AFD PIN Encryption Rule Will Take Effect With EMV Liability Shift

On 1 December 2016, Visa announced that the EMV liability shift for U.S. domestic automated fuel dispenser (AFD) transactions would be delayed until 1 October 2020. To align with this change, effective 1 October 2020, Visa will require all AFDs in the U.S. to use either Triple Data Encryption Standard (TDES) or Advanced Encryption Standard (AES) for PIN encryption. Visa clients should develop plans now to meet this deadline, as they may need to upgrade their Encrypting PIN Pad (EPP) hardware.

AFDs that do not use TDES or AES with at least double-length key encryption by 1 October 2020 will be considered noncompliant.

Organizations may be subject to noncompliance assessments if they fail to comply with Visa PIN Security Program requirements by this date, or if a data breach occurs because of noncompliant practices.

This is the last U.S. acceptance channel that must achieve compliance with the global TDES requirement announced in 2005. Visa is requiring this change because Single Data Encryption Standard (SDES) is no longer an acceptable level of protection for PIN transactions, including in Derived Unique Key per Transaction implementations. Adoption of approved encryption algorithms for PIN encryption will ensure consistent protection in the payments network.

1 For additional details about the acceptable encryption algorithms and key lengths on PIN Transaction Security (PTS) devices, visit the Payment Card Industry Security Standards Council document library and search for "PTS."

For More Information


Visa’s U.S. AFD Compliance Policy to Facilitate TDES / AES Usage by 1 October 2020

Deferral of EMV Liability Shift for Domestic AFD Transactions—U.S. Region (Advance Copy)

Visa Fraud Monitoring Program for US Automated Fuel Dispenser Transactions (Advance Copy)

Counterfeit Fraud Mitigation Tools for AFD Transactions—Fuel Merchants Who Are Not EMV Chip Enabled Recommended Practices for U.S. Issuers to Optimize Cardholder Experience at AFDs
For More Information

Visa Payment Acceptance Best Practices for U.S. Retail
Petroleum Merchants Visa PIN Security Program Guide

Online Resources

Visa PIN Security website

Note: For Visa Online resources, you will be prompted to log in.