Two-Factor Authentication



Authentication

Trustwave's managed authentication service provides an on-demand replacement for traditional token-based authentication systems at a fraction of the cost.

For organizations seeking a two-factor authentication solution that eliminates the hassles and costs of a token-based system

About Trustwave®

Trustwave is a leading provider of information security and compliance management solutions to large and small businesses throughout the world. Trustwave analyzes, protects and validates an organization's data management infrastructure from the network to the application layer - to ensure the protection of information and compliance with industry standards and regulations such as the PCI DSS and ISO 27002, among others. Financial institutions, large and small retailers, global electronic exchanges, educational institutions, business service firms and government agencies rely on Trustwave. The company's solutions include on-demand compliance management, managed security services, digital certificates and 24x7 multi-lingual support. Trustwave is headquartered in Chicago with offices throughout North America, South America, Europe, the Middle East, Africa, Asia and Australia.







For more information about Trustwave's Elements of Compliance and Data Security please visit: www.trustwave.com

Token-Based Authentication: Costly and Time-Consuming

For more than 20 years, hardware-based tokens have been the standard for secure two-factor authentication solutions. Unfortunately, these traditional solutions require an organization to spend a significant amount of time and money issuing and managing tokens for employees with remote access via a Virtual Private Network (VPN). An organization must deactivate and replace lost tokens, restore damaged or worn-out tokens and manage the revocation of tokens for employees that leave the company or are no longer allowed to access the network remotely. Legacy token-based authentication systems require the tracking and management of a separate physical device for each employee—a cumbersome and costly affair.

An Innovative Solution Inspired by Compliance Needs

Inspired by the Payment Card Industry Data Security Standard (PCI DSS) and dissatisfaction expressed by customers over current solutions on the market, Trustwave developed a two-factor authentication solution that couples digital certificates with an organization's existing VPN infrastructure. This certificate-based authentication drastically reduces the cost of an authentication solution while eliminating the need to track inventory of physical tokens and maintain associated technology such as servers.

While the service's utility extends beyond just PCI DSS compliance, Trustwave developed the solution with PCI DSS requirement 8.3 in mind:

Implement two-factor authentication for remote access to the network by employees, administrators, and third parties. Use technologies such as remote authentication and dial-in service or terminal access controller access control system with tokens; or virtual private network with individual certificates.

Any organization that processes, stores or transmits cardholder data must comply with every requirement of the PCI DSS, and the Trustwave two-factor authentication solution is an innovative, cost-effective method to fulfill requirement 8.3 of the standard. The PCI DSS allows for an individual certificate-based VPN authentication solution to satisfy the requirement. This is an important distinction because the costs of a certificate-based solution can be just one fifth of those associated with a token-based solution. In addition, a certificate-based solution includes a much more reasonable ongoing cost structure.

The Benefits of On-Demand Authentication

Organizations of many different sizes have selected Trustwave's certificate-based two-factor authentication solution for three principal reasons:

- 1. To achieve compliance goals
- 2. To reduce infrastructure complexity
- 3. To realize considerable savings over token-based authentication systems

The Trustwave authentication service utilizes proven digital certificate technology to provide a managed two-factor authentication system that works without the need for hardware tokens or additional network resources.







Why Certificate-Based Authentication beats Tokens

- · Lower total cost of ownership
- · Easier to maintain, no replacements
- · Leverages existing infrastructure
- · Easy to use Web self-service portal



User enrollment screen



Certificate request and installation screen



Certificate reporting including user, issuance and revocation information

Certificate-Based Two-Factor Authentication in Practice

The Trustwave solution leverages your current VPN authentication infrastructure, including your corporate directory system and VPN hardware, and can be implemented and operational with just four easy steps:

- You deploy a trusted root certificate to your VPN hardware devices to provide a point from which administrators can control user access.
- Network administrators log into the co-branded Trustwave management portal to provision certificates for employees and contractors.
- Users access a simple co-branded Web portal to set a certificate password, download the certificate and install it on their remote system.
- When a user logs into the VPN, they are prompted to use the certificate and password for authentication.

The solution's intuitive Web portal allows administrators to easily enroll and revoke access for an organization's remote workforce almost instantaneously. In addition, the Web portal provides easy-to-follow instructions and training for remote employees.

The Superior Choice: Certificate-Based Authentication

Traditional authentication practices that depend on hardware tokens are especially complex and costly for a growing organization. Issuing certificates for authentication purposes is a flexible solution for any organization and can easily scale to tens of thousands or more employees. The table below compares the costs of token-based and certificate-based authentication structures and the reasons why Trustwave's on-demand, two-factor authentication solution is a more cost-effective alternative:

Costs	Token Based Authentication	Trustwave Authentication Service	Reason for Savings with Trustwave
Up-front implementation	\$\$\$\$\$	\$	No hardware to purchase No software to license
Per user	\$\$\$	\$	No hardware manufacturing cost
Hardware and Infrastructure	\$\$\$\$	N/A	No customer infrastructure needed No hardware needed
On-going maintenance	\$\$\$	\$	No hardware maintenance No software maintenance No Certificate Authority audit requirements Self-service enrollment No token replacements Self-service revocations

The managed Trustwave two-factor authentication solution greatly reduces the on-going maintenance and administrative costs of authentication. Additionally, the certificate-based solution demonstrates a compelling Return on Investment (ROI) for any organization. Please contact your Trustwave sales representative for further questions, a demonstration of the technology or a custom price comparison.



