Accelerate and Safely Scale Application Delivery and High-performance Encryption Inspection

Integrating F5 BIG-IP and Herculon with Venafi Trust Protection Platform

Privacy and security concerns are driving the rapid adoption of Encryption Everywhere strategies. The resulting demand to encrypt more traffic from the data center to the cloud and the IoT edge is challenging organizations to implement and scale the complex application delivery infrastructure that's required to support it.

With encrypted traffic already at 70 percent or more on many networks, the inability to detect and assess threats hiding in encrypted traffic is unacceptable. It impacts layered defenses, which become less effective, wasting significant investments in security. Organizations need to find ways to integrate threat-free encryption into their security framework, as the challenge of scaling to meet the demands of encryption and protect against hidden attacks will only grow.

Solution: Maximize performance and minimize the security threat of Encryption Everywhere

F5 Networks® and Venafi help customers scale the use of encryption by making it easy to automate the complete, secure key and certificate lifecycle without overburdening F5 administrators.

For F5 BIG-IP, Venafi eliminates the need for manual setup and ongoing key and certificate maintenance for HTTPS. To help safely scale the use of SSL/TLS,

Venafi has automated the complete lifecycle—from first setup to validation that ongoing key and certificate updates are successfully completed. With this highly automated approach, Venafi eliminates the potential impact of mistakes, poor security decisions and the risk of certificates expiring.

When used with Herculon, Venafi delivers the keys and certificates needed to inspect encrypted traffic. Venafi continuously updates keys and certificates as they are replaced to maximize inspection and make sure encrypted threats have nowhere to hide.

The joint solution will help your organization:

- Rapidly and reliably scale the safe use of encryption across physical, virtual and cloud environments
- Easily deploy, manage and protect applications that use SSL/TLS without hands-on responsibility for keys and certificates
- Eliminate blind spots and performance challenges commonly associated with encrypting and decrypting traffic
- Gain maximum visibility into SSL/TLS traffic and prevent attacks with continuous distribution of keys and certificates for inspection
- Strengthen existing layered security investments with better availability and utilization of encryption

How It Works

The Venafi Trust Protection Platform automates the full lifecycle for cryptographic keys and digital certificates. These high levels of automation help organizations manage F5 solutions in a fraction of the time it would otherwise take.

To streamline certificate management for F5, the Venafi Trust Protection Platform can discover and auto-create objects that represent every virtual server (Virtual IP or VIP), including unique settings, such as SSL Profile, Certificates, Root Bundles, and more. This allows organizations to rotate keys in bulk in just a couple of clicks. For example, an organization could perform rotation of hundreds of certificate keys on their F5 solutions from SHA-1 to SHA-2 in a matter of hours, not days or weeks. The Venafi platform automatically creates and updates the certificate inventory and associated configuration, vastly reducing time and effort required to provision certificates.

Venafi centrally manages all aspects of certificates, including automated provisioning, enrollment, management, monitoring, expiration alerts, validation, reporting and analysis. The Venafi platform audits not just for expiring certificates, but also certificates with weak signatures (MD5 or SHA1) and weak keys (1024-bit).

F5 BIG-IP and Herculon

F5® BIG-IP® Local Traffic Manager (LTM) helps you deliver your applications to your users in a reliable, secure and optimized way. You get the extensibility and flexibility of application services with the programmability you need to manage your physical, virtual and cloud infrastructure. With BIG-IP LTM, you have the power to simplify, automate and customize applications faster and more predictably.

F5® Herculon™ SSL Orchestrator™ is an all-in-one appliance designed to optimize the SSL infrastructure, provide security solutions with visibility into SSL/TLS encrypted traffic and maximize the use of your existing security investment.

Venafi Trust Protection Platform

Venafi Trust Protection Platform protects machine identities by delivering an enterprise-grade platform designed for security, operational efficiency and organizational compliance. The platform provides visibility of all machine identities across the hybrid enterprise. With full situational awareness of cryptographic security risk posture at all times, organizations can automate the identification of weak certificates, such as SHA-1, MD5 or wildcards and enable quick response with automated remediation.

Conclusion

The Venafi and F5 joint solution helps customers improve key and certificate security, performance and operational efficiency. F5 BIG-IP accelerates secure network applications, while Venafi automates key and certificate lifecycle for BIG-IP devices, making it easy and secure to scale Encryption Everywhere. And with the introduction of F5 Herculon, Venafi enables maximum levels of SSL/TLS traffic inspection with continuous delivery of the keys and certificates needed for decryption.

ABOUT VENAFI

Venafi is the cybersecurity market leader in protecting cryptographic keys and digital certificates which every business and government depends on to deliver safe encryption, authentication and authorization. Organizations use Venafi key and certificate security to secure machine-to-machine connections and communications—protecting commerce, critical systems and data, and mobile and user access.