

EMV Certification Overview for Merchants

Multilateral Chip Migration

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FINAL VERSION

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Purpose

This document has been designed by Canadian Acquirers and Payment Brands in order to clarify the EMV device compliance process for merchants with integrated Point of Sale (POS) systems. Merchants with integrated POS systems and those who own their POS hardware are responsible, along with their Acquirer/Value Added Reseller (VAR), to ensure that their POS systems are fully EMV compliant. Merchants who rent or lease their POS terminals should contact their payment service provider to confirm that EMV device compliance requirements will be addressed by the equipment vendor, Acquirer or VAR providing the equipment.

This document is targeted at merchants with integrated POS systems. The objective of this document is to provide key personnel such as payment experts and project management resources with a basic level of understanding regarding the EMV compliance processes across all payment brands. This document is not intended to replace any other documents supplied by Acquirers or VARs. Merchants should contact their Acquirer for proprietary requirements.

Introduction

Around the world, countries are migrating from magnetic stripe technology to EMV chip technology to support card payments. As Canada migrates to EMV chip from magnetic stripe, integrated merchants will be required to upgrade their point of sale solutions to support this new technology.

The EMV compliance process consists of several stages. First, the equipment itself must be Type Approved to satisfy EMV requirements. Next the payment application software must be validated. Each payment brand has its own terminal application software requirements that need to be met. After hardware and software validation, the connection between the POS terminal and the Acquirer must be validated. Lastly, the entire chain for transactions must be confirmed. Integrated merchants are required to participate in the application software and the merchant-acquirer connection validation phases.

Point of Sale Compliance in the EMV Environment

The overall process consists of different phases of approval for POS solutions. These phases of the process are outlined below. The areas highlighted in blue are areas of consideration for integrated merchants that purchase their POS devices as merchant involvement is required in these phases. Merchants who rent or lease standalone devices will not be required to participate in POS compliance.

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Phases of the EMV Compliance Process



POS Device Hardware

Typically, POS terminal hardware manufacturers will be able to supply POS devices that are Type Approved to meet EMV Level I & II requirements. Responsibility for EMV compliance to these specifications lies with the owner of such devices. Therefore, when purchasing hardware directly from terminal manufacturers, the merchant should:

- Request a copy of the Type Approval certificate. The certificate should include the configuration of the device and the software/firmware version numbers that were used to Type Approve the device.
- Validate that the device they are purchasing is identical in all regards to the device that was Type Approved.
- Ensure that the POS device is approved for use by the relevant card Payment Brands (American Express, Interac, MasterCard and Visa).
- Validate that the device complies with the Regional Operating Regulations of the relevant card Payment Brands and the Acquirer.

The POS Technical Specifications by Payment Brand are outlined in the table below. These requirements are applicable to all Acquirers. It is important to note that each Payment Brand has different requirements.

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Requirements by Payment Brand

Payment Brand	American Express	Interac	MasterCard	Visa
POS Device Hardware Technical Specification	PCI PED Testing Requirements Specifications	Device must be certified using the Interac - Chip Pin Entry Device (PED) Technical Specifications and Testing Requirements (TSTR)	Device must be EMV L1 &L2 Type Approved and must meet PCI PED specifications. Please ask your Acquirer for details.	Device must be Visa-approved. Visa-approved devices are listed on www.visa.com/pin

Payment Application Software

Payment Application Software refers to the brand-specific software applications that must be loaded onto the terminal in order to support payment brand EMV chip transactions. Software application validation for EMV compliance is the responsibility of the party that owns the POS application solution (standalone terminal or integrated solution). Merchants who purchase their own payment application software are responsible to ensure that the solution being deployed complies with Payment Brand specifications and requirements. It is important to ensure that the payment applications are functioning as expected and do not result in any interoperability issues. Acquirers/VARS can provide further information and assistance in this regard.

The requirements for each Payment Brands Payment Application Software can be found in the table below.

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Payment Application Software Certification Requirements by Payment Brand

Payment Brand	American Express	Interac	MasterCard	Visa
Payment Application Software Certification Requirement	American Express ICC Payment Specification (AEIPS) Chip & PIN Test Plan	Self-Certification by application owner using an Interac approved test tool vendor. The Association reviews the test results to ensure compliance	Terminal Integration Process (TIP)	Acquirer Device Validation Toolkit (ADVT)

Merchant Connection to the Acquirer Network

This step in the EMV compliance process is to ensure the POS solution transmits the appropriate data to the Acquirer host. Acquirers (and VARs if applicable) must ensure that this connection has been validated and certified. Merchants who provide their own solution are responsible to work with their Acquirers to certify the connection between the merchant system and the Acquirer network. Merchants with a proprietary switch will need to ensure that their network can support EMV chip transactions.

Each Acquirer/VAR has its own series of tests to support the compliance of the merchant connection. Please contact your Acquirer/VAR directly for more details.

End to End Validation

This is the last step in the EMV compliance process and is managed by the Acquirer. End to end validation occurs between the Acquirer and the appropriate partners. Merchants who rent their terminals from an Acquirer or VAR should confirm the extent of their participation in the end to end validation with their Acquirer/VAR. Integrated merchants who purchase their own POS solutions will be advised by their Acquirer/VAR if merchant involvement is required in this stage of compliance process.

Summary

Compliance to EMV standards will ensure that transactions from EMV chip cards can be processed appropriately by the Merchant POS. As more countries across the globe migrate to EMV, compliance to these standards becomes increasingly important. Canadian merchants must ensure that their terminals are EMV compliant. Terminal compliance requires the participation of the terminal manufacturer, Payment Brands and Acquirer/ VAR.

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The purpose of this document is to provide an overview of the EMV compliance process for integrated merchants. As always, the main point of contact for additional information and for any questions merchants may have pertaining to certification is the Acquirer/VAR.