



Building Chip Card Payment Acceptance in the U.S.

As Visa steps up its U.S. migration to a contact and contactless EMV®-based¹ infrastructure, acquirers and their processors are encouraged to begin preparing for the adoption of the chip-based technologies. This document provides a high level introduction to Visa's U.S. migration to the chip processing platform—what it is, why it is important, how it works, and who to contact for assistance.

Why Chip...Why Now?

The bigger question is why not? The U.S. adoption of contact and contactless chip technology is critically important to all key stakeholders in the payment industry. It not only supports the increasing demand for enhanced global acceptance and security through the use of dynamic authentication, it also helps prepare the U.S. payment infrastructure for the arrival of Near Field Communication (NFC)-based mobile payments. In short, Visa is taking necessary action to create a strategic commercial framework that will facilitate growth and value opportunities for issuers, acquirers, and merchants alike.

To accelerate the adoption of EMV chip technology in the U.S., Visa recommends card and terminal implementation solutions that support online (real-time) authorization and the existing cardholder verification methods of signature, online PIN and 'no signature required' for low-value, low-risk transactions that are used today. By leveraging the ubiquitous telecommunications and strong existing payment infrastructure that already exists in the U.S., acquirers will be able to deploy chip terminals in a reasonable timeframe while enhancing security with EMV.

A Closer Look at Visa's Roadmap to Chip Migration Success

To help U.S. acquirers and their processors build and support the proper chip card and mobile acceptance, Visa has established the following incentives and mandates.

October 2012	April 2013	April 2015	October 2015	October 2017
Technology Innovation Program (TIP)	Acquirer Chip POS Processor Mandate	Acquirer Chip ATM Processing Mandate ¹	POS Liability Shift <i>U.S. domestic and cross-border</i>	AFD Liability Shift ² ATM Liability Shift <i>U.S. domestic and cross-border</i>

Note: POS = point of sale, AFD = automated fuel dispenser ¹ Requirement for third-party processors only.

U.S. Acquirer Chip Implementation Phases and Activities

LEAD-TIME CONSIDERATIONS			
Initiation & Planning	Design & Build Phase	Testing Phase	Launch Phase
<ul style="list-style-type: none"> Obtain and review technical documentation and implementation guides. Determine requirements and support for contact/contactless. Submit Request for Proposal (RFP) to POS vendors. Document POS configuration and acquirer interfaces. Evaluate POS Brand/EMV approval requirements. Engage merchants. Order terminals. Engage team (acquirer, processor, vendor, merchant). Determine readiness timeline. 	<ul style="list-style-type: none"> Confirm project scope. Determine POS physical set-up and infrastructure costs. Determine test tools and testing requirements. Develop POS software. Design and build host system changes for merchant/acquirer. Adhere to Field 55 and Track 2 mandates. Implement payment software modifications to test system. Open chip project with Visa representative. Complete all development activities. 	<ul style="list-style-type: none"> Integrate lab/unit testing of devices (mandated). Obtain required test kits. Establish test environments for host testing. Complete and submit Client Information Questionnaire (CIQ) for VisaNet Certification Management Service (VCMS) as required. Complete and submit Global Test Questionnaire. Complete host testing with approved production-ready terminals. Complete and submit CIQ for production implementation. Complete terminal testing as required. Submit terminal test results to Visa for review. 	<ul style="list-style-type: none"> Plan terminal deployment. Set-up devices. Train merchant and ensure signage. Soft merchant launch. Audit and modify as needed. Full production launch.

¹ EMV is a registered trademark or trademark of EMVCo LLC in the United States and other countries.

² Effective October 2020 for U.S. Domestic AFD.

Key Start-up Considerations for U.S. Acquirers

1. Determine acceptance strategy for dual-interface terminal, (i.e., target merchants, geographies etc).
2. Determine processing support requirements (i.e., new chip acquirer or upgrading from existing Visa payWave support to full chip data).
3. Identify and engage vendors to support terminal and processing needs.
4. When ready to initiate and implement a chip acceptance program, acquirers should contact their Visa Account Manager to open a project to support host implementation activities.

Visa Tools for U.S. Acquirer Chip Technology Compliance

- **Acquirer Device Validation Toolkit (ADVT)** is a quality assurance tool designed to assist chip acquirers, merchants and their chip payment processing device vendors in the prevention of contact chip card acceptance problems. The toolkit (a set of test cards and a User Guide) helps ensure the proper configuration of contact chip card acceptance devices.
- **Contactless Device Evaluation Toolkit (CDET)** is a quality assurance product (a set of test cards and a User Guide) that Visa payWave chip acquirers, merchants, and chip payment processing device vendors can use to properly configure their contactless chip card acceptance devices.
- **Chip Compliance Report Tool (CCRT)** is a Visa web-based tool that enables chip acquirers to streamline the reporting of ADVT results.

To find out more, visit Product Toolkits pages on the Visa Technology Partner website (<http://technologypartner.visa.com>).

Resources

Visa Technology Partner

Visa Technology Partner (<http://technologypartner.visa.com>) provides suppliers with access to Visa information and the tools to simplify the implementation of Visa programs and services. In turn, Visa acquirers gain a network of supplier resources that can help them achieve their business objectives.

Visa Approval Services

Chip Card Acceptance Devices Testing, Approval Process documentation, and approved products lists can be found on <https://technologypartner.visa.com/Testing/>.

Visa Business School

The Visa Business School offers chip technology webinars and workshops. For more information about upcoming course offerings, send an email to VisaBusinessSchool@visa.com, or visit www.VisaBusinessSchool.com.

Related Visa Business News Publications

- *U.S. EMV Acceptance: Quick Chip Updates* – 02 March 2017
- *Sunset of the qVSDC Device Module (DM) and ADVT V6.1* – 23 February 2017
- *U.S. EMV Acceptance: Quick Chip, Fleet Testing and Reporting Updates* – 1 December 2016
- *New Resources for Acquirers, POS Partners and Value-Added Resellers* – 25 August 2016
- *U.S. Acquirers Can Now Self-Certify Chip Point-of-Sale Devices* – 23 June 2016
- *New VisaVue Online User Level and Chip Reporting Package Introduced* – 19 May 2016
- *New U.S. Debit Testing Will Be Enhanced; Support for Minimum Terminal Configuration and Chip Compliance Reporting Tool Updated* – 17 December 2015
- *Processing and Managing Key-entered Transactions When Migrating to Chip* – 22 October 2015
- *Supporting Chip Acceptance and Managing Fallback Transactions* – 27 August 2015
- *Visa Chip Bytes: New Webinars to Help U.S. Clients Migrate to Chip Technology* – 20 November 2014
- *Acquirers Reminded to Use Correct Terminal Entry Capability Code* – 20 March 2014
- *Chip Technology Deployment Simplified in the U.S.* – 24 October 2013

EMVCo

To learn more about EMVCo chip payment interoperability specifications and vendor product evaluation, visit www.emvco.com.