



HPE TRUSTED SUPPLY CHAIN INITIATIVE

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THE BOTTOM LINE

Amidst the COVID-19 pandemic and growing concerns over data security and integrity, companies are looking towards new solutions to ensure a high level of protection. As cybersecurity concerns begin to spike in essential industries such as financial, federal, and healthcare, new ways of combating these threats must be explored. HPE aims to improve security for U.S.-based customers looking to utilize U.S. sourced products to secure sensitive personal data. With more U.S. customers looking towards alternative security measures, HPE plans to fill the gap as the only major server manufacturer to ship made-in-USA industry-standard servers with new layers of security capabilities to address the growing needs of these essential industries.

OVERVIEW

Hewlett Packard Enterprise (HPE) is a leading provider of computing services that support a diverse range of use cases and deployment landscapes to deliver an edge-to-cloud, platform as-a-Service experience. A new HPE Trusted Supply Chain initiative started today with plans to expand HPE's supply chain offerings and improve end-to-end security. The initiative brings new servers with security features built by vetted HPE employees in secure U.S. facilities with extensive sourcing, inspection, and traceability standards. HPE employees will go through extensive background, and security checks before building products produced through the HPE Trusted Supply Chain. HPE plans to increase its already leading security level for U.S. federal and public sector customers as well as banking and financial services, and healthcare organizations. The Trusted Supply Chain initiative will help customers who prefer utilizing U.S. sourced products with verifiable cyber assurance by expanding its supply chain's security measures. Currently, HPE provides the most extensive line of made-in-USA industry-standard servers as it is the only prominent server manufacture to make these strides.

On October 1st, 2020, HPE shipped its first ProLiant DL380T servers to U.S. customers, which marked HPE as the first vendor to embed silicon-based security into its servers. Recently, HPE acquired Scytale to augment the company's zero-trust capabilities by extending service authentication across cloud, container, and on-premises infrastructures. HPE further augments its embedded network security with Aruba's high-level security, performance, and reliability for wired and wireless network infrastructure solutions.

The new HPE servers will ship with a pre-installed security layer to ensure end-to-end data protection for its customers. The support for end-to-end security extends to the entire product lifecycle with capabilities surrounding preventing compromised operating systems (OS), preventing tampering of server firmware and hardware, reducing attack surfaces, and alerting customers with embedded alarms and physical locks. HPE will prevent the booting of any compromised OS by connecting the server firmware security to the OS using a UEFI secure bot. HPE servers will also go to great lengths to verify user authenticity to ensure that millions of lines of firmware code are uncompromised. To prevent tampering of server firmware and hardware, HPE will use a server configuration lock to verify unauthorized NICs, drives, or malicious activity by capturing a "picture" of the factory's server. The picture is used to evaluate the security of the server and its hardware and firmware to ensure a high level of security throughout the supply chain process. Furthermore, HPE will alert customers with an embedded alarm and activate a physical lock if the server has been opened during the supply chain process. Even if the power goes off, an intrusion detection latch inserted on the server chassis will register an unauthorized opening.

KEY BENEFIT AREAS

HPE continues to strengthen its edge-to-cloud Platform-as-a-Service strategy by supporting U.S. based customers with an effort to address overall supply chain resiliency that has been impacted by COVID-19. In June 2020, HPE announced HPE Ezmeral, a new software portfolio to support HPE's edge-to-cloud platform-as-a-service strategy and help enterprises accelerate digital transformation. The portfolio covers a range of services from container orchestration, AI/ML and data analytics, cost control, IT automation and AIOps, and security. The portfolio contains HPE Ezmeral Container Platform, HPE Ezmeral Data Fabric, HPE Ezmeral ML Ops, HPE Ezmeral IT Ops, and Automation, HPE Managed Cloud Controls, and Security Software. Along with the addition of HPE Ezmeral came significant updates to HPE GreenLake as a part of a broader edge-to-cloud platform-as-a-service strategy. HPE plans to create value for customers by creating an entire portfolio-as-a-service to save money when migrating data between sources. HPE GreenLake cloud services cover a wide range of solutions such as container management, machine learning operations, VMs, storage, compute, data protection, and networking. HPE Ezmeral supports the new HPE GreenLake cloud services for containers providing the freedom to deploy edge-to-cloud containerized applications.

All new HPE servers produced through the HPE Trusted Supply Chain would be offered asa-Service through HPE GreenLake to promote a highly secure cloud infrastructure. The updates to HPE Ezmeral and HPE GreenLake, along with the innovative Trusted Supply Chain initiative, will bring an agile and elastic infrastructure that promotes security, data sovereignty, compliance, visibility, and cost controls. In 2021, HPE plans to expand production through the HPE Trusted Supply Chain to include other servers and systems and make an additional made-in-Europe initiative available for European customers. Currently, U.S.-based companies and federal organizations face continuous threats to data and supply chain security. New security incidents happen every day, and there are few ways to protect from cyberattacks fully. One of the essential defense strategies against malware is a layered strategy for malware detection. HPE addressed this essential feature by having servers come with a pre-installed layer of hardened security before the server is shipped to the customer to ensure end-to-end data protection.

Furthermore, HPE security standards will continuously monitor credentials as malware typically uses previously breached data to access sensitive information. While many cloud service providers protect against cyberattacks, this is not the only defense layer that needs to be addressed. A person can deploy malware into a server or system by merely having physical access to the hardware. The easiest time to breach hardware security measures is during the transit phase, as the least amount of security is implemented during this stage. With HPE, all new security efforts will help prevent tampering or unauthorized modifications to the server, either on the factory floor or in transit, so that customers will receive the



configuration as they ordered it. The Trusted Supply Chain initiative addresses U.S. customer needs, especially those in federal and public sectors, that prefer U.S. sourced products with verified cyber assurance. This is also compliant with recent federal regulations – the National Defense Authorization Act FY19 Section 889 (Act), which was created to prevent the U.S. federal government from using technologies from several Chinese companies.

LOOKING AHEAD

Cybercriminal activity has increased during the ongoing pandemic, and government supply chains have become a significant target. The combination of increased server security measures with continued innovation and development towards HPE's edge-to-cloud Platform-as-a-Service strategy is currently unmatched. Companies looking to maintain U.S. sourced products will look towards HPE solutions as competing cloud service provider's lag. Within the last decade and especially in recent months, concerns over data security and integrity have spiked as mass amounts of data became the center of decision-making processes. Supply chain attacks are no exception with malware finding its way into servers and applications. For example, computer maker Asus experienced a supply chain attack that compromised its Live Update tool to push malware to almost 1 million customers. In the same year, malware compromised Microsoft's development tool Visual Studio which seeded backdoors into the products of three different videogame companies deploying the Microsoft tool. As of July 2020, research has shown that more than 1 million pairs of emails and passwords for corporate accounts at the 27 largest companies in the defense industrial base are compromised. Additionally, this number does not account for the hundreds of thousands of smaller businesses that contract with government agencies. Utilizing HPE's Trusted Supply Chain initiative is critical to protecting from malware and cyberattacks that aim to take information from industry systems and networks.