

# PCI DSS Compliance Checklist


Concerned about security compliance for your remote access solution? Here is how Netop helps you meet even the toughest standards.

## PCI Security Requirements


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Use strong cryptography and security protocols (for example, SSL/TLS, IPSEC, SSH, etc.) to safeguard sensitive cardholder data during transmission over open, public networks, including the following:

  - Only trusted keys and certificates are accepted.
  - The protocol in use only supports secure versions or configurations.
  - The encryption strength is appropriate for the encryption methodology in use. [ 4.1 ]


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Assign all users a unique ID before allowing them to access system components or cardholder data. [ 8.1.1 ]

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In addition to assigning a unique ID, ensure proper user-authentication management for non-consumer users and administrators on all system components by employing at least one of the following methods to authenticate all users:

  - Something you know, such as a password or passphrase.
  - Something you have, such as a token device or smart card.
  - Something you are, or biometric data. [ 8.2 ]

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Incorporate two-factor authentication for remote network access originating from outside the network by personnel (including users and administrators) and all third parties, (including vendor access for support or maintenance). Examples of two-factor technologies include remote authentication and dial-in service (RADIUS) with tokens; terminal access controller access control system (TACACS) with tokens; and other technologies that facilitate two-factor authentication. [ 8.3 ]

## How Connect Ensures Compliance

### Industry-Leading Encryption

**Encryption:** Data transmitted between Windows, Linux, Solaris and Mac OS X modules can be encrypted using the Advanced Encryption Standard (AES) with key lengths up to 256-bits. 7 different levels are available including Impero 6.x/5.x compatible for communication with older Impero modules.

**Integrity and message authentication:** Verified using the Keyed-Hash Message Authentication Code (HMAC) based on the Secure Hash Standards SHA-1 (160-bit) or SHA-256 (256-bit).

**Key exchange:** Encryption keys for encrypted data transmissions are exchanged using the Diffie-Hellman method with key lengths up to 2048 bits and up to 256-bit AES and up to 512-bit SHA HMAC verification.

### Centralized 2 and 3 Factor Authentication

- Impero Authentication via Security Server:**  
The Impero Security Server verifies the Guest identity against the database service that holds all the pre-defined Guest IDs and passwords.
- Windows Authentication via Security Server:**  
The Impero Security Server verifies the Guest identity by letting the Host relay the authentication process to a Windows Domain controller.
- Directory Service Authentication via Security Server:**  
The Impero Security Server verifies the Guest identity against a Directory Service via LDAP.
- RSA SecurID with 'Triple-factor authentication' via Security Server:**  
The Impero Security Server combines RSA SecurID 'two-factor authentication' with a shadow Impero Guest ID password.

✓ Using strong cryptography, render all authentication credentials (such as passwords/ phrases) unreadable during transmission and storage on all system components. [ 8.2.1 ]

✓ Limit access to system components and cardholder data to only those individuals whose job requires such access. [ 7.1 ]

✓ Restrict access to privileged user IDs to least privileges necessary to perform job responsibilities. [ 7.1.2 ]

✓ Assign access based on individual job classifications and functions. [ 7.1.3 ]

✓ Establish an access control system for systems components that restricts access based on a user's need to know, and is set to "deny all" unless specifically allowed. [ 7.2 ]

✓ Ensure that all system components and software are protected from known vulnerabilities by installing applicable vendor-supplied patches. Install critical security patches within one month of release. [ 6.2 ]

✓ Implement audit trails to link all access to system components to each individual user. [ 10.1 ]

✓ Secure audit trails so they cannot be altered. [ 10.5 ]

✓ Protect audit trails from unauthorized modifications. [ 10.5.2 ]

✓ Write logs for external-facing technologies onto a secure, centralized, internal log server or media device. [ 10.5.4 ]

## Smart Card Authentication and Tunneling

By using a Smart Card and a Smart Card reader at the Windows Guest, the Windows Host is now able to authenticate the identity of the Guest user via the Security Server that communicates with a Windows server with Microsoft CA installed. If the Host computer demands local logon using Smart Card the Guest user's credentials will be tunneled to the Host in order to provide the information.

## Impero Security Role

- A security role is a set of allowed actions.
- The user can create customized roles in addition to the pre-defined roles "Full access" and "View only" or "Deny".
- One or more groups and user accounts can be assigned to each Security Role.
- Total allowed actions are calculated by adding actions from each Security Role the user has membership of.
- Confirmed access is required if it's present in at least one Security Role.

## Web Updates

Impero components can be configured to schedule and install automatic updates. This ensures that the latest software updates are made available through a secure and trusted channel using vendor-specific digitally signed certificates. Update directly through Netop hosted services or distribute and control the updates via your own internal web servers.

## Impero Logging

Impero can record all sessions verbatim to document the entire remote session.

Impero Security Server provides a central log with more than 100 events and stores this information in an ODBC- compliant database for maximum security and scalability. Log data can be kept for an unlimited time along with the physical support session providing complete audit and playback capabilities.

Screen recordings are stored in a format that cannot be edited by any video editors.