VIS 1.5 and VCPS 2.1
Frequently Asked Questions

Version 1 – July 2009

This frequently asked questions (FAQ) document is intended for use by issuers, acquirers, vendors and Visa staff in support of Visa Smart Debit/Credit (VSDC) and Visa payWave programs based on the Visa Integrated Circuit Card and Visa Contactless Payment specifications. The information in this FAQ document is written with the assumption that the intended audience has prior knowledge of Visa technical specifications.

Regional Considerations

How VSDC and Visa payWave programs are introduced —and the Visa regulations that govern these programs—may vary by region. For detailed information about these variations, and for guidance or support on a VSDC and/or Visa payWave project in a specific region, please contact your regional Visa representative responsible for VSDC or Visa payWave payment programs.

Q1: Do I have to migrate to the new versions of the specifications?

A1: No. At this time, you are **not required** to migrate from current versions of the Visa Integrated Circuit Card Specification (VIS 1.4.0 and VIS 1.4.1) or Visa Contactless Payment Specification 2.0.2 (VCPS 2.0.2). Vendors may continue to develop products for VIS 1.4.0, VIS 1.4.1 and VCPS 2.0.2; and issuers and acquirers may continue to purchase and deploy these products. **Note:** Those using VIS 1.4.1 should obtain the recently published *VIS 1.4.1 Updates List*, which contains specification clarifications and editorial corrections.

Note for U.S. market: VCPS 2.1 largely addresses the requirements for dual interface chip and PIN cards outside of the U.S. and does not impact the U.S. region Visa payWave program.

Note for all other markets: Visa does encourage those beginning **new implementations** to consider developing to these latest specification versions and to discuss these options with their Visa representative.

Q2: What does VIS 1.5 now support that was not included in VIS 1.4.1?

A2: In addition to incorporating previously published updates to VIS 1.4.1 and additional clarifications, VIS 1.5 includes the following enhancements:

- A new Cryptogram Version Number (CVN) 18, which protects the full Issuer Application Data and allows for more protected data to be sent in the authorization request to the issuer.
- A new Card Status Update sent in the authorization response, which provides the issuer with a mechanism to send simplified updates to the card as part of the authorization response (instead of using a separate script command).
- Allows Issuer Authentication and Completion processing to be combined into one command using the second “Generate AC” command (instead of two separate commands).
- Expanded support for offline card risk management, with support for up to five different convertible currencies.

- Enhanced security requirements that limit the number of occurrences of cryptographic operations and limit access to data by interface for dual-interface cards.
- Using simplified "Profiles" functionality, allows card behavior to be configurable based on the transaction environment (e.g., support for account selection).
- Clarifies handling of special transactions such as refunds.
- Removal of contact Visa Low Value Payment (VLP) functionality.
- Enhanced alignment with contactless payment functionality on dual-interface cards.

Note: Additional information regarding the changes between VIS 1.4.1 and VIS 1.5 can be found in Section 1.6 of the new specification.

Q3: What does VCPS 2.1 now support that was not included in VCPS 2.0.2?

A3: In addition to incorporating previously published updates to VCPS 2.0.2 and additional clarifications, VCPS 2.1 includes the following enhancements:

- Issuer updates over the contactless interface.
- quick VSDC (qVSDC) support for CVN 18, which protects the full Issuer Application Data, allowing more protected data to be sent in the authorization request to the issuer.
- qVSDC support for a new Card Status Update sent in the authorization response, which provides the issuer with a mechanism to send simplified updates to the card as part of the authorization response (instead of using a separate script command).
- qVSDC support for the Consumer Device CVM (a CVM performed on the consumer's payment device) independent of the reader.
- qVSDC support for the Form Factor Indicator (FFI) and Customer Exclusive Data (CED). Also, the contents of the FFI are further defined.
- qVSDC support for card risk management based on country (in addition to currency).
- qVSDC support for card risk management contactless transaction count velocity checks.
- Card support of functionality used for transit.
- Online PIN support for Streamlined qVSDC implementations.
- Reader ability to use different reader limits on a transaction-by-transaction basis.
- Enhanced security requirements that limit the number of occurrences of cryptographic operations and limit access to data by interface for dual-interface cards.
- Support for the ability to disable card application contactless functionality on dual-interface cards.
- Enhanced alignment with contact payment functionality on dual-interface cards.

Note: Additional information regarding the changes between VCPS 2.0.2 and VCPS 2.1 can be found in the Revision Log of the new specification.

Q4: Do I need both specifications?

A4: The answer to this question depends on what your implementation will support:

- Those implementing card products that only support contact chip payment will need only the VIS specification.
- Those implementing card products that only support contactless chip payment will need both the VIS and VCPS specifications.

- Those implementing card products that support both contact and contactless chip payment will need both the VIS and VCPS specifications.
- Those implementing readers that support only contactless chip payment will need only the VCPS specification.

Q5: Will VIS and VCPS cards built to the new specifications work at devices (terminals and readers) designed to older versions of the specification?

A5: The new VIS and VCPS card specifications have been designed to be backward compatible with devices built to previous versions of the specifications. While some new optional functionality may not be supported at devices built to previous versions of the specifications, the cards are designed to be interoperable with devices that do not support the newer functionality.

Q6: Will VCPS readers built to the new specification work with cards designed to older versions of the specification?

A6: The new VCPS reader specification has been designed to be backward compatible with readers built to previous versions of the specifications. While some new optional functionality may not be supported with cards built to previous versions of the specifications, the readers are designed to be interoperable with cards that do not support the newer functionality.

Q7: When can I begin developing to the new specifications?

A7: Vendors may start developing to the new specifications immediately. Visa recommends that vendors who are beginning new development cycles consider developing to the new VIS 1.5 and VCPS 2.1 specifications instead of to the previous versions. Vendors with implementations of VIS 1.4.1 and VCPS 2.0.2 already in progress should consider migrating to the newer specifications as part of their normal product life cycle.

Q8: When will testing be available for the new specifications?

A8: Information regarding availability of testing to the new VIS 1.5 and VCPS 2.1 specifications will be announced by Visa Approval Services at a later date. All questions regarding testing should be directed to ApprovalServices@visa.com.

Q9: How do I get the new specifications?

A9: Contact your Visa representative or send an e-mail to partnernetwork@visa.com.

Q10: Where and when can I get the personalization specification for VIS 1.5 and VCPS 2.1?

A10: The existing VSDC Personalization Specification is being enhanced to support VIS 1.5 and VCPS 2.1. The new version will be called VSDC Personalization Specification, Version 2.0, with availability to be announced at a later date.

Q11: Where are the Terminal and Overview volumes for VIS 1.5?

A11: The VIS specification now consists of only the card volume. The Application Overview volume for VIS is no longer part of the VIS specification, but will continue to be available as a separate document. It provides a higher-level overview of the processing between the card and the terminal, and may be used as an overview to understand the processing and sequence of events involved in a VSDC transaction flow. The Application Overview volume was last updated in 2005.

The Terminal volume for VIS was discontinued in 2008. Terminal functionality is defined by the EMV specification. Visa-specific requirements for terminals are described in the *Visa Transaction Acceptance Device Requirements*. Additional information about Visa-specific implementations for terminals can be found in the *Visa Transaction Acceptance Device Guide*. Contact your regional representative for more information about the *Visa Transaction Acceptance Device Requirements* and *Visa Transaction Acceptance Device Guide*.

Q12: When will the Visa GlobalPlatform applet for VIS 1.5 and VCPS 2.1 be available?

A12: Visa is currently working on an applet that supports the new specifications. When the applet is available, an announcement will be made.

For More Information

For general business questions about the VIS 1.5 or VCPS 2.1 specification, issuers and acquirers should contact their Visa representative. Vendors should direct questions (including information about signing new agreements or the cost of a specification) to partnernetwork@visa.com.

For technical questions or specification clarifications, please send an e-mail to techquest@visa.com and include the keyword “VCPS” (for questions related to the contactless payment specification) or “VISSPEC” (for questions related to the VIS specification) in the subject line of the e-mail.