect user traffic on F5 XC WAAP, you must add a CNAME rather than an A Record at the DNS level.

When user tries to access the application into their browser.

1. The request will be processed and goes to the DNS for the resolution and DNS will resolve CNAME pointing and traffic will route to F5 XC WAAP.

2. Once the traffic reaches the F5 XC WAAP at a specified IP address and port 443, it will be reviewed and processed (L3 to L7 features which are configured on F5 XC WAAP), and then traffic will route to the origin server's Public IP via the Internet.

3. Once the traffic arrives at the origin server defined for the specific application, the request is handled in accordance with the internal infrastructure configuration.

F5 XC Features

- **Advanced Bot Protection**
  F5 XC provides LEADING GLOBAL AGRIBUSINESS COMPANY with comprehensive bot protection capabilities that identify and block malicious automated traffic, safeguarding applications from scraping, credential stuffing, and other forms of automated attacks. This proactive defense ensures that legitimate usershave uninterrupted access to Leading Global Agribusiness Company digital services.

- **Application Layer Encryption**
  To secure sensitive agricultural data and customer information, F5 XC offers robust application layer encryption. This feature protects data in transit and at rest, ensuring that critical information is safeguarded from unauthorized access, even in a cloud environment.

- **Intelligent DDoS Mitigation**
  F5 XC incorporates advanced DDoS protection that automatically adjusts to changing traffic patterns and intelligently mitigates threats in real-time. This capability ensures that Leading Global Agribusiness Company applications remain available and performant, even during high-volume attack scenarios.

- **Granular Security Policies**
  F5 XC allows LEADING GLOBAL AGRIBUSINESS COMPANY to create customized, granular security policies tailored to their specificapplication needs. This flexibility enables the organization to adapt security measures quickly in response to evolving threats, particularly for microservices and APIs.

- **Integrated API Security**
  With the increasing adoption of APIs, F5 XC offers dedicated API security features that protect against common vulnerabilities and misuse. This ensures that Leading Global Agribusiness Company APIs are secure,allowing for safe integration with third-party services while preventing data leaks and unauthorized access.

- **Enhanced Threat Intelligence**
  F5 XC leverages real-time threat intelligence to provide LEADING GLOBAL AGRIBUSINESS COMPANY with up-to-date insights intoemerging threats and vulnerabilities. This intelligence allows for proactive defences and timely updates to security configurations, helping to protect Leading Global Agribusiness Company applications from thelatest cyber threats.

Core Capabilities

1. **Comprehensive Application Protection**
   F5 XC leverages advanced machine learning and real-time threat intelligence to provide LEADING GLOBAL AGRIBUSINESS COMPANY with comprehensive protection for its web applications, ensuring resilience against a wide array of application-layer attacks.

2. **Robust API Security**
   Given Leading Global Agribusiness Company reliance on APIs for its digital services, F5 XC offers robust API security features that protect against common vulnerabilities, ensuring secure data exchange and integrationwith third-party services.

3. **Automated Security Policies**

F5 XC supports **Security as Code**, allowing LEADING GLOBAL AGRIBUSINESS COMPANY to automate security configurations andpolicy management through declarative APIs. This streamlines security processes and enhances agility in responding to threats.

4. **End-to-End Data Encryption**
   F5 XC provides in-browser and application-layer encryption to protect sensitive agricultural and customer data from interception during transmission, safeguarding against data breaches and man-in-the-browser attacks.

5. **Advanced Behavioural Analytics for DDoS Mitigation**
   F5 XC utilizes advanced behavioural analytics and machine learning algorithms to detect and mitigate DDoS attacks in real-time. This proactive approach helps maintain the availability and performance of Leading Global Agribusiness Company applications during high-traffic events.

6. **OWASP Top 10 Defence Framework**
   F5 XC is equipped to defend Leading Global Agribusiness Company applications against the most critical security vulnerabilities listed in the OWASP Top 10, ensuring robust security for its digital assets andcompliance with best practices.

7. **Credential Theft Prevention**
   To mitigate risks associated with credential theft, F5 XC implements measures to protect Leading Global Agribusiness Company applications from brute-force attacks and unauthorized account access, safeguardinguser data and maintaining trust.

8. **Intelligent Bot Management**
   F5 XC features intelligent bot management to differentiate between legitimate user traffic and harmful automated requests. This capability helps LEADING GLOBAL AGRIBUSINESS COMPANY reduce the risk of application abuse while ensuring a seamless user experience.

Benefits of XC for UPL:

1. **Enhanced User Interface for Simplified Management**
   F5 XC offers a significantly improved and intuitive user interface compared to Silverline. This upgrade allows Leading Global Agribusiness Company security and IT teams to easily manage day-to-day tasks, such as monitoring traffic, inspecting requests, and adjusting security policies. The streamlined dashboard provides clear insights into application performance and threat activity, reducingthe time and effort required to manage security operations.
2. **Improved Scalability and Performance**
   F5 XC provides superior scalability compared to Silverline, allowing LEADING GLOBAL AGRIBUSINESS COMPANY to handle increasingtraffic loads without sacrificing performance. Whether it's adapting to surges in demand or expanding operations, F5 XC ensures Leading Global Agribusiness Company applications perform optimally under any conditions.

3. **Advanced API and Microservices Security**
   F5 XC offers more robust API security features and better protection for microservices compared to Silverline. Given Leading Global Agribusiness Company reliance on APIs for integrating various services, this enhanced capability helps mitigate the evolving threats targeting APIs, ensuring seamlessand secure data flow across applications.

4. **Lower Latency and Optimized Traffic Flow**
   With its advanced traffic optimization capabilities, F5 XC reduces latency, enhancing user experience for Leading Global Agribusiness Company internal teams and customers. The migration from Silverline to XC ensures that traffic is intelligently routed to reduce delays, ensuring high availability and lowdowntime.

5. **Enhanced Automation for Faster Response to Threats**
   F5 XC's automated threat detection and response tools offer LEADING GLOBAL AGRIBUSINESS COMPANY faster mitigation of vulnerabilities, compared to the more manual configurations in Silverline. This upgrade provides real-time, automated adjustments to security policies, significantly reducing theresponse time to threats.

6. **Customizable Security Policies**
   While Silverline provided limited configuration options, F5 XC offers LEADING GLOBAL AGRIBUSINESS COMPANY more granular control over security policies, allowing for customized, application-specific rules. This flexibility enables LEADING GLOBAL AGRIBUSINESS COMPANY to tailor security protocols to the unique needs of different businessunits and services, providing a more tailored defense.

7. **Seamless Cloud Integration**
   The upgrade to F5 XC enhances Leading Global Agribusiness Company ability to integrate its cloud services with on-prem
   infrastructure. F5 XC's cloud-native approach is more versatile and flexible than Silverline, enabling smooth multi-cloud and hybrid deployments while maintaining consistent security across environments.

8. **Comprehensive Threat Intelligence**
   F5 XC integrates more advanced, real-time threat intelligence compared to Silverline, giving LEADING GLOBAL AGRIBUSINESS COMPANY access to up-to-the-minute data on global cyber threats. This enhanced intelligence allows for proactive threat mitigation, protecting Leading Global Agribusiness Company applications from new and evolving attack vectors.

9. **Future-Proofing Infrastructure**
   Upgrading to F5 XC equips LEADING GLOBAL AGRIBUSINESS COMPANY with a future-ready platform capable of adapting to
   emerging cybersecurity challenges and technologies. The flexibility of XC ensures that Leading Global Agribusiness Company
   security infrastructure remains robust and scalable as new threats and business needs arise.