

Chase Paymentech Begins Triple DES Upgrades with Merchants

Frequently Asked Questions

What is Triple DES?

Triple Data Encryption Standard (Triple DES, TDES or 3DES) is the American National Standards Institute's (ANSI) sanctioned encryption algorithm standard used by all debit-capable transaction terminals for PIN encryption in the U.S. TDES is a prime example of the payment industry's advancements in security against fraud, as it was created to be more secure than its predecessor, DES - an encryption algorithm that takes a fixed-length block (16 hex digits) of unencrypted data, and using a 16 hex digit encryption key, converts it to a fixed length block of encrypted data called cipher text.

What is the difference between Triple DES and DES?

To combat security breaches with Single DES, Triple DES was developed. TDES uses three independent key parts when performing the encryption algorithm. The TDES algorithm uses either a 16-byte, "double-length key" (32 hex digit) or a 24-byte, "triple-length key" (48 hex digit) key. The encryption algorithm is run three times with the double or triple length key.

Are merchants required to upgrade to Triple DES?

One of the most recent security upgrades mandated by Visa requires that all debit-capable, PIN-entry transaction devices be replaced and updated to comply with the Triple Data Encryption Standard (Triple DES, TDES or 3DES) by July 1st of 2010. TDES better protects merchants against security breaches, as the encryption process includes additional number decryption and encryption combinations, making it more complicated for hackers to break.

Why upgrade now, if the deadline is July 2010?

While the deadline may seem far off, this mandate will involve a major overhaul of equipment swaps and replacements for all U.S. merchants - not just Chase Paymentech merchants - accepting Visa/Interlink PIN-based transactions. Chase Paymentech has already updated new POS PIN-entry devices with the TDES encryption coding, and we are ready to start swapping and issuing new PIN-entry devices and/or terminals. Debit networks and the major card brands have established specific compliance dates as milestones to move toward total TDES compliance. Failing to update prior to the deadline may result in significant fines assessed by the Visa and the other card brands.

Does this upgrade only affect Chase Paymentech merchants?

Visa is requiring all merchants be compliant, upgrading their POS systems with TDES, by July 1, 2010. Visa is instructing its membership, the acquiring financial institutions and processors, to manage compliance upgrades of vendors, partners and customers. Chase Paymentech will notify all of our customers of these changes. And, Chase Paymentech's strategic partners will be responsible for notifying their merchants.

Who will fund the Triple DES upgrade?

As this is a Visa mandated upgrade to meet TDES compliance by July 1, 2010, Chase Paymentech's merchants will be responsible for the costs associated. Pricing and equipment upgrades will vary depending on the age of the merchant's current equipment, type of equipment, and POS network service provider. Chase Paymentech's relationship managers will be able to answer questions regarding a merchant's POS equipment and the costs to upgrade.

Will Triple DES require purchasing new equipment?

It is possible that some Chase Paymentech merchants are already equipped with debit-capable transaction terminals that are TDES “capable,” yet they have not been “injected” with the necessary TDES keys. Beginning April 1, 2007, a merchant with a TDES capable PIN pad may upgrade for an injected PIN pad. A merchant with a non-capable PIN pad must purchase a capable, injected PIN pad.

How does a merchant know if the terminal is Triple DES “capable?”

If the merchant’s terminal and PIN pad was purchased after April 1, 2002, it may be TDES “capable;” however it will need to be swapped for a TDES “injected” PIN pad. A PIN pad purchased prior to April 1, 2002 is most likely not TDES capable. Chase Paymentech is ready to deploy new capable, injected PIN pads. All new PIN pads will include a label, indicating that they are TDES injected.

Can merchants use an ESO to become Triple DES compliant?

Chase Paymentech uses an Encryption Service Organization (ESO) known as TASQ to inject and deploy PIN pads, supporting TDES encryption. Some of our Strategic Partners have chosen to use other ESOs for their injection and deployment services. Most customers will look directly to their merchant services provider to obtain TDES injected PIN pads.