Security Gaps Leaves Organizations and Their Customers at Risk

Today, more and more organizations are using the Internet to collect sensitive data from their customers such as payment data for e-commerce transactions, personal information for electronic medical records (EMR) and user credentials for access to systems and services. While sensitive data can be protected in transit between systems by Secure Socket Layer (SSL), significant security gaps remain as data remains in the clear in applications servers, back office systems and databases. Point solutions such as database encryption can be used to protect data at rest, but information is still exposed as it enters and leaves each system. Without protecting the data from the browser all the way to the trusted host destination, hackers have more vulnerable places to target. This problem only intensifies as e-commerce, cloud computing and mobile applications grow in popularity and use.

The Solution—HPE SecureData Web

HPE SecureData Web protects sensitive data captured at the browser, from the point the customer enters their cardholder or personal data, and keeps it protected through the load balancing and web tier, the application tier, cloud infrastructure, and upstream IT systems and networks to the trusted host destination. Payment information, tax IDs, authentication credentials, or any structured field is protected from capture, only accessible by trusted systems even in sophisticated distributed web applications.

- For e-commerce payments subject to PCI DSS, HPE SecureData Web helps merchants significantly reduce PCI DSS scope by up to 80% for the systems and applications that previously handled cardholder data.
- For both internal and external applications involving personally identifiable information (PII), personal health information (PHI) and electronic personal health information (ePHI), HPE SecureData Web reduces the exposure of live information and simplifies compliance with privacy laws such as HIPAA and other state regulatory laws.
“HPE Page-Integrated Encryption technology is a game changer. From an ecommerce standpoint, we would not have been able to become PCI–compliant without it unless we resorted to alternatives, which no one wanted to do from a usability or customer experience perspective.”

- Manager, Systems Security, US Airline

HPE SecureData Web Core Capabilities

- **HPE Page-Integrated Encryption (PIE)**—patented technology encrypts data directly in the browser the moment it is captured, using random single-use keys that are dynamically and transparently generated. Protected data can only be decrypted at the trusted host system at the destination.

- **Uncompromising security, seamless user experience**—designed to work in any browser whether on a laptop or a mobile phone, without browser addons or plug-ins. Data protection is transparent to end users, and eliminates page re-directs, disruption, or confusing workflows.

- **Preservation of data format and structure**—HPE Format-Preserving Encryption permits policy information to be embedded into the encrypted data field while preserving the format and structure of the original data. For example, for credit card payments, this allows merchant access to the first 6 and/or last 4 digits of the credit card information for payment business processes, while protecting the sensitive digits from the browser to the payment processor.

- **Ease of deployment**—Deploys effortlessly, requiring as little as three lines of HTML code.

How it Works

Learn more at voltage.com
hpe.com/software/datasecurity

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