VISA GLOBAL BUSINESS SOLUTIONS
VISA FLEET CARD 2.0
IMPLEMENTATION GUIDE
SEPTEMBER 2022, VERSION 1.2

Visa Fleet Card 2.0 Implementation Guide for Merchants, Acquirers, and Issuers

This global Fleet implementation guide is US-market focused but has sections where it applies globally. This allows non-US Issuers to understand what components apply to all regions for Fleet overall. Please contact your Visa Region for specific market questions.

Important Information on Confidentiality and Copyright

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Sections marked with a globe þ icon are applicable to both the U.S. and Global markets.

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About This Guide

Visa established the Visa Fleet card to enable Visa Issuers to provide vehicle fleet managers in industry, commerce, and government with enhanced data to track and manage vehicle fuel and maintenance expenses.

This service adds universal fleet card functionality to existing Visa commercial card products and includes a set of enhanced authorization and clearing capabilities for fleet Merchants in the United States.

This guide provides procedures, processing requirements, and implementation considerations that Issuers, Acquirers, and Merchants need to address to support Visa Fleet. It also provides detailed information on transaction formats and data elements of the card.

Audience

The audience for this guide is business professionals, data processing analysts, and others who manage Visa authorization and clearing transactions at Issuer and Acquirer financial institutions and their processing partners. Visa Fleet product owners at Issuers can use this guide as a reference for product launch and ongoing product development and management.

How to Use

This guide is not intended to be read sequentially. Chapter 2 is targeted at Issuers; Chapter 3 is targeted at Merchants and Acquirers. The information required for each audience can be found in their respective chapter. This approach has resulted in some duplication of content but should make the guide easier to reference.

Assumptions

This document assumes that Merchants, Acquirers, and Issuers are currently connected to VisaNet for credit transactions.

Legal and Regulatory

It is the sole responsibility of the Issuer to ensure that its Visa Fleet Card solution, customer and Cardholder agreements, and other disclosures and Issuer practices are in full compliance with all applicable laws, regulations, and other legal requirements, including without limitation the USA PATRIOT Act. Issuers' legal counsel should review its Visa Fleet Card solution to ensure that it complies with all applicable legal requirements.

USA PATRIOT Act

Visa financial institutions are responsible for complying with the USA PATRIOT Act. Visa recommends the implementation of specific mechanisms to help detect and prevent Visa payment products from being used for money laundering and/or terrorist financing (see Appendix P: USA PATRIOT Act.

Document Organization

Chapter 1: Program Overview
This chapter defines the Visa Fleet Card solution, its objectives, functional capabilities, and available levels of participation.

Chapter 2: Issuer Steps / Guidelines
This chapter describes the Visa Fleet Card solution capabilities and guidelines for Issuers.

Chapter 3: Merchant and Acquirer Steps / Guidelines
This chapter describes the Visa Fleet Card solution capabilities and guidelines for Merchants and Acquirers.

Chapter 4: VisaNet and VBS Fleet Processing
This chapter describes processing requirements, records and fields that Acquirers, Issuers, and Merchants must follow when implementing the Visa Fleet card.

Chapter 5: Certification and Confirmation
This chapter defines the Visa Fleet card certification and testing requirements for Acquirers, Issuers, and Merchants.

Chapter 6: Upcoming Changes for Fleet Capabilities
Visa continuously works on enhancements to support the capabilities of the Visa Fleet Card solution. Subject to change at Visa's discretion, this chapter describes in detail the upcoming changes.

Appendix A: Application Selection Registered Proprietary Data (ASRPD) Layout (tag '9F0A')
This appendix provides the layout for Application Selection Registered Proprietary Data (ASRPD) (tag '9F0A') containing the Visa Selection Data (VSD) (ID '0002', length byte '05').

Appendix B: Prompting (tag 'DF30') Layout
This appendix provides the layout for Prompting (tag 'DF30'), Bytes 1-3.

Appendix C: Purchase Restrictions (tag 'DF32') Layout
This appendix provides the layout for Purchase Restrictions (tag 'DF32'), Bytes 1-4 and Byte 8.

Appendix D: Track 2 Equivalent Data (tag '57') Layout
This appendix provides the layout of Track 2 Equivalent Data (tag '57') for the Visa Fleet magnetic-stripe equivalent on chip solution.

Appendix E: Host System Changes for Fleet Data
This appendix outlines Merchant/Acquirer and Issuer host system changes to support additional fleet chip data in both authorization and clearing messages. It also provides the VisaNet authorization and clearing messages and fields that contain fleet chip and non-chip data, as well as the clearing records that comprise a fleet transaction.

Appendix F: Visa Fleet Chip Card Personalization Profile
This appendix defines a sample personalization profile for the global Visa Fleet chip card.

Document Updates

Below is a list of the major changes included in each version of this document.

Version 1.0 to Version 1.1

- Current Fleet 2.0 Timeline table was updated and specific items under Key Notes were updated for clarifications *Regarding Fleet Data Requirements per MCC in Alignment with Visa Rules*.
- Added a globe þ icon next to sections of the document applicable to both the U.S. and Global markets.
- Appendix I and J, Conexxus Fuel Type Codes and Non-Fuel Product Codes updates were received by Visa and updated in Version 1.1. to reflect the current list. Added section 1.11 to clarify and provide information for Fuel Type Codes and Non-Fuel Product Codes.
- Appendix C, Purchase Restrictions mapping to Conexxus product codes was updated (bit settings now reflect the updated codes along with new codes).
- Purchase Restrictions 2 tags (purchase restrictions flag, host-based purchase restrictions) format of the tags was updated accordingly in Chapters 2, 3, 4 and the Appendices.
- Chapter 2, Data Flow between VisaNet and Issuer/Processor Systems was updated (updated data requirements table).
- Chapter 4, VisaNet Fleet Field Requirements (4.3) was updated to reflect several items (updated data requirements table, FT Clearing record and VCF format details, and so on).
- Chapter 4, VBS Fleet Processing (4.4) was updated to reflect several items (EMV Fields, T18 record specifics, and so on).
- Appendix E, VisaNet Authorization and Clearing Messages for Fleet Data: table E-2 was updated to show additional tags and fields along with VCF location and API location from the Data Platform.

Version 1.1 to Version 1.2

- Current Fleet 2.0 Timeline table was updated and specific items under Key Notes were updated for clarifications.
- Appendix I and J, Conexxus Fuel Type Codes and Non-Fuel Product Codes updates were received by Visa and updated in Version 1.2. to reflect the current list.
- Added Chapter 6: Upcoming Changes for Fleet Capabilities.
- Added Appendix Q: Frequently Asked Questions
- Made minor updates throughout the document to clarify points as needed.
- Added several items to Appendix E: Host System Changes for Fleet Data (sections E.5 and E.6).

Visa Fleet 2.0 Timelines and Key Updates

U.S. Timeline

Table 0-1-1: Current Fleet 2.0 Timeline

October 2022	October 2023
U.S: Issuers, Processors, Acquirers, Merchants	**Extension to October 2023 only granted to Merchants with approved Waivers for October 2023 (timelines and conditions)**
· Support all previously communicated VisaNet Technical letter system changes for Fleet 2.0 per previous timelines (Oct 2021 and April 2022). · Support new cards (Issuing and Accepting) utilizing VFCE with ASRPD tag, 'DF30', and 'DF32' · Support Conexxus/Visa Fuel Type and Non-Fuel Product Codes in Appendix I and J across all systems. · Support all data and message requirements for Fleet 2.0 VisaNet Authorization & Clearing messages and various downstream files (e.g.VCF) and processes as identified in both VisaNet Technical Letters and the Fleet 2.0 implementation guide Versions 1.1, 1.2. · Support Fleet 2.0 transactions flowing in production end to end (Merchant systems to Processor systems to Downstream systems and endpoints).	· Acquirer specifications available before October 2022 are available in the market for integrators, vendors, and merchants · Visa has granted waivers as applicable to extend the deadline from April 2022 to **October 2022** for acquirers and acquirer processors, and from April 2022 to **October 2023** for merchants for Fleet 2.0 changes. Clients should note the following: - No further grace period will be extended after **October 2022** to acquirers and acquirer processors that have not completed Fleet 2.0 changes. - No further grace period should be expected after **October 2023** for merchants that do not support Fleet 2.0 processing at the point of sale.

Note: For the U.S. timeline published previously in the *Visa Fleet Implementation Guide V1.1*, see Appendix Q: Frequently Asked Questions in this document.

Deviation from the timeline table above requires an approved waiver request which will contain strict timelines and conditions. Non-compliance or prolonged timeframe without approved waivers to support Visa Fleet 2.0 will result in compliance action.

For Merchants to implement these changes, Acquirers must publish their own version of this specification so that Merchants can perform the development and certification necessary to be compliant with these requirements. Visa is closely monitoring partners in the ecosystem; some waivers have been provided to Merchants/Acquirers based on their progress and implementation plans. No further grace period should be expected after October 2023 for Merchants that do not support Fleet 2.0 processing at the point of sale.

Key Updates

1. Special Requirements Regarding Fuel Type vs Expanded Fuel Type

The Fuel Type field is changing. Visa has moved from a 2-digit Fuel Type field to a 4-digit Expanded Fuel Type field to support expansion, capability, and growth globally.

- Data is currently present in the Fuel Type field **and** in the Expanded Fuel Type field. Issuers and Processors **must evaluate the data in both fields (in Auth and Clearing) and obtain it accordingly.**
- After October 2023—All Merchants and Acquirers must have transitioned to using only the Expanded Fuel Type field on all messages (Auth and Clearing).
- At a later date—Visa will sunset the current Fuel Type field.

2. Clarifications Regarding Fleet Data Requirements per MCC in Alignment with Visa Rules

A Merchant who accepts a Visa Fleet Cards must provide Enhanced Data for Visa Fleet Card Transactions classified with any of the following MCCs:

In the US Region: A Merchant that accepts a Visa Fleet Card must provide Enhanced Data for Visa Fleet Card Transactions classified with any of the following MCCs:

- 4468 (Marinas, Marine Service, and Supplies)
- 5499 (Miscellaneous Food Stores – Convenience Stores and Specialty Markets)
- 5541 (Service Stations)
- 5542 (Automated Fuel Dispensers)
- 5983 (Fuel Dealers – Fuel Oil, Wood Coal, and Liquefied Petroleum)

0120 confirmation advice messages are required for the following MCCs for fuel and non-fuel purchases.

- MCC 5541—Service Stations (With or without Ancillary Services)
- MCC 5542—Automated Fuel Dispensers

For non-fuel only transactions under MCC 5541, Visa is clarifying that the 0120-confirmation advice message is not required only if all the data is present in the 0100 message.

In addition, for non-fuel only transactions under the following MCCs, Visa is clarifying that 0120 confirmation advice messages are not required only if all the data is present in the 0100 message.

- MCC 4468—Marinas, Marine Service and Supplies
- MCC 5499—Miscellaneous Food Stores—Convenience Stores and Specialty Markets
- MCC 5983—Fuel Dealers—Fuel Oil, Wood Coal, and Liquefied Petroleum

0120 confirmation advices for the above-listed MCCs can be sent by acquirers and delivered to issuers without the presence of Field 63.3. Issuers and clients require this level of data to manage their fleet and fuel operations

Reminder: ISO processing requires that if any value changes, the final transaction values must be confirmed with the applicable 0120/0220 message as part of the VIP confirmation/completion message to ensure the Issuer has the relevant data available in cases where any data has changed.

An Acquirer that processes Visa Fleet Card Transactions must provide both Cardholder-supplied data and supplemental transaction data for these transactions.

3. Fleet Limits expanding in April 2023 VisaNet BER:

   Fleet Authorization limits are currently $350/$500, they will both be increasing up to $1000 for $1 status check/auth only and real time clearing

4. Clarification for Prompting field Vehicle ID/Driver ID/Generic ID flowing in BASE II TC05 TCR6 Customer Code CRI field (Position 111-127):

   If a Card is configured to always prompt (must provide) for Fleet ID (Vehicle ID, Driver ID, or Generic ID), the value is entered by the Cardholder.

   Otherwise:

   If no prompt is present or the prompt is an optional value, all “0” zeroes may be used only in cases where the merchant/terminal is fully capable of prompting

   Merchants that do not yet support prompting must default this value to spaces – they MAY NOT default to “0” in order to qualify for lower interchange. Incorrectly defaulting this value will be considered non-compliant and liable for compliance actions.

5. Type of Purchase is 1 – Fuel Only, with single fuel code and TC50 Level 3 detail

   Expectations for the Fleet Card Product: For transactions that are Fuel Only, Type of Purchase 1, with a single fuel code, TC50 PURCHA/PURCHL can be optionally sent to provide line-item detail however, merchants and acquirers should not send the following to qualify for a Lower Interchange (e.g. FPI 173 US PURCH LVL3) for a Fleet Card Product:

   - Partial TC50s (e.g. PURCHA portion only)
   - Inaccurate or manufactured data in the TC50s
   - No TC50s (e.g. No PURCHA or PURCHL)

   Interchange documents and system logic updates forthcoming.

Global Timeline þ

- Effective with the April 2021 release, Visa implemented changes in V.I.P. and BASE II for fleet related transactions (new EMV Fleet Fields in various messages and records).
- Effective with the October 2021 release, for fleet-related transactions, acquirers and issuers must be aware of the changes in V.I.P. and BASE II that were implemented as part of the April 2021 release.
- As required by Visa Business Solutions and as applicable:
  - Issuers must have implemented these changes by Oct 2021 if they utilize any of the records/fields outlined.
  - Acquirers must have implemented these changes by April 2022 if they utilize any of the records/fields outlined.
  - The specific data requirements regarding fields to be populated and sent into the Issuer are a Visa Region decision.

Chapter 1: Program Overview

This chapter defines the Visa Fleet Card solution, its objectives, functional capabilities, and available levels of participation.

1.1 Purpose and Functionality þ

Visa Fleet enables organizations to make confident fleet related purchases within Visa's large Merchant network. This confidence is based on product capabilities such as Enhanced Data gathering, expanded authorization controls, extended transaction reporting, and an integrated product with streamlined billing.

Visa Fleet provides fleet operators with a chip-based solution that offers enhanced controls, data, and reporting to enable fleet operators to better track and manage fleet purchases.

Visa Fleet supports:

- EMV compliant contact and contactless chip technology
- Conexxus/IFSF specifications for fleet data prompting and purchase restrictions at the POS
- Enhanced Data in Auth and Settlement Messages
- Additional fleet data in authorization and clearing messages

1.2 Program Context þ

To better position Issuers and Merchants in the changing landscape of employee mobility, EMV at fuel pumps in the U.S, and the traction of Electric Vehicles, Visa has introduced significant enhancements to the Visa Fleet product platform in our *Visa Fleet 2.0* initiative. With Visa Fleet 2.0, Visa is providing Commercial Clients with more granular product category level controls, more enhanced data, and the ability to receive enhanced data faster for real time business decisions.

One feature of Visa Fleet 2.0 is a new Fleet EMV standard that harnesses the additional capabilities of EMV at the fuel pump in a solution that is straightforward for fuel Merchants to implement. In addition to more driver prompt options, this functionally enables Commercial Clients to restrict card use at fuel Merchants to certain fuel and non-fuel product categories. For example, cards that can only be used to purchase diesel fuel or used for EV charging. As part of this initiative, Visa has also introduced the capability for product category level controls to be dynamic for Clients through a host-based product restrictions solution. These dynamic controls will enable the passing of product category level restrictions in the Auth Response message to fuel merchants to allow the Clients to adjust what product categories can be purchased in real time.

To enable the enhanced functionality of the EMV chip and host-based product restrictions, Visa has made enhancements to VisaNet transaction messaging to pass additional data in Auth and Clearing messages, including a new clearing record type for passing Level 2 fuel data. The enhancements made in the Visa Fleet 2.0 initiative combined with the capabilities and services provided by Visa Issuers and Visa Merchants result in a compelling and competitive fleet and mobility payment solution.

1.3 Core Components of the Visa Fleet 2.0 Initiative

- **Visa Fleet Chip Enhancements** þ —Enables additional information and control for fleet Clients through Cardholder prompts and product level restrictions based on EMV and Conexxus/IFSF global standard specifications
- **Host-Based Product Controls** þ —Enables dynamic product level purchase restrictions for fuel type and non-fuel item categories to override chip card settings in the Auth Response
- **Transaction Messaging Data Expansion**—Real-time availability of information (and decisioning) to Issuers and fleet Clients by additional data available in Auth and Clearing messages
- **Data Quality Platform**—Improved fuel transaction data quality monitoring through an advanced data quality platform that monitors both Auth and Clearing data

1.4 Typical Fleet Card Types: Vehicle Card or Driver Card þ

Based on an organization's needs and optimal card distribution as determined by the organization's Fleet Manager, Financial Institutions can issue Visa Fleet as either Driver Cards or Vehicle Cards.

Driver Cards

Driver Cards are issued to Cardholders who are authorized to make purchases on behalf of an organization. The Driver can use the card to make purchases related to any vehicle in the organization or for other authorized purchases, such as travel, meals, or supplies from any Visa accepting Merchants. Driver Cards can be set up by the Financial Institution to prompt at the time of fuel purchase for Vehicle ID, in addition to the other Visa Fleet prompts available, for the purpose of tracking the specific vehicle the purchase was made for.

Vehicle Cards

Vehicle Cards are issued to the Client organization and assigned to specific vehicles for the purpose of Drivers making purchasing for that specific vehicle on behalf of his or her organization. Vehicle Cards can be set up by the Financial Institution to prompt at the time of fuel purchase for Driver ID, in addition to the other Visa Fleet prompts available, for the purpose of tracking the specific Driver making the purchase.

1.5 Types of Transactions: Fuel, In-Store, Maintenance, Non-Fleet/Fuel þ

Once it has been determined how to distribute Visa Fleet (Driver Card, Vehicle, Card, or both), the Fleet Manager must determine where the card can be used and for what type of purchases. Visa Fleet supports sophisticated chip-based and host-based controls, but at the highest level, the Fleet Manager must determine if the Visa Fleet card can be used for Fuel (both AFD and in-store), Non-Fuel In-Store Purchases, Maintenance, and Non-Fleet purchases.

Generally, card use can be assigned between Driver Card and Vehicle Cards in this manner:

Table 1-1: Fleet Card Types

Card Type	Configuration Options
Vehicle Card	Fuel only
	Fuel and maintenance only
Driver Card	Fuel only
	Fuel and maintenance only
	Fuel, maintenance, and non-fuel

Based on the level of controls required by the Fleet Manager, Visa Fleet can be configured to support product category and fuel control to be enforced at Fuel Merchants POS during the transaction. These advanced restrictions include:

- **Fuel Types**—Gas, diesel, off-road fuels, Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG), electric, kerosene, aviation, marine
- **Products and Services**—Vehicles, aviation, marine, merchandise, store service
- **Miscellaneous**—Tobacco, alcohol, food, lottery, money order, health/beauty, general publications, prepaid and bill pay
- **Gasoline Grades**—Regular, Plus/Midgrade, Super/Premium

For example, if a Cardholder is only allowed to use the card for fuel but attempts to purchase fuel and food, the settings in Visa Fleet can be used prohibit the transaction at the Merchant's point-of-sale.

1.6 Fleet Card Solutions þ

Visa Fleet supports three levels of card functionality that can be employed as either complimentary or separately based on the Fleet Client's needs and the Fuel Merchant capabilities to support.

The Visa Fleet Chip Program provides fleet operators with a chip-based solution that offers enhanced controls, data, and reporting to enable fleet operators to better track and manage fleet purchases.

The Visa Fleet Chip Program supports:

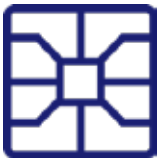
- EMV compliant contact and contactless chip technology.
- Conexxus/IFSF specifications for fleet data prompting and purchase restrictions at the POS.
- Additional fleet data in authorization and clearing messages.

Solution 1: Magnetic Stripe

This solution provides basic functionality in terms of controls and prompting. Merchants use the Issuing (ISO) BIN to identify a Visa Fleet card with prompting instructions and service restrictions encoded on the card's magnetic stripe. This solution provides basic functionality in terms of controls and prompting.

This Solution is also a "fallback" method in a combination situation where the Chip Solutions are not available.

Solution 2: Track 2 on Chip



Similar to Magnetic Stripe, this solution provides basic functionality in terms of controls and prompting but utilizes the EMV chip rather than the magnetic stripe. Merchants use the Issuing (ISO) BIN to identify a Visa Fleet card with prompting instructions and service restrictions encoded on the Track 2 equivalent (tag '57') of the EMV chip.

This solution provides basic functionality in terms of controls and prompting. It supports the exact same purchase restrictions and prompting information available on Magnetic Stripe to be available on the Chip.

Solution 3: Full Chip

This Solution is available with the new *Visa Fleet Chip Enhancements* (VFCE) publication in 2020. VFCE is a new global Visa Specification that is based on both IFSF and Conexxus industry standards for purchase restrictions and prompting information.

With this Solution, the data is read from several specific customizable data tags (ASRPD, tag 'DF30' and tag 'DF32') that contain options/choices to tailor the Fleet program to Issuer/Company needs.

Table 1-2: Visa Fleet Solutions

Solution	Description
Solution 1: **Magnetic Stripe Only** 	The Track 2 data on the magnetic stripe is personalized with the Service Enhancement Indicator and the Service Prompt: Service Enhancement Indicator: 0 = Fleet, No Restrictions (Fuel, Maintenance, and Non-Fuel Purchases) 1 = Fleet (Fuel and Maintenance Purchases) 2 = Fleet (Fuel only) Service Prompt: 0 = Reserved (No Prompt Required) 1 = ID[1] and Odometer Reading 2 = Vehicle ID and Odometer Reading 3 = Driver ID and Odometer Reading 4 = Odometer Reading 5 = No Prompt 6 = ID[1] (Six Digit Numeric Vehicle, Driver, or Generic ID) 7-9 = Reserved (No Prompt Required) At the POS, the terminal reads this data from the magnetic stripe and uses the Service Enhancement Indicator to apply purchase restrictions and the Service Prompt to prompt the Cardholder to enter data into the terminal. While Legacy Magnetic Stripe Processing is focused on the U.S. market, it is available to other markets. **Note**: The terminal uses Issuing (ISO) BIN tables to identify the card as a Visa Fleet card. See Table 3-5: Visa Fleet Card Issuing (ISO) BIN Ranges for more information.

[1] A generic ID used by fleet managers to issue driver and vehicle cards without assigning the ID to any one driver or vehicle.

Solution	Description
Solution 2: **Track 2 on Chip (Solution 1 on Chip)** 	This is the same as Solution 1 except that the card contains a chip and the Service Enhancement Indicator and Service Prompt are personalized on the Track 2 Equivalent Data (tag '57') on the chip. At the POS, the data is read from tag '57' on the chip but otherwise the fleet functionality and Cardholder experience are the same as Solution 1. For layout information, see Appendix D: Track 2 Equivalent Data (tag '57') Layout. Note: The terminal uses Issuing (ISO) BIN ranges, see: · Table 3-5: Visa Fleet Card Issuing (ISO) BIN Ranges, or
Solution 3: **Full Chip (Visa Fleet Program based on Conexxus/IFSF Specifications)** 	This is a chip solution where the Issuer may personalize one or more of the following data elements on the chip: · Prompting (tag 'DF30') Layout · Purchase Restrictions (tag 'DF32') Layout At the POS, the terminal reads this data from the chip and uses it to prompt the Cardholder to enter data into the terminal[2] that will be provided to the Issuer in the authorization and clearing message and apply purchasing restrictions. Note: The terminal uses the Issuing (ISO) BIN ranges to identify the card as a Fleet card. The Application Selection Registered Proprietary Data (ASRPD) can be used to identify a Full Chip solution based on the Conexxus/IFSF solution. For more information, see: · Table 3-5: Visa Fleet Card Issuing (ISO) BIN Ranges, or · Appendix A: Application Selection Registered Proprietary Data (ASRPD) Layout (tag '9F0A')

[2] Alternatively, the Issuer may personalize the fleet data on to the chip card, which will be provided directly (without prompting) to the terminal, and then the Merchant will send it to the Issuer in authorization and clearing.

Participation Requirements

Solution 1: Magnetic Stripe Only

Mandatory for all Issuers and Acquirers to support legacy magnetic stripe processing. See Appendix N: Legacy Magnetic Stripe Processing for more information.

- **Merchants/Acquirers**—Merchant should support fallback to magnetic stripe in case an Issuer has not upgraded legacy cards still in the market.
- **Issuers**—Issuers to continue creating a magnetic stripe layout in compliance with this specification due to time-to-market for Acquirers and Merchants to upgrade, as well as the potential fall back to magnetic stripe. This requirement will be removed in future when market is more mature and fallback support is no longer required.

Solution 2: Track 2 on Chip

Support for Track 2 on Chip as part of EMV liability shift.

- **Merchants/Acquirers**—Merchants should support Solution 2 to accommodate older magnetic and EMV fleet cards that remain in the market due to the gradual roll out of Visa Fleet 2.0 functionality.
- **Issuers**—Issuers must support Track 2 on Chip, as there will be a managed rollout of the new fleet spec compliance in the Acquirer environment.

Solution 3: Full Chip

- **Merchants/Acquirers**—Mandatory support, as per the Current Fleet 2.0 Timeline.
- **Issuers**— Mandatory support, as per the Current Fleet 2.0 Timeline.

Due to the longevity of cards in the market, there will be Solution 1 & 2 cards available for roughly several years after the date for issuing compliance. The presence of the ASRPD tag on the chip identifies Fleet 2.0 chip solutions. The presence of this indicator can be utilized to offer the additional functionality.

Transaction Type by Card and Terminal Capability

The following table outlines the interaction of the card with various terminal solutions.

Table 1-3: Transaction Type by Card and Terminal Capability

	TERMINAL CAPABILITY		
CARD CAPABILITY	Magnetic stripe	Magnetic stripe & Track 2 on Chip	Magnetic stripe & Track 2 on Chip & Full Chip
Magnetic stripe & Track 2 on Chip & Full Chip	Magnetic stripe	Track 2 on Chip	Full Chip

1.7 Card Controls þ

Specific Card Controls for Each Solution

Depending upon the Solution chosen for the card, various card controls are available.

- **Fleet Card Solution 1 (Magnetic Stripe)**
  Fleet Card Solution 2 (Track 2 on Chip)—Card controls are set by personalizing:
- The Service Enhancement Indicator Field for Purchase Restrictions is required
- The Service Prompt Field for Service Prompts is required
- The fields above are either on the Track 2 Magnetic Stripe and on the Chip (tag '57')
- Optional support for Host-Based Purchase Restrictions

- **Fleet Card Solution 3 (Full Chip)**—Card controls are set by personalizing:
- Tag '9F0A' for Application Selection Registered Propriety Data (ASRPD) (mandatory)
- Tag 'DF30' for Service Prompts (optional)
- Tag 'DF32' for Purchase Restrictions (optional)
- Host-based purchase restrictions
- Additional tags (Various) for specific data / information, such as a vehicle tag

The specific details and exact steps to personalize the card for these solutions are covered in Chapter 2: Issuer Steps / Guidelines.

Authorization Data Controls (In Addition to Card Controls)

For Fleet Card Solutions 1, 2 and 3 above; Merchants and Acquirers must pass authorization data for every transaction. Specific data fields are required in various authorization messages flowing into VisaNet. Issuers can configure or program their Issuer/Processor systems to take advantage of these fields and control or deny the authorization based on these fields as needed.

Specific details on exact fields (in various authorization messages) that Merchant/Acquirers must pass are covered in the Chapter 3: Merchant and Acquirer Steps / Guidelines.

1.8 Benefits þ

Visa Fleet offers a number of benefits that Issuers and Fuel Merchants can provide to Clients operating vehicles, including:

- Unsurpassed acceptance at Fuel Merchants, EV Charging, other vehicle related Merchants, and non-fleet related Merchants.
- Advanced purchase controls including the capability to restrict purchase by item category and fuel type at Fuel Merchants.
- Advanced options for Cardholder prompts, including Vehicle/Driver/Generic ID, Odometer, Fleet Work Order/Purchase Order Number, Fleet Trailer Number, Fleet Employee Number, and two additional data fields assigned by the Financial Institution.
- Access to Visa and Issuer Cardholder Benefits, such as the Liability Waiver program that helps address Cardholder misuse.
- Reporting / APIs: Fraedom; Data APIs; IntelliLink Compliance and Data Services.
- Access to transaction data reporting from Issuers, Visa, or third-party expense systems, or through APIs.
- Fuel Tax Recovery Program helps support the recovery of fuel tax for Public Sector Clients.

1.9 Levels of Data

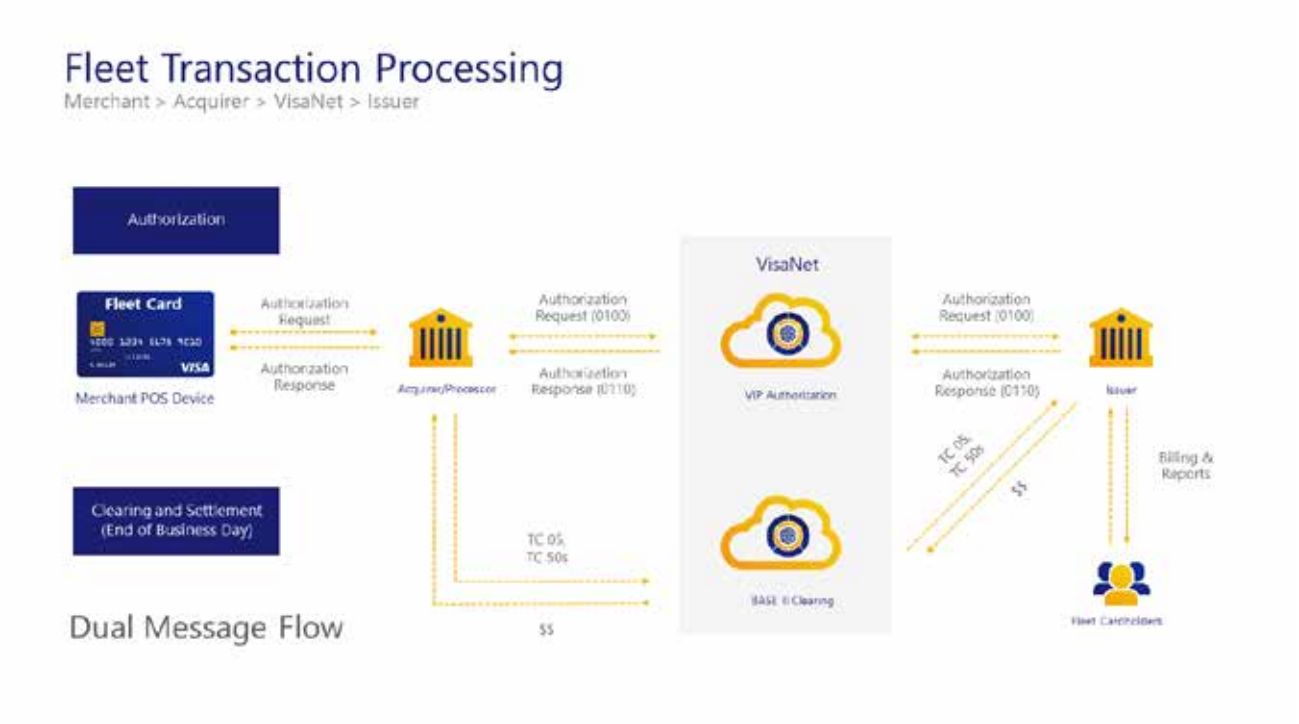
Fleet transactions contain three levels of data sent by the Merchant / Acquirer. Visa Issuers must support all three levels. þ

- **Level 1** þ —Contains standard Visa draft transaction data provided by Visa Merchants. No Enhanced Data is captured/provided at this level.
- **Level 2** þ —Contains Enhanced Data capture at the point of sale and sent with the transaction. Level 2 data is always sent with clearing records and certain Level 2 data as per the Current Fleet 2.0 Timeline is required in authorization messages. Level two data capture includes such fields as:
  - Prompted data: a numeric vehicle/driver/generic ID, an odometer reading, a trailer number, an employee number, work order/purchase order number, additional prompted data 1, additional prompted data 2
  - Purchase data: type of purchase; fuel type; unit of measure; quantity; non fuel product codes
  - Various pricing information such as gross/net fuel and non-fuel prices.

  Clients can use all these elements to track expenditures and obligations.
- **Level 3**—Contains more detailed Enhanced Data for the transaction and is generally used to send specifics for non-fuel products and services. The data is sent anywhere from 24 hours to 5 days after the transaction.
  - Level 3 data typically follows an invoice structure with invoice summary information and invoice line item detail information.
  - Line item fields captured include an item number, product code, item description, quantity, unit cost, tax amount and tax rate.

1.10 Visa Model: Basic Dual Message Transaction Flow through VisaNet

Figure 1-1: Fleet Transaction Processing



Note: The above flow is a high-level representation of a standard authorization and clearing model. There are variants of this model that Visa supports for full-service Merchants/Acquirers and Issuers and Visa "bridges" the transactions appropriately for either party to receive the data.

High Level Steps for Processing Fleet Transactions

6. The Cardholder inserts/taps/swipes a Visa Fleet card at a POS device. The POS device verifies if it is a fleet card/fleet card Issuing (ISO) BIN by using routing tables in the Merchants systems OR a data tag on the chip. If it is fleet card Issuing (ISO) BIN, the Merchant checks additional data tags on the chip (Track 2 on Chip, Full Chip) OR the fields on the magnetic stripe to obtain the appropriate fields to prompt for.

Depending upon the Fleet Card solution, the POS device may prompt the Cardholder for fields such as the six-digit numeric ID (vehicle, driver, or generic), an odometer reading, an employee id, a trailer number, and so on.

Note: In the event of chip and magnetic stripe failure, manual entry of cards can be optionally supported by Merchants. This functionality may only be supported in-store and the POS device must prompt for an ID and odometer reading when manually capturing a fleet card transaction.

7. The POS device routes an electronic authorization (pre-auth or auth) request message to the Merchant host that includes: (a) transaction type and amount (depending upon an AFD/Real-Time Clearing or in-store transaction the amount sent will be a different value for each type); (b) Merchant data; (c) full and unaltered track data; and (d) prompted data such as vehicle, driver, or generic ID, Odometer, Fleet Work order/Purchase Order Number, Fleet Trailer Number, Fleet Employee Number, Fleet Additional Prompted Data 1 and Fleet Additional Prompted Data 2.
8. The Acquirer or Processor ensures that all fields are included in the message and forwards it to the VisaNet Integrated Payment (VIP) system. The message carries information to uniquely identify the transaction so the Issuer can describe the event on the Cardholder's statement.
9. VisaNet validates the integrity of the authorization request message, logs it, and routes it to the appropriate Issuer.
10. The Issuer/Issuer Processor or an outside Processor authorizes the request. Authorization includes:
    a. Verifying prompted data elements such as:
        i. Vehicle, driver, or generic ID
        ii. Odometer
        iii. Fleet Work order/Purchase Order Number
        iv. Fleet Trailer Number
        v. Fleet Employee Number
        vi. Fleet Additional Prompted Data 1
        vii. Fleet Additional Prompted Data 2
    b. Checking the transaction amount against the Cardholder's available balance.
    c. Checking the daily activity limits; and (d) logging the approved authorization request for posting to the Cardholder's account
    d. Authorization can occur for a full amount or partial amount or can be determined based on other data contained in the authorization for the Processor's platform to decision, such as MCC.
11. The Issuer routes an authorization response (approved or declined) back to the Acquirer or Processor through VisaNet.

Note: When the VIP system sends a request message to an Issuer, it must receive a response message that contains correctly formatted data within the established timeframe. If these conditions are not met—the transaction is processed by VIP as a Stand-In Processor (STIP). Visa will not validate the vehicle, driver, or generic ID in the authorization message.

12. The Acquirer or Processor logs the authorization response and forwards it to the POS so the transaction can be completed. The Acquirer validates that the POS device received and successfully processed the authorization response.
13. For fleet transactions, a confirmation advice is sent by the Merchant/Acquirer within 2 hours of the Authorization.

14. At the end of the business day, the Merchant processing system collects all transaction data and sends it in batch files to the Acquirer or Processor.
15. The Acquirer or Processor creates applicable financial and non-financial records, including Draft Data TC 05s and Text Message TC 50s required for fleet transactions, and routes them to the Issuer through BASE II Clearing.
16. At settlement cutoff, VisaNet uses its log of approved transaction responses to determine the net settlement positions for Issuers and Acquirers, which then settle with the Merchant host and Cardholder accounts. The Issuer also provides Enhanced Data reports to their fleet Cardholders.

High Level Purchase Flows

Figure 1-2: Visa Fleet Card with Fuel Merchants—AFD Flow

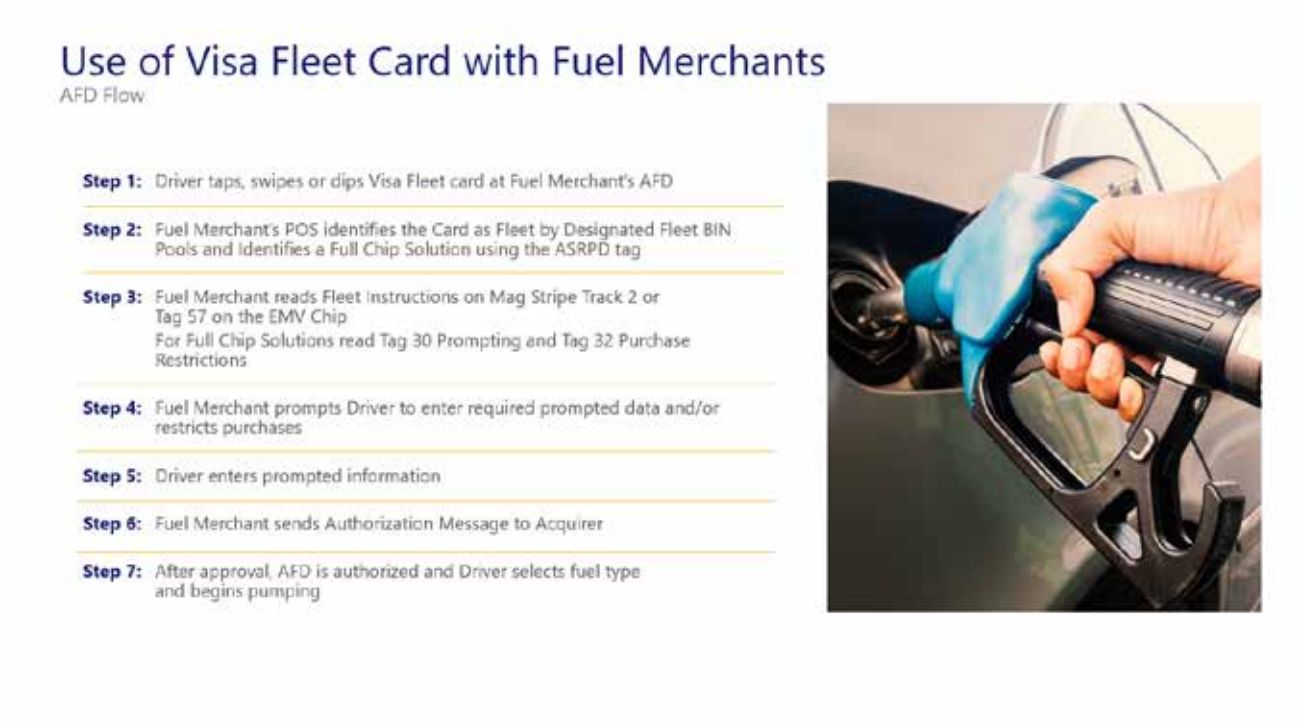


Figure 1-3: Visa Fleet Card with Fuel Merchants—In-Store Flow—Pre-Pay

Use of Visa Fleet Card with Fuel Merchants

In-Store Flow

Pre-pay Fuel (before pumping) – majority of stations across the US:

Step 1: Driver goes in-store, taps, swipes or dips Visa Fleet card at Fuel Merchant's POS for specific amount of fuel payment and any other non-fuel items for purchase

Step 2: Fuel Merchant's POS identifies the Card as Fleet by Designated Fleet BIN Pools and Identifies a Full Chip Solution using the ASRPD tag

Step 3: Fuel Merchant reads Fleet Instructions on Mag Stripe Track 2 or Tag 57 of EMV Chip
For Full Chip Solutions read Tag 30 Prompting and Tag 32 Purchase Restrictions

Step 4: Fuel Merchant prompts Driver to enter required prompted data and/or restricts purchases

Step 5: Driver enters prompted information

Step 6: Fuel Merchant sends Authorization Message to Acquirer

Step 7: After approval, AFD is authorized and Driver selects fuel type and begins pumping and transaction is complete for the driver

Figure 1-4: Visa Fleet Card with Fuel Merchants—In-Store Flow—Post-Pay

Use of Visa Fleet Card with Fuel Merchants

In-Store Flow

Post-pay Fuel (after pumping), very few select stations in rural areas:

Step 1: AFD is open for use and Driver selects fuel type and begins pumping

Step 2: Driver goes in-store, taps, swipes or dips Visa Fleet card at Fuel Merchant's POS for final amount of gas payment and any other non-fuel items to purchase

Step 3: Fuel Merchant's POS identifies the Card as Fleet by Designated Fleet BIN Pools and Identifies a Full Chip Solution using the ASRPD tag

Step 4: Fuel Merchant reads Fleet Instructions on Mag Stripe Track 2 or Tag 57 of EMV Chip
For Full Chip Solutions read Tag 30 Prompting and Tag 32 Purchase Restrictions

Step 5: Fuel Merchant prompts Driver to enter required prompted data and/or restricts purchases

Step 6: Driver enters prompted information

Step 7: Fuel Merchant sends Authorization Message to Acquirer and transaction is complete for the driver

Figure 1-5: Fuel: US Authorization and Clearing Models—AFD

Figure 1-6: Fuel: US Authorization and Clearing Models—In-Store

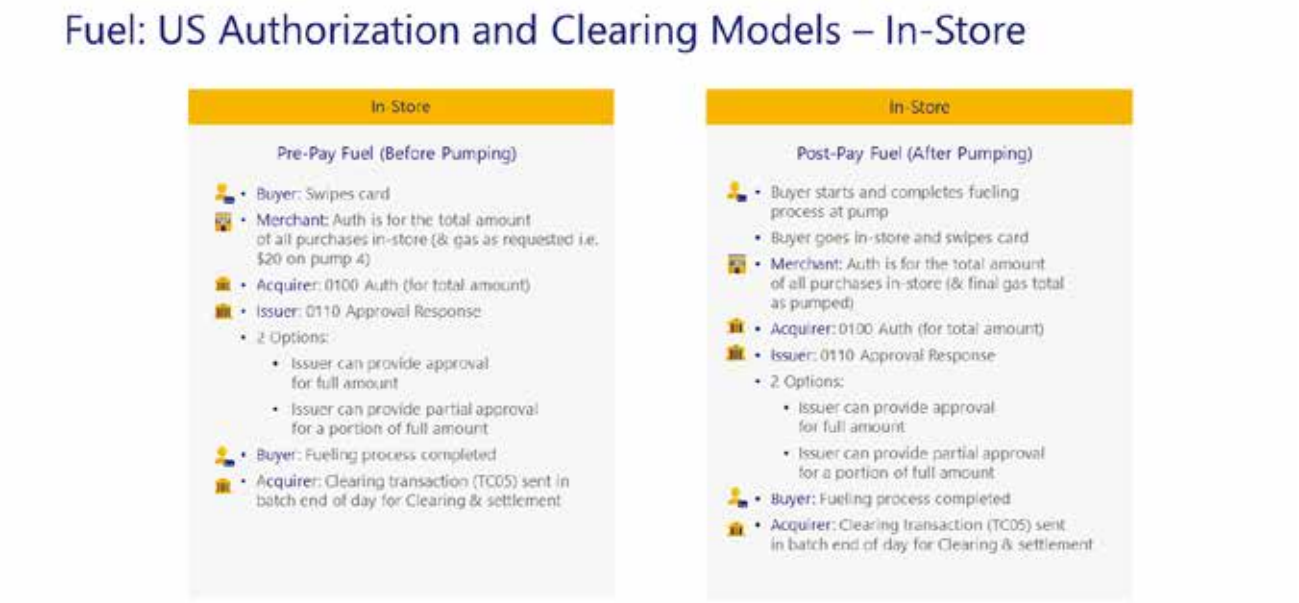


Figure 1-7: Available Authorization Models by Region

Authorization Models - Regional

VISA

The most common and simple authorization model for merchants is to authorize and settle for the exact amount. This eliminates the need for an additional authorization or reversal. However, due to the needs of the fuel industry, the following authorization processing models are permitted:

- **Status Check Only:** The merchant sends a "one unit of currency" authorization request. This is known as a status check request.
- **Status Check With Confirmation Advice:** The merchant sends a "one unit of currency" status check authorization request. Within two hours of the status check request, the merchant sends an online confirmation advice message indicating the final transaction amount.
- **Estimated Authorization With Confirmation Advice:** The merchant sends an authorization for a good faith estimated amount, usually based on spending patterns of a particular fuel station, cardholder-specific information, or in some regions, a capped amount. If the final amount is lower than the estimate, the merchant submits a confirmation advice message within two hours for the final amount before clearing the transaction. Estimated authorization limits may vary by geography or country as specified in the Visa Rules (ID #0025596).
- **Estimated Authorization With Reversal:** The merchant sends an authorization for a good faith estimated amount, usually based on information available related to the spending patterns of a particular station or cardholder-specific. If the final amount is lower, the merchant must submit an authorization partial reversal within 24 hours for the unused amount before clearing the transaction.
- **Real-Time Clearing:** The merchant sends an authorization for good faith estimated amount, followed by a completion advice within two hours for the final amount. It follows the same rules as confirmation advices, except the completion advice is full financial in this model (i.e., no additional clearing is required). **Note:** Completion advice models are uncommon outside of the U S.

Note: Confirmation advice models are mandated for merchants and acquirers in the U S, Europe and certain countries in the Asia Pacific region. Outside of those regions and countries, confirmation advice models are available but uncommon. Incremental authorizations are not permitted for AFD but are permitted for EVC.

Available Authorization Models by Region

The table below refers to these authorization models:

1 Status Check Without Confirmation Advice
2 Status Check With Confirmation Advice
3 Estimated Authorization With Confirmation Advice
4 Estimated Authorization With Reversal
5 Real-Time Clearing

	AP	Canada	CEMEA	LAC	Europe	U.S.
MCC5542-AFD	1,3,4,5				3	2,5
MCC5552-EVC Station	4					

1.11 Visa Fuel Type Codes and Visa Non-Fuel Product Codes

Key Points for All Parties

- Appendix I contains Visa Fuel Type Codes and Appendix J contains Visa Non-Fuel Product Codes.
- In December 2020, Visa published the Visa Fleet Card 2.0 Implementation Guide for U.S. Merchants, Acquirers, and Issuers (V1.0), which included Visa Fleet Fuel and Non-Fuel product codes that align with the industry standards published by the Conexxus Payment System Product Codes and National Association of Convenience Stores.
- All parties must make changes to support Fleet 2.0 functionality in this document and these codes must be used as needed, for example:
  - EMV purchase restrictions on the card for tag DF32 use these codes
  - Merchant POS systems passing the codes to Acquirers on various authorization messages,
  - Acquirers passing the codes to VisaNet on various authorization and clearing messages
  - Issuers and Processors obtaining the codes from VisaNet and providing the code information along with any description in their respective systems for viewing/reporting purposes
  - Third-party systems (i.e. expense management systems) that provide detail reporting on fuel transactions
- **Although the Conexxus standard for the product codes is three digits, when providing product codes in VisaNet messages, whether fuel or non-fuel, the corresponding two-digit Visa code must be used**
- This *Visa Fleet Card 2.0 Implementation Guide* (September 2022 - V1.2) has been published with additional information along with a minor update for the Fuel and Non-Fuel codes from Conexxus / IFSF (several new codes/updates to existing codes were given to Visa). All parties must be aware and plan to use this latest updated information.
- All the existing pre-Conexxus old 2-digit Visa codes have been appropriately mapped/grandfathered into the latest Implementation Guide (V1.2), this ensures no data is impacted if a pre-Conexxus code is used on a transaction.
- A new '00' has been introduced to reflect an undefined value, when the Visa Business Solutions Data Platform encounters a Fuel Type and Non-Fuel type Product Code not recognized in the table, it will now default to '00' value.
- The Visa Business Solutions (VBS) Data platform supports the updated Conexxus codes/table and all data flowing outbound from the VBS data platform to various parties and endpoints will conform to (i.e. validate against) the updated codes/table.

Chapter 2: Issuer Steps / Guidelines

This chapter describes the Visa Fleet Card solution capabilities and guidelines for Issuers.

2.1 Key Issuer Considerations þ

Below are some strategic and tactical considerations an Issuer or Program Manager should consider while implementing a Visa Fleet Card solution for Clients.

- **Strategic Considerations**
  - Determine overall objectives and business goals for the Issuer's Fleet Program.
  - Who are the target Clients and what is the optional sales strategy and channel to obtain business?
  - What card capabilities, benefits, and program offerings are required to be successful?
  - What platforms (Processor and Issuer specific) will be used to support this program?
  - What standard card product offerings will be part of this process (statements, reporting, websites, discounts, tax information, etc.)?
- **Tactical Considerations**
  - Identify Issuing (ISO) BINs and Numerics (card ranges) to be used.
  - Define card design, card personalization (Client specific or Issuer specific), and production process to order and create cards (along with the platforms and tools required for this effort).
  - Determine payment terms, underwriting, collections, and fees.
  - Overall project plan, including timeframe to prepare/develop/launch and assess the success of the card program.

2.2 Decisions / Choices for the Visa Fleet Card þ

As per the Current Fleet 2.0 Timeline, Issuers issuing Visa Fleet Cards must configure/personalize all three items below for prompting and purchase restrictions personalization on the card. This is to ensure that the card can be used at any Merchant terminal where only one or more of the options are present and to future proof the card as Merchants migrate from Magnetic Stripe only AFDs to Full Chip AFDs (replacing old AFDs with fully enabled EMV capable AFDs):

- **Magnetic Stripe**—Issuers must personalize:
  - The Service Enhancement Indicator Field (See Table 3-4) is required to enable or disable purchase restrictions
  - The Service Prompt Field (See Table 3-4) is required to enable or disable service prompts

- **Track 2 on Chip**—Issuers must personalize (Chip tag ‘57’-Track 2 Equivalent Data):
  - The Service Enhancement Indicator Field (See Table 3-4) is required to enable or disable purchase restrictions
  - The Service Prompt Field (See Table 3-4) is required to enable or disable service prompts

- **Full Chip**—Issuers must personalize:
  - The ASRPD tag (See This appendix provides the layout for Application Selection Registered Proprietary Data (ASRPD) (tag '9F0A') containing the Visa Selection Data (VSD) (ID '0002', length byte '05').
  - Table A-1) is required to indicate it is a Visa Full Chip Fleet Card
  - The DF30 tag (See Appendix B: Prompting (tag 'DF30') Layout) is optionally personalized to enable service prompts
  - The DF32 tag (See Appendix C: Purchase Restrictions (tag 'DF32') Layout) is optionally personalized to enable purchase restrictions

2.3 Issuance Specifications for Magnetic Stripe / Track 2 on Chip

Visa Fleet cards must be produced to certain magnetic stripe specifications.

Magnetic Stripe Encoding

Issuers of Visa Fleet cards may specify Point-of-Sale (POS) prompts. Cards issued in Table 3-5: Visa Fleet Card Issuing (ISO) BIN Ranges must contain instructions for POS prompts in the Visa Reserved field in Track 1 and the Discretionary Data field in Track 2. Currently, only the last two positions before the End Sentinel are used for Visa Fleet card fields.

- **Service Enhancement Indicator**—A single-digit identifier that allows fleet managers to limit what can be purchased at eligible POS locations. Since the indicator is card-specific, the fleet manager can specify a different code for each card. A default value of 0 (zero) is recommended for all Visa Fleet cards.
- **Service Prompt**—A mandatory single-digit identifier that allows fleet managers to select from a list of service options that drive data collection at POS. Since the indicator is card-specific, the fleet manager can specify a different code for each card. The identifier is interpreted by the terminal to prompt or not prompt for certain data.

Table 2-1: Magnetic Stripe Encoding for Visa Fleet Cards

Field Position	Field Name	Encoding Edit Criteria
1	Reserved	Reserved for future use; the default value is 0 (zero)
2	Service Enhancement Indicator	0 = Fleet, No Restriction (fuel, maintenance, and non-fuel purchases) 1 = Fleet (fuel- and maintenance-only purchases) 2 = Fleet/Fuel Only (fuel-only purchases) 3-9 = Reserved
3	Service Prompt	0 = Reserved (no prompt required) 1 = Identification (ID) and odometer reading 2 = Vehicle ID and odometer reading 3 = Driver ID and odometer reading 4 = Odometer reading 5 = No prompt 6 = ID (After prompt for ID, the Cardholder enters the six-digit numeric vehicle, driver, or generic ID.)
End Sentinel	Not Applicable	Not Applicable

Magnetic Stripe Layouts

The magnetic stripe layout for Track 1 is shown in Figure 2-1. The layout for Track 2 is shown in Figure 2-2. Track 1 and Track 2 record layouts are shown in Table 2-2.

Figure 2-1: Magnetic Stripe Track 1 Layout

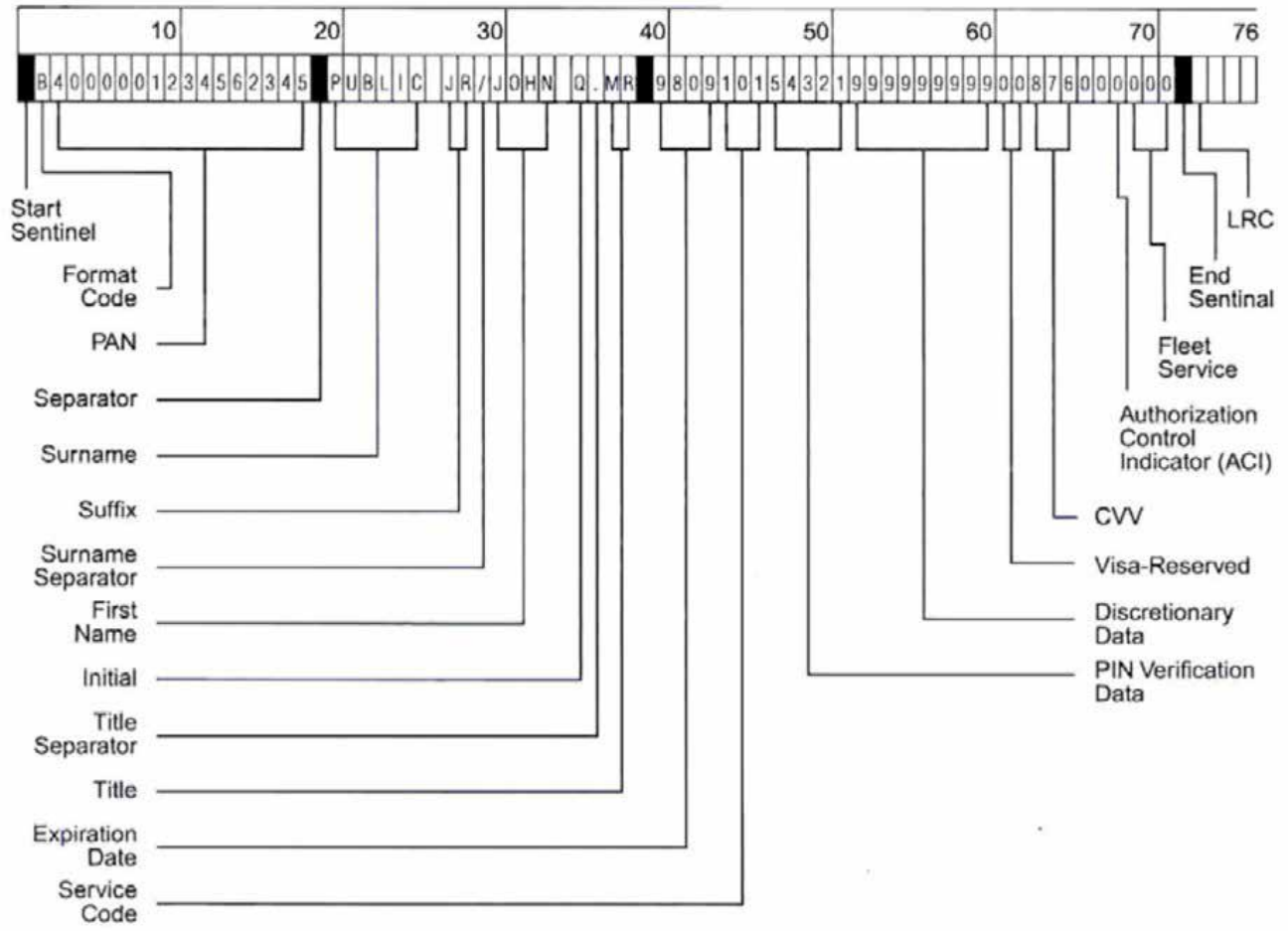


Figure 2-2: Magnetic Stripe Track 2 Layout

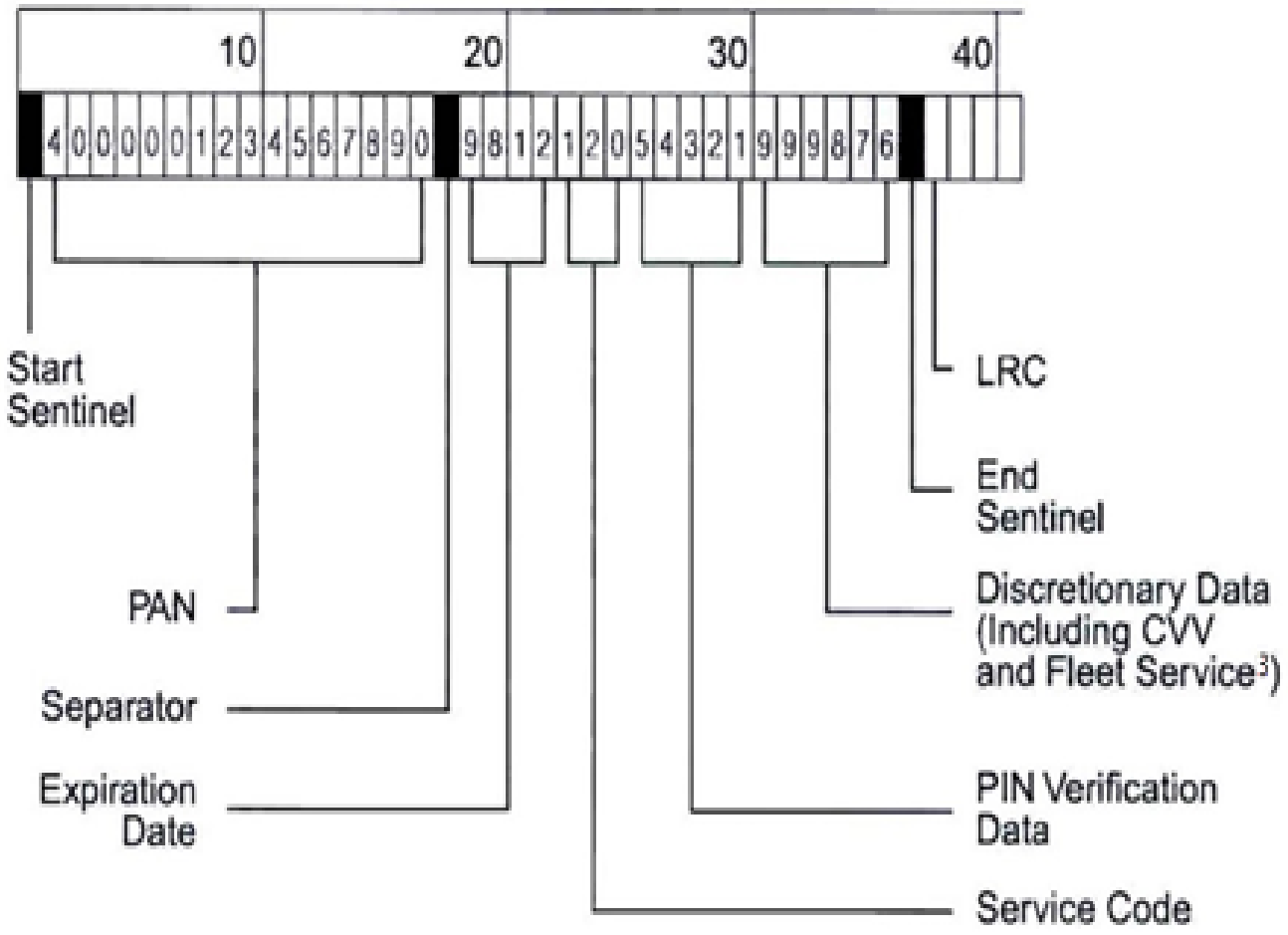


Table 2-2: Magnetic Stripe Track 1 and Track 2 Record Layouts

Field Number, Length	Contents	Encoding Criteria
Track 1		
1, 1	Start Sentinel	Must be a % (percent sign)
2, 1	Format Code	Must be a B
3, 13 or 16	Primary Account Number (PAN)	Must be 13 or 16 alphanumeric characters
4, 1	Separator	Must be a ^ (caret)
5, 2-26	Cardholder Name	Must be alphanumeric characters
6, 1	Separator	Field must be a ^ (caret)
7, 4	Card Expiration Date	Field is formatted YYMM; YY = year, MM = month
8, 3	Service Code	Field must be three digits
9, 0 or 5	PIN Verification	Position – Length – Content 1 – 1 – PIN Verification Key Index (PVKI) 2 to 5 – 4 – PIN Verification Value (PVV)
10, Varies[3]	Discretionary Data	May be between 8 -10 alphanumeric characters.
11, 11	Visa Reserved[4]	Position – Length – Content 1 to 2 – 2 – Zero fill 3 to 5 – 3 – Card Verification Value (CVV) 6 to 7 – 2 – Zero fill 8 – 1 – Authorization Control Indicator (ACI) 9 – 1 – Reserved; valid value is 0 (zero) 10 – 1 – Service Enhancement Indicator (See Table 2-1) 11 – 1 – Service Prompt (See Table 2-1)
12, 1	End Sentinel	Must be a ? (question mark)

[3] The length of this field depends on the lengths of fields 3, 5, and 9.

[4] The length of this field is always the last 11 positions of track 1, excluding the End Sentinel and Longitudinal Redundancy Check. Visa Fleet cards must use the last three positions of this field to provide instructions for customized prompts.

Field Number, Length	Contents	Encoding Criteria
13, 1	Longitudinal Redundancy Check	Must be a one-character value
Track 2		
1[5], 1	Start Sentinel	Must be a ; (semi-colon)
2, 13 or 16	Primary Account Number (PAN)	Must be 13 or 16 alphanumeric characters
3, 1	Separator	Must be a single digit number
4, 4	Card Expiration Date	Format is YYMM; YY = year, MM = month
5, 3	Service Code	Must be three digits
6, 0 or 5	PIN Verification Data	Must be 0 or 5 digits
7, Varies[6]	Discretionary Data	Position – Length – Content 1 to 3 – 3 – Card Verification Value (CVV) Varies – Varies – Issuer Information Varies[7] – 3 – Fleet Service
8, 1	End Sentinel	Field must be a ? (question mark)
9, 1	Longitudinal Redundancy Check	Field must be a value of between 0 (zero) and F

Note: Please refer to the *Payment Technology Standards Manual* on Visa Online as the master document for full details of track layouts and the impact of variable length fields. This is critical when issuing cards for the first time.

[5] Fields 1, 8, and 9 are not sent in online messages but are necessary for magnetic stripe reading devices.
[6] The length of this field depends on the lengths of Fields 2 and 6. Visa Fleet cards are required to use the last three positions of this field to provide instructions for customized prompts.
[7] The position of this field varies depends on the lengths of Fields 2 and 6.

2.4 Issuer Changes for Chip þ

This section outlines Issuer changes to support the Visa Fleet Chip program. It includes the following sections:

- Issuer Personalization Changes
- Issuer Host System Changes

Issuer Personalization Changes

This section provides an overview of Issuer personalization changes to support the Visa Fleet Chip program. The personalization data elements covered in this section include the following:

- **Visa Smart Debit/Credit Data**—Baseline EMV functionality and data to support payment.
- **Application Selection Registered Proprietary Data (ASRPD) (tag '9F0A') (Mandatory)**—Allows a terminal that supports Visa Fleet to recognize the card as a Visa Fleet chip card (this is a Visa addition to the Conexxus/IFSF specifications).
- **Prompting (tag 'DF30') (Optional)**—Allows Issuers to obtain data from the Cardholder at the point of transaction, such as the odometer reading.
  - As an alternative to prompting the Cardholder to provide data to the terminal at the POS, the Issuer can personalize the data (e.g., vehicle tag) directly on to the chip. The data is captured at the POS and sent to the Issuer in the authorization and clearing messages.
- **Purchase Restrictions (tag 'DF32') (Optional)**—Allows Issuers to impose purchase restrictions on Cardholder transactions at the POS (e.g., chip card can only be used for fuel purchases and not for food).

Visa Smart Debit/Credit (VSDC) Data (Cards)

Issuers participating in the Visa Fleet Chip program must personalize their cards to support VSDC (Visa's EMV solution). The Visa Fleet chip data will be personalized on the card along with the VSDC data. The card will contain one Visa AID ('A0 00 00 00 03 10 10') which will contain both the VSDC data and the Visa Fleet data (it will not contain two separate AIDs for VSDC and Visa Fleet). Information on personalizing VSDC is outside the scope of this document. For details, see the following documents:

- VSDC Contact and Contactless Issuer Implementation Guide
- VSDC Personalization Specification

Application Selection Registered Proprietary Data (ASRPD) (tag '9F0A') (Mandatory)

Issuers must personalize their cards with the ASRPD (tag '9F0A') containing the Visa Selection Data (ID '0002'). This data element indicates that the card is a Visa Fleet card, and it may be used by the Merchant to identify the chip card as a Visa Full Chip Fleet card during transaction processing.

Note: This is a Visa addition to the Conexxus/IFSF specification.

Personalization Details

Issuers must personalize the ASRPD (tag '9F0A') with the Visa Selection Data (ID '0002') which consists of the following 5 bytes:

Table 2-3: Visa Selection Data (VSD), Part of ASRPD

Step	Description	Description
Byte 1	Region Code of Issuance	Issuers must personalize this byte with their regional code. U.S., Canada, Europe, Asia-Pacific (AP), Latin America and Caribbean (LAC), Central Europe, Middle East, and Africa (CEMEA).
Bytes 2-3	Country Code of Issuance	Issuers must personalize these bytes with their ISO numeric country code.
Byte 4	Product Type	Value = '00' (Unspecified).
Byte 5	Visa Fleet Indicator	Issuers must personalize bit 8 with 1 to indicate Visa Fleet.

For additional details on the ASRPD and specific personalization instructions for contact and contactless chip cards, see Appendix A: Application Selection Registered Proprietary Data (ASRPD) Layout (tag '9F0A')

Prompting (tag 'DF30') (Optional)

Issuers may optionally personalize their chip cards to prompt for one or more Visa Fleet data elements using Prompting (tag 'DF30'). When personalized on the chip card, the terminal can use tag 'DF30' to prompt the Cardholder to enter Visa Fleet data into the terminal during the transaction. For example, Issuers can personalize Prompting (tag 'DF30') to prompt for the driver ID and the odometer reading. During the transaction, the terminal will read these data elements from tag 'DF30' and then prompt the Cardholder or clerk to enter this information into the terminal at the POS.

The data obtained from the Cardholder will then be provided to the Issuer in the authorization and clearing messages (see Appendix E: Host System Changes for Fleet Data for details).

The prompting data elements (which can be defined at a card level) are:

- Vehicle ID or Driver ID or Generic ID[8]
- Odometer
- Fleet Work Order/Purchase Order Number (**See Note 2)**.
- Fleet Trailer Number
- Fleet Employee Number
- Fleet Additional Prompted Data 1 (determined by Issuer)[9]
- Fleet Additional Prompted Data 2 (determined by Issuer)

Important: Issuers should synchronize their prompts in tag 'DF30' with what is prompted for in Track 2 Equivalent Data (tag '57') (although they may use tag 'DF30' to prompt for more information beyond what is available with tag '57').

Note 1: If the Issuer does not want to support prompting, they will not personalize their cards with Prompting (tag 'DF30').

Note 2: If the Issuer plans to use this card for Fleet Transactions **and** also a Card on File / Merchant Initiated transactions use case—they **must not** use the Fleet Work Order/Purchase Order Number as a prompted data field—they can use any of the other fields available.

Note 3: Potential default configurations for DF30 to map to existing functionality as offered in Solution 1: Magnetic Stripe and Solution 2: Track 2 on Chip can be found in Appendix O: DF30 / DF32 Magnetic Stripe Equivalent Values þ in this document.

[8] As outlined in Appendix E: Host System Changes for Fleet Data, Issuers can only prompt for **one** of the following: Vehicle ID or Driver ID or Generic ID.

[9] Unless an agreement is in place with the Merchant to display the Issuer-specific prompt for this data at the POS, Issuers should communicate to their Cardholders to provide the Issuer-specific data when they see the generic prompt "Enter additional fleet data" at the POS. For example, if the Issuer uses "Fleet Additional Prompted Data 1" to capture the Cardholder's department number, Cardholders need to be aware that they will enter their department number when they see this generic prompt.

Issuer Business Decisions

Issuers (in conjunction with their Clients) need to decide which Visa Fleet data elements that they would like to prompt for (see the list in the above section for details). For each Visa Fleet data element to be captured, the Issuer then needs to make the following four business decisions:

Table 2-4: Prompting (tag 'DF30'): Issuer Business Decisions

Business Decision	Description
Mandatory/Optional	**Mandatory**—If the data element is mandatory, it must be obtained during the transaction; if it is not provided, the transaction is declined at the POS. **Optional**—If it is optional and not provided the transaction may proceed. **Important**: Issuers should consider the Cardholder experience before deciding that a data element is mandatory; when a data element is mandatory and not provided the transaction is declined at the POS and the Issuer will not have visibility into the transaction. **Important**: Issuers are strongly recommended to configure the Prompting data object (tag 'DF30') to prompt the Cardholder for numeric data since many terminal key pads/entry points do not support the entry of alphanumeric data. If the Issuer chooses to request the prompting of alphanumeric data, the data element should be set up as optional for the Cardholder to provide it in order to avoid transactions being terminated when the Merchant terminal does not support alphanumeric data entry. Note that regardless of whether numeric or alphanumeric data is prompted for and captured, the data is formatted as alphanumeric when transmitted in VisaNet messages.
Manual/ Separate Device	**Manual**—Obtaining the data element via manual entry (Cardholder or clerk entering the data into the terminal at the POS) is the standard approach.

Business Decision	Description
	Separate Device—Alternatively, the data element can be obtained and provided to the terminal using a separate device: · Issuer needs to determine the device that will be used to obtain the fleet data. The options defined in the Conexxus/IFSF specifications include magnetic stripe card, chip card, RFID transponder (this can be a mobile Near Field Communication (NFC) device), bar code, or Automatic License Plate Recognition (ALPR). · Issuer can choose a primary device (Device Type 1) and back up device (Device Type 2) · If the device is not available or not supported, the Issuer can allow the fleet data to be obtained manually (through manual entry) **Important**: The Issuer and Merchant are responsible for defining the solution for obtaining fleet data from a separate device (including the technical specifications of the device, how the terminal will capture the information from the device, and how obtaining the data from the device fits into the overall Cardholder experience at the POS). The definition of the device solution is outside the scope of this document.
Enter in the Clear	Whether or not the information is entered in the clear or masked upon entry (e.g., asterisks are displayed for each character entered by the Cardholder).
Print on the Receipt	Whether or not the information is printed on the receipt (when a receipt is provided). Note: There may be instances where a receipt is not provided.

Important: There are prompts that may be considered Personally Identifiable Information (PII). Issuers, Processors, and Merchants are responsible for complying with all applicable security requirements and regulations with respect to Cardholder data as well as PII. PII regulations and laws, such as *General Data Protection Regulation (GDPR)* and the *California Consumer Privacy Act*, are evolving quickly, and compliance with these laws and regulations requires ongoing compliance work. As new regulations are added, compliance may not only require ceasing to collect certain data, but also adding protective measures for previously collected historical data.

Personalization Details

For each Visa Fleet data element, Issuers can personalize support for up to seven (7) prompting data elements for a total of twenty-one (21) bytes:

- For more information on the prompting data elements, see Prompting tag (DF30) Optional
- For the layout of the three (3) bytes of this data element, see Appendix B: Prompting (tag 'DF30') Layout.

Table 2-5: Prompting (tag 'DF30'): Personalization Details

Byte	Settings
Byte 1	Issuers must personalize this byte to indicate: · Data element to be obtained (i.e., Fleet Data, Part 1) · Data element format (numeric or alphanumeric which is defined by Visa)[10] [11] · Whether the data element is mandatory or optional · Whether the data can be manually entered For the layout of Byte 1, see: · Table B-1: Prompting (tag 'DF30'), Byte 1: Data Element For the list of fleet prompting data elements and their values, see: · Table B-4: Prompting (tag 'DF30'), Byte 1, bits 8-4 & Byte 3, bits 6-5
Byte 2	This byte is either set to all zeros (when manual entry alone is supported) or set to identify a separate device or process that can be used to obtain the data. For the latter, the options defined in the Conexxus/IFSF specifications include magnetic stripe card, chip card, RFID transponder (this can be a mobile Near Field Communication (NFC) device), bar code, or Automatic License Plate Recognition (ALPR). The Issuer can personalize this byte to indicate a primary device (Device Type 1) and a secondary/backup device (Device Type 2) (if device Type 1 is not available, not supported, or faulty, the terminal can attempt to obtain the information from Device Type 2). For the layout of Byte 2, see: · Table B-2: Prompting (tag 'DF30'), Byte 2: Device Type · Table B-5: Prompting (tag 'DF30'), Byte 2 (Device Type Descriptions)

[10] AN is defined as alpha characters (A-Z, a-z), numbers (0-9), and the space character.
[11] While the data captured may be numeric or alphanumeric, the fields in VisaNet authorization and clearing messages are transmitted as alphanumeric.

Byte	Settings
Byte 3	Issuers must personalize this byte to indicate: · Whether the data is to be printed on the receipt · Whether the data is to be entered in the clear or masked upon entry · The code table of the data element to be obtained (i.e., Fleet Data, Part 2) For the layout of Byte 3, see: · Table B-3: Prompting (tag 'DF30'), Byte 3: Print on Receipt, Enter in the Clear and Code Table

Prompting Example

This section provides an example of how to code Prompting (tag 'DF30'). The information in this section should be used in conjunction with the layout of the tag in Appendix B: Prompting (tag 'DF30') Layout

In this example, the Issuer wants to prompt for two data elements:

- Driver ID
- Odometer Reading

Issuer business decisions for Driver ID:

- Manual Entry/Separate Device: **Manual entry only**
- Mandatory/Optional: **Optional** (i.e., if not obtained transaction may proceed)
- Printed on Receipt: **Yes**
- Enter in the Clear: **Yes**

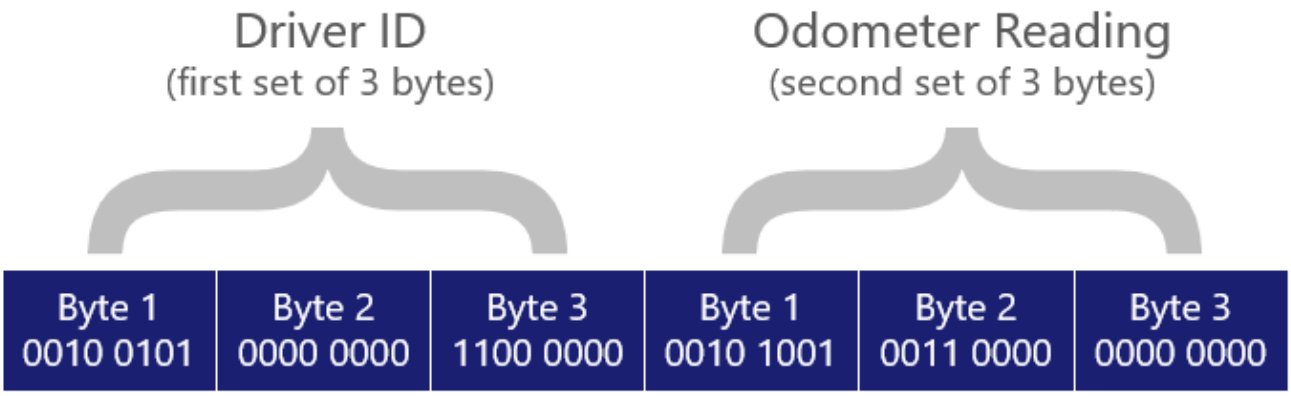
Issuer business decisions for Odometer Reading:

- Manual Entry/Separate Device: **RFID Transponder** but if it is not available, not supported, or faulty, manual entry supported (no secondary device supported)
- Mandatory/Optional: **Optional** (i.e., if not obtained transaction may proceed)
- Printed on Receipt: **No**
- Enter in the Clear: **No** (mask upon entry)

Important: Because the prompting data is to be provided at the terminal from an RFID device, the Issuer and Merchant must work together to define the RFID solution. This includes the technical specifications of the RFID, how the terminal will capture the information from the RFID, and how obtaining the data from the RFID fits into the overall Cardholder experience at the POS. The definition of an RFID solution is outside the scope of this document.

Coding:

- Each prompted data field requires 3 bytes of data
- In this example, there are 2 prompted data fields (Driver ID and Odometer Reading) for a total of 6 bytes of data
- The following is the coding of the Prompting data element (tag 'DF30') shown in binary where bits are read left (starting with bit 8) to right (ending with bit 1) and the associated hex value:
  - Driver ID: 0010 0101 0000 0000 1100 0000 (Hex '25 00 C0')
  - Odometer: 0010 1001 0011 0000 0000 0000 (Hex '29 30 00')
- The following is an example of the 6 bytes of data that comprise the two data elements along with their bit settings.



Driver ID	Odometer Reading
Byte 1: 0010 0101	Byte 1: 0010 1001
Bits 8-4: **00100** (Driver ID, part 1)	Bits 8-4: **00101** (Odometer Reading, part 1)
Bit 3: **1** (Alphanumeric Special)	Bit 3: **0** (Numeric)
Bit 2: **0** (Optional)	Bit 2: **0** (Optional)
Bit 1: **1** (Manual Entry Allowed)	Bit 1: **1** (Manual Entry Allowed)
Byte 2: 0000 0000	Byte 2: 0011 0000
Bits 8-1: **All zeros** (device types not supported) (manual entry only)	Bits 8-5: **0011** (RFID Transponder) (Device Type 1)
	Bits 4-1: **0000** (No Device Type 2)
Byte 3: 1100 0000	Byte 3: 0000 0000
Bit 8: **1** (Print on Receipt)	Bit 8: **0** (Do not print on receipt)
Bit 7: **1** (Enter in the clear)	Bit 7: **0** (Mask upon entry)
Bit: 6-5: **00** (Driver ID, part 2)	Bits 6-5: **00** (Odometer Reading, part 2)
Bits 4-1: **0000** (RFU)	Bits 4-1: **0000** (RFU)

Prompted Fleet Data Automatically Read from Chip (Optional)

As an alternative to the Cardholder being prompted to enter a Visa Fleet data element into the POS terminal or obtaining the data element from a secondary device (as part of Prompting tag 'DF30'), one option is that the Issuer may encode (i.e., personalize) the data element on to the card during personalization and then obtain the data element in authorization and clearing.

The benefit of personalizing the card with these data elements is that it eliminates the need to prompt the Cardholder/clerk to enter the data during the transaction. This can be used for static data.

To support this, the Issuer needs to:

- Determine which data element(s) they want to encode on the card (up to the first two (2) data elements may be supported for open-loop Issuers while any or all of the data elements listed may be supported by proprietary network/closed-loop Issuers):
  - Vehicle ID (tag 'DF41'), Driver ID (tag 'DF43'), or Generic ID (tag 'DF40'): up to 17 bytes long
  - Fleet Work Order/Purchase Order Number (tag 'DF54'): up to 25 bytes long
  - Fleet Trailer Number (tag 'DF52'): up to 20 bytes long
  - Fleet Employee Number (tag 'DF53'): up to 20 bytes long
  - Fleet Additional Prompted Data 1 (tag 'DF55'): up to 20 bytes long
  - Fleet Additional Prompted Data 2 (tag 'DF56'): up to 20 bytes long
- Each data element above is formatted as alphanumeric data when personalized on to the card.
- Personalize the data element on to the card in the FCI IDD (tag 'BF0C') of the SELECT response.
- Define the data element as one of their Visa Fleet data elements as part of Prompting (tag 'DF30'):
  - Issuers should personalize all 3 bytes for the Visa Fleet data element (although the terminal will ignore the settings associated with “Device Type 1/Device Type 2” and “Enter in the Clear”). For details on terminal processing, see: Prompting (tag 'DF30') (Mandatory).
  - It is recommended that the Mandatory/Optional bit be set to Mandatory.
- Prepare their host systems to support the data in Authorization and Clearing messages. For details, see Appendix E: Host System Changes for Fleet Data.

Important: When the terminal sees that the data element is in Prompting tag 'DF30' and encoded on the card, it will obtain the encoded data element from the card and not prompt for it.

Chip-Based Purchase Restrictions (tag 'DF32') (Optional)

Important: The purchase restrictions outlined in this section take place between the card and terminal at the POS. For information on Host-Based Purchase Restrictions, see Host-Based Purchase Restrictions (Optional).

Issuers may optionally personalize their chip cards with Purchase Restrictions (tag 'DF32'). When personalized on the chip card, the terminal can use this data element to enforce any purchasing restrictions at the POS during the transaction. The Issuer can use this data element to communicate restrictions for:

- **Fuel Types**—Gas, diesel, off-road fuels, Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG), electric, kerosene, aviation, marine
- **Products and Services**—Vehicles, aviation, marine, merchandise, store service
- **Miscellaneous**—Tobacco, alcohol, food, lottery, money order, health/beauty, general publications, prepaid and bill pay
- **Gasoline Grades**—Regular, Plus/midgrade, Super/Premium

For example, if a Cardholder is only allowed to use the card for fuel but attempts to purchase fuel and food, the settings in this data element can be used to allow the Cardholder to purchase fuel but not food.

Issuers should synchronize their purchase restrictions in tag 'DF32' with their restrictions in Track 2 Equivalent Data (tag '57') (although they may use tag 'DF32' to support additional restrictions beyond what is available with tag '57').

Note: If the Issuer does not want to support purchase restrictions at the POS, they will not personalize their cards with Purchase Restrictions (tag 'DF32').

Issuer Business Decisions

Issuers (and their Clients) need to review the purchasing restrictions available with tag 'DF32' and then personalize the data element with their specific settings.

Personalization Details

The Purchase Restrictions (tag 'DF32') categories are:

- Byte 1: General
- Byte 2: Fuels
- Byte 3: Products/Services
- Byte 4: Miscellaneous
- Byte 5: Miscellaneous & Reserved for Future Use (RFU)
- Bytes 6-7: Reserved for Future Use (RFU)
- Byte 8: Gasoline Grades

For the layout of this tag, see Appendix C: Purchase Restrictions (tag 'DF32') Layout.

Byte 1: General

Issuers must personalize Byte 1 to indicate the following:

Table 2-6: Byte 1: General

Byte 1	Setting	Description
Bit 8	Host-Based / Chip-Based	0 = **Use Host-Based** purchase restrictions. Only use Chip-Based Purchase Restrictions if Host-Based Purchase Restrictions cannot or are not returned, so **offline** Chip-Based Purchase Restrictions need to be adhered to. 1 = **Use Chip-Based** purchase restrictions Recommendations: This bit must be set to 0 if Issuers support Host-Based Purchase Restrictions. The purchase restrictions on card will only apply if the terminal cannot retrieve online purchase restrictions. This bit must be set to 1 to ensure Chip-Based Purchase Restrictions are always performed regardless of offline/online usage, or if the Issuer does not support Host-Based Purchase Restrictions.
Bit 7	Fuel Allowed	Issuers must personalize this bit to indicate whether the Cardholder is allowed to purchase fuel. If this bit is set to 1, Issuers must also set: · Byte 1 bit 6 (Fuel Categories/Gasoline Grades) · Byte 2 (Fuel Categories) If this bit is set to 0, fuel is not allowed and all other fuel indicators will be set to 0 (i.e., Byte 1 bit 6, all of Byte 2, and all of Byte 8 will be set to 0 and ignored). For examples of how to code this bit, see Table 2-7: Fuel Restriction Scenarios.

Byte 1	Setting	Description
Bit 6	Fuel Categories/ Gasoline Grades	If purchase of fuel is allowed, Issuers must personalize this bit to:[12] · 0 = If they want fuel categories to apply to the transaction, then set fuel categories allowed in Byte 2 (and terminal will check fuel categories in Byte 2) **Note**: With this setting, if the "Gas" category is allowed (Byte 2 bit 8 = 1), then any gas grade can be purchased. · 1 = If they want gasoline grades to apply to the transaction, then set fuel categories allowed in Byte 2 and gasoline grades in Byte 8 For examples of how to code this bit, see Table 2-7: Fuel Restriction Scenarios.
Bit 5-4	Reserved for Future Use (RFU)	Fill with zeros
Bit 3	Negative Transactions	Issuers must personalize this bit if negative transactions (i.e., discounts, coupons, or split tenders) can apply to the Cardholder's transactions. It is recommended to set this bit to 1 to always allow these transaction types.
Bit 2	Administrative Transactions	Issuers must personalize this bit if administrative transactions (i.e., taxes and fees) can apply to the Cardholder's transactions. It is recommended to set this bit to 1 to always allow these transaction types.
Bit 1	Bulk Transactions	Issuers must personalize this bit if bulk transactions (i.e., packaged fuels that include container Diesel Exhaust Fluid (DEF)) can apply to the Cardholder's transactions.

[12] Issuers should be aware that not all Merchant environments can restrict transactions based on fuel categories or gasoline grades.

To further illustrate how the Purchase Restrictions (tag 'DF32') is configured to restrict the purchase of fuel, fuel categories, and gasoline grades, the table below lists four fuel restriction example scenarios and how the fuel and gasoline bits are configured in each scenario.

Table 2-7: Fuel Restriction Scenarios

Full Restriction Scenario	Byte 1	Byte 2	Byte 8
All fuels allowed	bit 7 = 1, bit 6 = 0	bits 8-1 = 1	Not used (bits 8-1 = 0)
Diesel only	bit 7 = 1, bit 6 = 0	bit 7 = 1; bits 8, 6-1 = 0	Not used (bits 8-1 = 0)
Gas only (all grades allowed)	bit 7 = 1, bit 6 = 0	bit 8 = 1; bits 7-1 = 0	Not used (bits 8-1 = 0)
Gas only (regular gas only)	bit 7 = 1, bit 6 = 1	bit 8 = 1; bit 7-1 = 0	bit 8 = 1; bits 7-1 = 0

Byte 2: Fuel Categories

Issuers setting Byte 1 bit 7 (fuel allowed) to 1 must personalize Byte 2 to indicate the fuel categories the Cardholder is allowed to purchase:

Table 2-8: Byte 2: Fuel Categories

Byte 2	Description
Bit 8	Gas
Bit 7	Diesel
Bit 6	Off-Road Fuels
Bit 5	Electric Fuel
Bit 4	Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG) (including hydrogen blends)
Bit 3	Kerosene
Bit 2	Aviation Fuels
Bit 1	Marine Fuels

For examples of how to code this bit, see Table 2-7: Fuel Restriction Scenarios.

Byte 3: Products/Services

Issuers must personalize Byte 3 to indicate whether the Cardholder is allowed to purchase:

Table 2-9: Byte 3: Products/Services

Byte 3	Description
Bit 8	Vehicle Products/Services
Bit 7	Aviation Products/Services
Bit 6	Marine Products/Services
Bit 5	Merchandise
Bit 4	Store Service
Bit 3-1	Reserved for Future Use (RFU)

Byte 4: Miscellaneous

Issuers must personalize Byte 4 to indicate whether the Cardholder is allowed to purchase:

Table 2-10: Byte 4: Miscellaneous

Byte 4	Description
Bit 8	Tobacco
Bit 7	Alcohol
Bit 6	Food
Bit 5	Lottery
Bit 4	Money Orders
Bit 3	Health/Beauty Items
Bit 2	General Publications
Bit 1	Prepaid and Bill Pay (Secondary Network)

Table 2-11: Byte 5: Miscellaneous & Reserved for Future Use (RFU)

Byte 5: Miscellaneous & Reserved for Future Use (RFU)									
b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
X								Cannabinoid	700-719
	X							RFU	
		X						RFU	
			X					RFU	
				X				RFU	
					X			RFU	

Bytes 6-7: Reserved for Future Use (RFU)

Fill with all Zeros

Byte 8: Gasoline Grades

Issuers that support gas (Byte 2 bit 8) and gasoline grades (Byte 1 bit 6) can define the grades of gasoline that the Cardholder may purchase.

Table 2-12: Byte 8: Gasoline Grades

Byte 9	Description
Bit 8	Regular Gasoline (including blends)
Bit 7	Plus/Midgrade Gasoline (including blends)
Bit 6	Super/Premium Gasoline (including blends)
Bit 5-1	Reserved for Future Use (RFU)

For examples of how to code this bit, see Table 2-7: Fuel Restriction Scenarios.

Purchase Restrictions Examples

This section provides two examples of how to code Purchase Restrictions (tag 'DF32'). The information in this section should be used in conjunction with the layout of the tag in Appendix C: Purchase Restrictions (tag 'DF32') Layout. The bytes shown in binary where bits are read left (starting with bit 8) to right (ending with bit 1).

Table 2-13: Purchase Restrictions Examples

Example 1: Issuer wants to create a card that can be used for gas only (any grade)	**Example 2: Issuer wants to create a card that can be used for Regular or Plus/Midgrade gas, food, and store service**
All bits have a setting of 0 (not allowed) except:	All bits have a setting of 0 (not allowed) except:
Byte 1 bit 8: **1** (Use Chip-Based restrictions)	Byte 1 bit 8: **1** (Use Chip-Based restrictions)
Byte 1 bit 7: **1** (Fuel allowed)	Byte 1 bit 7: **1** (Fuel allowed)
Byte 1 bit 3: **1** (Negative transactions allowed)	Byte 1 bit 6: **1** (Gasoline grades supported)*
Byte 1 bit 2 **1** (Administrative transactions allowed)	Byte 1 bit 3: **1** (Negative transactions allowed)
Byte 2 bit 8: **1** (Gas allowed)	Byte 1 bit 2 **1** (Administrative transactions allowed)
	Byte 2 bit 8: **1** (Gas allowed)*
	Byte 3 bit 4: **1** (Store service allowed)
	Byte 4 bit 6: **1** (Food allowed)
	Byte 8 bits 8-6:**110** (Regular and Plus/Midgrade gas allowed; Super/Premium grade gas is not allowed)*
The resulting bytes and hex values:	The resulting bytes and hex values:
Byte 1: **11**00 0**11**0 (Hex 'C6')	Byte 1: **111**0 0**11**0 (Hex 'C6')
Byte 2: **1**000 0000 (Hex '80')	Byte 2: **1**000 0000 (Hex '80')
Byte 3: 0000 0000 (Hex '00')	Byte 3: 0000 **1**000 (Hex '08')
Byte 4: 0000 0000 (Hex '00')	Byte 4: 00**1**0 0000 (Hex '20')
Byte 5: 0000 0000 (Hex '00')	Byte 5: 0000 0000 (Hex '00')
Byte 6: 0000 0000 (Hex '00')	Byte 6: 0000 0000 (Hex '00')
Byte 7: 0000 0000 (Hex '00')	Byte 7: 0000 0000 (Hex '00')
Byte 8: **000**0 0000 (Hex 'E0')	Byte 8: **11**00 0000 (Hex 'C0')

* To set up the card to support specific gas grades, set Byte 1 bit 6 to 1 (gasoline grades supported), Byte 2 bit 8 to 1 (gas allowed), and then set Byte 8 bits 8-6 to specify which gas grades are allowed (regular, plus/midgrade, and super/premium).

Bit settings of 1 and 0:

- **Bit Setting 1: Item is Allowed to Be Purchased**—When a bit is set to 1, it means the Issuer wants the Cardholder to be able to make purchases associated with the bit setting. In both examples, the "Gas Allowed" bit (Byte 2 bit 8) is set to 1 to identify that the Cardholder is allowed to purchase gas.
- **Bit Setting 0: Item is Restricted and Cannot be Purchased**—When a Cardholder is not allowed to purchase an item, the corresponding bit setting remains at the default value of 0. In the first above examples, the Cardholder is not allowed to purchase any fuel other than gas so Byte 2 bits 7-1 (diesel, off-road fuels, electric, LNG/CNG, kerosene, aviation fuels, and marine fuels) all remain at the default value of 0.
- Potential default configurations for DF32 to map to existing functionality as offered in Solution 1: Magnetic Stripe and Solution 2: Track 2 on Chip can be found in Appendix O: DF30 / DF32 Magnetic Stripe Equivalent Values þ in this document.

Host-Based Purchase Restrictions (Optional)

Host-based purchase restrictions are an optional capability that Issuers can elect to put in place to complement Chip-based purchase restrictions on the Chip (tag 'DF32'). Visa offers 2 methods to support Host-Based Purchase Restrictions. Both methods are described below.

Issuers wishing to use a Host-Based Purchase Restrictions solution can do so, with or without Chip-based purchase restrictions. For information on a Chip-based solution, see the previous section Chip-Based Purchase Restrictions tag ("DF32") (Optional).

Method 1: Standard Host-Based Controls put in place on the Processor system

Issuers and their Processors can put in place controls on their Processor system based on the data provided in authorization and clearing messages to support Host-Based Purchase Restrictions.

Key Considerations:

- This capability depends upon the fueling process and Merchant software supported in the region and when data is sent (prior to authorization OR after authorization).
- For the US Region, as noted in the section below "Acceptance (and response) for VisaNet Fleet data into (and from) your Issuer/Processor systems", Issuers must be prepared to receive the additional data in Authorization and Clearing that will flow as part of the Visa Fleet 2.0 Requirements. Issuers can now utilize this additional information in their control processes.
- Controls are also subject to what data fields that the Merchant sends across in the Authorization message.
- Controls are managed and executed on the Processor's platform.
- A list of fields is provided in Table E-3: VisaNet Clearing Messages for Fleet Data that indicates fields in both authorization and clearing messages.

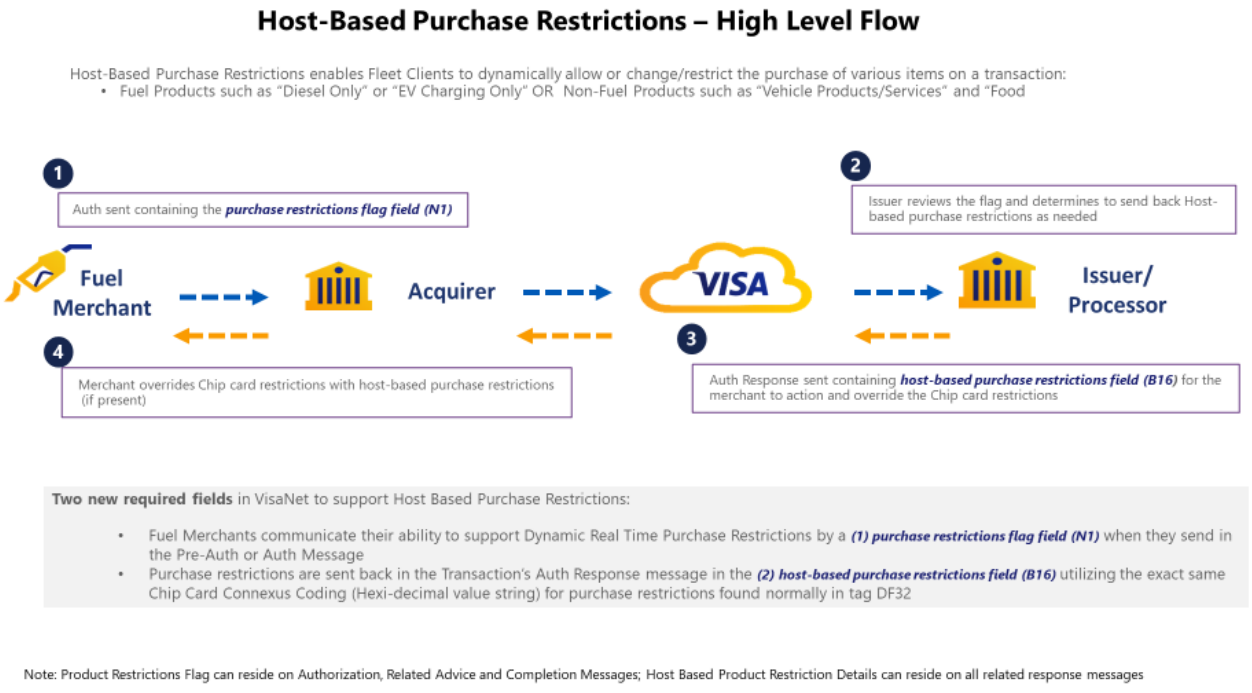
Examples of controls:

- An Issuer could have a control on their Processor system that checks the Driver ID on the Authorization to a list/table for valid driver ids for that particular card account and declines the Authorization if the Driver ID is not on the list/table.
- An Issuer could have a control on their Processor system that checks the Odometer on the current authorization (for a fuel purchase) and looks at the Odometer reading on the last authorization (for a fuel purchase) and does a calculation to validate it is only for an acceptable amount of mileage—to prevent the card being misused for personal gas consumption or other non-compliant activities.

Method 2: Host-Based Purchase Restrictions

As part of Visa Fleet 2.0 requirements, Visa is enabling a process that allows Merchants to indicate via a flag in the authorization request (0100) what controls they can support at their POS. Upon checking this flag, Issuers can send back a set of Host-Based Purchase Restrictions in the Auth Response (0110) to override the Chip-Based Purchase Restrictions (tag 'DF32'). This allows an Issuer to have dynamic control of the purchase and only allow the restriction they are passing back.

Figure 2-3: Host-Based Purchase Restrictions



As part of the online authorization message, Merchants would set a Purchase Restrictions Flag (N1) to indicate:

- **No Restrictions Supported=Zeroes, $Null, Spaces or Other Values**— Merchant or Acquirer does not support Chip-Based Purchase Restrictions nor Host-Based Purchase Restrictions.

  Implication: This implies this merchant cannot support Chip- or Host-Based Purchase Restrictions.

- **Chip-Based=1**—Merchant can support the DF32 restrictions on the chip card. The Merchant/Acquirer chain cannot support purchase restrictions coming back from the host.

  Implication: This Merchant can only apply purchase restrictions as set on the card.

- **Host-Based=2**—Merchant/Acquirer chain can receive the Host-Based Purchase Restrictions (at the EMV pump or in-store) coming back in the online message. The chip restrictions are not considered at all, the Merchant will consider the host-based restrictions only.

  Implication: This Merchant can only apply Host-Based Purchase Restrictions returned as part of an online message.

- **Both Chip-Based and Host-Based=3**—The host-based restrictions override the restrictions on the Chip.

  Implication: This is a fully compliant Fleet solution that can handle both host-based and Chip-Based Purchase Restrictions.

Issuers should check the Purchase Restrictions Flag above. If the value is Host-Based (2) or Both Chip-Based and Host-Based (3) in the online authorization response message, Issuers can send back a Host-Based Purchase Restrictions field:

- **Host-Based Purchase Restrictions (size of B16 bytes)**—For this field, the host should respond with a product restriction encoded using the same method as used for the chip (data tag 'DF32'); values would contain a hexadecimal string such as '46800000000000E0'. This string would be the actual coding to replace what was obtained from the chip card for Merchants to follow. For this particular example, this coding means the Issuer wants to apply the following product restriction for gas only (any grade).

  As this is an optional field, if the Host-Based Purchase Restrictions Detail is not sent back by the Issuer to the Merchant, the restrictions from the Chip are executed as normal. If the Host-Based Purchase Restrictions Detail is sent back by the Issuer to the Merchant, the host-based restrictions override the restrictions on the chip, unless, the Chip-Based purchase restrictions (tag 'DF32'), byte 1 bit 8 is specifically set to always apply what is on the chip.

  The first 8 bytes of the online reply should be populated with the Purchase Restrictions exactly as per the card. The 2nd 8 bytes is RFU and should be filled with hex 0's: "00 00 00 00 00 00 00 00".

Note: Host-Based purchase restrictions can be used as an interim solution for legacy cards and token-based transactions that have not yet been upgraded to the full-chip solution. This allows the Issuer the flexibility to provide purchase restrictions to Merchant solutions that support either Host-Based (2) or Both Chip-Based and Host-Based (3) solutions. This should be seen as a temporary solution until a Full-Chip solution can be rolled out to the client

2.5 Card Design þ

For card design requirements for Visa Fleet Cards, Issuers are to consult the Visa Product Brand Standards site. For access to the Visa Product Brand Standards, please contact your Visa Representative.

2.6 Card Personalization with Card Perso Bureaus (Mag Stripe and Chip)

It is highly recommended to use an experienced Card Personalization Bureaus. For information regarding approved vendors, refer to https://technologypartner.visa.com/

For an overview of Contact and Contactless Card Fulfillment Considerations and personalization requirement, please refer to the US_VSDC Chip Contact and Contactless IIG. The standard process for issuing a chip card can be followed. In addition to the standard chip personalization there is specific date personalization requirements, which can be pulled from the Visa-Fleet-Chip-Enhancements document for the following fields:

- Appendix A: Application Selection Registered Proprietary Data (ASRPD) Layout (tag '9F0A')
- Appendix B: Prompting (tag 'DF30') Layout
- Appendix C: Purchase Restrictions (tag 'DF32') Layout
- Appendix D: Track 2 Equivalent Data (tag '57') Layout

The Visa Personalization Assistant may be used to assist you setting up the personalization requirements accordingly.

Note: The card management system that Issuers and Processors use along with their business processes (card creation, card configuration, and so on) will need to be upgraded in the Issuer environment to provide for the additional prompting and restrictions the Issuers want to offer when implementing the above.

2.7 Data Needs and Capabilities for Your Company

VisaNet provides Visa Fleet L2/L3 data along with the transaction directly to the Issuers (and their Processors) on the Authorization and Clearing messages. Another portion of Visa, specifically the Visa Business Solutions Data Platform can also provide Transactional and Enhanced data relating to Visa Fleet Cards along with other Enhanced Data pertaining to corporate cards, purchasing cards, etc. an Issuer or end corporate Client may require.

From the Visa Business Solutions Data Platform, transactional and Enhanced Data may be sent to:

- A third-party system Visa has an existing feed already established with for various purpose (expense management systems such as Concur, Expensify, Chrome River, etc.); new feeds can be setup as needed for additional third-party systems or specific Client endpoints
- A third-party system for specific Fleet/Fuel services (that Visa supports) such as tax reclamation services
- A Fleet Telematics provider for transactional and Enhanced Data information to flow into their Fleet Management System.

Issuers should consult with their Clients on card programs and determine what data will be required to provide to the corporate and provide it themselves (through their own Issuer systems); they can also work with VBS Implementation teams in the region for data services and data delivery from the Visa Business Solutions Data Platform.

For more information, see Chapter 4: VisaNet and VBS Fleet Processing.

2.8 Visa Fleet Card Management þ

Clients with vehicles require the ability to facilitate card management through use of online tools that provide access to card account details that can be modified real-time. The tool should also track any changes to Cardholder accounts to provide an audit trail. Capabilities should include, but not be limited to:

- Create new accounts and request replacement cards
- Update Cardholder information such as address and name
- Make temporary or permanent changes to individual cash and credit limits within established ranges
- Block or limit Cardholder spending within certain categories (e.g., MCC blocking)
- Set single purchase limits as well as daily, monthly, and cycle spending limits for specific categories

Generally, Fleet Managers are as much on the move as the vehicles in their organization. Having a card management solution that enables fleet managers to make updates on a mobile device will bring greater utility and value to the fleet Client.

Note: The card management system that Issuers and Processors use along with their business processes (card creation, card configuration, and so on) will need to be upgraded in the Issuer environment to provide for the additional prompting and restrictions the Issuers want to offer when implementing the above.

2.9 Visa Fuel Tax Reclamation Service

Many government and not-for-profit organizations usages are exempt or partially exempt from fuel taxes. Visa has developed a unique fuel tax reclamation solution for its tax-exempt Clients by which Visa arranges for filings for tax refunds for fuel purchases made with Visa Fleet.

Visa uses a service bureau that is an expert in federal, state, and local fuel tax recovery procedures to:

- Evaluate all eligible transactions
- Research the vehicle/fuel usage
- Prepare and submit applicable claims to the appropriate taxing authorities for credits or refunds
- In cooperation with Visa financial institutions, manage all recovered funds distribution

Advantages of Using Visa's Tax Reclamation Solution

- Provides a simple, single process that is clearly authorized under state rules.
- Reduces the financial and administrative burden of Merchants, Processors, Acquirers, and Visa financial institutions to carry additional funds and reconcile recovered amounts.
- In most cases, the Merchant, or its service provider, no longer needs to file the necessary credit claims with all the various tax authorities.

Note: This program only recovers fuel taxes in specific states. This program only supports transactions with Merchants that capture Enhanced Data, as this data is a key element of the fuel tax reclamation service.

Visa financial institutions should contact their Visa Account Executive for assistance in enrolling Clients into the Visa Fuel Tax Reclamation Service.

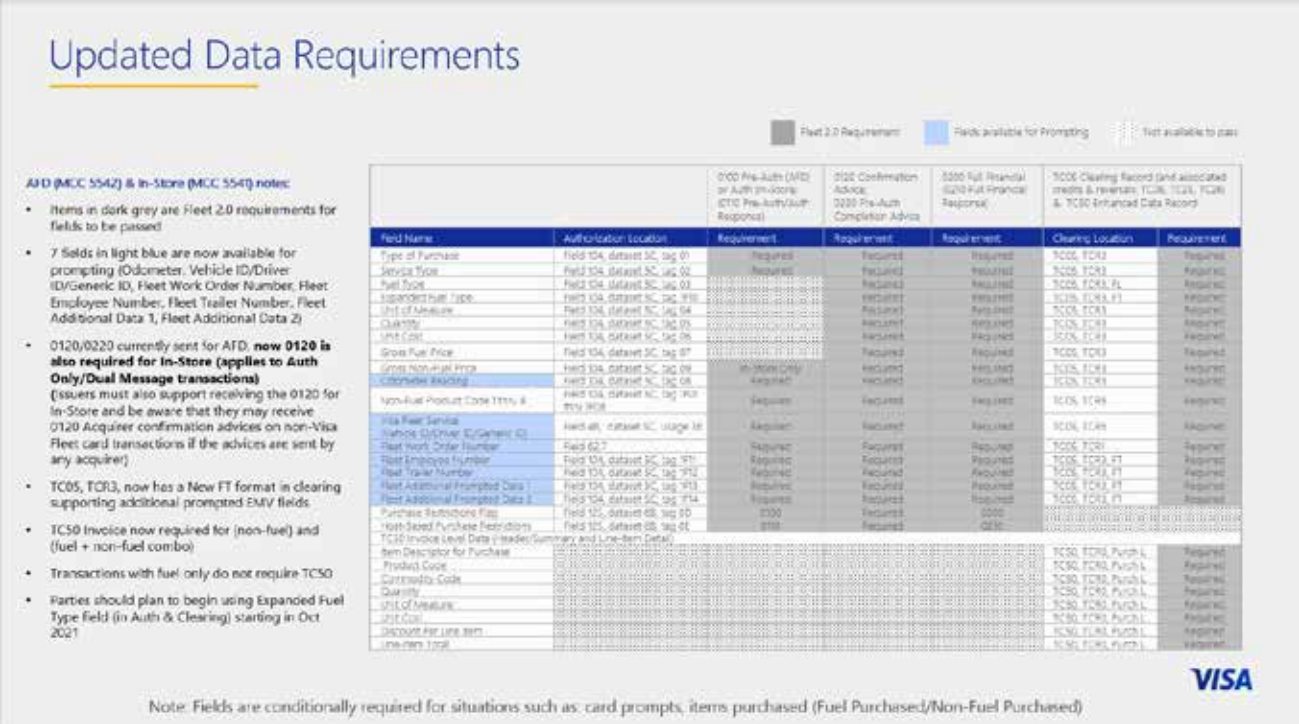
2.10 Data Flow between VisaNet and Issuer/Processor Systems

Issuers must be set up to receive Authorization and Clearing data from VisaNet into their Issuer/ Processor systems for Visa Fleet and provide appropriate response notifications upon receipt.

Below are the Data Requirements for Visa Fleet globally that will provide Fleet/Fuel information for Issuers and their Clients. This guide and the global VisaNet test scripts have been structured to support the matrix below. More field details are covered in Chapter 4.

Items outlined below are also in plan to flow in from Merchants and Acquirers in the U.S. Region as per the Current Fleet 2.0 Timeline as they make changes per Visa notifications.

Figure 2-4: Updated Data Requirements



For easier reading, an Excel file containing this table is provided as an attachment to this document. The Excel file is available in the Attachments pane, located at the left of the PDF window. Double-click the attachment to open the Excel file.

Note: For a list of the fields needed in Authorization and Clearing messages, definitions for messages/fields, please consult the VisaNet technical documentation materials

2.11 Loading Visa Fleet Cards into Mobile Apps þ

Mobile apps provide unique opportunities for Visa Fleet institutions, where they can either feed information directly to the Visa Fleet Issuer for pre-authorization, or where they can interact in unique new ways with their infrastructure to automate the process and make it easier for the driver.

Loading the Card as a Credential on File

A mobile app linked to the Visa Fleet institution where an IP connection is used via a private interface to communicate with the AFD and C-Store. This requires an integration into the Point of Sale solution for the particular Merchant of Fuel Brand in order to activate the pump but adds additional flexibility when it comes to services that can be provided.

The Mobile application can pre-authorize and provide additional information to the Visa Fleet supplied and traditional rails can be utilized for funds movement via a credential on file. This solution will be limited to environments where the integration has been performed.

2.12 Data Quality Issues, Process, and Interchange

Importance of Visa Fleet Data Quality

High-level data quality leads to better decision-making for Clients. Visa understands that Clients rely heavily on the data messages in authorization and clearing records to make critical business decisions.

Visa monitors priority data fields in data file messages to ensure that the data is present, accurate, valid, and consistent. Incorrect data affects all stakeholders in our payment's ecosystem: Issuers, Acquirers, Processors, Cardholders, and Merchants. Visa is committed to maintaining data quality within the Visa network, ensuring data accuracy and consistency, and mitigating regulatory and legislative risks before they occur.

Visa may take compliance actions and/or assess non-compliance assessments against entities that are repeatedly non-compliant using the schedules communicated through applicable program channels.

Process for Monitoring Visa Fleet Data Quality

Visa partners with Issuers to recognize card accounts with prompting and service restrictions. Visa pulls sample transaction data and actively monitors fuel transactions to identify data quality issues.

Visa monitors fuel Merchants' data and identifies inconsistencies. If a data quality issue arises, Visa may contact the Merchant's Acquirer to work in conjunction with the Merchant to research and find a solution.

Merchants should proactively check for data quality discrepancies, (e.g., ensure the number of gallons (Quantity) x price per gallon (Unit Cost) minus any discounts equal the Line Item Total amount; ensure that line item detail totals (including any non-fuel purchases), pass arithmetic validation and match the total transaction amount).

Acquirers should carefully review their Merchants' and Processors' transaction coding and business practices to ensure compliance with the Visa Rules. Once a solution is in place, Visa will monitor to ensure the data is flowing through the systems accurately and all parties are satisfied with the outcome.

Process for Issuers to Report Data Quality Fleet Issues

Issuers who experience data quality issues are asked to contact their Visa representative. Your Visa representative will bring in the appropriate individuals to help research and solve the issue.

Process for Merchants and Acquirers to Report Data Quality Fleet Issues

Contact your Visa representative to receive assistance on data quality issues. A subject matter expert will reach out to help investigate and solve the matter.

Visa Fleet Interchange Reimbursement Fee Qualification

Transactions must comply with Interchange Reimbursement Fee (IRF) qualification and processing requirements, as specified in the *VisaNet Business Enhancements Technical Letter and Implementation Guide; Visa U.S.A. Inc. Operating Regulations, Volumes I and II*; and *U.S. Interchange Reimbursement Fee Rate Qualification Guide*.

The *U.S. Interchange Reimbursement Fee Rate Qualification Guide*, located on https://www.visa.com, contains qualification criteria and processing requirements by IRF program; tables with key VisaNet data elements applicable to authorization and clearing processing; and flow charts illustrating transaction characteristics and how IRF programs apply.

2.13 Additional Support Materials

Visa Fleet Sales Materials

Visa supports Issuers and Fuel Merchants that are looking to sell in the Visa Fleet Solution through several impactful sales materials, including:

- Visa Fleet Product Overview Presentations
- Visa Fleet Product Brochures
- Sales Training

Please visit the Visa Fleet page on Visa Online or ask your Visa Representative for details.

Chapter 3: Merchant and Acquirer Steps / Guidelines

This chapter describes the Visa Fleet Card solution capabilities and guidelines for Merchants and Acquirers.

3.1 In-Store Transactions

This section deals exclusively with transactions that take place in an in-store (or inside) environment. It covers authorization transaction flow, acceptance procedures, and fraud and dispute mitigation.

In-Store—Authorization

The following illustration shows the authorization processing steps for an in-store transaction. It depicts the lifecycle for a credit, debit, or prepaid transaction. Please note that the processing events and activities may vary slightly for any one Merchant, Merchant bank, or card Issuer, depending on card and transaction type, and the processing system used. The transaction flows represent EMV contact chip, contactless chip, or magnetic stripe.

Figure 3-1: In-Store Authorization Flow

In-Store—Clearing and Settlement

Figure 3-2: In-Store Clearing and Settlement Flow

In-Store In-App Smart Phone Transaction Processing

Merchants who allow their customers to conduct in-store purchases using proprietary smart phone applications need to ensure the authorization messages contain the proper data elements to reflect these types of in-app purchases. Below is a chart of authorization message fields impacted by smart phone in-app purchases and the required data elements

Table 3-1: Smart Phone Authorization Message Fields

Authorization	In-App Service Station Transaction Values
Field 18 (Merchant Category Code)	5541
Field 22 (Point of Sale Entry Mode)	01 (Manual Key Entry) or 10 (Credential On File)
Field 25 (Point of Sale Condition Code)	59 (eCommerce)
Field 60.1 (Terminal Type)	0 (Unspecified)
Field 60.8 (Electronic Commerce Indicator)	Varies by authentication type

Note: In the event of chip and magnetic stripe failure, manual entry of cards can be optionally supported by Merchants. This functionality may only be supported in-store and the POS device must prompt for an ID and odometer reading when manually capturing a fleet card transaction.

3.2 Automated Fuel Dispenser (AFD) Transactions

This section deals exclusively with transactions handled in the automated fuel dispenser (outside) environment. It covers best practices to ensure customer satisfaction. This section addresses key transaction flows and explains Real-Time Clearing (RTC) benefits and considerations for adoption. It also details best practices for fraud prevention and dispute mitigation.

Authorization Methods

There are three ways to process AFD authorizations, depending on the situations detailed below.

Table 3-2: Ways to Process AFD Authorizations

Before Pumping, the Cardholder…	Use…
Identifies the exact amount of money to purchase gasoline	Authorization for the exact amount
Does not know how much the gasoline will cost	$1.00 status check procedure
Does not know how much the gasoline will cost and your Processor participates in Visa's Real-Time Clearing (RTC) program	Real-time processing of the estimated authorization amount, up to a maximum of $500

On the next pages, each of these authorization process flows is detailed and the corresponding clearing and settlement process flows.

The processing events and activities may vary slightly for any one Merchant, Merchant bank, or card Issuer, depending on card and transaction type, and the processing system used.

The transaction flow represents EMV contact chip, contactless chip, or magnetic stripe read card.

Note: Visa does not require a signature or PIN for AFD transactions. For chip transactions, the chip cryptogram amount should be whatever amount is contained in the authorization message. No chip data is required in the clearing/advice or the final amount notification from the dispenser as long as the transaction is online authorized.

Exact Amount

Exact Amount—Authorization

The following illustration walks through the authorization process for an automated fuel dispenser for an exact amount. It shows the lifecycle for a credit, debit, or prepaid transaction.

Figure 3-3: Exact Amount Authorization Flow

Exact Amount—Clearing and Settlement

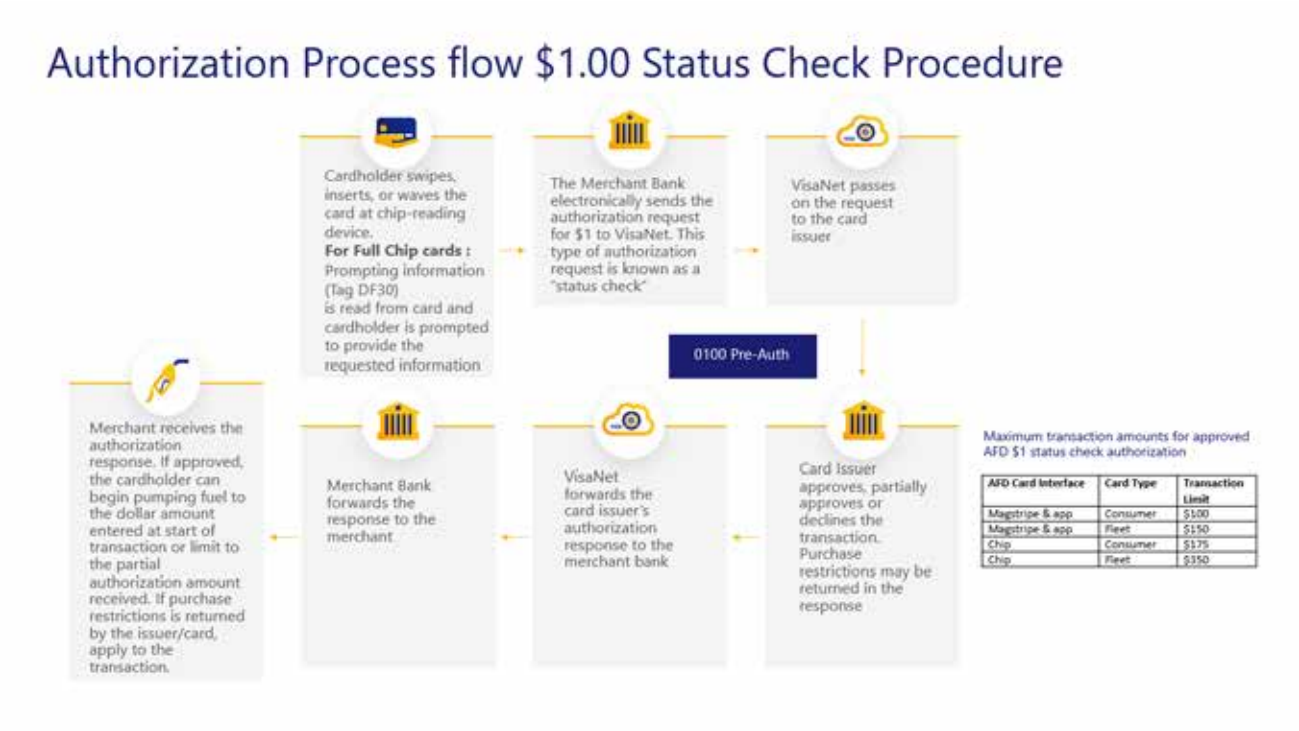
Figure 3-4: Exact Amount Clearing and Settlement Flow

One-Dollar Status Check

One Dollar Status Check—Authorization

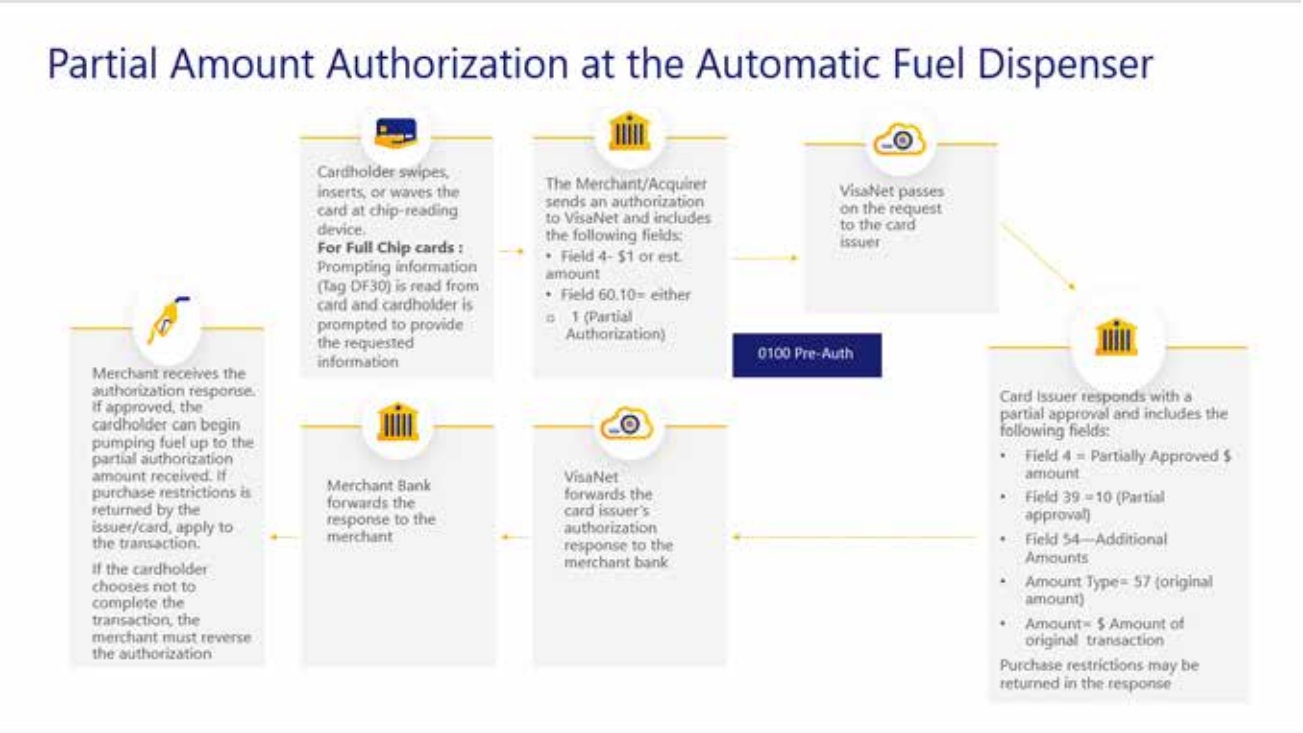
On this page details the process flow when performing a $1.00 status check. On the next page shows the process flow for the confirmation advice sent within two hours of the transaction.

Figure 3-5: One Dollar Status Check Authorization Flow



Note:

- The authorization dispute protection for AFD terminals performing $1.00 status checks is $100 for U.S. issued Visa Business, Visa Corporate, Visa Purchasing, and consumer cards. For Merchants who support chip-on-chip and partial authorizations, the limit is $175.
- The authorization dispute protection for AFD terminals performing $1.00 status checks for Visa Fleet cards is $150 for non-chip transactions. For Merchants who support chip-on-chip and partial authorizations, the limit is $350.
- If an authorization Dispute Condition 11.3 is submitted, then the dispute amount is limited to the amount that exceeded the approved authorization amount.
- For a 0120 Confirmation advice, a 57 response code should be handled in a similar fashion as a response code of 0 and marked as a successful response.



Note: For a 0120 Confirmation advice, a 57 response code should be handled in a similar fashion as a response code of 0 and marked as a successful response.

One Dollar Status Check—Confirmation Advice

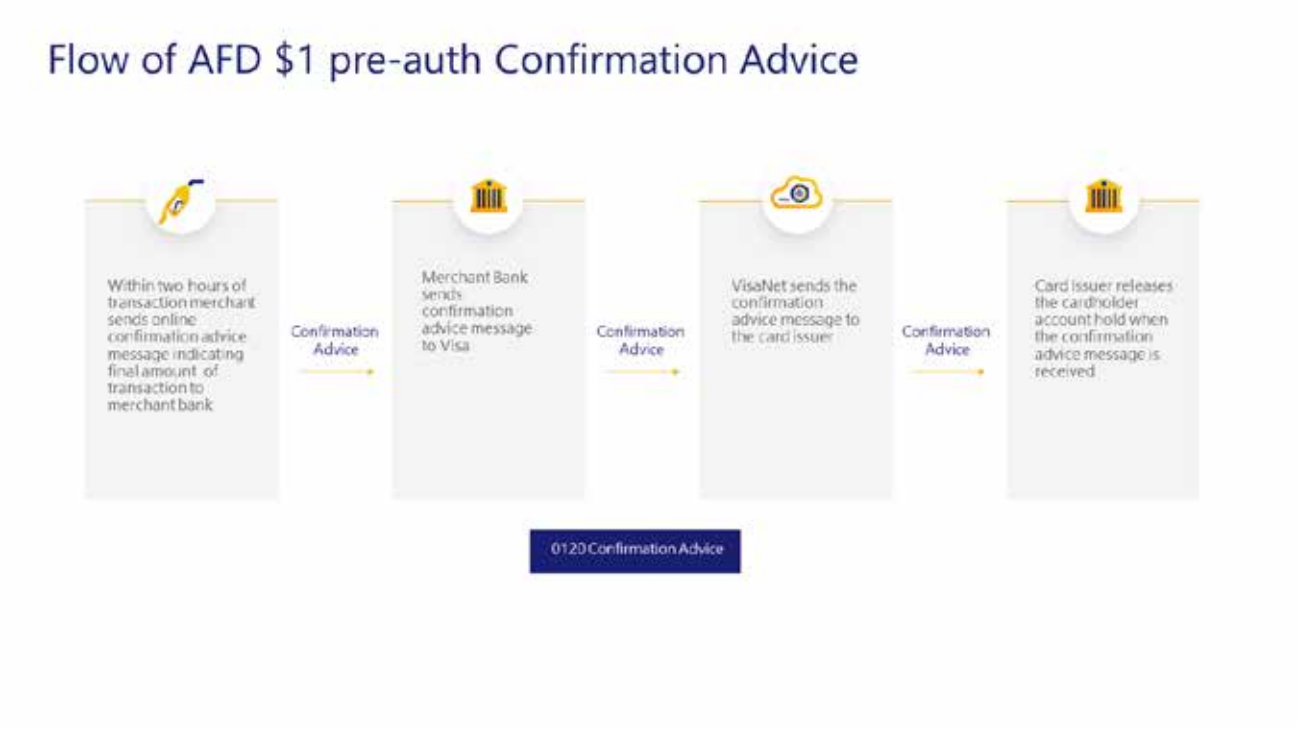
Visa Core Rules and Visa Product and Service Rules require U.S. AFD Merchants who perform $1.00 status checks to submit Acquirer Confirmation Advices (0120 non-financial messages) within two hours of the status check authorization.

These confirmation advice messages inform participating Issuers of the AFD transaction amounts, which in turn, provide more timely information so that they can effectively manage their Visa Cardholder accounts and enhance their purchase experience at the pump.

Upon receipt of the authorization holds, participating Issuers must release any holds exceeding the final transaction amount specified in the advice.

This requirement also benefits Merchants, as they may receive fewer customer complaints regarding hold amounts that are greater than the final transaction amount.

Figure 3-6: One Dollar Status Check Confirmation Advice Flow

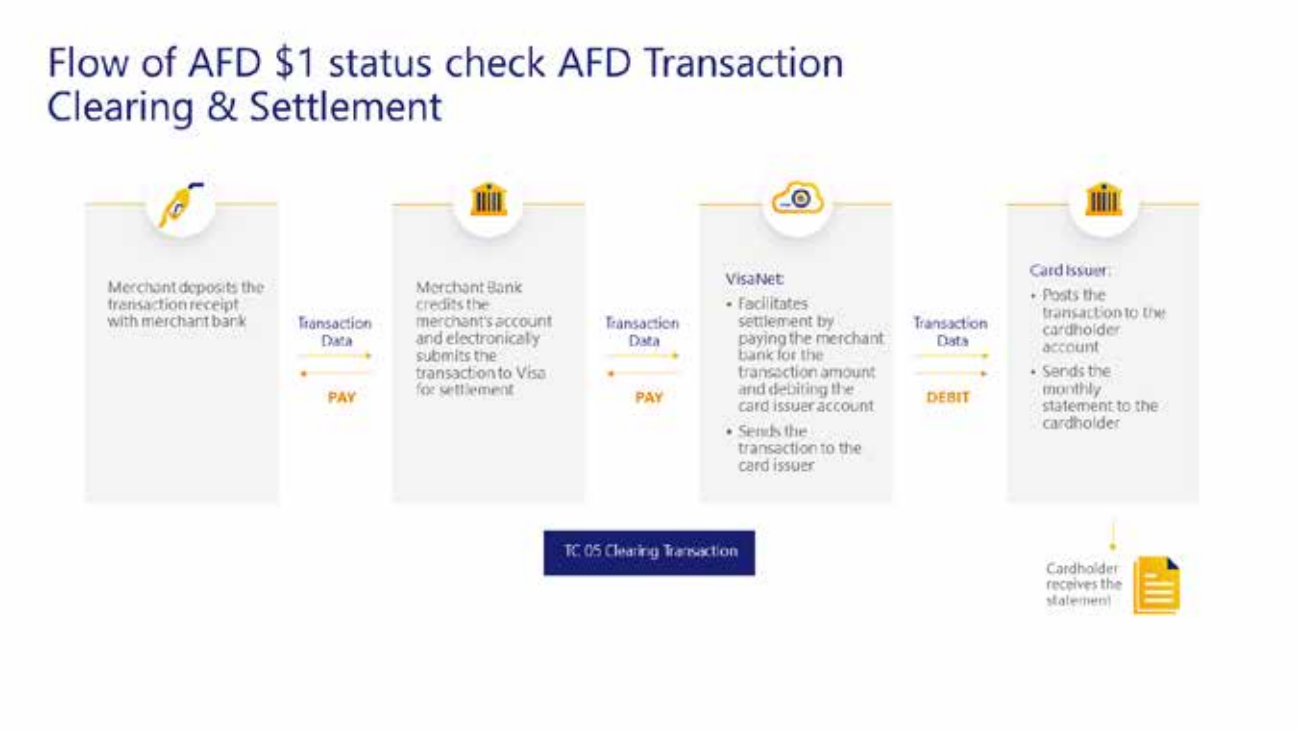


Note: For a 0120 Confirmation advice, a 57 response code should be handled in a similar fashion as a response code of 0 and marked as a successful response.

One Dollar Status Check—Clearing and Settlement

The following diagram illustrates the $1.00 status check authorization flow for clearing and settlement:

Figure 3-7: One Dollar Status Check Clearing and Settlement Flow



Visa's Real-Time Clearing (RTC) Program

Visa's Real-Time Clearing (RTC) program has been designed to help retail fuel Merchants facilitate more flexible payment acceptance at the pump.

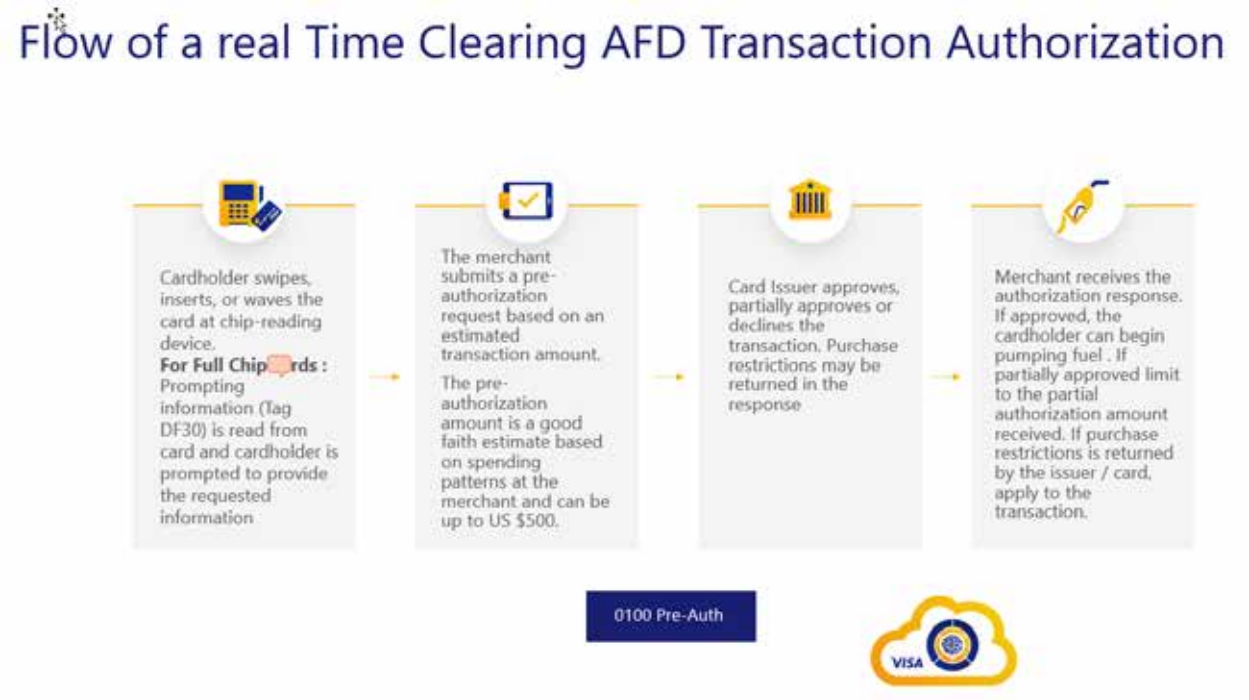
The RTC program provides retail fuel Merchants with multiple core benefits:

- **Greater Merchant flexibility**—The estimated authorization amounts can be optimized for different business needs, such as using higher amounts for automated fuel dispensers servicing commercial trucks. Using appropriate authorization amounts will result in optimal authorization rates.
- **Greater dispute protection**—The RTC program extends Dispute Condition 11.3 dispute protection up to the estimated amount of the pre-authorization (not to exceed U.S. $500).
- **Automatic interchange qualification**—The retail fuel Merchants' interchange qualification is automatic. It is not based on the settlement request and/or the qualification of transactions by the Merchant bank. In addition, there is no possibility of downgrade.
- **Simplified clearing**—Online clearing is not subject to batch processing. It is automatic and independent of other transactions. This has the potential for expediting the timing of funding to the Merchant.

Visa Real-Time Clearing—Authorization

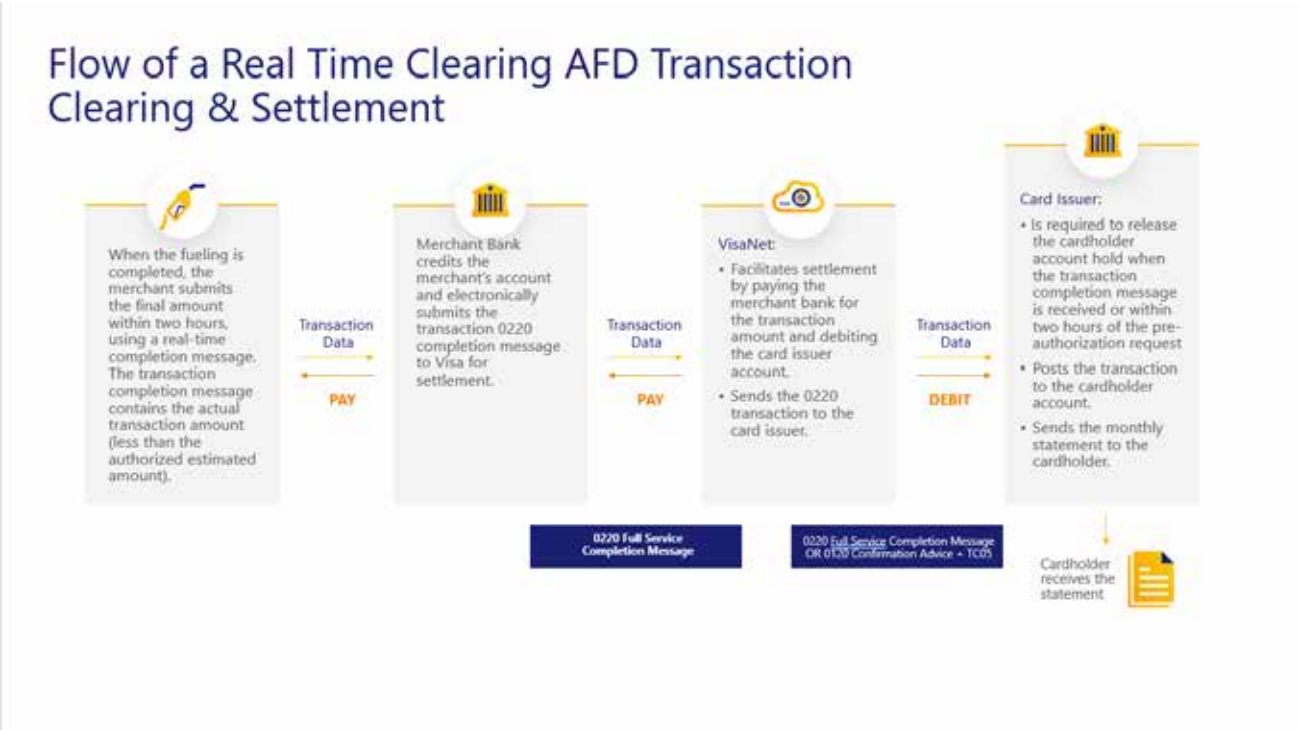
The following diagrams provide a high-level look at how the RTC program works.

Figure 3-8: AFD Real-Time Clearing Authorization Flow



Visa Real-Time Clearing—Clearing & Settlement

Figure 3-9: AFD Real-Time Clearing—Clearing and Settlement Flow



Visa Real-Time Clearing—Key Considerations

In order for retail fuel Merchants to realize the highlighted RTC program benefits, the following conditions must be met.

The Merchant bank must support:

- Partial authorization.
- Full Service / Single Message System (SMS) processing

Smart Phone In-App Transaction Processing

Merchants who allow their customers to conduct AFD purchases using smart phone applications need to ensure the authorization messages contain the proper data elements to reflect these types of purchases. Below is a chart of authorization message fields impacted by smart phone in-app purchases and the required data elements.

Table 3-3: Smart Phone In-App Authorization Fields

Authorization Fields	Change from Card Present AFD Transaction Values	In-App Transaction Values
Field 18 (Merchant Category Code)	No	5542
Field 22 (Point of Sale Entry Mode)	Yes	01 (Manual Key Entry) or 10 (Credential On File)
Field 25 (Point of Sale Condition Code)	Yes	59 (E-Commerce)
Field 60.1 (Terminal Type)	Yes	0 (Unspecified)
Field 60.8 (Electronic Commerce Indicator)	Yes	Varies by authentication type

Special considerations for additional fuel types

Merchants who sell additional fuel types such as DEF (Diesel Exhaust Fluid), Reefer, and so on, please refer to Chapter 6: Upcoming Changes for Fleet Capabilities for full details on how to process.

Note:

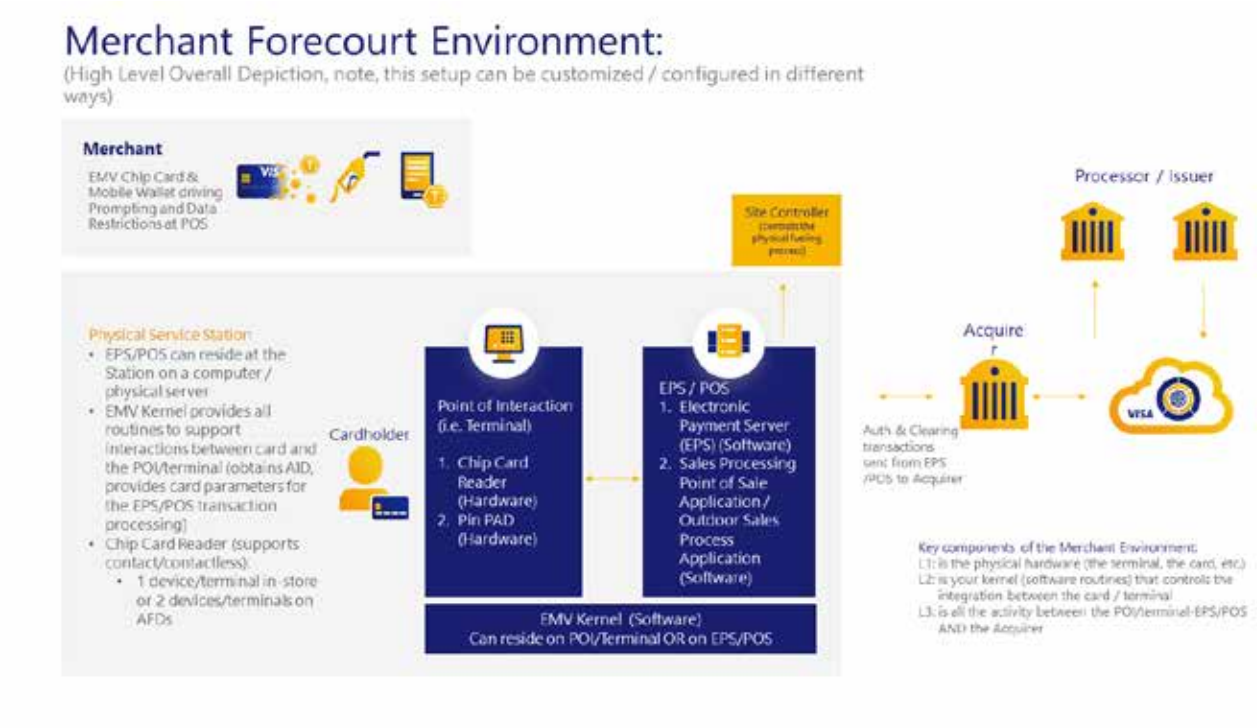
- Reefer fuel is a fuel for refrigerated vehicles and therefore doesn't have road taxes included in the cost. Any applicable non-taxable fuel type such as road non-taxed product codes, 311-320 can be used.
- Acquirers that process fuel/electric-vehicle charging transactions may optionally support the new dataset, tags, and values as described in Chapter 6 in V.I.P If you support any Over the Road Trucking merchants, it is highly recommended to implement support for additional fuel codes.

Merchant Forecourt Environment

The typical Architecture between different AFD forecourts could be significantly different.

Typically, it would consist of an EPS (Electronic Payment Server) that is linked to multiple terminals, both inside in the C-Store as well as outside on the AFD (Automatic Fuel Dispensers). The site controller typically activates, and tracks spend on the pumps on the forecourt.

Figure 3-10: Merchant Forecourt Environment



3.3 Typical EMV Transaction Flow þ

The typical EMV transaction flow at a fuel location, from the Cardholder through to the Issuer. This architecture includes the following logical entities:

- **Cardholder**—The person in possession of the EMV chip enabled card. The term used is “card”, but it may be a contactless transaction conducted using a non-card form factor, such as a mobile phone. In the fleet environment, this person is often referred to as the Driver.
- **Point of Interaction (POI)**—The device that may include the EMV Kernel. In the fleet environment, it is often where prompts are entered (if required).
  - **Level 1: Hardware**—The physical card reader, logical interface, and protocol for transmission of payments data.
  - **Level 2: Software Kernel**—The software that manages the dialogue between the card and the terminal and processes the data extracted from the card.
  - **Level 3: Application**—The payment application performs functions necessary to integrate the card reader and EMV kernel into a complete payment solution. These include communication with the acquirer, and the user interface.

Card brand validation is performed against the entire processing solution (components of Level 1 and Level 2, plus the payment application).

Architecture may differ significantly from site to site. Note that the architecture to support inside payments and outside payments may be the same or different within a single site.

Implementation Details: Purchase Restrictions and Prompting

There are two primary methods for purchase restriction enforcement—Host-Based and Chip-Based. To simplify implementation, the purchase restrictions are implemented in the same format irrespective of reading of the chip or receiving as part of the online message received from the Issuer.

Host-Based Purchase Restrictions

As part of Visa Fleet 2.0 requirements, Visa is enabling a process that allows Merchants to indicate via a flag in the incoming authorization (0100), what controls they can support at their POS. Upon checking this flag, Issuers can send back a set of Host-Based Purchase Restrictions in the Auth Response (0110) to override the Chip-Based Purchase Restrictions (tag 'DF32'). This allows an Issuer to have dynamic control of the purchase and only allow the restriction they are passing back.

Figure 3-11: Host-Based Purchase Restrictions

As part of the online authorization message, Merchants would set a Purchase Restrictions Flag to indicate:

- **No Restrictions Supported=Zeroes, $Null, Spaces or Other Values**—— Merchant or Acquirer does not support Chip-Based Purchase Restrictions nor Host-Based Purchase Restrictions.

  Implication: This implies this merchant cannot support Chip- or Host-Based Purchase Restrictions.

- **Chip-Based=1**—Merchant can support the DF32 restrictions on the chip card. The Merchant/Acquirer chain cannot support purchase restrictions coming back from the host.

  Implication: This Merchant can only apply purchase restrictions as set on the card.

- **Host-Based=2**—Merchant/Acquirer chain can receive the Host-Based Purchase Restrictions (at the EMV pump or in-store) coming back in the 0110 message. The chip restrictions are not considered at all, the Merchant will consider the host-based restrictions only.

  Implication: This Merchant can only apply Host-Based Purchase Restrictions returned as part of an online message

- **Both Chip-Based and Host-Based=3**—The host-based restrictions override the restrictions on the Chip.

  Implication: This is a fully compliant Fleet solution that can handle both host-based and Chip-Based Purchase Restrictions.

Note: Host-Based purchase restrictions can be used as an interim solution for legacy cards and token-based transactions that have not yet been upgraded to the full-chip solution. This allows the Issuer the flexibility to provide purchase restrictions to Merchant solutions that support either Host-Based (2) or Both Chip-Based and Host-Based (3) solutions. This should be seen as a temporary solution until a Full-Chip solution can be rolled out to the client

Chip-Based Purchase Restrictions

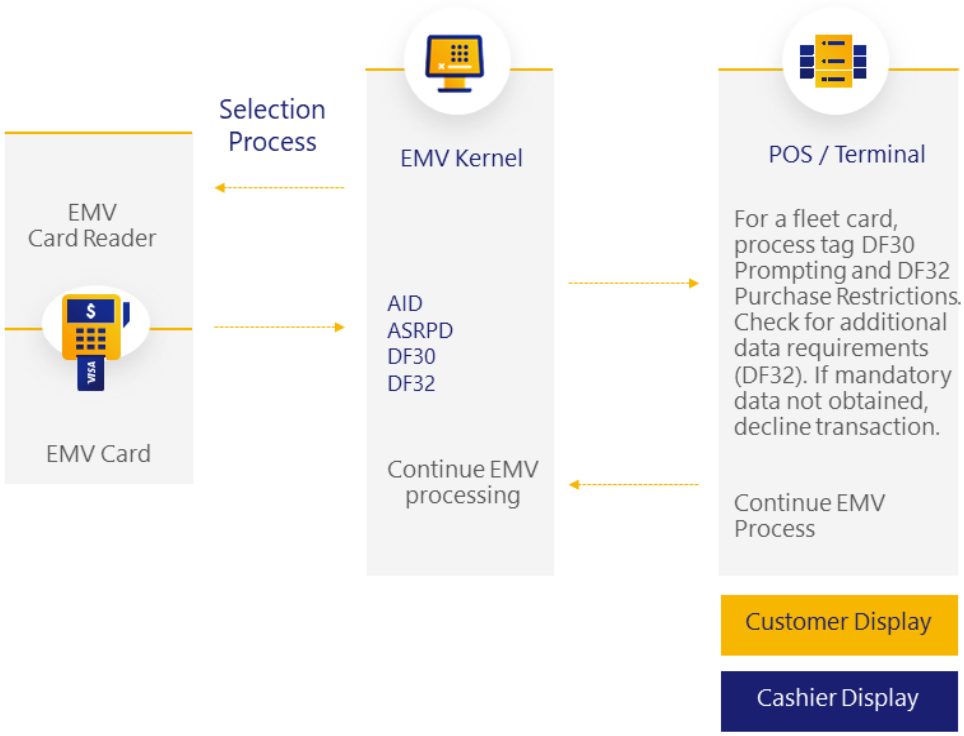
For Visa Fleet cards that require local (POS) processing for restricting the purchase of products, the tag 'DF32' Purchase Restriction can be utilized. Tag 'DF32' is used to support product controls on a more granular level. The tag carries a flag to indicate if it is to be used always or just in offline situations where the Host-Based Purchase Restrictions is not returned as part of the online authorization message.

High-level Forecourt Processing—Full Chip Solution

The following diagram shows the high-level transaction flow using the Full chip solution. The POS/Terminal application should recognize the fuel card and continue processing the new Fleet Data Elements.

Visa Fleet Implementation Guide

Key steps to implement a Fleet Card for card payment / enhanced data processing



Outline of Transaction Flow (Example)

1. The POS/Terminal application checks the Issuing (ISO) BIN to check if this is a Visa Fleet card, and if it is a Visa Fleet Card, then:
   a. If the ASRPD (Application Selection Registered Propriety Data) tag '9F0A' is present and Byte 5 bit 8 is 1b = Fleet, this is a Full Chip Solution
   b. If the ASRPD (Application Selection Registered Propriety Data) Tag '9F0A' is present and Byte 5 bit 8 is 0b = Fleet Enhanced Functionality not supported, process as card with no restrictions (no prompting or purchase restriction required)
   c. If the ASRPD (Application Selection Registered Propriety Data) Tag '9F0A' is not present process this transaction as a Track 2 Chip solution and use tag '57'
2. For Full Chip Solution the POS/Terminal application reads tag 'DF30' Prompting and tag 'DF32' Purchase Restriction.
3. If tag 'DF30' Prompting data is present. Check this data element to determine if any additional data is required, the format of that data, and how the data can be obtained.
4. Having successfully obtained all the mandatory additional data, the application can now continue the transaction payment process.
   a. If any of the mandatory additional data is not obtained the transaction should be declined by the Merchant POS.
5. If tag 'DF32' Purchase Restrictions is present, then:
   a. If the purchase restriction usage indicator is set to 0b (Host-Based, see Table 2-6: Byte 1: General), expect the purchase restriction to be returned as part of the online authorization message. If no purchase restrictions are returned as part of the online authorization, or the terminal cannot go online, apply the purchase restrictions present on the chip.
   b. If purchase restriction is set to 1b (Chip-Based), always apply purchase restrictions as set on the card.
6. Complete the EMV transaction to the card and continue with Fleet transaction flow logic.

Full Chip Solution and Additional Data Capturing

There are many ways to collect additional data during a transaction and it is important to consider the impact of using additional devices to gather this data during the EMV payment process.

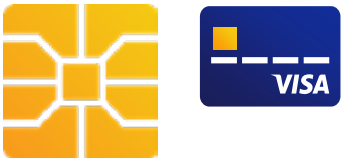
Full Chip Solution and Additional Data Manually Entered

This scenario presents no change to the current methods employed in carrying out a transaction.

Full Chip Solution and Additional Data from Another Separate Reading Device

In this case, it is assumed that there will be a separate reading device (magnetic stripe reader, RF reader, etc.). Tag ‘DF30’ requirements will be processed by the POS/Terminal application separately to the EMV process.

Full Chip Solution Containing Additional Data



In this case, the card may contain fleet data personalized onto the chip card by the issuer. If it contains additional fleet data, this additional data will be held in the Issuer discretionary data area of the card. This data will be automatically read by the POS/Terminal application after which it will decide if further additional data is required from other devices.

Example 1: All Data on Full Chip card and a Single Chip Reader is used:

1. The application selection process begins, and the card returns the information.
2. The POS/Terminal application checks the Issuing (ISO) BIN to check if this is a Visa Fleet Card, and if it is a Visa Fleet Card, then:
    a. The ASRPD (Application Selection Registered Propriety Data) tag '9F0A' is present and Byte 5 bit 8 is 1b = Fleet, this is a Full Chip Solution
3. The POS/Terminal application reads tag 'DF30' finding that the alphanumeric Vehicle ID is set to mandatory and is located on the chip card. It also finds that the Odometer reading is mandatory and is via manual entry.
4. The POS/Terminal application then finds tag 'DF41'. It retains the Vehicle ID from tag 'DF41'.
5. The POS/Terminal application prompts for manual entry of the Odometer reading. It retains the entered reading for later use.
6. Having successfully obtained all the mandatory additional data the application can now continue the EMV payment process.
7. Check tag 'DF32' (Purchase restrictions).
    a. If purchase restriction is set to 0b (Host-Based) (see Table 2-6: Byte 1: General), expect the Host-Based Purchase Restrictions to be returned. If Host-Based Purchase Restrictions are not returned, apply the purchase restrictions present on the card.
    b. If purchase restriction is set to 1b (Chip-Based), always apply purchase restrictions as set on the card.
8. To reiterate, on auth response, always apply purchase restrictions returned from the Host/Issuer, unless bit is set to 1b (Chip-Based), always apply purchase restrictions as set on the card.

Example 2: Magnetic Stripe Reader Separate to Chip Reader—Some Data on Fuel Card Chip:

The application selection process begins, and the card returns the information.

1. The POS/Terminal application checks the Issuing (ISO) BIN to check if this is a Visa Fleet Card, and if it is a Visa Fleet Card, then:
   a. The ASRPD (Application Selection Registered Propriety Data) tag '9F0A' is present and Byte 5 bit 8 is 1b = Fleet, this is a Full Chip Solution
2. The POS/Terminal application reads tag 'DF30' finding that the alphanumeric Vehicle ID is set to mandatory and is located on the chip card. It also finds that the Odometer reading is mandatory and is available from an RFID device or via manual entry
3. The POS/Terminal application then finds tag 'DF41'. It retains the Vehicle ID from tag 'DF41'.
4. The application then looks to the RF device to obtain the Odometer reading. The device is not found hence the application prompts for manual entry of the Odometer reading. It retains the entered reading for later use.
5. Having successfully obtained all the mandatory additional data the application can now continue the EMV payment process. If any of the mandatory additional data was not obtained, the transaction is declined.
6. Check tag 'DF32' (Purchase restrictions).
   a. If purchase restriction is set to 0b (Host-Based, see Table 2-6: Byte 1: General), expect the Host-Based Purchase Restriction to be returned. If the Host-Based Purchase Restriction is not returned, apply the purchase restriction present on the card.
   b. If the purchase restriction is set to 1b (Chip-Based), always apply purchase restrictions as set on the card.
7. To reiterate, on auth response, always apply purchase restrictions returned from the Host/Issuer, unless bit is set to 1b (Chip-Based), always apply purchase restrictions as set on the card.

EMV Fuel Card and Second Device Combinations

There are many ways to collect additional data during a transaction and it is important to consider the impact of using additional devices to gather this data during the EMV payment process.

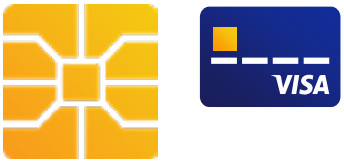
EMV Fuel Card and Additional Data Manually Entered

This scenario presents no change to the current methods employed in carrying out a transaction.

EMV Fuel Card and Additional Data from Another Separate Reading Device

In this case it is assumed that there will be another reading device (magnetic stripe reader, RF reader etc.), and thus there will be no need to remove the chip card. Tag ‘DF30’ requirements will be processed by the POS/EPS application prior to going back to the EMV process. Again, it is not necessary to remove the EMV payment card.

EMV Fuel Card Containing Additional Data



In this case, the card may contain fleet data personalized onto the chip card by the issuer. If it contains all the additional fleet data, there will be no need to remove the card. This additional data will be held in the Issuer discretionary data area of the card. This data will be read by the POS/EPS application after which it will decide if further additional data is required from further devices.

EMV Fuel Card and Additional Data on a Magnetic Stripe Card Using a Combined Reader

This is one case where it is necessary to remove the fuel card from the chip card reader to swipe a second magnetic stripe card and get the required additional data as shown in the illustration below.

Merchant Support for Magnetic Stripe / Track 2 on Chip

As the market is still moving towards EMV acceptance. Full backwards compatibility to magnetic stripe is needed.

Magnetic Stripe / Track 2 Equivalent data (tag '57')

Visa Fleet cards must be produced to certain magnetic stripe specifications. (See the *Payment Technology Standards Manual* on Visa Online, and also Appendix N: Legacy Magnetic Stripe Processing).

Magnetic Stripe Encoding

Issuers of Visa Fleet cards may specify Point-of-Sale (POS) prompts. Cards issued in Table 3-5: Visa Fleet Card Issuing (ISO) BIN Ranges must contain instructions for POS prompts in the Visa Reserved field in Track 1 and the Discretionary Data field in Track 2. Currently, only the last two positions before the End Sentinel are used for Visa Fleet card fields.

- **Service Enhancement Indicator**—An optional single-digit identifier that allows fleet managers to limit what can be purchased at eligible POS locations. Since the indicator is card-specific, the fleet manager can specify a different code for each card.
- **Service Prompt**—A single-digit identifier that allows fleet managers to select from a list of service options that drive data collection at POS. Since the indicator is card-specific, the fleet manager can specify a different code for each card. The identifier is interpreted by the terminal to prompt or not prompt for certain data.

The encoding and edit criteria for the magnetic stripe fields are summarized in Table 3-4.

Table 3-4: Magnetic Stripe Encoding for Visa Fleet cards

Field position	Field Name	Encoding Edit Criteria
1	Reserved	Reserved for future use; the default value is 0 (zero)
2	Service Enhancement Indicator	0 = Fleet, No Restriction (fuel, maintenance, and non-fuel purchases) 1 = Fleet (fuel- and maintenance-only purchases) 2 = Fleet/Fuel Only (fuel-only purchases) 3-9 = Reserved
3	Service Prompt	0 = Reserved (no prompt required) 1 = Identification (ID) and odometer reading 2 = Vehicle ID and odometer reading 3 = Driver ID and odometer reading 4 = Odometer reading 5 = No prompt 6 = Vehicle/Driver/Generic ID
End Sentinel	n/a	Not Applicable

3.4 Chip Terminal Changes

This section outlines chip terminal changes for the Visa Fleet Chip program.

Visa Smart Debit/Credit (VSDC) (Terminals)

It is assumed that Merchant terminals participating in the Visa Fleet Chip Program have been set up to support VSDC (which includes loading the Visa AID of 'A0 00 00 00 03 10 10' into the terminal). These changes can be supported in both full EMV and quick-chip processing.

For details, see the following:

- *U.S. Acquirer Implementation Guide*
- *Transaction Acceptance Device Requirements (TADR)*
- *Transaction Acceptance Device Guide (TADG)*
- *EMV Integrated Circuit Card (ICC) Specifications for Payment Systems*
- *Visa Contactless Payment Specification (VCPS)*

Important: Merchants need to work with their terminal vendor to ensure that the kernel in the terminal can provide all card originated data to the terminal so that the terminal can obtain and use the Visa Fleet chip data (Application Selection Registered Proprietary Data (ASRPD) (tag ‘9F0A’), Prompting (tag 'DF30'), Purchase Restrictions (tag 'DF32'), and prompted fleet data automatically read from the chip (tags 'DF40', 'DF41', 'DF43', 'DF52' through 'DF56').

Visa Fleet Identification (Mandatory)

The identification of Visa Fleet at the time of purchase is critical to ensure prompting and purchase restrictions are executed properly.

Merchants have two methods to identify Visa Fleet cards when the card is inserted or tapped at the Merchant's Point of Sale: 1) Fleet Card Issuing (ISO) BINs and 2) For Full Chip Solution Application Selection Registered Proprietary Data (ASRPD) (tag '9F0A').

Due to remaining legacy Visa Fleet cards in the market, a BIN list must be used to identify the Fleet card to consistently provide for fallback.

The Application Selection Registered Proprietary Data (ASRPD) (tag '9F0A') should be used to identify Full Chip Solution cards that can support tag ‘DF30’ Prompting and tag ‘DF32’ Purchase restrictions vs Track 2 on Chip solutions where Track 2 Equivalent Data tag ‘57’ is used.

Once magstripe fallback requirements has been removed and all fleet cards has been rolled out on the Full Chip Solution, the requirement for Issuing (ISO) BIN list management can be removed and Fleet cards can be identified using only the Application Selection Registered Proprietary Data (ASRPD) (tag '9F0A').

1. **Fleet Card Issuing (ISO) BINs** - Visa maintains a list of Issuing (ISO) Bank Identification Numbers (BINs) designated as Visa Fleet accounts. Visa Fleet Merchants and Acquirers identify Visa Fleet card accounts by referencing the list of Visa Fleet Issuing (ISO) BINs below.

   Visa Fleet cards must be issued from the following ranges (as of February 2020):

   Table 3-5: Visa Fleet Card Issuing (ISO) BIN Ranges

448462–448464	448561–448563	461412–461421
448466	448565–448569	461423–461425
448470–448471	448571–448576	461430–461435
448473–448475	448581–448582	461437–461459
448477	448584–448586	461461–461468
448483	448588–448589	461472–461479
448489–448492	448593–448597	461482–461485
448494–448498	448599–448601	461487–461499
448500–448501	448603–448610	471562
448503–448505	448613–448614	480701–480704
448507–448508	448616–448619	480706–480849
448510	448621	480851–480853
448513–448514	448623–448625	480855–480856
448518–448521	448628–448629	480859
448528–448532	448631–448663	480861–480864
448535–448538	448665-448674	480866
448540–448541	448676–448680	480869
448544-448547	448682–448686	480871–480874
448550–448551	448689–448699	480876
448553–448555	461400	480878–480899
448558–448559	461402–461410	

Note: Visa Fleet Issuing (ISO) BINs are updated on a periodic basis. For access to an updated list, please contact your Visa Representative or check the Visa Fleet page on Visa Online.

The Visa test BIN is 448558 and instruction on how to do L3 testing with this test BIN is in Chapter 5.

2. Application Selection Registered Proprietary Data (ASRPD) (tag '9F0A')

Issuers will be personalizing their cards with the ASRPD (tag '9F0A') containing the Visa Selection Data (ID '0002'). This data element indicates that the card is a Visa Fleet 2.0 card, and it may be used by the Merchant to identify the chip card as a Visa Fleet 2.0 card during transaction processing.

Table 3-6: Visa Selection Data (VSD), Part of ASRPD

Step	Name	Description
Byte 1	Region Code of Issuance	Issuers must personalize this byte with their regional code: U.S., Canada, Europe, Asia-Pacific (AP), Latin America and Caribbean (LAC), Central Europe, Middle East, and Africa (CEMEA)
Bytes 2-3	Country Code of Issuance	Issuers must personalize these bytes with their ISO numeric country code
Byte 4	Product Type	Value = '00' (Unspecified)
Byte 5	Visa Fleet Indicator	Issuers must personalize bit 8 with 1 to indicate Visa Fleet · If the issuer requires a one-card solution and wants to bypass prompting and purchase restrictions for certain profiles, bit 8 may be set up with a 0b = Fleet Enhanced Functionality not supported. The terminal will Process as a standard card. · Tag ‘DF30’ Prompting and tag ‘DF32’ Purchase Restrictions may only be personalized on the card if Byte 5 Bit 1 = 1b Visa Fleet.

Applicable Merchant MCCs

Fleet Merchants that fall within a list of Merchant Category Codes (MCCs) in the table below need to identify the Fleet card product by the two methods listed above to enable the recognition of fleet-enabled features, which may have Cardholder prompting instructions or purchase restrictions.

Table 3-7: Merchants that fall within the Fleet MCCs

MCC	Description
4214	Motor Freight Carriers
4468	Marinas, marine services, and supplies
4582	Airports, airport terminals, and flying fields
4784	Tolls & bridge fees
5013	Motor vehicle supplies and new parts
5172	Petroleum and petroleum products
5499	Miscellaneous food stores – convenience stores and specialty markets
5511	Automobile and truck dealers' sales, service, repairs, parts, and leasing
5521	Automobile and truck dealers – used only sales, service, repairs, parts, and leasing
5531	Auto/home supply stores
5532	Automotive tire stores
5533	Automotive parts and accessories
5541	Service Stations (C-Stores) – with or without ancillary service
5542	Automated Fuel Dispensers (AFD)
5552	Electric Vehicle Charging
5599	Miscellaneous automotive, aircraft, and farm equipment dealers – not elsewhere classified
5983	Fuel dealers – fuel oil, wood coal, and liquefied petroleum
6300	Insurance Sales/underwrite
7513	Trucks/utility trailer rentals
7523	Parking lots, parking meters and garages
7531	Automotive body repair shops

MCC	Description
7534	Tire re-treading and repair shops
7535	Automotive paint shops
7538	Automotive service
7542	Car washes
7549	Towing services
7699	Miscellaneous repair shops and related services
8675	Auto associations
9222	Fines

Prompting (tag 'DF30') (Mandatory)

The terminal reads Prompting (tag 'DF30') from the chip and displays prompting messages to the Cardholder/Clerk to obtain fleet data. For example, if the chip indicates that the odometer needs to be obtained, the terminal will display a message to obtain the odometer reading. This processing takes place between the card and terminal at the POS and before an authorization occurs.

- If Prompting tag 'DF30' is not returned by the card, the POS does not prompt for the fleet data.
- The following prompted fields are available:
  - Vehicle ID or Driver ID or Generic ID[13]
  - Odometer
  - Fleet Work Order/Purchase Order Number
  - Fleet Trailer Number
  - Fleet Employee Number
  - Fleet Additional Prompted Data 1 (determined by Issuer)
  - Fleet Additional Prompted Data 2 (determined by Issuer)
- Individual cards can have a maximum of seven prompted fields
- As noted in section Prompting (tag 'DF30') (Optional), Issuers may prompt for custom data using the Fleet Additional Prompted Data 1 and 2.
  - Unless a specific message is agreed on with the Issuer for what to prompt for, the terminal should display the generic message “Enter additional fleet data” (Field 1 or Field 2) to obtain the data from the Cardholder.

[13] As outlined in Appendix E: Host System Changes for Fleet Data, Issuers can only prompt for **one** of the following: Vehicle ID or Driver ID or Generic ID.

Processing Steps

Merchants must set up their terminal software to obtain and process Prompting (tag ‘DF30’) as outlined in the following table.

Note: If tag ‘DF 30’ is not present on the full-chip solution, no prompting is required. You can skip this table entirely.

Table 3-8: Prompting (tag 'DF30') Processing Steps

Step	Description
1	The terminal obtains tag 'DF30' from the card as part of the SELECT response. **Note**: Tag 'DF30’ contains three (3) bytes for each prompted data element. For example, if the Issuer is prompting for two data elements, tag 'DF30’ will contains six (6) bytes of data.
2	The terminal identifies the prompting data element through 7 bits (a combination of Byte 3 bits 6-5 and Byte 1 bits 8-4). For example, if the prompting data element is Driver ID (which consists of a value of 00100 and a Code Table of 00), Byte 3 bits 6-5 will contain 00 and Byte 1 bits 8-4 will contain 00100. For details, see the following tables: · Table B-1: Prompting (tag 'DF30'), Byte 1: Data Element · Table B-3: Prompting (tag 'DF30'), Byte 3: Print on Receipt, Enter in the Clear and Code Table · Table B-4: Prompting (tag 'DF30'), Byte 1, bits 8-4 & Byte 3, bits 6-5
3	The terminal checks to see if the fleet data is encoded on the card: · If it is, the terminal directly obtains the fleet data from the chip (and does not prompt the Cardholder for the data). The terminal will print the fleet data element on the receipt if tag 'DF30' Byte 3 bit 8 = 1. · If it is not, the terminal proceeds with the remaining steps in this table.
4	· If the fleet data element is not recognized by the terminal, the terminal checks the data mandatory/optional condition (Byte 1 bit 2): - **Mandatory**: Transaction is declined offline at the POS - Optional: The terminal skips the data element and processes the next data element (if present)

Step	Description
5	The terminal determines if data can be obtained from Device Type 1 (Byte 2 bits 8-5): · If Device Type 1 = All zeros (no device), check if manual entry supported (Byte 1 bit 1): - Supported: The terminal proceeds with manual entry - Not supported: The terminal skips the data element and processes the next data element (if present). Note: This scenario is not likely to occur and would be considered an Issuer personalization error. · If Device Type 1 = Any other value (magnetic stripe card, chip card, RFID transponder, bar code, or Automatic License Plate Recognition (ALPR)) and terminal supports Device Type 1 for the purpose of capturing fleet data, obtain data from Device Type 1. Note: The Merchant systems have been upgraded to read the device to capture the fleet data. · If Device Type 1 = Faulty/not available/not supported, check Device Type 2 **Important**: The Issuer and Merchant are responsible for defining the solution for obtaining fleet data from a separate device (including the technical specifications of the device, how the terminal will capture the information from the device, and how obtaining the data from the device fits into the overall Cardholder experience at the POS). The definition of the device solution is outside the scope of this document.
6	The terminal determines if data can be obtained from Device Type 2 (Byte 2 bits 4-1): · If Device Type 2 = all zeros (no device), check if manual entry supported (Byte 1 bit 1): - Supported: The terminal proceeds with manual entry - Not supported: The terminal skips the data element and processes the next data element (if present). · If Device Type 2 = any other value (magnetic stripe card, chip card, RFID transponder, bar code, or Automatic License Plate Recognition (ALPR) and terminal supports Device Type 2, obtain data from Device Type 2
7	· If Device Type 2 = faulty/not available/not supported, check if manual entry supported (Byte 1 bit 1) - Supported: Proceed with manual entry - Not supported and data element mandatory (Byte 1 bit 2 = 1): Transaction is declined by the terminal - Not supported and data element optional (Byte 1 bit 2 = 0): The terminal skips the data element and processes the next data element (if present)

Step	Description
8	For each data element: · The data may be either numeric or alphanumeric (AN). It is assumed that the terminal can accommodate either format. If the terminal needs to obtain the format of the data, it can obtain it from numeric/an (Byte 1 bit 3 where 0 = numeric and 1 = an). · The terminal checks to see if the fleet data can be entered in the clear (Enter in the Clear, Byte 3 bit 7 = 1) or if it must be masked upon entry (value of 0) (e.g., asterisks displayed for each character entered). · If the data element is required on the receipt (Print on Receipt, Byte 3 bit 8 = 1), the terminal prints the data element on the receipt (when a receipt is provided). · If capture of the data element is optional (Byte 1 bit 2), the Cardholder may choose to bypass the prompt. **Important**: While the Issuer will define whether or not the data must be masked upon entry, the Merchant is allowed to be more secure than the Issuer's setting but not less (i.e., if the Issuer does not require masking for a specific data element but the Merchant requires it to be masked, for example, to meet local requirements, the terminal can mask the data upon entry). The Merchant, however, cannot be less stringent than the Issuer (i.e., the terminal cannot display data in the clear if the Issuer requires it to be masked).
9	This process should be repeated for each data element.
10	The terminal will capture the entered data and submit it as part of authorization and clearing.

Important: There are prompts that may be considered Personally Identifiable Information (PII). Issuers, Processors, and Merchants are responsible for complying with all applicable security requirements and regulations with respect to Cardholder data as well as PII. PII regulations and laws, such as *General Data Protection Regulation (GDPR)* and the *California Consumer Privacy Act*, are evolving quickly, and compliance with these laws and regulations requires ongoing compliance work. As new regulations are added, compliance may not only require ceasing to collect certain data, but also additional protective measures for previously collected historical data.

Prompted Fleet Data Automatically Read from Chip

As an alternative to the Cardholder entering a fleet data element into the POS terminal or obtaining the data element from a secondary device (as part of Prompting, tag 'DF30'), the Issuer may encode the data element on the card during personalization. The list of data elements that the Issuer can encode on the card follow:

1. Vehicle ID (tag 'DF41'), Driver ID (tag 'DF43'), or Generic ID (tag 'DF40'): up to 17 bytes long.
2. Fleet Work Order/Purchase Order Number (tag 'DF54'): up to 25 bytes long.
3. Fleet Trailer Number (tag 'DF52'): up to 16 bytes long.
4. Fleet Employee Number (tag 'DF53'): up to 12 bytes long.
5. Fleet Additional Prompted Data 1 (tag 'DF55'): up to 20 bytes long.
6. Fleet Additional Prompted Data 2 (tag 'DF56'): up to 20 bytes long.

Important: If the data element is provided to the terminal by the card and identified in Prompting (tag 'DF30') as a data element to be obtained from the Cardholder, the terminal uses the data element provided by the card and ignores the information about the data element in tag 'DF30'. For example, if the terminal obtains the Vehicle ID from the card in tag 'DF41' and Vehicle ID is listed as a data element to obtain from the Cardholder in Prompting (tag 'DF30'), the terminal captures tag 'DF41' and provides it in authorization and clearing and does not prompt the Cardholder for the Vehicle ID as instructed in Prompting (tag 'DF30').

Chip-Based and Host-Based Purchase Restrictions (tag 'DF32') (Mandatory)

This section focuses on applying purchase restrictions at the POS (between the card and terminal). During transaction processing, the terminal will process the Purchase Restrictions (tag 'DF32') as follows.

- If Purchase Restrictions tag 'DF32' is not returned by the full-chip card, then Chip-Based Purchase Restrictions do not apply.
- If the purchase restriction usage indicator is set to 0b (Host-Based) (Table 2-6: Byte 1: General), expect the purchase restriction to be returned as part of the online authorization message. If no purchase restrictions are returned as part of the online authorization, or the terminal cannot go online, apply the purchase restrictions present on the chip.
- If purchase restriction usage is set to 1b (Chip-Based), expect that purchase restrictions are always performed as set on the card.
- If purchase restrictions apply to specific items, the terminal must not allow the restricted items to be purchased.

Important: If Purchase Restrictions tag 'DF32' is not returned by the card, then the POS does not perform Chip-Based Purchase Restrictions. It would still be possible for purchase restrictions to be returned via the host if the Merchant supports Host-Based Purchase Restrictions.

Pre-Requisite

Fuel and items in the Merchant's store must be encoded with Conexxus Payment System Product Codes (PSPC) (see www.conexxus.org/content/payment-system-product-codes for details) and then mapped to the categories in tag 'DF32' (general, fuels, products/services, miscellaneous, gasoline grades) so that they can be applied to the transaction.

Note: The interaction between the card and the terminal is based on the three-digit Conexxus Payment System Product Codes as outlined above for the purpose of purchase restrictions. For the transmission of product code information in VisaNet messages, see the following appendices:

Appendix I: Visa Fuel Type Codes

Appendix J: Visa Non-Fuel Product Codes

Processing Steps

Table 3-9: Purchase Restrictions (tag 'DF32') Processing Steps

Step	Description
1	The terminal obtains tag 'DF32' from the card as part of the SELECT response. **Note**: It is recommended that purchase restrictions be evaluated after prompting.
2	The terminal reads the Purchase Restrictions (Byte 1 bit 8) which indicates one of the following: · 0b – Host-Based: Purchase restrictions as set on the card are only used when Host-Based purchase restrictions are not returned by the Issuer. · 1b – Chip-Based: Purchasing restrictions as set on the card are always applied.
3	If purchasing restrictions apply to the transaction (i.e., the setting in bit 8 is “Host-Based” or “Chip-Based” and purchase restrictions are not returned by the host), the terminal then reviews the items being purchased against the purchasing restrictions in tag 'DF32' and does not allow the Cardholder to purchase any restricted items. If purchase restrictions are returned by the Issuer as part of the online authorization and purchase restrictions are set as “Host-Based”, replace the purchase restriction read from the card with the purchase restrictions received from the host. Examples of the types of restrictions follow. · Fuel allowed · Fuel types (gas, diesel, off-road fuels, Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG), electric, kerosene, aviation, marine) · Products and services (vehicles, aviation, marine, merchandise, store service) · Miscellaneous (tobacco, alcohol, food, lottery, money order, health/beauty, general publications, prepaid and bill pay) · Gasoline grades (super/premium, plus/midgrade, regular) **Important**: A bit setting of 1 indicates the item is allowed to be purchased while a setting of 0 indicates the item is restricted and may not be purchased.

The following are examples that demonstrate the transaction flow for common scenarios with purchase restrictions.

Scenario 1: Cardholder Uses AFD to Purchase Fuel

- Chip card is read at AFD.
- AFD reviews the fuel-related restrictions in tag 'DF32' against the fuel being purchased.
- If Purchase Restrictions (Byte 1 bit 8) = 0b (Host-Based) send the auth message online, and if purchase restrictions are received as part of the auth response, replace the purchase restrictions read from the card with the Host-Based Purchase Restriction. Restrict items allowed in line with the Purchase Restriction setting provide by the Issuer
- If Purchase Restrictions (Byte 1 bit 8) = 1b (Chip-Based) then pre-apply purchase restriction and don't allow any restriction categories.

Note: Purchasing restrictions can be applied before or after the authorization depending on Merchant procedures and chip settings.

Scenario 2: Cardholder Goes into Store to Pay for Fuel, Non-Fuel Items, or Both

Best Practice:

- If Purchase Restrictions (Byte 1 bit 8) =0b (Host-Based) send the auth message online, and if purchase restrictions are received as part of the auth response, replace the purchase restrictions read from the card with the Host-Based Purchase Restrictions. Restrict items allowed in line with the purchase restriction setting provided in the by the Issuer.
- If Purchase Restrictions (Byte 1 bit 8) = 1b (Chip-Based) then pre-apply purchase restriction and don't allow any restriction categories.

Processing Steps—Chip Based

1. Chip card is read at the beginning of the transaction before the items to be purchased are scanned.
2. If Purchase Restrictions (Byte 1 bit 8) = 1b (Chip-Based), the terminal reviews each scanned item against the purchase restrictions in Tag 'DF32'.
3. If applies to an item, it is flagged to the clerk.
4. The clerk removes the item from the transaction and sets it aside.
5. The terminal completes the transaction with the allowed items or, if no allowed items, declines the transaction at the POS.

Alternatively—Host-Based

- If Purchase Restrictions (Byte 1 bit 8) = 0b (Host-Based), send the auth message online. Include the transaction details as part of the online auth request.
  - If Purchase Restrictions are received as part of the auth response, replace the purchase restrictions read from the card with the Host-Based Purchase Restrictions. Remove any items not allowed as part of the purchase restrictions from the basket.
  - If the Issuer declines the transaction but returns Host-Based Purchase Restrictions in the decline message, remove the invalid items, and initiate a new transaction.

Note:

- If Host-Based Purchase Restrictions are received from the Issuer of the card, include the Host-Based Purchase Restrictions in the confirmation advice (e.g. 0120, 0220) of the transaction to the Issuer to confirm that the applicable purchase restrictions have been applied.
- Host-Based purchase restrictions can be used as an interim solution for legacy cards and token-based transactions that have not yet been upgraded to the full-chip solution. This allows the Issuer the flexibility to provide purchase restrictions to Merchant solutions that support either Host-Based (2) or Both Chip-Based and Host-Based (3) solutions. This should be seen as a temporary solution until a Full-Chip solution can be rolled out to the client

Scenario 3: Cardholder Uses AFD to Purchase Fuel and Goes into Store to Buy Non-Fuel Items

- These are two separate transactions.
- The first transaction follows Scenario 1 while the second follows Scenario 2.

Fuel Categories/Gasoline Grades

Merchant systems differ in their ability to restrict transactions to specific fuel categories (gas, diesel, off-road, electric, etc.) or gasoline grades (super/premium, plus/midgrade, regular). This section outlines three scenarios for fuel categories/gasoline grades:

- **Restrict to General Fuel Dispensing**—Merchant is only able to restrict to generic fuel dispensing (not fuel categories or gasoline grades)
  - Merchant checks 'Fuel Allowed' bit (Byte 1 bit 7) to determine if fuel is allowed
  - Note: Merchant does not check any other fuel related settings; Merchant does not check:
    - 'Fuel Categories/Gasoline Grades' (Byte 1 bit 6)
    - 'Fuel Categories' (Byte 2)
    - 'Gasoline Grades' (Byte 8)

- **Restrict to Fuel Categories but not Gasoline Grades**— Merchant is only able to restrict transactions to fuel categories but not gasoline grades
  - Merchant checks 'Fuel Allowed' bit (Byte 1 bit 7) to determine if fuel is allowed
  - Merchant checks the type of fuel being purchased against Fuel Categories (Byte 2)
- **Restrict to Fuel Categories and Gasoline Grades**— Merchant is able to restrict transactions to fuel categories and gasoline grades
  - Merchant checks 'Fuel Allowed' bit (Byte 1 bit 7) to determine if fuel is allowed
  - If fuel is anything other than gasoline (e.g., diesel or electric), Merchant checks 'Fuel Categories' (Byte 2) to see if the category is allowed
  - If fuel is gasoline, Merchant checks 'Fuel Categories/Gasoline Grades' bit (Byte 1 bit 6) to determine if fuel categories or gasoline grades are supported
    - **Fuel Categories Supported (Bit = 0)**—Merchant checks 'Fuel Categories' (Byte 2) to determine which categories of fuel are allowed (gas, diesel, off-road, electric, etc.)
    - **Gasoline Grades Supported (Bit = 1)**—Merchant checks 'Gasoline Grades' (Byte 8) to determine which grades of gasoline are allowed (super/premium, plus/midgrade, regular)

3.5 Merchant/Acquirer Host System Changes þ

Merchants/Acquirers must make host system changes to support the fleet chip data in authorization and clearing messages.

In particular, Acquirers need to provide for the following:

- Field 104 changes. See Appendix E: Host System Changes for Fleet Data.
- Field 125 changes. See Appendix E: Host System Changes for Fleet Data.
- Host-based purchase restrictions changes (See Appendix E: Host System Changes for Fleet Data), as identified by the following two data elements:
  - **Purchase Restrictions Flag (N1 byte)**—A 1-byte flag in the incoming Authorization messages (0100), and all related advice and completion messages; this Flag is to identify whether the Merchant/Acquirer chain supports the DF32 Chip-Based Purchase Restrictions (on the chip card), Host-Based Purchase Restrictions (at the Issuer/Processor), both, or neither. Flag value Details:
    - § **No Restrictions Supported=Zeroes, $Null, Spaces or Other Values**— Merchant or Acquirer does not support Chip-Based Purchase Restrictions nor Host-Based Purchase Restrictions.

      Implication: This implies this merchant cannot support Chip- or Host-Based Purchase Restrictions.
    - **Chip-Based=1**—Merchant can support the DF32 restrictions on the chip card. The Merchant/Acquirer chain cannot support purchase restrictions coming back from the host.

      Implication: This Merchant can only apply purchase restrictions as set on the card.
    - **Host-Based=2**—Merchant/Acquirer chain can receive the Host-Based Purchase Restrictions (at the EMV pump or in-store) coming back in the 0110 message. The chip restrictions are not considered at all, the Merchant will consider the host-based restrictions only.

      Implication: This Merchant can only apply Host-Based Purchase Restrictions returned as part of an online message
    - **Both Chip-Based and Host-Based=3**—The host-based restrictions override the restrictions on the Chip.

      Implication: This is a fully compliant Fleet solution that can handle both host-based and Chip-Based Purchase Restrictions.

Note:
- The VisaNet fields that contain the fleet data are coded as alphanumeric.
- If a Merchant supports Host-Based Purchase Restrictions but the Acquirer does not, the Acquirer should downgrade the value in the flag.

- **Host-Based Purchase Restrictions (B16 bytes)**—For this field, the host should respond with a product restriction encoded using the same method as used for the chip (data tag 'DF32'); values would contain a hexadecimal string such as "46800000000000E0". This string would be the actual coding to replace what was obtained from the Chip Card for Merchants to follow.

  As this is an optional field—if the host-based Purchase Restrictions Detail is not sent back by the Issuer to the Merchant—the restrictions from the chip are executed as normal. If the host-based Purchase Restrictions Detail is sent back by the Issuer to the Merchant—the host-based restrictions override, the restrictions on the chip (unless purchase restrictions byte 1 bit 8 is specifically set to always apply what is on the chip).

  The first 8 bytes of the online reply should be populated with the Purchase Restrictions exactly as per the card. The 2nd 8 bytes is RFU and should be filled with hex 0's: "00 00 00 00 00 00 00 00".

3.6 Process for Monitoring Visa Fleet Data Quality

Visa partners with Issuers to recognize card accounts with prompting and service restrictions. Visa pulls sample transaction data and actively monitors fuel transactions to identify data quality issues.

Visa monitors fuel Merchants' data and identifies inconsistencies. If a data quality issue arises, Visa may contact the Merchant's Acquirer to work in conjunction with the Merchant to research and find a solution.

Merchants should proactively check for data quality discrepancies, (e.g., ensure the number of gallons (Quantity) x price per gallon (Unit Cost) minus any discounts equal the Line Item Total amount; ensure that line item detail totals (including any non-fuel purchases), pass arithmetic validation and match the total transaction amount).

Acquirers should carefully review their Merchants' and Processors' transaction coding and business practices to ensure compliance with the Visa Rules. Visa will monitor to ensure the data is flowing through the systems accurately and all parties are satisfied with the outcome.

Chapter 4: VisaNet and VBS Fleet Processing

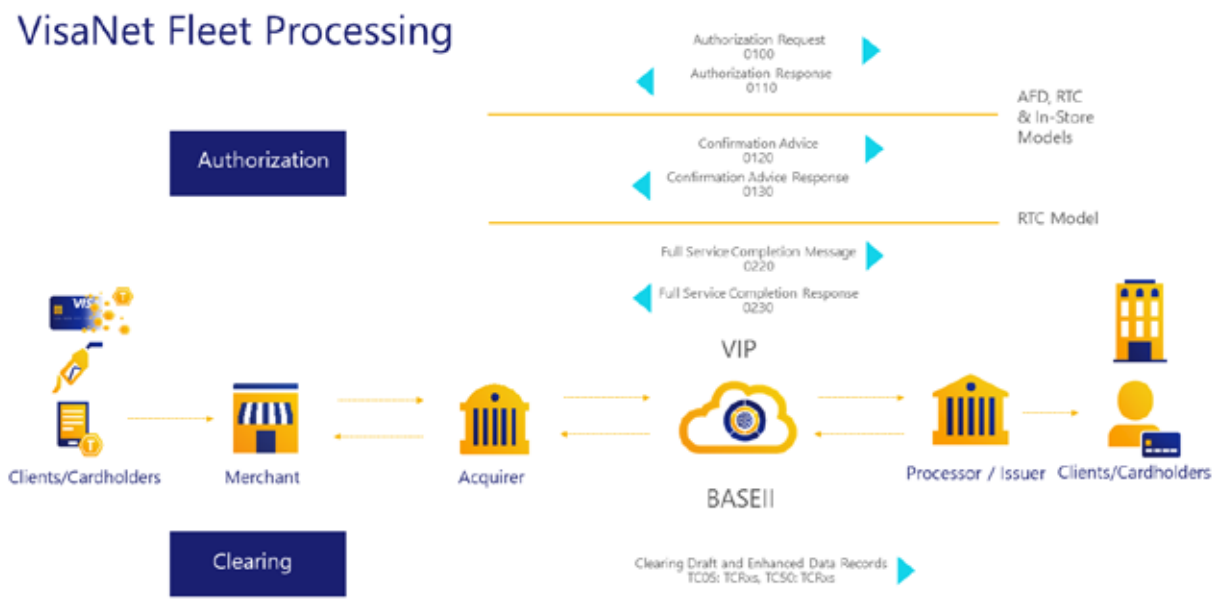
This chapter describes processing requirements, records and fields that Acquirers, Issuers, and Merchants must follow when implementing the Visa Fleet card.

Chapter 6: Upcoming Changes for Fleet Capabilities contains additional details for FY23 roadmap items to build EV (Electric Vehicle) and multiple fuel code capabilities. Please refer to this chapter for new tags and values in these data constructs.

4.1 VisaNet Fleet Processing Flow þ

VisaNet processing consists of two main processes: Authorization through the VisaNet Integrated Payment (VIP) system, and Clearing of financial transactions through BASE II. Here is the overall process flow:

Figure 4-1: VisaNet Fleet Processing Flow



Note: VisaNet also supports a Full Service / Single Message System (SMS) flow that combines both authorization and clearing functions in a single message record. These records are detailed below.

4.2 VisaNet Files, Records, and Messages þ

Below is a table of the specific messages and records sent for authorization and clearing as it pertains to the diagram above and the Fleet Process for both: Acquirers to send to VisaNet and Issuers to receive from VisaNet.

Note: For a list of all the records needed in authorization and clearing messages, definitions for messages/fields, please consult the VisaNet technical documentation materials and work with your Visa Account Representative as needed.

- As a guideline for consideration in Appendix E5 are tables that advise potential records to consider for a Fleet program. Each Issuer/Processor must make their own decision according to their business situation and requirements, this table is just an initial guide to help the thinking.
- In certain cases in the U.S. market specific situations (such as reversal, disputes, etc.) are encountered and Appendix E6 contains relevant information for these situations and messages/records required.

Table 4-1: Records and Messages Sent for Fleet Authorization and Clearing

Process	Message or Record #	Name	Model	Description
Authorization Messages				
Authorization VIP system	0100	Pre-Auth	AFD	A pre-authorization message is sent by the Acquirer in the AFD model to do a $1 status check/authorization for the card to obtain an approval response from the Issuer for the authorization of the transaction
Authorization VIP System	0100	Pre-Auth	RTC	A pre-authorization message is sent by the Acquirer in the RTC model to do a custom amount authorization for the card to obtain an approval response from the Issuer for the authorization of the transaction (partial or full custom amount allowed by the Issuer)

Process	Message or Record #	Name	Model	Description
Authorization VIP System	0100	Auth	In-Store	An authorization message is sent by the Acquirer in the In-store model to do an authorization for the card for a total amount (comprising of fuel and non-fuel items) to obtain an approval response from the Issuer for the authorization of the transaction (partial or full amount allowed by the Issuer)
Authorization VIP System	0110	Auth Response	ALL	An authorization response message is sent by the Issuer authorizing the transaction (partial or full amount allowed by the Issuer)
Authorization VIP system	0120	Confirmation Advice	AFD & In-Store	A confirmation advice message is sent by the Acquirer (within 2 hours) to confirm details of the transaction to the Issuer and their Clients.
Authorization VIP System	0130	Confirmation Advice Response	AFD & In-Store	A confirmation advice response is sent by the Issuer confirming receipt of the advice back to the Acquirer
Authorization and Clearing Messages (Full Service / Single Message System (SMS))				
Authorization and Clearing Full Service / SMS System	0220	Full-Service Completion Message	RTC	A full-service completion message is sent by the Merchant or the Acquirer to Issuer to confirm the details of the authorization and also provide clearing data to the Issuer and their Clients; in certain cases when the Issuer cannot accept a 0220 single message (for both auth/clearing) VisaNet converts the message to 0120 / TC05 dual messages for the Issuer
Authorization and Clearing Full Service / SMS System	0230	Full-Service Completion Response	RTC	A full-service completion response message is sent by the Issuer to confirm receipt of the message back to the Acquirer
Clearing Records				

Process	Message or Record #	Name	Model	Description
Clearing BASE II System	TC05 TCR0	Draft Data Transaction	AFD & In-Store	A Clearing record is sent from the Acquirer with the basic transaction data—Level 1 data
Clearing BASE II System	TC05 TCR1	Additional Data	AFD & In-Store	A Clearing record with additional specific data. For example, indicators, purchase id—fleet work order number/job number for the transaction is sent from the Acquirer in this record
Clearing BASE II System	TC05 TCR3	Industry Fleet Data: Fleet Service	AFD & In-Store	A Clearing record with details of the Fleet/fuel transaction is sent from the Acquirer in this record—this is the main body of the Fleet Enhanced data—or known as Level 2 data **Important**: As part of the Fleet 2.0 initiative requirements, there are two business formats for this record: **FL**—was used prior to the new FT format with Fleet 2.0 **FT**— must be used. FT is a new revised record that contains additional EMV Fleet Fields obtained from prompting at the pump based on the Visa Fleet Chip Spec (Version 2.0). Merchants / Acquirers must utilize this new format.
Clearing BASE II System	TC05 TCR5	Payment Service Data	AFD & In-Store	A Clearing record with additional payment specific data for the transaction is sent from the Acquirer in this record
Clearing BASE II System	TC05 TCR6	Limited Use Data	AFD & In-Store	A Clearing record with additional specific data (overall taxes, commodity Code, Non-Fuel Product Codes) for the transaction is sent from the Acquirer in this record.

Process	Message or Record #	Name	Model	Description
Clearing & Enhanced Data BASE II System	TC50 TCR x	PURCHA	In-Store	An Enhanced Data record (for the transaction) with additional invoice summary details (such as freight, shipping, etc.) for the Fleet purchase (typically non-fuel items) is sent from the Acquirer in this record
Clearing & Enhanced Data BASE II System	TC50 TCR x	PURCHL	In-Store	An Enhanced Data record (for the transaction) with additional invoice line item details (such as item, product code, product description, qty, unit cost, etc.) for the Fleet purchase (typically non-fuel items) is sent from the Acquirer in this record

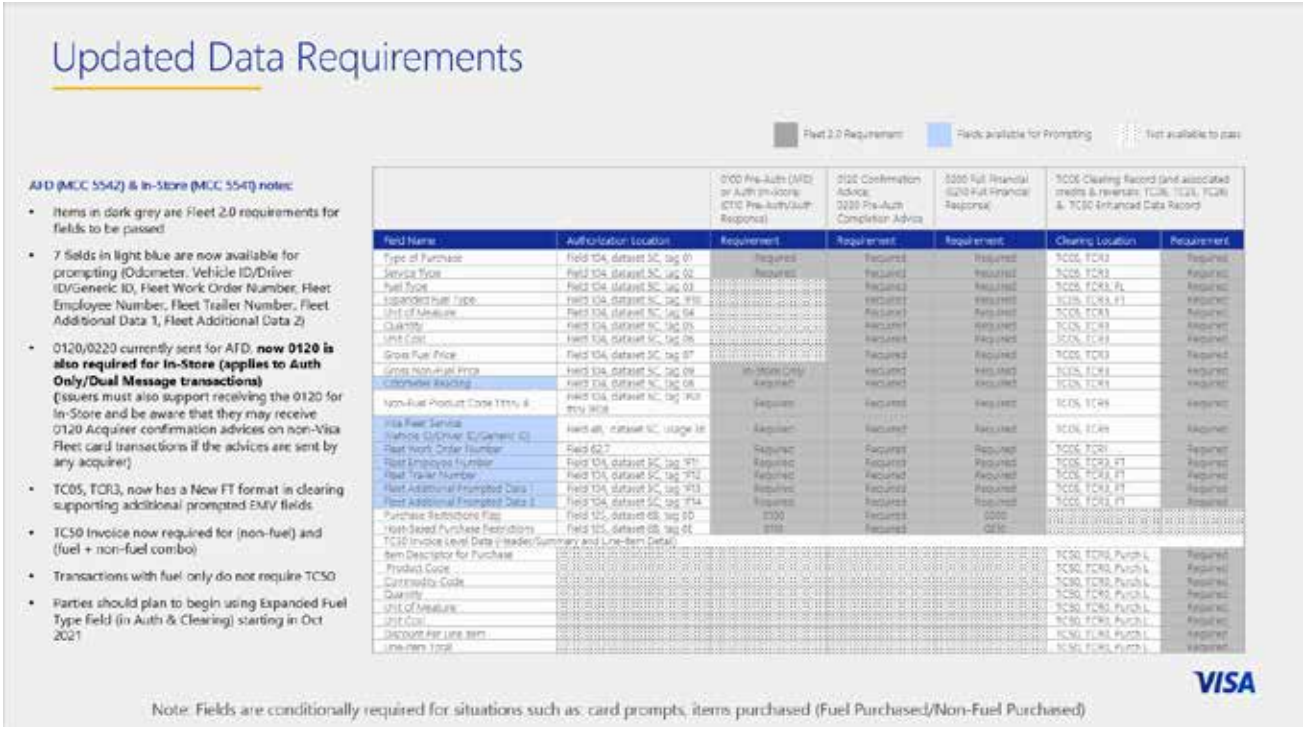
4.3 VisaNet Fleet Field Requirements

Key data requirements for fleet fields flowing through VisaNet

- As covered in Chapter 2: Issuer Steps / Guidelines, Issuers must be setup to receive Authorization and Clearing data from VisaNet into their Issuer/Processor systems for Fleet and provide appropriate response notifications upon receipt.
- As covered in Chapter 3: Merchant and Acquirer Steps / Guidelines, Merchants/Acquirers must be setup to send Authorization and Clearing data into VisaNet from their systems for Fleet and accept the appropriate response notifications back from the Issuer.

Figure 4-2: Fleet Enhanced Data Field Requirements for VisaNet þ

Below are the Updated Data Requirements for Visa Fleet globally that will provide Fleet/Fuel information for Issuers and their Clients. This guide and the global VisaNet test scripts have been structured to support the matrix below.



Note: For easier reading, an Excel file containing the above table is provided as an attachment to this document. The Excel file is available in the Attachments 📎 pane, located at the left of the PDF window. Double-click the attachment to open the Excel file.

Updated Fleet Enhanced Data Fields in Auth and Clearing þ

VIP Authorization Fields 104 and 125; Fuel Fields

As part of Fleet 2.0 Changes, VIP Authorization Fields 104 and 125 have been updated to reflect the additional prompted EMV fields and the new Expanded Fuel type field. Changes consist of:

- Updates to existing tags, adding new tags, and removing existing tags in existing Field 104, Usage 2—Transaction-Specific Data in TLV format, Dataset ID 5C—Commercial Card Data (Fuel Transactions)
- Updates to existing tags (for Host-Based Purchase Restrictions) and removing existing tags in existing TLV Field 125, Usage 2—Supporting Information, Dataset ID 6B—Expanded Fleet Service (CEMEA Region Only)

Please consult the *VisaNet Business Enhancement Technical Letters* and the VisaNet documentation for details, as well as the fields are listed with the authorization location in Appendix E: Host System Changes for Fleet Data.

New FT Clearing Record and mapping to various Outbound Formats:

Issuers and Processors must have made changes to take in the new FT Clearing Record from VisaNet and map to appropriate fields/records in their systems. Note Issuers and Processors must understand the mapping of this data to various Outbound Files they create from their systems (one example is the VCF Visa Commercial Format file, the mapping to VCF is outlined in Appendix E: Host System Changes for Fleet Data).

- Common fields (on both the old FL Clearing Record and the new FT Clearing Record) should map to existing Outbound File fields
- Expanded Fuel type: This field is new and probably will not exist in the Outbound file (such as VCF), the first 2 characters of this Expanded Fuel Type field must be mapped to the existing Fuel type 2-character field (for VCF this would be T17/Field 7)
- The new EMV fields will not exist and may need to be added to your Outbound file.
  (in the case of VCF see the section Outbound Data Sent Out from the VBS DP for specifics)

VisaNet changes to support Fleet Chip Enhancements

A New TCR3 Industry Fleet clearing record with business format code of "FT" will be used:

- The old TCR3 "FL" record STILL exists to support current state processes/migration over time, but will be sunset (TBD) after migration
- Either TCR3 FL OR TCR3 FT record can be sent in—NOT BOTH! Note: on TCR3 FT, duplicate/unused/misc. fields have been removed
- Mapping TCR3 FT to VCF: VCF does not change, common fields from both TCR3 FL and TCR3 FT (such as Type of Purchase, Unit of Measure, etc.) map to same VCF ADM 4 fields. If, for some reason mapping from TCR3 FT to VCF is not possible then, Visa can support this mapping BUT the company must be subscribed to VisaNet Enrichment (in the VAS Data Platform) for this process

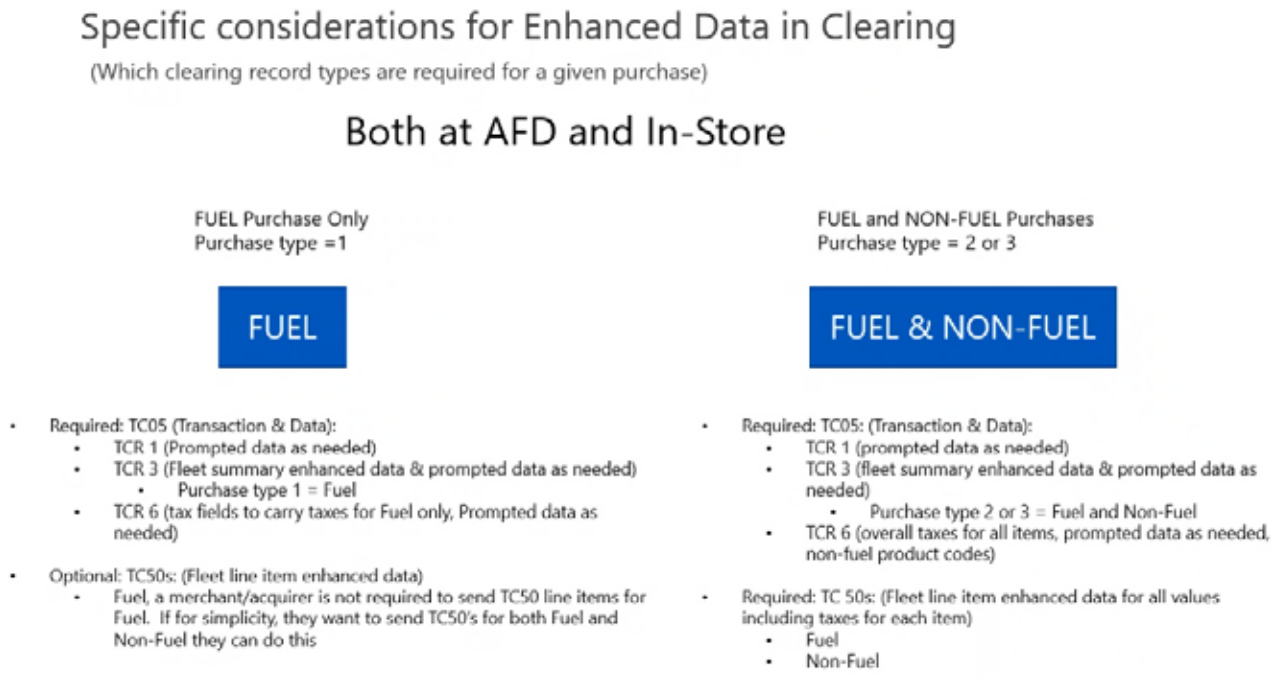
Key Fleet Fields	Description	Authorization:			Clearing:				VCF: Visa Commercial Format File		
Type of purchase	Type of purchase (gas, non-fuel item, etc.)	Field 104, dataset 5C, tag 89	1	AN	TC05, TCR3 FL TC05, TCR3 FT	1 1	AN AN	27 19	T17 - F6 Purchase Type	1	N
Service Type	Identifies type of service at the fuel station	Field 104, dataset 5C, tag 87	1	AN	TC05, TCR3 FL TC05, TCR3 FT	1 1	AN AN	150 28	T17 - F16 Service Type	1	NN
Fuel Type - not on FT format (Note: currently only supported on FL format; all parties must migrate to FT format which contains only the Expanded Fuel Type)	Type of fuel (unleaded, regular, diesel, etc.)	Field 104, dataset 5C, tag 88	2	AN	TC05, TCR3 FL	2	AN	29-29	T17 - F7 Fuel Type	2	AN
Expanded Fuel Type (replaces Fuel Type)	Type of fuel (unleaded, regular, diesel, etc.)	Field 104, dataset 5C, tag 990	4	AN	TC05, TCR3 FL TC05, TCR3 FT	4 4	AN AN	23-26 20-23	This field does not exist in VCF; the first 2 characters of this Expanded Fuel Type field must be mapped to the existing Fuel type T17 F7 field; this special mapping can also be supported with VisaNet enrichment/VDS	4	AN
Unit of Measure	Unit of measure used for fuel	Field 104, dataset 5C, tag 84	1	AN	TC05, TCR3 FL TC05, TCR3 FT	1 1	AN AN	30 25	T17 - F8 Fuel Unit Of Measure Code	1	NN
Quantity	Quantity of fuel being purchased	Field 104, dataset 5C, tag 85	12	UN	TC05, TCR3 FL TC05, TCR3 FT	12 12	UN UN	31-42 26-37	T17 - F9 Fuel Quantity	16	N
Unit Cost	Cost of fuel or unit of measure (dollars per gallon)	Field 104, dataset 5C, tag 86	12	UN	TC05, TCR3 FL TC05, TCR3 FT	12 12	UN UN	43-54 38-49	T17 - F15 Fuel Unit Cost	16	N
Gross Fuel Price	Total price for fuel purchases only	Field 104, dataset 5C, tag 87	12	UN	TC05, TCR3 FL TC05, TCR3 FT	12 12	UN UN	55-66 50-61	T17 - F11 Fuel Gross Amount	16	N
Net Fuel Price	Net fuel price, less any taxes exempt or discounts	Field 104, dataset 5C, tag 88	12	UN	TC05, TCR3 FL TC05, TCR3 FT	12 12	UN UN	67-78 62-73	T17 - F12 Fuel Net Amount	16	N
Gross Non-Fuel Price	Total price for non-fuel purchases	Field 104, dataset 5C, tag 89	12	UN	TC05, TCR3 FL TC05, TCR3 FT	12 12	UN UN	79-90 74-85	T17 - F13 Non-Fuel Gross Amount	16	N
Net Non-Fuel Price	Net non-fuel price, less any taxes exempted or discounts	Field 104, dataset 5C, tag 84	12	UN	TC05, TCR3 FL TC05, TCR3 FT	12 12	UN UN	91-102 86-97	T17 - F14 Non-Fuel Net Amount	16	N
Odometer reading (currently supported/pre-April 2021)	Vehicle's odometer reading at time of transaction	Field 104, dataset 5C, tag 83	7	AN	TC05, TCR3 FL TC05, TCR3 FT	7 7	AN AN	103-109 98-104	T17 - F15 Odometer Reading	8	AN
VAT Tax Rate	VAT or tax rate (in percentage) for fuel purchased	Field 104, dataset 5C, tag 87	4	UN	TC05, TCR3 FL TC05, TCR3 FT	4 4	UN UN	110-113 105-108	T17 - F10 VAT/Tax Rate	6	N
Fleet Employee Number – NEW FIELD	Fleet Employee Number associated with the transaction	Field 104, dataset 5C, tag 999	12	AN	TC05, TCR3 FT	12	AN	1-16	Fields do not exist in VCF; Special mapping required via VisaNet enrichment/VDS in the VAS Data Platforms, to map this field into a VCF available field		
Fleet Trailer Number – NEW FIELD	Fleet Trailer Number associated with the transaction	Field 104, dataset 5C, tag 998	16	AN	TC05, TCR3 FT	16	AN	109-124			
Fleet Additional Prompted Data 1 – NEW FIELD	Various usage to put specific prompted information in for Issuer or Company	Field 104, dataset 5C, tag 997	20	AN	TC05, TCR3 FT	20	AN	125-144			
Fleet Additional Prompted Data 2 – NEW FIELD	Various usage to put specific prompted information in for Issuer or Company	Field 104, dataset 5C, tag 996	20	AN	TC05, TCR3 FT	20	AN	145-164			

Note: For easier reading, an Excel file containing the above table is provided as an attachment to this document. The Excel file is available in the Attachments pane, located at the left of the PDF window. Double-click the attachment to open the Excel file.

Specific considerations for Enhanced Data in Clearing

Figure 4-3: Considerations for Enhanced Data in Clearing

Which record types are required for a given purchase, both at AFD and In-Store? The following figure provides guidance and direction on the appropriate clearing records for fuel and non-fuel with taxes in mind.



Type of Purchase is 1 – Fuel Only, with single fuel code and TC50 Level 3 detail

Expectations for the Fleet Card Product: For transactions that are Fuel Only, Type of Purchase 1, with a single fuel code, TC50 PURCHA/PURCHL can be optionally sent to provide line-item detail however, merchants and acquirers should not send the following to qualify for a Lower Interchange (e.g. FPI 173 US PURCH LVL3) for a Fleet Card Product:

- Partial TC50s (e.g. PURCHA portion only)
- Inaccurate or manufactured data in the TC50s
- No TC50s (e.g. No PURCHA or PURCHL)

Interchange documents and system logic updates forthcoming.

Fleet Enhanced Data Fields that accompany the transaction þ

The Fleet Enhanced Data fields listed below are considered Commercial Level 2 Enhanced Data and they accompany the transaction in both authorization messages and clearing records. It is used by various parties in the overall process (Merchants, Acquirers, Issuers, and Clients). These fields are also outlined in Appendix E: Host System Changes for Fleet Data.

Table 4-2: TC05, TCRx Records that Accompany the Base Transaction (TC05, TCR0)

M/C/O Column: **M** = Mandatory; **C** = Conditional; **O** = Optional

- Fields that are prompted are considered conditional given they are only required when prompted.
- Other fields are classified as conditional depending on if fuel or non-fuel is purchased.

Field	Location	Type	Size	M/C/O	Notes
			BASE II TC05 TCR1		
Purchase Identifier Format	BASE II TC05 TCR1 129 VIP Field 62.7, Pos 1	AN	1	C	Conditional, if card is configured to prompt for Fleet Work Order Number. Must be 1 or 5 1: indicates Order Number 5: indicates Invoice Number Required if prompted
Purchase Identifier	BASE II TC05 TCR1 133–157 VIP Field 62.7, Pos. 2-26	AN	25	C	Conditional, if card is configured to prompt for Fleet Work Order Number / Job Number: Unique order or invoice number for the transaction. The entry must be left justified. Unused positions of the field should be space-filled. For Fleet purposes this field contains the Fleet Work Order Number / Job Number · Must provide the value entered by Cardholder · Can be numeric or alphanumeric · Value must be same in VIP and BASE II record Otherwise must be blank Required if prompted

Field	Location	Type	Size	M/C/O	Notes
BASE II TC05 TCR3 FT Format As part of the Fleet 2.0 requirements, FT is the TCR3 record format that contains additional EMV Fleet Fields obtained from prompting at the pump based on the Visa Fleet Chip Spec (Version 2.0). Merchants/Acquirers must use this format.					
Fleet Employee Number	BASE II TC05 TCR3 FT 5-16 VIP Field 104, Dataset 5C, tag '1F11'	AN	12	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Card is configured to prompt for Fleet Employee Number · Must provide the value entered by Cardholder · Value must be same in VIP and BASE II record Otherwise must be blank
Business Format Code (FT)	BASE II TC05 TCR3 FT 17-18	AN	2	BASE II M	Mandatory, identified the structure of the TCR3 or Field 104 for the transaction.
Type of Purchase	BASE II TC05 TCR3 FT 19 VIP Field 104, Dataset 5C, tag 01	AN	1	BASE II M VIP 0100 M VIP 0120 M	Mandatory, type of purchase (gas, non-fuel item, etc.). · Must be 1, 2 or 3 · 1: Fuel only purchase · 2: Non-Fuel only purchase · 3: Both Fuel and Non-Fuel purchase
Expanded Fuel Type	BASE II TC05 TCR3 FT 20-23 VIP Field 104, Dataset 5C, tag 1F10	AN	4	BASE II C VIP 0100 O VIP 0120 C	Conditional, if Type of Purchase is 1 or 3: · Must be provided · Must contains a valid Fuel Code as found in the Fleet guide in Appendix I: Visa Fuel Type Codes · The current 2-digit fuel code from the appendix must be in the first two positions of the field. Pad the right with spaces. · Value must be same in VIP and BASE II record · If mapping this field to a separate 2-digit fuel type field, the first two characters of this field should be mapped as they contain the 2-digit fuel code If Type of Purchase is 2, must be blank

Field	Location	Type	Size	M/C/O	Notes
Service Type	BASE II TC05 TCR3 FT 24 VIP Field 104, Dataset 5C, tag 02	AN	1	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 1 or 3: · Must contains a valid value of: - F: Full Service - S: Self Service · Value must be same in VIP and BASE II record If Type of Purchase is 2, must be blank
Unit of Measure	BASE II TC05 TCR3 FT 25 VIP Field 104, Dataset 5C, tag 04	AN	1	BASE II C VIP 0100 O VIP 0120 C	Conditional, if Type of Purchase is 1 or 3: · Must contains a valid value of: - L: Liter - G: U.S. Gallon - I: Imperial Gallon - K: Kilo - P: Pound · Value must be same in VIP and BASE II record If Type of Purchase is 2, must be blank
Quantity	BASE II TC05 TCR3 FT 26-37 VIP Field 104, Dataset 5C, tag 05	UN	12	BASE II C VIP 0100 O VIP 0120 C	Conditional, if Type of Purchase is 1 or 3: · Must contains a value greater than 0 · There are 4 implied decimal places, thus a value 1 is therefore populated in this field as 10000 · Value must be same in VIP and BASE II record If Type of Purchase is 2, must be 0 filled

Field	Location	Type	Size	M/C/O	Notes
Unit Cost	BASE II TC05 TCR3 FT 38-49 VIP Field 104, Dataset 5C, tag 06	UN	12	BASE II C VIP 0100 O VIP 0120 C	Conditional, if Type of Purchase is 1 or 3: · Must contains a value greater than 0 · There are 4 implied decimal places, thus a value 1 is therefore populated in this field as 10000 · Value must be same in VIP and BASE II record If Type of Purchase is 2, must be 0 filled
Gross Fuel Price	BASE II TC05 TCR3 FT 50-61 VIP Field 104, Dataset 5C, tag 07	UN	12	BASE II C VIP 0100 O VIP 0120 C	Conditional, if Type of Purchase is 1 or 3: · Must be provided · Must equal Qty * Cost inclusive of taxes · There are 4 implied decimal places, thus a value 1 is therefore populated in this field as 10000 · Value must be same in VIP and BASE II record If Type of Purchase is 2, must be 0 filled
Net Fuel Price	BASE II TC05 TCR3 FT 62-73 VIP Field 104, Dataset 5C, tag 08	UN	12	BASE II O VIP 0100 O VIP 0120 O	If Type of Purchase is 1 or 3: · Can optionally be provided · Must equal Qty * Cost exclusive of taxes · There are 4 implied decimal places, thus a value 1 is therefore populated in this field as 10000 · Value must be same in VIP and BASE II record If Type of Purchase is 2, must be 0 filled

Field	Location	Type	Size	M/C/O	Notes
Gross Non-Fuel Price	BASE II TC05 TCR3 FT 74-85 VIP Field 104, Dataset 5C, tag 09	UN	12	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 2 or 3: · Must be provided · Must equal the sum of the line item(s) inclusive of taxes, excluding the fuel line item · There are 2 implied decimal places, thus a value 1 is therefore populated in this field as 100 · Value must be same in VIP and BASE II record If Type of Purchase is 1, must be 0 filled
Net Non-Fuel Price	BASE II TC05 TCR3 FT 86-97 VIP Field 104, Dataset 5C, tag 0A	UN	12	BASE II O VIP 0100 O VIP 0120 O	If Type of Purchase is 2 or 3: · Can optionally be provided · Must equal the sum of the line item(s) exclusive of taxes, excluding the fuel line item · There are 2 implied decimal places, thus a value 1 is therefore populated in this field as 100 · Value must be same in VIP and BASE II record If Type of Purchase is 1, must be 0 filled
Odometer Reading	BASE II TC05 TCR3 FT 98-104 VIP Field 104, Dataset 5C, tag 0B	AN	7	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Card is configured to prompt for Odometer · Must provide the value entered by Cardholder · Must be all numeric. · Value must be same in VIP and BASE II record Otherwise zero filled with 7 zeros

Field	Location	Type	Size	M/C/O	Notes
VAT / Tax Rate	BASE II TC05 TCR3 FT 105-108 VIP Field 104, Dataset 5C, tag 0E	UN	4	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 1 or 3: · Must contains a value greater than 0 · There are 4 implied decimal places, thus a value 1 is therefore populated in this field as 10000 · Value must be same in VIP and BASE II record If Type of Purchase is 2, must be 0 filled Applicable outside the U.S.
Fleet Trailer Number	BASE II TC05 TCR3 FT 109-124 VIP Field 104, Dataset 5C, tag '1F12'	AN	16	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Card is configured to prompt for Fleet Trailer Number · Must provide the value entered by Cardholder · Alphanumeric, determined by Issuer and Client · Value must be same in VIP and BASE II record Otherwise must be blank
Fleet Additional Prompted Data 1	BASE II TC05 TCR3 FT 125-144 VIP Field 104, Dataset 5C, tag '1F13'	AN	20	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Card is configured to prompt for Additional Prompted Data 1 · Must provide the value entered by Cardholder · Alphanumeric, determined by Issuer and Client · Value must be same in VIP and BASE II record Otherwise must be blank
Fleet Additional Prompted Data 2	BASE II TC05 TCR3 FT 145-164 VIP Field 104, Dataset 5C, tag '1F14'	AN	20	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Card is configured to prompt for Additional Prompted Data 2 · Must provide the value entered by Cardholder · Alphanumeric, determined by Issuer and Client · Value must be same in VIP and BASE II record Otherwise must be blank

Field	Location	Type	Size	M/C/O	Notes
			BASE II TC05 TCR6		
Local Tax	BASE II TC05 TCR6 5–16 VIP Field 104, Dataset 5C, tag '14'	UN	12	O	Two decimal places are implied. Local Tax is the total amount of Sales Tax collected by the Merchant Optional, can be used for a Fleet Purchase to pass tax as needed
Local Tax Included	BASE II TC05 TCR6 17 VIP Field 104, Dataset 5C, tag '13'	UN	1	O	Must be 0 or 1 0—Tax not included: indicates that the Merchant is not able to provide the amount of sales tax collected 1—Tax included: indicates that the Merchant is able to provide the amount of sales tax collected For Tax Exempt invoice, set Local Tax Included to 1 and Local Tax Amount to 0 Optional, can be used for a Fleet Purchase to pass tax as needed
National Tax	BASE II TC05 TCR6 18-29 VIP Field 104, Dataset 5C, tag '16'	UN	12	O	Two decimal places are implied. National Tax is the total amount of Sales Tax collected by the Merchant. Optional, can be used for a Fleet Purchase to pass tax as needed Applicable outside the U.S.
National Tax Included	BASE II TC05 TCR6 30 VIP Field 104, Dataset 5C, tag '15'	UN	1	O	Must be 0 or 1 0—Tax not included: indicates that the Merchant is not able to provide the amount of sales tax collected 1—Tax included: indicates that the Merchant is able to provide the amount of sales tax collected For Tax Exempt invoice, set Local Tax Included to 1 and Local Tax Amount to 0 Optional, can be used for a Fleet Purchase to pass tax as needed Applicable outside the U.S.

Field	Location	Type	Size	M/C/O	Notes
Merchant VAT Registration/Single Business Reference Number	BASE II TC05 TCR6 31–50 VIP Field 104, Dataset 5C, tag ‘18’	AN	20	O	This is the Tax Registration number for the Merchant. Optional, can be used for a Fleet Purchase to pass tax as needed Applicable outside the U.S.
Customer VAT Registration Number	BASE II TC05 TCR6 51–63 VIP Field 104, Dataset 5C, tag ‘19’	AN	13	C	Tax Registration number for the Customer. Note: Conditional, for some tax-exempt transactions (such as for a federal government) Merchants are sometimes required to provide the purchaser's tax registration number on the invoice to support the tax exemption. Can be used for a Fleet Purchase to pass tax as needed Applicable outside the U.S.

Field	Location	Type	Size	M/C/O	Notes
Message Identifier	BASE II TC05 TCR6 92–106 VIP Field 104, Dataset 5C, tag '1B'	AN	15	BASE II C VIP 0100 O VIP 0120 O	If Type of Purchase is 2 or 3 · Must be provided · Must be unique for each payment If Type of Purchase is 1, must be blank Conditional, the Acquirer assigns a Message Identifier to each commercial card transaction that generates TC 50 records containing additional transaction Enhanced Data detail. For commercial card transactions, the Acquirer should populate the Message Identifier, as: · Acquirers must assign a unique Message Identifier to all commercial card transactions that will have corresponding TC 50 Enhanced Data. · Acquirers should not populate the Message Identifier field: · For transactions that will not have corresponding TC 50 Enhanced Data. If the Message Identifier field is populated and TC 50 Enhanced Data records are not submitted, the Acquirer can expect the Issuer or Visa to inquire about the missing TC 50 records. It is strongly recommended that the Transaction Identifier be used to populate the Message Identifier for linking the payment to all related TC 50 records for this transaction.

Field	Location	Type	Size	M/C/O	Notes
Customer Code/ Customer Reference Identifier (CRI)	BASE II TC05 TCR6 111–127 VIP Field 48, Usage 36	AN	17	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Card is configured to prompt for Fleet ID (Vehicle ID, Driver ID, or Generic ID) · Must provide the value entered by Cardholder · Visa standard recommends all numeric (due to current POS keypad limitations, Issuers should use only Numerics for Vehicle or Driver or Generic identification) · The “ID”/data must be left justified. Unused positions of the field should be space-filled If a Card is configured to always prompt (must provide) for Fleet ID (Vehicle ID, Driver ID, or Generic ID), the value is entered by the Cardholder. Otherwise: If no prompt is present or the prompt is an optional value, all “0” zeroes may be used only in cases where the merchant/terminal is fully capable of prompting Merchants that do not yet support prompting must default this value to spaces – they **MAY NOT** default to “0” in order to qualify for lower interchange. Incorrectly defaulting this value will be considered non-compliant and liable for compliance actions.
Non-Fuel Product Code 1	BASE II TC05 TCR6 128–129 VIP Field 104, Dataset 5C, tag ‘1F01’	AN	2	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 2 or 3 · Must be provided · Must contain a valid Non-Fuel Product Code as found in the Fleet guide in Appendix J: Visa Non-Fuel Product Codes þ · Value must be same in VIP and BASE II record · This Non-Fuel code must align with the first Line Item Detail through the Item Commodity Code If Type of Purchase is 1, must be blank

Field	Location	Type	Size	M/C/O	Notes
Non-Fuel Product Code 2	BASE II TC05 TCR6 130–131 VIP Field 104, Dataset 5C, tag '1F02'	AN	2	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 2 or 3 and more than 1 Non-Fuel product was involved · Must be provided · Must contain a valid Non-Fuel Product Code as found in the Fleet guide in in Appendix J: Visa Non-Fuel Product Codes þ · Value must be same in VIP and BASE II record · This Non-Fuel code must align with the second Line Item Detail through the Item Commodity Code If Type of Purchase is 1, must be blank
Non-Fuel Product Code 3	BASE II TC05 TCR6 132–133 VIP Field 104, Dataset 5C, tag '1F03'	AN	2	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 2 or 3 and more than 2 Non-Fuel product was involved · Must be provided · Must contain a valid Non-Fuel Product Code as found in the Fleet guide in in Appendix J: Visa Non-Fuel Product Codes þ · Value must be same in VIP and BASE II record · This Non-Fuel code must align with the third Line Item Detail through the Item Commodity Code If Type of Purchase is 1, must be blank
Non-Fuel Product Code 4	BASE II TC05 TCR6 134–135 VIP Field 104, Dataset 5C, tag '1F04'	AN	2	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 2 or 3 and more than 3 Non-Fuel product was involved · Must be provided · Must contain a valid Non-Fuel Product Code as found in the Fleet guide in in Appendix J: Visa Non-Fuel Product Codes þ · Value must be same in VIP and BASE II record · This Non-Fuel code must align with the fourth Line Item Detail through the Item Commodity Code If Type of Purchase is 1, must be blank

Field	Location	Type	Size	M/C/O	Notes
Non-Fuel Product Code 5	BASE II TC05 TCR6 136–137 VIP Field 104, Dataset 5C, tag '1F05'	AN	2	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 2 or 3 and more than 4 Non-Fuel product was involved · Must be provided · Must contain a valid Non-Fuel Product Code as found in the Fleet guide in in Appendix J: Visa Non-Fuel Product Codes þ · Value must be same in VIP and BASE II record · This Non-Fuel code must align with the fifth Line Item Detail through the Item Commodity Code If Type of Purchase is 1, must be blank
Non-Fuel Product Code 6	BASE II TC05 TCR6 138–139 VIP Field 104, Dataset 5C, tag '1F06'	AN	2	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 2 or 3 and more than 5 Non-Fuel product was involved · Must be provided · Must contain a valid Non-Fuel Product Code as found in the Fleet guide in in Appendix J: Visa Non-Fuel Product Codes þ · Value must be same in VIP and BASE II record · This Non-Fuel code must align with the sixth Line Item Detail through the Item Commodity Code If Type of Purchase is 1, must be blank
Non-Fuel Product Code 7	BASE II TC05 TCR6 140–141 VIP Field 104, Dataset 5C, tag '1F07'	AN	2	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 2 or 3 and more than 6 Non-Fuel product was involved · Must be provided · Must contain a valid Non-Fuel Product Code as found in the Fleet guide in in Appendix J: Visa Non-Fuel Product Codes þ · Value must be same in VIP and BASE II record · This Non-Fuel code must align with the seventh Line Item Detail through the Item Commodity Code If Type of Purchase is 1, must be blank

Field	Location	Type	Size	M/C/O	Notes
Non-Fuel Product Code 8	BASE II TC05 TCR6 142–143 VIP Field 104, Dataset 5C, tag '1F08'	AN	2	BASE II C VIP 0100 C VIP 0120 C	Conditional, if Type of Purchase is 2 or 3 and more than 7 Non-Fuel product was involved · Must be provided · Must contain a valid Non-Fuel Product Code as found in the Fleet guide in in Appendix J: Visa Non-Fuel Product Codes þ · Value must be same in VIP and BASE II record · This Non-Fuel code must align with the eighth Line Item Detail through the Item Commodity Code If Type of Purchase is 1, must be blank

Fleet Enhanced Data Field Requirements: TC50: TCR 0 PURCHA (Invoice Header & Summary), and TCR0 PURCHL (Invoice line detail) Enhanced Data Records Sent after the Transaction for More Information (Non-Fuel transactions) þ

Note, in certain Regions where specific tax information is required for each item of the purchase for both Fuel and/or Non-Fuel, the PURCHA and PURCHL can be used for both Fuel and Non-Fuel to provide this tax breakdown.

Note: Several historical TC50 records such as: TC50 TCR0, TCR1, TCR2 – all labelled "Commercial Card – Fleet Service" are NOT USED AT ALL with Fleet 2.0. These records will be retired from VisaNet in the future.

Table 4-3: TC50, PURCHA, and PURCHL Enhanced Data Records Sent after the Transaction for More Information (Non-Fuel Transactions)

M/C/O Column: **M** = Mandatory; **C** = Conditional; **O** = Optional

- Fields that are prompted are considered conditional given they are only required when prompted.
- Other fields are classified as conditional depending on if fuel or non-fuel is purchased.

Field	Location	Type	Size	M/C/O	Notes
			PURCHA Section		
Service Identifier	BASE II TC50 PURCHA TCR0 17-22	AN	6	M	Mandatory, must contain the value: PURCHA
Message Identifier	BASE II TC50 PURCHA TCR0 23-37	AN	15	M	Mandatory, must be the same value as found in the corresponding TC05 TCR6 to link the records together.
Item Sequence Number	BASE II TC50 PURCHA TCR0 38-40	UN	3	M	Mandatory, must contain 000

Field	Location	Type	Size	M/C/O	Notes
Discount Amount	BASE II TC50 PURCHA TCR0 41-52	UN	12	C	Conditional. Last two digits are implied decimal places. Total amount of discount at invoice level according to the Invoice Discount Treatment and the Tax Treatment. This figure excludes any discount amounts defined at line item level. Must not be all zeros if a discount amount exists. Must be all zeros if discount amount does not exist.
Freight/ Shipping Amount	BASE II TC50 PURCHA TCR0 53-64	UN	12	C	Conditional It is preferred that shipping amount is sent as a separate Line Item Record (PURCHL). If so, the PURCHA field should be all zeros. If not sent as separate line item record: Last two digits are implied decimal places. Must not be all zeros if a freight/shipping amount exists. Must be all zeros if freight/shipping amount does not exist.
Duty Amount	BASE II TC50 PURCHA TCR0 65-76	UN	12	C	Conditional It is preferred that duty amount is sent as a separate Line Item Record (PURCHL). If so, the PURCHA field should be all zeros. If not sent as separate line item record: Last two digits are implied decimal places. Must not be all zeros if a duty amount exists. Must be all zeros if duty amount does not exist.

Field	Location	Type	Size	M/C/O	Notes
Destination Postal/ZIP Code	BASE II TC50 PURCHA TCR0 77-86	AN	10	C	Conditional Must be provided if shipment is involved and captured on the invoice; should reflect the destination country format. US: 5 digits + 4 digits (ex:100010000) If 4 digits not available, zero-fill the missing 4 digits Canada: ANA[space]NAN
Ship From Postal/ZIP Code	BASE II TC50 PURCHA TCR0 87-96	AN	10	C	Conditional Must be provided if shipment is involved and captured on the invoice; should reflect the origination country (TC05TCR0 Merchant Country) format US: 5 digits + 4 digits (ex:100010000) If 4 digits not available zero fill the missing 4 digits Canada: ANA[space]NAN
Destination Country Code	BASE II TC50 PURCHA TCR0 97-99	AN	3	C	Conditional Must be provided if shipment is involved. Destination Country code for the goods or services on the invoice using the (2-character) ISO country code. Please refer to the *Country and Currency Codes chapter in BASE II Data Clearing Codes Manual* for further details of the code to use.
Unique VAT Invoice Reference Number	BASE II TC50 PURCHA TCR0 100-114	AN	15	M	Mandatory Must be invoice number. Must not be all spaces or all zeros.
Order Date (YYMMDD)	BASE II TC50 PURCHA TCR0 115-120	UN	6	C	Conditional If date appears on the invoice, it must be provided. Date the original order was placed, formatted as YYMMDD
Account Number	BASE II TC50 PURCHA TCR0 121-136	UN	16	O	Optional Visa card account number used as payment for this invoice. Must be the same as that provided on the corresponding TC 05 TCR0.

Field	Location	Type	Size	M/C/O	Notes
VAT/Tax Amount (Freight /Shipping)	BASE II TC50 PURCHA TCR0 140-151	UN	12	C	Conditional It is preferred that shipping detail is sent as a separate Line Item Record (PURCHL). If so, the PURCHA field should be all zeros. If not sent as separate line item record: Two decimal places are implied. Amount of Sales Tax charged on the shipping amount (in accordance with the Tax Treatment)
VAT/Tax Rate (Freight/ Shipping)	BASE II TC50 PURCHA TCR0 152-155	UN	4	C	Conditional It is preferred that shipping detail is sent as a separate Line Item Record (PURCHL). If so, the PURCHA field should be all zeros. If not sent as separate line item record: Two decimal places are implied. Rate of sales tax charged on the shipping amount (in accordance with the Tax Treatment)
Authorization Code	BASE II TC50 PURCHA TCR0 156-161	AN	6	O	Optional The field should contain the six-position Authorization Code as provided on the TC 05 TCR0 position 152-157. Allowed entries are: · Spaces · A through Z · 0 through 9
Invoice Level Discount Treatment Code	BASE II TC50 PURCHA TCR0 163	UN	1	M	Mandatory Identify how to treat a discount if it was provided at the invoice level Invoice Level Discount Treatment equals: · 0 if no invoice level discounts apply for this invoice. · 1 if Tax was calculated on Post-Discount total. · 2 if Tax was calculated on Pre-Discount total.

Field	Location	Type	Size	M/C/O	Notes
Tax Treatments	BASE II TC50 PURCHA TCR0 164	UN	1	M	Mandatory Provides receiver with details on how the tax is calculated. If provided must be 0, 1, 2, 3 or 4. Prices provided on the invoice by the Merchant can be either: · 0 = Net Prices with tax calculated at line item level (NLL) · 1 = Net Prices with tax calculated at invoice level (NIL) · 2 = Gross prices given with tax information provided at line item level (GLL) · 3 = Gross prices given with tax information provided at invoice level (GIL) · 4 = No tax applies (small Merchant) on the invoice for the transaction (NON)
Discount Amount Signage	BASE II TC50 PURCHA TCR0 165	AN	1	M	Mandatory This field specifies if the Invoice Level Discount Amount is a credit or debit value: · Space = not implemented · D = debit (a discount on the invoice) · C = credit (a refund of discount on the invoice) A zero value Discount Amount should have D in this field.
Freight/ Shipping Amount Signage	BASE II TC50 PURCHA TCR0 166	AN	1	M	Mandatory This field specifies if the Freight/Shipping Amount is a credit or debit value: · Space = not implemented · D = debit (a charge on the invoice) · C = credit (a refund on the invoice) A zero value Freight/Shipping Amount should have D in this field

Field	Location	Type	Size	M/C/O	Notes
Duty Amount Signage	BASE II TC50 PURCHA TCR0 167	AN	1	M	Mandatory This field specifies if the Duty Amount is a credit or debit value: · Space = not implemented · D = debit (a charge on the invoice) · C = credit (a refund on the invoice) A zero value Duty Amount should have D in this field
VAT/Tax Amount Signage	BASE II TC50 PURCHA TCR0 168	AN	1	M	Mandatory This field specifies if the Freight/Shipping VAT/Tax Amount is a credit or debit value: · Space = not implemented · D = debit (a charge on the invoice) · C = credit (a refund on the invoice) A zero value Freight/Shipping VAT/Tax Amount should have D in this field
			PURCHL Section		
Service Identifier	BASE II TC50 PURCHL TCR0 17-22	AN	6	M	Mandatory Must contain PURCHL
Message Identifier	BASE II TC50 PURCHL TCR0 23-37	AN	15	M	Mandatory Must be the same value as found in the corresponding TC05 TCR6 to link the records together.
Item Sequence Number	BASE II TC50 PURCHL TCR0 38-40	UN	3	M	Mandatory Must contain a number between 001 and 999 Contains sequence number starting at '001' for the first TC 50 TCR0 PURCHL record and incrementing by 1 for each subsequent TC 50 TCR0 PURCHL record associated with this invoice.

Field	Location	Type	Size	M/C/O	Notes
Item Commodity Code	BASE II TC50 PURCHL TCR0 41-52	AN	12	M	Mandatory For Fleet identified Merchant, this must hold a Fleet Non-Fuel product code as shown in this Fleet guide in Appendix J: Visa Non-Fuel Product Codes. If passing a fuel line item in the PURCHL record, the fuel code in Appendix I: Visa Fuel Type Codes is acceptable
Item Descriptor	BASE II TC50 PURCHL TCR0 53-78	AN	26	M	Mandatory Must provide a readable description of the item or service. May contain a freeform text on comment line.
Product Code	BASE II TC50 PURCHL TCR0 79-90	AN	12	M	Mandatory Must provide a unique product code associated to the item or service. Product code can be Merchant's product code, Manufacturer's product code or Buyer's product code. Typically, this will be the SKU or identifier by which the Merchant tracks and prices the item or service. This should always be provided for every line item. It no other value is available, it could contain the fuel code or the non-fuel code, as described in Appendix I: Visa Fuel Type Codes and Appendix J: Visa Non-Fuel Product Codes in this guide. If for comment line, Product Code must be "COMMENT"
Quantity	BASE II TC50 PURCHL TCR0 91-102	UN	12	M	Mandatory Quantity invoiced for this line item (4 implied decimal places). A quantity of 1 is therefore populated in this field as 10000.
Unit of Measure	BASE II TC50 PURCHL TCR0 103-114	AN	12	M	Mandatory Must provide a readable Unit of Measure code.

Field	Location	Type	Size	M/C/O	Notes
Unit Cost	BASE II TC50 PURCHL TCR0 115-126	UN	12	M	Mandatory Unit cost for this item or service (in accordance with the Tax Treatment (4 implied decimal places). A unit cost of 1 is therefore populated in this field as 10000.
VAT/Tax Amount	BASE II TC50 PURCHL TCR0 127-138	UN	12	C	Conditional There are 2 implied decimal places. Amount of Sales Tax for this item or service (in accordance with the Tax Treatment)
VAT/Tax Rate	BASE II TC50 PURCHL TCR0 139-142	UN	4	M	Mandatory There are 2 implied decimal places. Tax Rate of Sales Tax for this item or service
Discount per Line Item	BASE II TC50 PURCHL TCR0 143-154	UN	12	M	Mandatory There are 2 implied decimal places. Amount of discount (if provided for this line item according to the Line Item Discount Treatment. Must not be all zeros if a discount exists; must be all zeros if discount does not exist.
Line Item Total	BASE II TC50 PURCHL TCR0 155-166	UN	12	M	Mandatory Line Item Total = (Quantity * Unit Cost) - Line Item Discount Amount. This field has 2 implied decimal places. Total amount for this item or service (in accordance with the Tax Treatment and the Line Item Discount Amount).
Line Item Detail Indicator	BASE II TC50 PURCHL TCR0 167	UN	1	M	Mandatory Must be 0 or 1, 2 or 3, 4 or 5 - Each transaction has even values with one odd value Odd-numbered for the last line on the invoice, otherwise even-numbered: · 0 or 1 for Normal line item · 2 or 3 for Credit line item · 4 or 5 for a Payment line item

Field	Location	Type	Size	M/C/O	Notes
Line Item Level Discount Treatment Code	BASE II TC50 PURCHL TCR0 168	UN	1	M	Mandatory Identify if a discount was provided for this line item Line Item Discount Treatment equals: · 0 if no discounts apply for this line item · 1 if Tax was calculated on Post-Discount totals · 2 if Tax was calculated on Pre-Discount totals
Timing of TC50s with TC05	TC05 and TC50s			M	Mandatory TC50 records must be provided in the same processing cycle
Arithmetic Validation of the Transaction	TC05 and TC50s			M	Mandatory Transaction must arithmetically validate including any part- payments, credits, and DCC (Dynamic Currency Conversion).

Fleet Data Field Requirements for Host-Based Purchase Restrictions þ

As mentioned in Chapter 2 and 3, Host-Based Purchase Restrictions (Method 2) have introduced two new fields in Authorization messages. Here is a breakdown of those fields:

Table 4-4: Host-Based Purchase Restriction Fields

M/C/O Column: **M** = Mandatory; **C** = Conditional; **O** = Optional

Field	Location	Type	Size	M/C/O	Notes
			PURCHA Section		
Purchase Restrictions Flag (Supported as per the Current Fleet 2.0 Timeline)	VIP Field 125, Dataset 6B, tag 0D	N	1	M	Mandatory This field allows Merchants to indicate via a flag in the incoming authorization (0100), what controls they can support at their POS
Host-Based Purchase Restrictions (Supported as per the Current Fleet 2.0 Timeline)	VIP Field 125, Dataset 6B, tag 0E	B	16	O	Optional This field allows an Issuer to have dynamic control of the purchase and only allows the restrictions they are passing back in the authorization response message (0110). The first 8 bytes contain the Host-Based Purchase Restrictions in the same layout used on the chip, the 2nd 8 bytes is RFU and should be space filled.

4.4 VBS Fleet Processing: Additional Capabilities þ

As noted in Chapter 3, VisaNet provides fleet L2/L3 data along with the transaction data directly to the Issuers (and their Processors) on the Authorization and Clearing messages for standard authorization and clearing processes for Issuers and their Processors to perform. Some Issuers have additional internal or third-party systems they use that provide this data directly to their end Clients for business purposes.

Another portion of Visa, specifically the Visa Business Solutions Data Platform (VBS DP), can also provide Transactional and Enhanced Data relating to Fleet Cards along with other Enhanced Data pertaining to corporate cards, purchasing cards, etc. an Issuer or end corporate Client may require.

Transactional and Enhanced Data may be sent from the Visa Business Solutions Data Platform to:

- A third-party system. Visa has an existing feed already established with for various purpose (expense management systems such as Concur, Expensify, Chrome River, etc.); new feeds can be setup as needed for additional third-party systems or specific Client endpoints
- A third-party system for specific Fleet/Fuel services (that Visa supports) such as NECS for tax reclamation services
- A Fleet Telematics provider for transactional and Enhanced Data information to flow into their Fleet Management System.

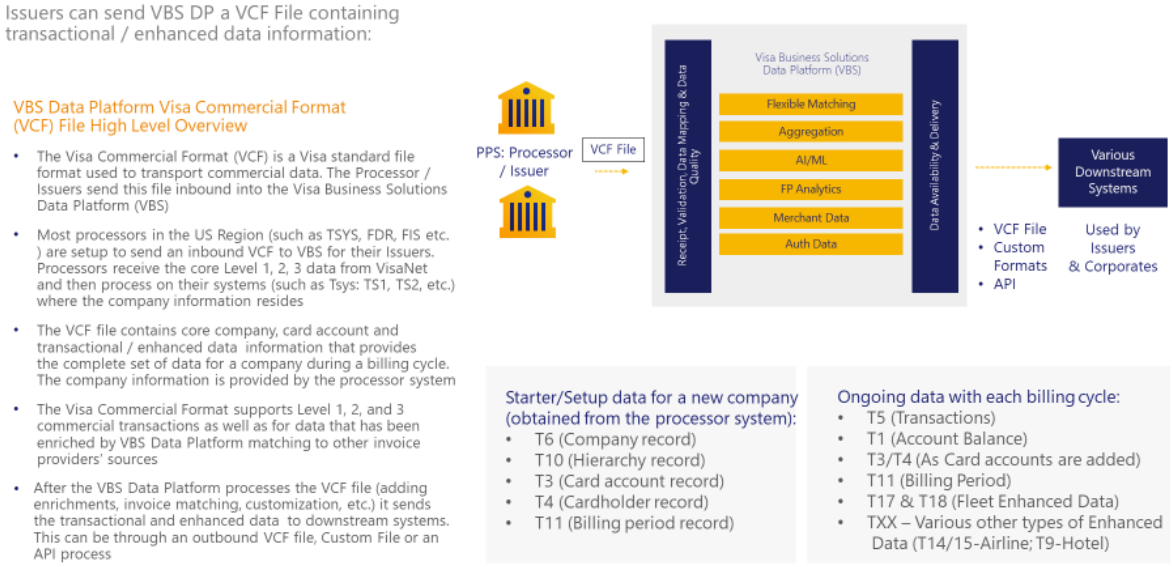
VBS DP Processing Flow Diagram

VBS DP Files, Records, and Fields for Issuers

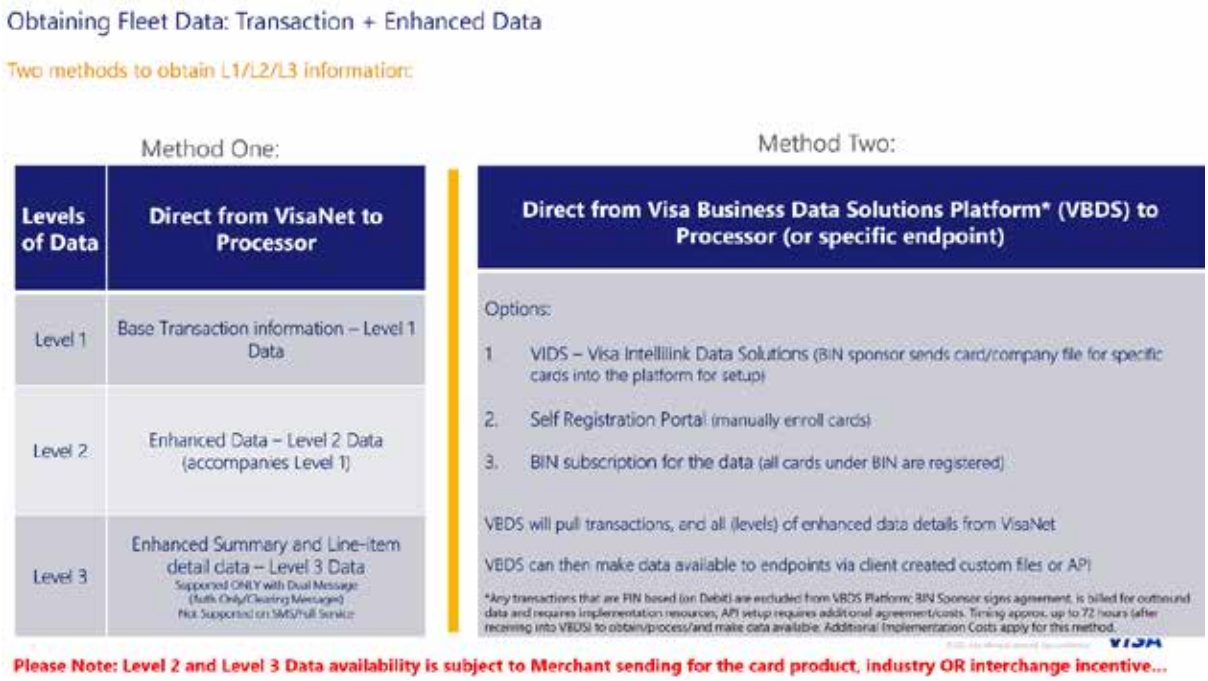
Inbound Data coming into the VBS DP

The VBS Data Platform (VBS DP) obtains transactional and Enhanced Data in several ways:

- The Issuer can send a VCF (Visa Commercial Format File) to the VBS DP directly that contains all the Fleet transaction data (along with possibly any fleet Enhanced Data-- usually Level 2 data).



The VBS DP interfaces with VisaNet to obtain Fleet Data via several methods:



Outbound Data Sent Out from the VBS DP: VBS Solutions Available for Outbound Fleet Data and Reporting Solutions for Issuers

The Visa Business Solutions Data Platform can provide a variety of reporting and file solutions for Issuers and Clients. Below are several methods available today.

Standard VCF File

Visa Commercial Format (VCF) file can be sent from the data platform containing Fleet Transactions data (known as the T5 record in the file) and Fleet Enhanced data (known as the T17, T18, T7, and T8 records in the file).

This file is a standard industry file that is used by many third-party systems today providing transaction and Enhanced Data to load their systems, this file feeds systems such as Concur, Expensify, Chrome River, Workday, and so on. It can also be delivered to any specific endpoint that is required. Please refer to Appendix E: Host System Changes for Fleet Data to see the list of fleet fields mapping to T5 T17, T18, T7 and T8 records for Fuel and Non-Fuel that cover the fleet data.

Note: The T18 record has been sent in to VBS DP historically by US Processors. The T18 provides the actual non-fuel product codes that should have been provided in authorization (Field 104)/ clearing (TCR6) messages with the transaction in VisaNet for information purposes. The T7/T8 provides the TC50 line item information and contains the Non-Fuel Product Code (as the T18); it could also contain the manufacturer's SKU product code. It is recommended to provide all information going forward for a fleet transaction: T5, T17, T18, T7, T8 from a complete VCF standpoint.

Key Point for the new EMV Fleet prompted fields

The following additional new EMV fleet prompted fields: Fleet Employee Number, Fleet Trailer Number, Additional Prompted Data 1, Additional Prompted Data 2 are **not** part of the VCF specifications for outbound flows **and therefore not sent automatically** to any downstream systems from VBS DP. As of Oct 2021, Issuers and their clients can:

- Use tools in the data platform: VSM (Visa Subscription Management)/VBSE (Portal) to subscribe the company to VisaNet Enrichment Services (T17/T18) to obtain and populate the new fields for the company from VisaNet.
- Use VIDS (Visa IntelliLink Data Solutions), as briefly described below to map the new EMV fleet prompted fields to an existing available field on the VCF record (for example Optional fields on the T17 Fleet Service Record) or to a custom file for a particular company.
- It is recommended that when an Issuer subscribes to VisaNet Enrichment for Fleet (T17/18 field enrichment), that they also subscribe to (T7/T8 field enrichment) to obtain the TC50 line item details for Non-Fuel for a transaction.
- Please consult with the Visa Business Solutions implementation team on these steps and this process.
- The Visa Business Solutions (VBS) data platform supports the updated Conexxus codes/table and all data flowing outbound from the VBS data platform to various parties and endpoints will conform to (i.e. validate against) the updated codes/table.
- If invalid Visa Fuel Type Codes/and Visa Non-Fuel Product Codes are provided, Visa will replace with a default value of "00" to indicate Unknown/Undefined in the Visa Business Data platform

Custom Outbound Extract

A custom file from the VIDS (Visa IntelliLink Data Solutions) system that resides in the VBS data platform can be created and provided as needed. Issuers or Clients can access this system, create a custom file with specific fields from the VCF T5 card transaction record or the VCF T17/18, T7, T8 Fleet Enhanced Data records for their needs, and have it delivered to a specific endpoint. Please consult your Visa Representative for more information.

The following additional new EMV fleet prompted fields: **Fleet Employee Number, Fleet Trailer Number, Additional Prompted Data 1, Additional Prompted Data 2** are **not** part of the Visa Compliance tools described below. This is a future roadmap item.

Visa Spend Clarity

Issuers and Clients can utilize Visa's own *Visa Spend Clarity* reporting platform (formerly *Visa IntelliLink Spend Management*) to obtain Fleet transaction and Enhanced Data via variety of reports and extracts. The data fields specific to fleet are the same fields as provided in the VCF 4.4 specification. The following additional new EMV fleet prompted fields: **Fleet Employee Number, Fleet Trailer Number, Additional Prompted Data 1, Additional Prompted Data 2** are available in Visa Spend Clarity provided they have been configured to be sent from the VBS data platform for a company as mentioned in the above section. Please consult your Visa Representative for more information.

Visa IntelliLink Compliance

Visa IntelliLink Compliance is an easy-to-use data mining tool that monitors employee card usage, spend and adherence to Government and Corporate program policies.

Visa IntelliLink Compliance Management is designed for larger companies and government entities and includes a case workflow process. Program administrators can initiate cases based on questionable transactions requiring cardholders to respond to a company-specific questionnaire and provide additional items such as attachments and notes. These cases then go for a review and approval before final disposition as valid, misuse, abuse, or fraud.

Visa IntelliLink Compliance Auditor is appropriate for mid-market companies and public sector clients and is a streamlined application that does not include case workflow. Compliance Auditor contains a simplified audit process that can be used to record audit findings and disposition of cases as valid, misuse, abuse, or fraud.

Both applications are easy-to-use, web-based solutions that are intended to provide protection and control via sophisticated monitoring techniques. Using enhanced data mining through rules, sampling, and predictive scoring, Visa IntelliLink Compliance can monitor every transaction made with a company's fleet card to help identify noncompliant usage.

Chapter 5: Certification and Confirmation

This chapter defines the Visa Fleet card certification and testing requirements for Acquirers, Issuers, and Merchants.

5.1 Introduction to Key Concepts þ

There are multiple key steps to the testing and certification of payment systems. Typically, the following terms are used:

- **Level 1 Certification: Hardware**—The physical terminal, logic, and transmission of payment data. Typically, this is performed by the hardware (terminal) supplier prior to selling the hardware. The L1 certification process, for both the contact and the contactless interface, is managed by EMVCo. For further details, see the EMVCo website.
- **Level 2 Certification: Software Kernel**—The software written to facilitate the transmission of payment information between terminal/card. This is typically bought from the terminal/hardware supplier. Kernel is usually hosted on the terminal but may be hosted, wholly or partially, on an Electronic Payment Service (EPS) or in the cloud. The L2 certification process for the contact kernel is managed by EMVCo. The process for contactless L2 is unique per card scheme. Contactless L2 certification is either managed by Visa Approval Services (usually) or by EMVCo.
- **Level 3 Certification: Application**—Card brand validation is performed against the entire processing solution (components of Level 1 and Level 2, plus the terminal payment application and the acquiring network). This includes the end-to-end flow of a transaction, from the presentation of a card at a terminal, via the Merchant POS solution to the Acquirer, via Visa to the Issuer and back. For simplification purposes, this testing is divided into subcomponents that can be separated and certified individually. L3 certification/testing is managed separated by individual card schemes. For Visa it is the responsibility of the client to perform the self-test process using accredited tools and to generate a report.

This chapter describes at a high level the sub-portions that need to be performed. The intent of this chapter is not to provide a detailed process, but rather to highlight fleet specific requirements. It will focus on the Level 3 certification process.

Table 5-1: Overview of Testing Responsibilities

Overview of Testing Responsibilities		
Issuers/Processors	**Merchants**	**Acquirers**
· PVT Testing of cards · VIP Online Testing · Clearing Testing	· LOA for Hardware & Valid Kernels · L3 Testing and certification with Acquirer - Authorization - Clearing	· Host Certification with Visa: - VIP - Clearing · Merchant L3 testing

5.2 Issuer Testing

Issuers need to ensure that they can test and certify the cards they intend to provide, as well as the online transaction processing they need to handle.

Fleet Card Testing and Certification

- **Card Design**—Verify the card branding, design, chip placement, Visa logo placement, and so on.
- **Magnetic Stripe Fleet Layout**—Check that the test cards meet your requirements, and that the magnetic stripe layout is in line with the personalization of the chip profiles.

  Please refer to Appendix H: Fleet Test Scripts, where an Excel file is provided as an attachment to this PDF. The file contains test scripts for Merchants, Acquirers, and Issuers to use for fleet.

  The Excel file is available in the Attachments pane, located at the left of the PDF window. Double-click the attachment to open the Excel file.
- **Chip Global Personalization Requirements (GPR)**—Perform the standard chip card personalization validation process covering the standard, non-fleet chip card configuration.

  In addition to the standard validation, please ensure that the fleet specific tags ASRPD (tag '9F0A'), Prompting (tag 'DF30'), and Purchase Restrictions (tag 'DF32')) are set up in alignment with your requirements.

  Ensure that your personalizations for prompting and purchase restrictions are in line with the configuration in the magnetic stripe layout, and a set of test cards is produced that covers your business requirements.

  As a guideline, it is suggested that all the scenarios linked to the test cases are covered. Please refer to:

  - Appendix H: Fleet Test Scripts, where an Excel file is provided as an attachment to this PDF. The file contains GCT – (Global Compliance Testing) test scripts for Merchants, Acquirers, and Issuers to use for fleet testing.

    The Excel file is available in the Attachments pane, located at the left of the PDF window. Double-click the attachment to open the Excel file.
  - The *EMV-Qualified and Visa-Confirmed L3 Test Tools* document on Visa Online (Build-012 or higher).
  - Appendix E: Host System Changes for Fleet Data
  - Appendix F: Visa Fleet Chip Card Personalization Profile
  - Appendix H: Fleet Test Scripts

Note: Visa testing requires a set of production cards that will need to be tested in the field to ensure that the product works as designed prior to allowing an Issuer to release the cards to Clients.

Online Transaction Processing

- Issuer validation of data fields for Fleet processing with Global Client Testing (GCT). A set of standard test scripts is executed in order to determine Issuer's compliance with standard and fleet requirements in the online authorization as outlined in Appendix H: Fleet Test Scripts.
- This validation is performed by connection to VisaNet: VCMS (Visa Certification Management System)
  - Testing/certification can be done for all Entry Mode types i.e. magnetic stripe, contact chip, contactless chip, card not present, and so on.
- Validation of keys in production such as Cryptogram and CVV/CVV2 should be part of the process.
- If you support Host-Based Purchase Restrictions, validate the capability of the Merchant/Acquirer. Only return Host-Based Purchase Restrictions if the Merchant/Acquirer can handle it and you support Host-Based Purchase Restrictions.
- Transaction could be performed as full EMV or as quick chip transaction

Clearing and Settlement

- Clearing messages for transactions/various levels of Fleet Enhanced Data (Level 2 and 3: as outlined in Appendix E: Host System Changes for Fleet Data) is tested.
- The GCT Standard test scripts for fleet data used during the online authorization validation are linked to Fuel and Non-Fuel transaction records: TC05/TCR3, TCR1, TCR6, and TC50 Enhanced Data (PURCH A/L) back to the Issuer.

Issuer/Processor Card Setup First Steps

Visa strongly recommends that you use the Processor Express profiles, as it will significantly reduce your implementation and testing requirements. For guidance, please refer to the *Visa Smart Debit/Credit Personalization Requirements for U.S. Implementations,* available at Visa Online.

In addition to the standard profiles, the *Visa Personalization Assistant* (VPA) is an optional Visa-developed, web-hosted (Visa Online) tool that provides guidance to chip card Issuers during the data preparation phase of chip card personalization. Use of VPA to generate a personalization profile is recommended only for U.S. Issuers who are configuring a custom profile with offline capabilities that differs from standard chip profiles for U.S. implementations.

For Visa Fleet cards, the recommendation is to only use VPA to help you define the layout of Prompting (tag 'DF30') and Purchase Restrictions (tag 'DF32') without modifying a standard profile, as these tags are Issuer specific. Any standard profile can be used as long as MSD contactless is switched off.

In the US a customer standard profile named "**Visa Fleet Personalization Profile for Online-Only Card Dual Interface"** has been defined for Fleet Cards. It can be download from VTS or Visa Online.

In addition to the formal testing with Visa, it is highly recommended that Issuers perform their own validation and testing to ensure that the customer experience is in line with their expectations.

This should include:

- Test that all required data elements are prompted and included as part of the online authorization messages
- If supported, test Chip-Based Purchase Restrictions to confirm the card settings
- If supported, test Host-Based Purchase Restrictions

It is highly recommended that Issuers validate prompting at both the forecourt AFD (Automatic Fuel Dispenser) as well as in-store to confirm that a consistent user experience exists across implementations.

Additional Items to Include in an Issuer Testing Plan

Card Management

- Requesting a card
- Card replacement
- Reporting a missing card
- Updating card capabilities

  Careful consideration should be used to determine when a card should be replaced and when back end updates will suffice.

Validation of Data Flow

Standard Validation Required for Issuers

- Validate that the expected data elements as marked on the chip as mandatory/optional were received.
- Correct handling of missing fleet data:
  - Do not decline a transaction based on optional data fields or data that cannot be returned by a magnetic stripe or tag '57', Magnetic stripe Equivalent solution. Please note that optional data tags will not always be captured.

Issuer Testing for Host-Based Purchase Restrictions

If Host-Based Purchase Restrictions are supported, Issuers must carefully review the Merchant/Acquirer purchase restriction capabilities set in the Purchase Restrictions flag.

Note: Support for purchase restrictions will vary from Merchant to Merchant as support for Visa Fleet is implemented in the industry. Host-based purchase restrictions must not be sent to Merchants that are not yet capable of supporting Host-Based Purchase Restrictions.

- **No Restrictions Supported=Zeroes, $Null, Spaces, or Other Values**— Merchant or Acquirer does not support Chip-Based Purchase Restrictions nor Host-Based Purchase Restrictions.

  Implication: This implies this merchant cannot support Chip- or Host-Based Purchase Restrictions.

  Do not decline a transaction based on this setting if valid transactions are requested and do not return Purchase Restrictions Flag as part of the online response.

- **Chip-Based=1**—Merchant can support the DF32 restrictions on the chip card. The Merchant/Acquirer chain cannot support Host-Based Purchase Restrictions.

  Implication: This Merchant can only apply purchase restrictions as set on the card.

  Do not decline a transaction based on this setting if valid transactions are requested and do not return Purchase Restrictions as part of the online response. The Merchant/Acquirer will enforce purchase restrictions based on the values personalized on the chip.

- **Host-Based=2**—Merchant/Acquirer chain can receive the Host-Based Purchase Restrictions (at the EMV pump or in-store) coming back in the 0110 message. The chip restrictions are not considered at all, the Merchant will consider the Host-Based Purchase Restrictions only.

  Implication: This Merchant can only apply Host-Based Purchase Restrictions returned as part of an online message

  If invalid transactions are requested, decline the transaction, and return purchase restrictions as part of the online response. The Merchant can remove invalid products and initiate a new authorization request.

  For pre-authorization, return the Host-Based Purchase Restrictions as part of the online response. The Merchant/Acquirer will enforce purchase restrictions based on the values returned during the online authorization.

- **Both Chip-Based and Host-Based=3**—The Host-Based Purchase Restrictions override the chip-based purchase restriction.

  Implication: This is a fully compliant Fleet solution that can handle both Host-Based Purchase Restrictions and Chip-Based Purchase Restrictions.

  If invalid transactions are requested, decline the transaction, and return Host-Based Purchase Restrictions as part of the online response. The Merchant can remove invalid products and initiate a new authorization request.

  For pre-authorization, return the purchase restrictions as part of the online response. The Merchant/Acquirer will enforce purchase restrictions based on the Host-Based Purchase Restrictions returned during the online authorization.

Reporting/Statements

Issuers should confirm that all transactions and associated Enhanced Data for fuel- and non-fuel products are passed completely and accurately to all internal and external reporting platforms. Statements should also be tested to confirm that debit and credit transactions are included accurately.

Project Rollout Recommendations

After certification and testing, it is highly recommended that the Issuer perform internal production testing starting with a few production cards used by key project team members. Once basic functionality and reporting has been confirmed, move forward with a "Friends and Family" pilot in order to do proper production validation of the end-to-end process. This should include the following:

- Customer onboarding
- Client enrollment
- Card issuing
- Production testing
  - Prompting
  - Purchase Restriction
  - Cardholder experience
  - Online Authorization testing and data field validation
  - Clearing and Settlement and data field validation
  - Customer statements
  - Billing to the Fleet Institution
  - Testing of any file extracts or outbound data delivery to downstream systems that could be impacted

Visa Contacts

Contact your Visa representative or email **BSAM@visa.com** to receive assistance.

5.3 Merchant Testing

A Merchant will typically acquire a terminal/hardware with a valid L1 Hardware certificate and a valid L2 Kernel. As part of the certification process, proof of this will be required. The LoA (Letter of Approval) reference numbers will need to be submitted as part of the certification process.

The focus of this section will be the process Merchants need to perform to obtain a valid L3 Certification.

Visa Global L3 Testing is a mandatory phase of terminal testing. It helps to ensure that chip terminals that have been configured for deployment by acquirers are correctly integrated into the Visa payment acceptance environment and do not unduly contribute to interoperability problems. This section provides an overview of Fleet L3 testing. For details, please refer to the Visa Global Level 3 Testing – Guidelines and FAQ.

The following outlines the steps required to perform L3 testing:

Step	Description	Details
1.	**Test Tool**	Obtain a test tool from a vendor or work with your existing vendor (if applicable) to get access to the **Visa EMV-compliant L3 Test Set Files (Build-012 or higher) (use the** EMV-Qualified and Visa-Confirmed L3 Test Tools list to locate a test tool vendor).
2.	**Terminal and Environment Set Up**	Configure terminal for deployment and set up environment. L3 testing should mirror production as closely as possible and include all relevant merchant and acquirer systems. Set up includes configuring systems with the Fleet test BIN **448558** and connecting to VCMS or a Visa confirmed host simulator (use the EMV-Qualified and Visa-Confirmed L3 Test Tools list to locate a host simulator vendor, if applicable).
3.	**L3 Testing**	Use the L3 test tool to perform L3 testing. This testing is self-administered and does not require Visa involvement. For a Fleet solution, there will be general test cases as well as Fleet-specific ones and the test cases include both contact and contactless tests.
4.	**Test Results**	Submit test results to Visa using the Chip Compliance Reporting Tool (which is accessible on Visa Online). The test tool that the acquirer uses to perform L3 testing will be able to generate a report with test results (called a .tsez file) which can be uploaded to the Chip Compliance Reporting Tool (CCRT). When all tests are successful, the test report is automatically accepted by the Chip Compliance Reporting Tool and L3 testing is completed.

It will include:

- Terminal/card interaction. Correct handling of interaction between the card and the terminal. Correct prompting, handling of transaction, approval/termination of valid/invalid transaction, slips, and so on.
- Online network certification with the Acquirer.
- It may also include Clearing and Settlement.

The Acquirer is responsible for ensuring that all at Merchant environments/equipment it connects to its network/infrastructure is compliant with EMV and Visa requirements. EMV and Visa provide standard test cases/scripts that must be performed on the terminal and essential data must flow end-to-end in the data messages in order for the payment transaction to work correctly.

Acquirers use proprietary interfaces to allow Merchants to connect to their networks, and then map to Visa and other brands. At a high level, the testing is split into terminal behavior as well as network certification. There are several tools that can be used to perform this validation and certification.

Most US-based Acquirers perform self-certification with their Merchants. This gives them the ability to perform a single certification with Visa and other brands to ensure that they correctly handle the transactions and forward the required information (Online messages + Clearing and Settlement) to Visa (and other brands). This self-certification process allows a streamlined process that allows for faster certification. The onus/responsibility is therefore on the Acquirer, and they typically have additional requirements for their own network that are added on top of brand certification when certifying a new Merchant. It is important to understand that the Interface, Clearing and Settlement, Reporting, etc. that you receive is from the Acquirer directly.

For the purposes of this document, we will be focusing on Visa testing processes are usually implemented on third-party supplied tools:

As of January 6, 2022, Visa has announced the transition to the EMV-compliant Level 3 (L3) Test Set Files effective July 16, 2022. For more details please refer to this link: https://technologypartner.visa.com/Toolkits/. Level 3 Testing Materials

Note:

- Visa Global L3 testing test set file build 012 and up will include all Fleet 2.0 test cases.
- The Visa test BIN for L3 and VIP testing is 448558.

When you perform testing, there are two main categories of testing that need to be performed:

- L3 POS Testing (EMV-Qualified and Visa-Confirmed L3 Test Tools):
- Use of test cards / test cases (Visa Fleet cards that support DF30 and DF32 testing) to facilitate a test from the Merchant terminal to Merchant backend network to the Acquirer and to VCMS (VisaNet testing system)
  - Provides a level of assurance for online connectivity through a stream of testing
  - Appropriate L3 terminal software to Acquirer behavior using test cards/keys
  - L3 testing stops at VCMS and tests the processes between the Merchant terminal and VCMS
- VisaNet Testing:
  - Before VisaNet testing can begin – L3 POS testing must be successfully completed (acknowledgement)
  - With VisaNet testing, specific test cases driven by the Global Client Testing (GTC) team are conducted to test and certify transaction and Enhanced Data in authorization and clearing messages between Acquirers and Issuers
  - The Global Client Testing (GCT) team provides appropriate scripts, data requirements and directions for Acquirers to conduct testing to certify
- Quick Chip vs Full EMV:
  - Merchants have the choice of supporting support Quick Chip or Full EMV processing. Quick Chip is highly recommended due to time to market advantages

L3 Contact and Contactless Chip Terminal Testing Requirements

Visa has defined test cards and test cases used by EMV-Qualified and Visa-Confirmed L3 Test Tools to be used on contact and contactless chip POS terminals prior to deployment.

These test cards/tools help to ensure correct terminal configuration, assist with integration testing and meeting Visa's terminal requirements for both EMV contact chip and contactless chip devices.

Use of the EMV-Qualified and Visa-Confirmed L3 Test Tools is intended to:

- Ensure basic contact and contactless chip functionality is not compromised during application integration
- Ensure all Visa requirements are satisfied
- Identify common interoperability issues

Note: The additional test cases for DF30 Prompting and DF32 Purchase Restrictions is supported in the EMV-compliant Level 3 (L3) test set file build 012 and up.

These tools can help reduce required testing, standardize point-of-sale solutions, and modularize and/or isolate EMV chip functionality with the payment application

In addition to the above, special emphasis is needed of some specific behavior for fleet terminals to ensure correct handling. The following special behavior needs to be verified and tested:

Prompting

For Visa Fleet transactions, it is essential that the POS/Terminal correctly identifies the data elements that need to be prompted for. The prompting data elements (that can be defined at a card level) are:

- Vehicle ID or Driver ID or Generic ID
- Odometer
- Fleet Work Order/Purchase Order Number
- Fleet Trailer Number
- Fleet Employee Number
- Fleet Additional Prompted Data 1 (determined by Issuer)
- Fleet Additional Prompted Data 2 (determined by Issuer)

The correct values should be prompted for and sent online as part of the authorization message in order to ensure better approval rates. In addition, data quality is essential with regard to ensuring appropriate interchange rates for the Merchant.

Refer to Chapter 3: Prompting (tag 'DF30') (Mandatory)

Refer to Chapter 3: Merchant Support for Magnetic Stripe / Track 2

Purchase Restrictions

It is essential that Purchase Restrictions are correctly handled, and your capability is correctly identified in the online message. Refer to Chapter 3: Implementation Details: Purchase Restrictions.

It is essential that purchase restrictions be correctly applied to the transaction. Acceptance of a prohibited transaction implies liability for chargeback.

5.4 Acquirer Testing

Acquirers are responsible for the certification process of the Merchants acquiring infrastructure. For reference on the requirements at the Merchant, refer to the Merchant section above.

The Acquirer is responsible for the following certification requirements

- L3 POS Testing (EMV-Qualified and Visa-Confirmed L3 Test Tools):
  - Use of test cards and test cases to facilitate a test from the Merchant terminal to Merchant backend network to the Acquirer and to VCMS (VisaNet testing system)
  - Provides a level of assurance for online connectivity through a stream of testing
  - Ensuring appropriate L3 terminal software behavior testing has been performed using test cards/keys
  - L3 testing stops at VCMS and tests the processes between the Merchant terminal and VCMS; If Acquirer certification is needed, L3 test cards can be used.
  - Quick Chip is fully supported and recommended.
- VisaNet Testing:
  - Before VisaNet testing can begin, L3 POS testing must be successfully completed.
  - With VisaNet testing, specific test cases driven by the Global Client Testing (GCT) team are conducted to test and certify transaction and Enhanced Data in authorization and clearing messages between Acquirers and Issuers
  - The GCT team will provide appropriate scripts, data requirements and directions for Acquirers and Issuers to conduct testing to certify
  - Host certification for fleet is performed using the Visa Mobile Card Personalization (VMCP) toolkit

> **Note**: The *Visa Mobile Card Personalization* (VMCP) toolkit is comprised of a mobile app, 2 reprogrammable contactless cards, and descriptions of Visa testing requirements. The cards provided are re-programmed by the mobile app to simulate whichever card profile is necessary to run a particular test condition. This tool contains Visa Fleet cards that support DF30 and DF32 testing.

Visa recognizes that Acquirers use proprietary interfaces to allow Merchants to connect to their networks, and then map the required data fields to Visa and other brands.

The testing requirement is two-fold: 1) terminal behavior and 2) network certification. There are several tools that can be utilized to perform this validation and certification. Most US-based Acquirers perform self-certification with their Merchants. This allows them the ability to perform a single certification with Visa and other brands to ensure that they correctly handle the transactions and forward the required information (Online messages + Clearing and Settlement) to Visa (and other brands).

This self-certification process allows a streamlined process that allows for faster certification. The onus/responsibility is therefore on the Acquirer, and they typically have additional requirements for their own network that are added on top of brand certification when certifying a new Merchant. As such, once the Acquirer has demonstrated their ability to correctly perform Visa Fleet transactions, it is up to the Acquirer whether visa infrastructure will be utilized in the certification process of the Merchant as described above.

As part of the enhanced Visa Fleet process. Special consideration needs to be put on the new data fields and flow of data. It is a requirement to not only pass these Merchant data values, but to ensure that the correct data elements processed by the terminal are send to the Issuers.

New data elements that can be entered at the Merchant POS that need to be validated as part of your certification process with the Merchant include the following:

- Vehicle ID or Driver ID or Generic ID
- Odometer
- Fleet Work Order/Purchase Order Number
- Fleet Trailer Number
- Fleet Employee Number
- Fleet Additional Prompted Data 1 (determined by Issuer)
- Fleet Additional Prompted Data 2 (determined by Issuer)

In addition to the above, which can either be automatically/manually captured at the Merchant terminal level, there are strict data requirements associated with fleet transaction on top of a normal transaction level.

Refer to Chapter 3: Merchant and Acquirer Steps / Guidelines

Refer to Chapter 4: VisaNet and VBS Fleet Processing

Refer to Appendix E: Host System Changes for Fleet Data

Merchant Testing for Host-Based Purchase Restrictions

If Host-Based Purchase Restrictions are supported, special attention needs to be put into validating the values of the Purchase Restrictions Flag to ensure it reflect the correct value associated with Acquirer/Merchant capabilities.

Note: If a Merchant supports Host-Based Purchase Restrictions but the Acquirer does not, the Acquirer should downgrade the value in the flag (hyperlink to section in Chapter 3: Merchant and Acquirer Steps / Guidelines, specifically the section about the Purchase Restrictions Flag indicating the Merchant/POS capability to cater for Host-Based Purchase Restrictions). The incorrect configuration of this flag could cause an increase in declined transactions or Issuer/Merchant liability for accepting invalid transactions that were prohibited as part the purchase restrictions.

It is highly recommended that you accommodate for the return of Host-Based Purchase Restrictions in your message interface with your Merchants, in order to allow the flexibility to your Merchants to accept Host-Based Purchase Restrictions.

Clearing and Settlement

For commercial cards, there are additional data requirements as part of clearing and settlement. As such, it is essential to process and submit the transaction correctly. Refer to Chapter 4: VisaNet and VBS Fleet Processing.

It is essential that the data fields processed at a Merchant terminal are validated end-to-end as they are passed to the Issuer because this has a direct impact on interchange fees.

Testing considerations

It is essential that all Merchant solutions be tested for both Magnetic Stripe and Chip Processing capability.

Validation Document for Data Flowing Through the Process

- Refer to Appendix H: Fleet Test Scripts, where an Excel file is provided as an attachment to this PDF. The file contains test scripts for Merchants, Acquirers, and Issuers to use for fleet.

  The Excel file is available in the Attachments pane, located at the left of the PDF window. Double-click the attachment to open the Excel file.

Visa Contacts

Contact your Visa representative or email **BSAM@visa.com** to receive assistance.

Chapter 6: Upcoming Changes for Fleet Capabilities

In 2023, Visa will be working on several enhancements to support additional capabilities for the Visa Fleet Card solution such as EV (Electric Vehicle) Enhanced Data, Multiple Fuel Codes (on a single transaction) and Merchant discounts in VisaNet.

Subject to change at Visa's discretion, this chapter describes in detail the upcoming changes to the Visa Fleet Card solution. Other sections of this guide will be updated to reflect the details in this chapter later in 2023.

6.1 April 2023 Business Enhancement Release in VisaNet þ

- EV Enhanced Data is planned to be available in VisaNet for VIP Online messages ONLY (both VIP/SMS online messages).
- The ability to provide multiple fuel codes on a single transaction will be available in VIP Online messages.
- There are no changes to BASE II in this release. It is planned to implement support in BASE II for new electric vehicle fields and values at a future date. Acquirers may continue to use existing BASE II TC 50 transaction records to support multiple fuel codes for existing fuel types.
  - For EV enhanced data this means:
    - Merchants/Acquirers can ONLY provide EV Enhanced Data in VIP online messages for now but not in BASE II Clearing until the BASE II system is updated at a future date.
    - Interchange rates for BASE II transactions will be based on existing values, rates, and criteria as published in the *US Interchange Reimbursement Fee Rate Qualification Guide*, Chapter 41, at Visa Online. If any transactions possibly contain any new EV charging data/values (e.g., unit of measure being kWh) they will not qualify for the fee programs until a later release and will qualify for another fee program, dependent on the data present in the settlement message.

EV Enhanced Data þ

Visa will use Field 104 Usage 2 for EV Enhanced Data. An example record is provided below after the tables of tags below:

- Existing tags in Dataset 5C will be re-used to reflect certain standard details that make sense for an EV transaction.
- New tags that are EV specific will be introduced in Dataset 5C to reflect certain EV fields.
- A new Dataset 1A is being introduced to capture both EV and Multiple Fuel code line level details. This dataset is future forward and ISO 2022 compliant. More tags will be added to this dataset with future projects as more capabilities are delivered.
- Merchants and Acquirers should populate the existing tags and new tags (as much as possible based on their system capabilities) for an EV transaction.
- EV's, Charging infrastructure, Specifications, Standards, government rules and regulations are constantly evolving. Visa will make changes and/or updates as required and needed as the whole Industry shifts and evolves to this technology.

Table 6-1: New Tags and Values in TLV Field 104, Usage 2, Dataset ID 5C, for Electric Vehicle Transactions

The following table shows the new tags and values for Dataset ID 5C.

Tag	Length	Value	Format	Contents
04	1	Unit of Measure	AN	Existing tag that contains the unit of measure for the transaction. Existing values: · **G** (U.S. gallon) · **I** (Imperial gallon) · **K** (Kilo) · **L** (Liter) · **P** (Pound) New values: · **C** (CM (charging minutes)) · **W** (kWh (kilowatt per hour))
0C	6	Charging Power Output Capacity	N	New tag that contains the charging station power output capacity represented in kW.
0D	6	Charging Reason Code	N	New tag that contains the specific charging reason code for the transaction.
10	6	Estimated Km/Miles Added	N	New tag that contains an estimate of the total distance added, in km/miles, based on the kWh added, and the type of vehicle engine charged.
11	12	Carbon Footprint	N	New tag that contains the carbon footprint avoidance (how much was saved from this charge) measurement for the purchase on the transaction – measured in grams of carbon dioxide equivalent (CO2e)
12	6	Estimated vehicle km/miles available	N	New tag that contains the estimated mileage the car will have, after completion of the charge, once it leaves the electric vehicle charging station
1D	6	Maximum Power Dispensed	N	New tag that contains the maximum power dispensed during the specific charge session from that charging station. This could be different to the power output capacity of the station based on power management by the site operator.
1F27	3	Connector Type	AN	New tag that contains a Visa-defined code for a specific connector type to identify the connection for the charge session.

Table 6-2: New Tags and Values in TLV Field 104, Usage 2, Dataset ID 1A, for Fuel/Electric Vehicle Transactions

The new Dataset ID 1A will contain new tags as shown in the following table. An Acquirer may create a separate dataset 1A for each fuel code used in the transaction, which may result in multiple occurrences of Dataset ID 1A appearing in a single transaction.

Tag	Length	Value	Format	Contents
83	Variable: 1–4	Product Code	AN	Contains the expanded fuel type code for the transaction, which is the purchased fuel type and grade. For valid values, refer to Visa Fleet Card 2.0 Implementation Guide for U.S. Merchants, Acquirers, and Issuers
88	Variable: 1–12	Unit Price	N	Contains the cost of fuel per unit of measure, for example, dollars per gallon
89	1	Unit Price Minor Unit	N	Contains the number of places the decimal point shall be moved to the left, starting from the right-most numeric digit of unit price
8A	4	Unit of Measure	A	Contains the unit of measure for the transaction. Valid values are: · CHMT (Charging minutes) · GBGA (Imperial gallon) · KILO (Kilogram) · KWHO (Kilowatt hour) · LITR (Liter) · PUND (Pound) · USGA (US Gallon)
8B	Variable: 1–12	Product Quantity	N	Contains the quantity of fuel that is purchased
8C	1	Quantity Minor Unit	N	Contains the number of places the decimal point shall be moved to the left, starting from the right-most numeric digit of line item product quantity
8D	6	Total Time Plugged In	N	Contains the total time the vehicle was plugged in. The format of this field is hhmmss, where: · hh = Hours (00–99) · mm = Minutes (00–59) · ss = Seconds (00–59)

Tag	Length	Value	Format	Contents
8E	6	Total Charging Time	N	Contains the actual time taken to charge the vehicle. The format of this field is hhmmss, where: · hh = Hours (00–99) · mm = Minutes (00–59) · ss = Seconds (00–59)
8F	6	Start Time of Charge	N	Contains the start time of the charge expressed in the local time of the card acceptor location. The format of this field is hhmmss, where: · hh = Hours (00–23) · mm = Minutes (00–59) · ss = Seconds (00–59)
90	6	Finish Time of Charge	N	Contains the finish time of the charge expressed in the local time of the card acceptor location. The format of this field is hhmmss, where: · hh = Hours (00–23) · mm = Minutes (00–59) · ss = Seconds (00–59)
91	Variable: 1–12	Total Amount Including Tax (Gross Price)	N	Contains the total amount for this fuel code line item, including tax

Example Values for EV Transactions in Dataset 5C

New values and tags are highlighted in yellow.

Table 6-3: Example Values for EV Transactions in Dataset 5C

Data Element Name	Tag	Format	Content	Example Values for an EV Transaction
Type of Purchase	01	1AN	Type of purchase (gas, non-fuel item, etc.) **1** = Fuel Purchase **2** = Non-Fuel Purchase **3** = Fuel & Non-Fuel Purchase	**1**
Service Type	02	1AN	Identifies type of service at the fuel station **F** = Full Service **S** = Self Service	**S**
Unit of Measure (kWh, CM)	04	1AN	Unit of Measure used for fuel **L** = Liter **G** = U.S. Gallon **I** = Imperial Gallon, **K** = Kilo **P** = Pound **W**=kWh (kilowatt per hour) **C**=CM (charging minutes)	**kWh**
Quantity	05	12UN, EBCDIC	Quantity of fuel being purchased (Four decimal places are implied)	**251300**
Unit Cost	06	12UN, EBCDIC	Cost of fuel per unit of measure (Four decimal places are implied)	**4600**
Gross Fuel Price	07	12UN, EBCDIC	Total price for fuel purchases only (Four decimal places are implied)	**125500**

Data Element Name	Tag	Format	Content	Example Values for an EV Transaction
Net Fuel Price	08	12UN, EBCDIC	Net fuel price, less any taxes exempted or discounts (Four decimal places are implied)	**125500**
Odometer Reading	0B	7AN	Prompted Field	**7346**
Charging Power Output Capacity	0C	6N	Contains the charging station power output capacity and represent in kW.	**50**
Charging Reason Code	0D	6N	Provides a specific charging reason code (merchant defined) that could have occurred with transaction	**100 (sample data only)**
Estimated Km/Miles Added	10	6N	Contains an estimate of the total km/miles added based on the kWh added and the type of vehicle engine charged.	**115**
Carbon Footprint	11	12N	Contains the Carbon Footprint avoidance (how much you saved from this charge) measurement for the purchase on the transaction – measured in grams of carbon dioxide equivalent (CO2e)	**40000 (sample data only)**
Estimated vehicle km/miles available	12	6N	After charge completion, provides the estimated mileage the car will have once it leaves the EV charging station	**147**

Data Element Name	Tag	Format	Content	Example Values for an EV Transaction
Local Tax Included	13	1AN	Indicates if local tax is included or not **0** = Tax not included **1** = State or Provincial Tax included **2** = Transaction is not subject to tax	**0**
Local Tax	14	12UN, EBCDIC	May be used by acquirers to indicate the amount of state or provincial tax included in the transaction amount (can be used for VAT.)	**0**
Maximum Power Dispensed	1D	6N	Contains the maximum power dispensed during that specific charge session from that charging station, this could be different then the power output capacity of the station based on power management by the Site Operator.	**46**
Expanded Fuel Type	1F10	4AN	Type of fuel (unleaded, regular, diesel, electric charging level, etc.) See Appendix I in this guide for the list of applicable fuel type codes	**FC**
Connector Type	1F27	3AN	Contains a Visa Defined code for a specific connector type to identify the connection/EV for the charge session; used in Fleet Data Reporting by Fleet Managers	**TBD (e.g., Code for "CHAdeMO" connector type)**

Example Values for EV Transactions in Dataset 1A

New values and tags are highlighted in yellow.

Table 6-4: Example Values for EV Transactions in Dataset 1A

Data Element Name	Tag	Format	Content	Example Values for an EV Transaction
Product Code	83	4AN	Type of fuel (unleaded, regular, diesel, electric charging level, etc.) See Appendix I in this guide for the list of applicable fuel type codes	**FC**
Unit Price	88	12N	Cost of fuel per unit of measure	**4600**
Unit Price minor unit	89	1N	Contains the number of places the decimal point shall be moved to the left, starting from the right-most numeric digit of unit price	**4**
Unit of Measure	8A	4AN	Unit of Measure used for fuel · LITR=Liter · USGA=US Gallon · GBGA?=Imperial Gallon · PUND=Pound · KILO=Kilometer · KWHO=Kilowatt Hour · CHMT=Charging Minutes	**KWHO**
Product Quantity	8B	12N	Quantity of fuel being purchased	**251300**
quantity minor unit	8C	1N	Contains the number of places the decimal point shall be moved to the left, starting from the right-most numeric digit of unit price	**4**

Data Element Name	Tag	Format	Content	Example Values for an EV Transaction
Total time plugged in	8D	6N HHMMSS	Contains the total time the vehicle was plugged in. The format of this field is hhmmss, where: · hh = Hours (00–99) · mm = Minutes (00–59) · ss = Seconds (00–59)	**011000**
Total charging time	8E	6N HHMMSS	Contains the actual time taken to charge the vehicle. The format of this field is hhmmss, where: · hh = Hours (00–99) · mm = Minutes (00–59) · ss = Seconds (00–59)	**010000**
Start time of charge	8F	6N HHMMSS	Contains the start time of the charge expressed in the local time of the card acceptor location. The format of this field is hhmmss, where: · hh = Hours (00–23) · mm = Minutes (00–59) · ss = Seconds (00–59)	**145000**
Finish time of charge	90	6N HHMMSS	Contains the finish time of the charge expressed in the local time of the card acceptor location. The format of this field is hhmmss, where: · hh = Hours (00–23) · mm = Minutes (00–59) · ss = Seconds (00–59)	**255000**
Total Amount Including Tax (Gross price)	91	12N	Contains the total amount for this fuel code line item, including tax	**1255**

Important:

- For transactions containing a single fuel code that is not EV related, acquirers must continue to send TLV Field 104, Usage 2, Dataset ID 5C. Acquirers may also choose to send TLV Field 104, Usage 2, Dataset ID 1A.
- If more than one fuel code is used in the transaction, or if the transaction uses an EV related fuel code, the acquirer should send both Dataset ID 5C and Dataset ID 1A. The Product Code in the first occurrence of Dataset ID 1A should be duplicated (match) the Expanded Fuel Type field in Dataset ID 5C.

- Additionally New Amount Types in Field 54—Additional Amounts, will contain the following new values in Field 54—Additional Amounts, positions 3–4, Amount Type:
  - A value of **4P** (Additional transaction fee 1)
  - A value of **4Q** (Additional transaction fee 2)

  These can be used to qualify additional EV transaction fees (e.g., prime location usage, charger not available after charging given car has not been unplugged/timely removal from spot, etc.)
- Visa currently defines three electric-vehicle related fuel codes with values of FA (EVC-1 – level 1charge), FB (EVC-2 – level 2 charge), and FC (EVC-3 – level 3 charge). It is expected that other electric-vehicle related codes will be introduced in the future.
- Visa will NOT content-edit the specific data values in datasets 5C/1A OR cross check the fuel code occurrences between datasets 5C/1A. Visa will process the data in both datasets (as available/or not available) and pass the data AS IS to the Issuer.
- For SMS merchants/acquirers sending any EV data on completion or full-financial messages, Visa will NOT be bridging this EV data to clearing records for dual message issuers as it is NOT available in BASE II as previously mentioned above

Key Summary þ

- Acquirers that process fuel/EV charging transactions must be aware that they may optionally support the following:
  - New values in Field 54, positions 3–4
  - New tags and new values in TLV Field 104, Usage 2, Dataset ID 5C—Commercial Card Data (Fuel Transactions)
  - The new Dataset ID 1A—Fleet Line-Item Detail in TLV Field 104
- Visa Fleet Card issuers must modify their systems to support receiving the following:
  - New values in Field 54, positions 3–4
  - New tags and new values in TLV Field 104, Usage 2, Dataset ID 5C—Commercial Card Data (Fuel Transactions)
  - The new Dataset ID 1A—Fleet Line-Item Detail in TLV Field 104

6.2 Multiple Fuel Codes on one Transaction þ

Visa is working to expand and grow the Fleet Vertical as one of the Key MSO Pillars within Large Mid-Market.

As part of this expansion, one of the key areas Visa is targeting under Fleet is expanded product data usage. Within the Over the Road Trucking (OTR) segment, the need for large trucks (semis, 18 wheelers, etc.) to have multiple Fuel Type Code fill-ups in 1 transaction (for different portions / reasons of the truck) is key. It is estimated that up to 30% of fuel transactions in OTR require fill ups involving multiple Fuel Type Codes.

The procedures and guidelines below will inform a merchant/acquirer on how to code transactions in both VisaNet Authorization & Clearing records and fields for multiple Fuel Type Codes on 1 transaction situation. It will also inform Issuers/Processors about how to receive this information.

Procedures for VIP Online Messages (Authorization, Confirmation, Completion, etc.) þ

The main Fleet and Fuel data in Authorization messages resides in Field 104 Usage 2 Dataset 5C. Only 1 Fuel Type Code/Qty/Unit cost are part of the Field 104 5C layout. This 1 code/qty/unit cost in Field 104 5C will be used for the primary fuel needs of the truck.

A new dataset in Field 104, dataset 1A has now been created to capture multiple fuel code detail information AND EV Related Fuel Code details. This dataset is future forward and ISO 2022 compliant. More tags will be added to this dataset with future projects as more capabilities are delivered.

Note:
- Some of the total fields in Field 104 dataset 5C must be adjusted to reflect the total of all fuel purchased if there are multiple fuel codes.
- Fuel type (tag 03) is being sunset, Expanded Fuel type (tag 1F10) is the Fuel Type Code field that is used with Fleet 2.0 in Dataset 5C.

Table 6-5: Field 104 Usage 2 Dataset 5C

Field 104 Usage 2 Dataset 5C		
Tag #	**Description**	**Use**
1F10	Expanded Fuel Type	Primary Fuel Needs of truck Contains one Visa Fuel Type Code, which is the purchased fuel type and grade
04	Unit of Measure	Primary Fuel Needs of truck (related to above fuel type code) Contains the unit of measure
05	Quantity	Primary Fuel Needs of truck (related to above fuel type code) Contains the quantity of fuel that is purchased
06	Unit Cost	Primary Fuel Needs of truck (related to above fuel type code) Contains the cost of fuel per unit of measure, for example, dollars per gallon
07	Gross Fuel Price	Must reflect the total of all Fuel Type Codes for the transaction
08	Net Fuel Price	Must reflect the total of all Fuel Type Codes for the transaction
14	Local Tax	Must reflect the local tax total of all Fuel Type Codes for the transaction

- The values in Field 4 – Transaction Amount must reflect the total for the transaction: reflect the sum total of all Fuel Type Codes (multiple fuel type codes if they exist) and the sum of all Non-Fuel product code values. Note, if another form of payment is involved (gift card, cash, another card: basically, a split payment), the transaction amount will always reflect the sub-amount charged on that form of payment and not the sum of all items.
- Multiple Fuel Codes Details
  - The multiple Fuel Type Codes to be used reside in Field 104 Usage 2 Dataset ID 1A, which allows for iterative detail records. Table/tags are shown on the next page. Multiple Fuel Type Codes can be added in Dataset 1A, each dataset/ (iteration) is for one fuel type code and will have specific tags as is outlined in the table.
  - A key requirement in coding for multiple Fuel Type Codes is that first dataset/ (iteration) of the fuel code in Dataset 1A must match exactly (be duplicated) to the Expanded Fuel Type Code coded in Field 104 Dataset 5C (Primary Fuel needs of truck).
- One Fuel Code ONLY
  - If only 1 fuel code is on the transaction, and it is a non-EV (Electric Vehicle) fuel code (such as 01 regular gas) it can be coded in Field 104 Dataset 5C only for now, Dataset 1A does not need to be coded, however Acquirers may also choose to send TLV Field 104, Usage 2, Dataset ID 1A.
  - If only 1 fuel code is on the transaction and it is an EV related fuel code (such as but not limited to FA, FB, FC), fuel code information must be coded in both Field 104 Dataset 5C and 1A to capture all the EV tags and details since there are EV fields required in both datasets.
- Overall
  - Regardless of Multiple Codes/One Code/EV Codes: Acquirers and merchants should plan to make changes to accommodate this dataset as soon as possible as in the future as this is the representation that will be mandated to be followed, a date is TBD for this mandate at this time.
  - Issuers and Processors must make immediate changes to accommodate this new dataset (OR ignore it as per TLV standards) and look at the data from this new dataset IF requiring data for multiple fuel codes or for EV code purposes. It is recommended to plan to make changes to accommodate this dataset as soon as possible as in the future as this is the representation that will be mandated to be followed, a date is **TBD** for this mandate at this time.

Table 6-6: Field 104 - Transaction Specific Data - Dataset 1A (Fleet Line Item Data)

Field 104 – Transaction Specific Data – Dataset 1A (Fleet Line Item Data)				
Tag #	**Tag Name**	**Format**	**Length**	**Use**
83	Product Code	Alphanumeric	4	Multiple Fuel Codes OR EV Code line-item details Contains one Expanded fuel type code (Visa Fuel type code), which is the purchased fuel type and grade
88	Unit Price	Numeric	2	Multiple Fuel Codes OR EV Code line-item details Contains the cost of fuel per unit of measure, for example, dollars per gallon
89	Unit Price minor unit	Numeric	1	Multiple Fuel Codes OR EV Code line-item details Contains the number of places the decimal point shall be moved to the left, starting from the right-most numeric digit of unit price
8A	Unit of Measure (the value for unit of measure now reflects ISO standards in this dataset)	LITR=Liter USGA=US Gallon GBGA=Imperial Gallon PUND=Pound KILO=Kilogram KWHO=Kilowatt Hour CHMT=Charging Minutes	4	Multiple Fuel Codes OR EV Code line-item details Contains the unit of measure

Field 104 – Transaction Specific Data – Dataset 1A (Fleet Line Item Data)				
Tag #	**Tag Name**	**Format**	**Length**	**Use**
8B	Product Quantity	Numeric	1-12	Multiple Fuel Codes OR EV Code line-item details Contains the quantity of fuel that is purchased
8C	quantity minor unit	Numeric	1	Multiple Fuel Codes OR EV Code line-item details Contains the number of places the decimal point shall be moved to the left, starting from the right-most numeric digit of unit price
8D	Total time plugged in	HHMMSS	6	Multiple Fuel Codes OR EV Code line-item details Contains the total time the vehicle was plugged in
8E	Total charging time	HHMMSS	6	Multiple Fuel Codes OR EV Code line-item details Contains the actual time taken to charge the vehicle
8F	Start time of charge	HHMMSS	6	Multiple Fuel Codes OR EV Code line-item details Contains the start time of the charge expressed in the local time of the card acceptor location

Field 104 – Transaction Specific Data – Dataset 1A (Fleet Line Item Data)				
Tag #	**Tag Name**	**Format**	**Length**	**Use**
90	Finish time of charge	HHMMSS	6	Multiple Fuel Codes OR EV Code line-item details Contains the finish time of the charge expressed in the local time of the card acceptor location
91	Total Amount Including Tax (Gross price)	Numeric	12	Multiple Fuel Codes OR EV Code line-item details Contains the total amount for this fuel code line item

Table 6-7: Example – Field 104 Dataset 5C - Multiple Fuel Codes

Example: Multiple Fuel Code – Purchased 2 Fuels: Diesel, DEF (Diesel Exhaust Fluid) Field 104 Dataset 5C		
Tag #	**Tag Name**	**Value (where b = spaces)**
1F10	Expanded Fuel Type	19bb
04	Unit of Measure	G
05	Quantity	54.5880
06	Unit Cost	4.8190
07	Gross Fuel Price	278.06 (this reflects the sum of all fuel codes)
…	…	…

Table 6-8: Example - Field 104 Dataset 1A – First Dataset

Field 104 Dataset 1A, purchased Diesel (19) and DEF (62, Diesel Exhaust Fluid) First dataset/record/iteration is for Diesel (19)		
Tag #	**Tag Name**	**Use**
83	Product Code	19bb
88	Unit Price	4.8190
89	Unit Price minor unit	4
8A	Unit of Measure	USGA
8B	Product Quantity	54.5880
8C	Quantity minor unit	4
8D	Total time plugged in	This tag is not applicable for a Non-EV transaction.
8E	Total charging time	This tag is not applicable for a Non-EV transaction.
8F	Start time of charge	This tag is not applicable for a Non-EV transaction.
90	Finish time of charge	This tag is not applicable for a Non-EV transaction.
91	Total Amount Including Tax (Gross price)	263.06

Table 6-9: Example - Field 104 Dataset 1A - Second Dataset

Second dataset/record/iteration is for DEF (62):		
Tag #	**Tag Name**	**Use**
83	Product Code	62bb
88	Unit Price	10.0000
89	Unit Price minor unit	4
8A	Unit of Measure	USGA

Second dataset/record/iteration is for DEF (62):		
Tag #	**Tag Name**	**Use**
8B	Product Quantity	1.5000
8C	quantity minor unit	4
8D	Total time plugged in	This tag is not applicable for a Non-EV transaction.
8E	Total charging time	This tag is not applicable for a Non-EV transaction.
8F	Start time of charge	This tag is not applicable for a Non-EV transaction.
90	Finish time of charge	This tag is not applicable for a Non-EV transaction.
91	Total Amount Including Tax (Gross price)	15.00

Procedures for BASEII Clearing þ

The main Fleet and Fuel data for clearing records resides in the TC05 TCR3 Industry Fleet record. Only 1 Fuel Type Code/Qty/Unit cost is part of the TCR3 layout. This 1 code/qty/unit cost in the TCR3 will be used for the primary fuel needs of the truck. Some of the total fields in the TCR3 and TCR6 must be adjusted to reflect the total of all fuel purchased if there are multiple fuel codes.

TC05 TCRXX records in Clearing			
Description	**Clearing Record**	**Position**	**Use**
Expanded Fuel Type	TC05 TCR3	20-23	Primary Fuel Needs of truck Contains one Expanded fuel type code (Visa Fuel type code), which is the purchased fuel type and grade
Unit of Measure	TC05 TCR3	25	Primary Fuel Needs of truck Contains the unit of measure
Quantity	TC05 TCR3	26-37	Primary Fuel Needs of truck Contains the quantity of fuel that is purchased
Unit Cost	TC05 TCR3	38-49	Primary Fuel Needs of truck Contains the cost of fuel per unit of measure, for example, dollars per gallon
Gross Fuel Price	TC05 TCR3	50-61	Must reflect the total of all Fuel Type Codes for the transaction
Net Fuel Price	TC05 TCR3	62-73	Must reflect the total of all Fuel Type Codes for the transaction
Local Tax	TC05 TCR6	5-1611z	Must reflect the local tax total of all Fuel Type Codes for the transaction

- The various amount fields on the TCR0, TCR3 and TCR5 records must reflect the sum total all of Fuel (multiple fuel type codes if they exist) and non-Fuel values. Note, if another form of payment is involved (gift card, cash, another card: basically, a split payment), the transaction amount will always reflect the sub-amount charged on that form of payment and not the sum of all items.
- All Multiple Fuel Type Codes used on the transaction reside in the TC50 TCR0 Invoice (Header and Summary) AND Invoice (line detail) text message records in clearing.
- The table below shows the Fuel Type Code specifics required in the Invoice (line detail). **Each line detail record is required to be completed for the primary fuel code (in the TCR3) and each Additional Fuel Type Code** . 1 Invoice Header and Summary record is required for all fuel/non-fuel line detail records.
- A key requirement in coding for multiple Fuel Type Codes is that first line item (iteration) of the fuel code in the TC50 line detail must match exactly (be duplicated) to the Fuel Code coded in TCR 3 (Primary Fuel needs of truck). This is a bit tricky since the TC50 records will first contain the Non-Fuel Code records, followed by, the Fuel code records, see this positioning below in the examples referenced in Other Guidelines.

TC50 TCR0 Line Detail record in Clearing			
Description	**Clearing Record**	**Position**	**Use**
Item Commodity Code	TC50 TCR0	41-52	Multiple Fuel Codes Contains one Expanded fuel type code (Visa Fuel type code), which is the purchased fuel type and grade
Item Descriptor	TC50 TCR0	53-78	Multiple Fuel Codes Contains the Description of Fuel
Product Code	TC50 TCR0	79-90	Multiple Fuel Codes Product code can be Merchant's product code, Manufacturer's product code or Buyer's product code. It could also contain the Visa Fuel Type Code Value if no other value is present.
Quantity	TC50 TCR0	91-102	Multiple Fuel Codes Contains the quantity of fuel that is purchased

TC50 TCR0 Line Detail record in Clearing			
Description	**Clearing Record**	**Position**	**Use**
Unit of Measure	TC50 TCR0	103-114	Multiple Fuel Codes Contains the unit of measure
Unit Cost	TC50 TCR0	115-126	Multiple Fuel Codes Contains the cost of fuel per unit of measure, for example, dollars per gallon
Line-Item Total	TC50 TCR0	155-166	Multiple Fuel Codes Contains the total amount for this fuel code line item

Other Guidelines þ

Field 104 Dataset 1A can be used in VIP (incl. both Dual and Single Message (SMS)) Processing in VisaNet). Note: When VisaNet bridges (converts) a single message (from merchant/acquirer) to a dual message Issuer – the TCR 3 will contain the details from Field 104 Dataset 5C, no information from Dataset 1A will be present or bridged as part of the TC05 record.

Examples for Reference and Understanding

As outlined in the Chapter 4 in the Fleet 2.0 Implementation Guide V1.2, when merchants and acquirers are creating a TC50 Line Detail (Purch L record), the non-Fuel products must be listed first and then followed with any Fuel products for the transaction. Here are some examples to illustrate:

- Example 1: Purchased 2 non-Fuel items and 2 fuel items:
  - Line 1 -- non-Fuel 1 (matching the TCR6 non-Fuel product code 1)
  - Line 2 -- non-Fuel 2 (matching TCR6 non-Fuel product code 2)
  - Line 3 -- Fuel 1 (matching TCR3 Expanded Fuel Type Code and also matching Field 104 Usage 2 Dataset 1A – first line item)
  - Line 4 -- Fuel 2 (matching Field 125 Usage 2 Dataset 1A - second line item)

- Example 2: Bought 9 non-Fuel and 3 fuel:
  - Line 1 -- non-Fuel 1 (matching TCR6 non-Fuel product code 1)
  - Line 2 -- non-Fuel 2 (matching TCR6 non-Fuel product code 2)
  - Etc….
  - Line 8 -- non-Fuel 8 (matching TCR6 non-Fuel product code 8)
  - Line 9 -- non-Fuel 9
  - Line 10 -- Fuel 1 (matching TCR3 Expanded Fuel Type Code and also matching Field 104 Usage 2 Dataset 1A – first line item)
  - Line 11 -- Fuel 2 (matching Field 125 Usage 2 Dataset 1A - second line item)
  - Line 12 -- Fuel 3 (matching Field 125 Usage 2 Dataset 1A - third line item)
- Example 3: Bought 0 non-Fuel and 2 fuel:
  - Line 1 -- Fuel 1 (matching TCR3 Expanded Fuel Type Code and also matching Field 104 Usage 2 Dataset 1A – first line item)
  - Line 2 -- Fuel 2 (matching Field 125 Usage 2 Dataset 1A - second line item)
- The TC50 records are not part of SMS processing for an SMS Issuer, the SMS Issuer must be setup to receive a BASE II file containing TC50 records to receive the TC50 Invoice (Header and Summary, Line Detail) records.
- Reversals:
  - Reversals in both authorization and clearing can be done against these transactions for the full amount or a partial amount. In the case of a partial, it will not be identifiable which Fuel Type Code portion the partial reversal is for.
- Disputes and Chargebacks:
  - Disputes and Chargebacks can be done against these transactions for the full amount.

Appendix A: Application Selection Registered Proprietary Data (ASRPD) Layout (tag '9F0A') þ

This appendix provides the layout for Application Selection Registered Proprietary Data (ASRPD) (tag '9F0A') containing the Visa Selection Data (VSD) (ID '0002', length byte '05').

Table A-1: Application Selection Registered Proprietary Data (ASRPD), (tag '9F0A'), Visa Selection Data (VSD) (ID '0002')

Tag	Value		Length
'9F0A'	Application Selection Registered Proprietary Data (ASRPD)		8 Bytes
	ID ='0002'	**Visa Selection Data (VSD)**	5 Bytes
		Byte 1: bits 8-5: Region Code of Issuance '0' = RFU '1' = United States '2' = Canada '3' = Europe '4' = Asia Pacific '5' = LAC '6' = CEMEA All other values are reserved for future use bits 4-1: RFU	
		Bytes 2-3: Country Code of Issuance Numeric country code per ISO 3166, left padded with a leading '0'.	
		Byte 4: Product Type '00' = Unspecified	
		Byte 5: bit 8: 1b = Fleet bits 7-1: Reserved for future use	
		Bytes 6-32: Reserved for future use (These bytes are not present since they are not used)	

Note: If the ASRPD (Application Selection Registered Propriety Data) Tag '9F0A' is present and Byte 5 bit 8 is 0b = Fleet Enhanced Functionality not supported. Process as standard card.

The ASRPD must be personalized in the File Control Information (FCI) Issuer Discretionary Data (IDD) (tag 'BF0C') of the SELECT response. For more information on the FCI IDD and the SELECT response, see the following documents:

- *Visa ICC Specification (VIS)*
- *Visa Contactless Payment Specification (VCPS)*

The ASRPD must be personalized such that it is returned in the following:

- For cards supporting contact chip:
  - Directory Discretionary Data (tag '73') within the Application Definition File (ADF) Directory Entry of the Payment Systems Environment (PSE) (if PSE is personalized)
  - File Control Information (FCI) Issuer Directory Discretionary Data (IDD) (tag 'BF0C') within the FCI of the ADF
- For cards supporting contactless chip:
  - Directory Entry (tag '61') within the FCI of the Proximity Payment System Environment (PPSE)
  - FCI Issuer Directory Discretionary Data (tag 'BF0C') within the FCI of the ADF

For more information on the ASRPD, see *EMV Specification Bulletin No. 175, ASRPD*.

Important: Even though an ASRPD of 8 bytes and a VSD of 5 bytes are used here, the Merchant terminal must be capable of handling a variable length ASRPD and a VSD of the max length (up to 32 bytes).

Appendix B: Prompting (tag 'DF30') Layout þ

This appendix provides the layout for Prompting (tag 'DF30'), Bytes 1-3.

Prompting (tag 'DF30') must be personalized in the File Control Information (FCI) Issuer Discretionary Data (IDD) (tag 'BF0C') of the SELECT response. For more information on the FCI IDD and the SELECT response, see the following documents:

- *Visa ICC Specification (VIS)*
- *Visa Contactless Payment Specification (VCPS)*

B.1 Byte 1: Data Element

Table B-1: Prompting (tag 'DF30'), Byte 1: Data Element

Prompting (tag 'DF30'), Byte 1: Data Element									
b8	b7	b6	b5	b4	b3	b2	b1	Data Required	Additional Notes
X	X	X	X	X				Fleet Data, Part 1	See Table B-4: Prompting (tag 'DF30'), Byte 1, bits 8-4 & Byte 3, bits 6-5
					X			Numeric/ans[14]	0 = Numeric 1 = ans
						X		Condition	0 = Optional 1 = Mandatory
							X	Allow Manual Entry	Dependent on Byte 2 0 = No 1 = Yes

[14] Although Conexxus defines this bit as 'Numeric' or 'ANS' (Alphanumeric Special), Visa only supports Alphanumeric (letters, numbers, and the space character), as described in Appendix E: Host System Changes for Fleet Data.

B.2 Byte 2: Device Type

Table B-2: Prompting (tag 'DF30'), Byte 2: Device Type

Prompting (tag 'DF30'), Byte 2: Device Type									
b8	b7	b6	b5	b4	b3	b2	b1	Data Required	Additional Notes
X	X	X	X					Device Type 1	See Table B-5: Prompting (tag 'DF30'), Byte 2 (Device Type Descriptions) If '0000' then no device—use manual entry if allowed (i.e., Byte 1 Bit 1 = 1)
				X	X	X	X	Device Type 2	

B.3 Byte 3: Print on Receipt, Enter in the Clear and Code Table

Table B-3: Prompting (tag 'DF30'), Byte 3: Print on Receipt, Enter in the Clear and Code Table

Prompting (tag 'DF30'), Byte 3: Print on Receipt, Enter in the Clear and Code Table									
b8	b7	b6	b5	b4	b3	b2	b1	Data Required	Additional Notes
X								Print on Receipt?	0 = No 1 = Yes
	X							Enter in the clear?	0 = No 1 = Yes
		X	X					Fleet Data, Part 2	See Table B-4: Prompting (tag 'DF30'), Byte 1, bits 8-4 & Byte 3, bits 6-5
				X	X	X	X	RFU	

B.4 Byte 1 and Byte 3: Prompting Data Elements

The following table outlines the prompting data defined in the Conexxus/IFSF specifications that Visa supports.

Table B-4: Prompting (tag 'DF30'), Byte 1, bits 8-4 & Byte 3, bits 6-5

Fleet Cardholder Data	Prompt	Fleet Data, Part 2 (Byte 3, bits 6-5)	Fleet Data, Part 1 (Byte 1, bits 8-4)
The following three data elements—Generic ID, Vehicle ID, and Driver ID—map to a single field in VisaNet authorization and clearing messages (see Appendix E: Host System Changes for Fleet Data for details), Issuers can only prompt for one of them.			
Generic ID	User ID	00	00001
Vehicle ID	Vehicle ID	00	00010
Driver ID	Driver ID	00	00100
Odometer	Odometer	00	00101
Fleet Trailer Number	Trailer Number	00	11000
Fleet Employee Number	Employee No	01	00111
Fleet Work Order/Purchase Order Number	P.O. Number	00	01001
Fleet Additional Prompted Data 1	Enter additional fleet data	10	11011
Fleet Additional Prompted Data 2	Enter additional fleet data	11	11100

Warning: Issuers must be aware that some devices may not be capable of entering ANS characters.

B.5 Byte 2: Device Type Descriptions

Table B-5: Prompting (tag 'DF30'), Byte 2 (Device Type Descriptions)

Prompting (tag 'DF30'), Byte 2 (Device Type Descriptions)	
Device Type	b8-5 and b4-1
Not Used (indicates no device available)	0000
Magnetic Stripe Card	0001
Chip Card	0010
RFID/NFC Transponder	0011
Bar Code	0100
Automatic License Plate Recognition (ALPR)	0101
OBD (On Board Diagnostics)	0110
Conexxus/IFSF RFU	0111-1011
Proprietary RFU	1100-1111

Appendix C: Purchase Restrictions (tag 'DF32') Layout þ

This appendix provides the layout for Purchase Restrictions (tag 'DF32'), Bytes 1-4 and Byte 8.

- Byte 1: General
- Byte 2: Fuel
- Byte 3: Products and Services
- Byte 4: Miscellaneous
- Byte 5: Miscellaneous & Reserved for Future Use (RFU)
- Bytes 6-7: Reserved for Future Use (RFU)
- Byte 8: Gasoline Grades

Note: Bytes 5-7 are Reserved for Future Use (RFU), however Byte 5 bit 8 has been allocated to one product “Cannabinoid” as of Version 1.1 of this document (per Conexxus updates).

The Purchase Restrictions (tag 'DF32') must be personalized in the File Control Information (FCI) Issuer Discretionary Data (IDD) (tag 'BF0C') of the SELECT response. For more information on the FCI IDD and the SELECT response, see the following documents:

- *Visa ICC Specification (VIS)*
- *Visa Contactless Payment Specification (VCPS)*

C.1 Byte 1: General

Table C-1: Purchase Restrictions (tag 'DF32'), Byte 1: General

Purchase Restrictions (tag 'DF32'), Byte 1: General									
b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
X								Use 0 = **Host-Based** purchase restriction, only use chip-based purchase restrictions if online purchase restrictions cannot or are not returned, so an **offline** decision needs to be made. 1 = **Chip-Based** (when terminal is online or offline)	

Purchase Restrictions (tag 'DF32'), Byte 1: General									
b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
	X							Fuel Allowed If this is set to zero, the values in following will be ignored: Byte 1, Bit 6 Byte 2 Byte 8	
		X						Fuel Category/Gasoline Grades 0 = Use Byte 2 (this means category not grade) 1 = Preference is to use Byte 8 (this means grade rather than category) This is intended for future use.	
			X					RFU	
				X				RFU	
					X			Negative Transactions (Discounts, Coupons, Split Tender) Recommendation is that this is always allowed	900-949
						X		Administrative (Taxes and Fees) Recommendation is that this is always allowed	950-999
							X	Bulk (Packaged Fuels)	303, 600-624

C.2 Byte 2: Fuels

Table C-2: Purchase Restrictions (tag 'DF32'), Byte 2: Fuels

Purchase Restrictions (tag 'DF32'), Byte 2: Fuels									
b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
X								Dispensed Gasoline (including ethanol blends) Note: Conexxus Payment System Product Code 129 and 321 are always included with a fuel product group that includes gasoline.	001-081, 025-031, 036-044, 064-066, 128, 301, 321323, 330, 603
	X							Dispensed Diesel (including Biodiesel, DEF, heating oil) Note: DEF should always be available as a product within a fuel product group that includes diesel fuel.	019-021, 045-063, 067-070, 224, 600-602
		X						Dispensed Off-Road Fuels (non-taxable, reefer fuel, includes gasoline and diesel) Note: DEF should always be available as a product within a fuel product group that includes diesel fuel.	030-035, 30, 311, 320, 325-329, 600
			X					Dispensed Electric	308-310
				X				Dispensed CNG or LNG (including hydrogen blends)	022-024, 303, 331, 332

Purchase Restrictions (tag 'DF32'), Byte 2: Fuels									
b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
					X			Dispensed Kerosene	300, 302, 305-306
						X		Aviation Fuels	150-174
							X	Marine Fuels	225-249

C.3 Byte 3: Products and Services

Table C-3: Purchase Restrictions (tag 'DF32'), Byte 3: Products and Services

Purchase Restrictions (tag 'DF32'), Byte 3: Products and Services									
b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
X								Vehicles Products/ Services	100-149, 650-699
	X							Aviation Products/ Services	175-224
		X						Marine Products/ Services	250-299
			X					Merchandise	400-409
				X				Store Service	530-539
					X			RFU	
						X		RFU	
							X	RFU	

C.4 Byte 4: Miscellaneous

Table C-4: Purchase Restrictions (tag 'DF32'), Byte 4: Miscellaneous

Purchase Restrictions (tag 'DF32'), Byte 4: Miscellaneous									
b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
X								Tobacco	410-419
	X							Alcohol	480-489
		X						Food	420-479, 490-509
			X					Lottery	510-519
				X				Money Order	520-529
					X			Health & Beauty Care	540-549
						X		General Publications	550-559
							X	Prepaid and Bill Pay (Secondary Network)	560-590

C.5 Byte 5: Miscellaneous & Reserved for Future Use (RFU)

Table C-5: Purchase Restrictions (tag 'DF32'), Byte 5: Miscellaneous & RFU

Purchase Restrictions (tag 'DF32'), Byte 5:									
b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
X								Cannabinoid	700-719
	X							RFU	
		X						RFU	
			X					RFU	
				X				RFU	
					X			RFU	
						X		RFU	
							X	RFU	

C.6 Bytes 6-7: Reserved for Future Use (RFU)

Table C-6: Purchase Restrictions (tag 'DF32'), Byte 6: RFU

b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
X	X	X	X	X	X	X	X	RFU	

Table C-7: Purchase Restrictions (tag 'DF32'), Byte 7: RFU

b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
X	X	X	X	X	X	X	X	RFU	

C.7 Byte 8: Gasoline Grades

Table C-8: Purchase Restrictions (tag 'DF32'), Byte 8: Gasoline Grades

Purchase Restrictions (tag 'DF32'), Byte 8: Gasoline Grades									
b8	b7	b6	b5	b4	b3	b2	b1	Meaning	Conexxus PSPC
X								Regular Gasoline (including blends)	001, 006, 009, 011, 014, 016, 027, 038, 042, 064
	X							Plus/Midgrade Gasoline (including blends)	002, 004, 007, 010, 012, 015, 017, 028, 037, 039, 043, 065, 328
		X						Super/Premium Gasoline (including blends)	003, 005, 008, 013, 018, 029, 038, 040, 044, 066, 329
			X					RFU	
				X				RFU	
					X			RFU	
						X		RFU	
							X	RFU	

Appendix D: Track 2 Equivalent Data (tag '57') Layout þ

This appendix provides the layout of Track 2 Equivalent Data (tag '57') for the Visa Fleet magnetic-stripe equivalent on chip solution. For an overview of this solution, see Table 1-2: Visa Fleet Solutions.

Table D-1: Track 2 Equivalent Data (tag '57')

Tag	Description	Format	Length (in digits)
'57'	Track 2 Equivalent Data		var. up to 37
	Primary Account Number (PAN)	Numeric	var. up to 19
	Field Separator = 'D'	Binary	1
	Card Expiration Date	Numeric	4
	Service Code	Numeric	3
	PIN Verification Data	Numeric	0 or 5
	Discretionary Data		var.
	· Card Verification Value (CVV)	Numeric	3
	· Optional Issuer Proprietary Information		var.
	· Fleet Reserved = '0'	Numeric	1
	· Fleet Service Enhancement Indicator - 0 = Fleet, No Restrictions (Fuel, Maintenance, and Non-Fuel Purchases) - 1 = Fleet (Fuel and Maintenance Purchases) - 2 = Fleet (Fuel only)	Numeric	1
	· Fleet Service Prompt - 0 = Reserved (No Prompt Required) - 1 = ID and Odometer Reading - 2 = Vehicle ID and Odometer Reading - 3 = Driver ID and Odometer Reading - 4 = Odometer Reading - 5 = No Prompt - 6 = ID (Six Digit Numeric Vehicle, Driver, or Generic ID) - 7-9 = Reserved (No Prompt Required)	Numeric	1
	Padding = 'F', if needed to ensure whole byte	Binary	0 or 1

Appendix E: Host System Changes for Fleet Data

This appendix provides the following:

- **Fleet Chip Data**—Outlines Merchant/Acquirer and Issuer host system changes to support additional fleet chip data in both authorization and clearing messages.
- **Fleet Chip Data and Other Fleet Data**—Outlines the VisaNet authorization and clearing messages that contain fleet chip and non-chip data.
- **Fleet Clearing Records**—Outlines the clearing records that comprise a fleet transaction.

E.1 Fleet Chip Data

As per the Current Fleet 2.0 Timeline, VisaNet supports the following seven (7) prompting data elements in both authorization and clearing messages, (note: three data elements were supported before April 2021 and 4 more have been added as of April 2021):

- Vehicle ID or Driver ID or Generic ID[15]
- Odometer
- Fleet Work Order/Purchase Order Number
- Fleet Employee Number
- Fleet Trailer Number
- Fleet Additional Prompted Data 1
- Fleet Additional Prompted Data 2

As of April 2021, open-loop Issuers and closed-loop Issuers have the option of personalizing their cards to prompt for one or more of these 7 data elements. Key points:

- Both open-loop and closed loop must be able to support all 7 prompts:
  - Open loop: Merchants, Acquirers, and Issuers must make changes and be prepared to support these 7 data elements in VisaNet authorization and clearing messages
  - Closed-loop: Merchants, Acquirers, and Issuers must make changes and be prepared to support these 7 data elements in both proprietary network/closed loop authorization and clearing messages

For more information on open and proprietary network/closed-loop models, see Appendix G: Acceptance Models.

In addition to upgrading their systems to support the fleet chip data, Merchants/Acquirers and Issuers need to make host system changes to support the standard chip payment data in their authorization and clearing messages. For details, see the *VSDC System Technical Manual*. They may also need to support other fleet data in their host systems.

15 Since these three data elements (Vehicle ID, Driver ID, and Generic ID) map to a single field in VisaNet authorization and clearing messages, Issuers can only prompt for one of them.

The following table outlines the seven (7) fleet prompting data elements that VisaNet supports in authorization and clearing messages as of April 2021. (Note: As outlined in Chapter 4, a new TCR 3 format FT is now available in clearing that Merchants should migrate to use to prompt for the additional prompted fields available post April 2021)

Table E-1: VisaNet Authorization and Clearing Changes for Fleet Chip Data[16] [17]

Data Element	Authorization	Clearing
Vehicle ID or Driver ID or Generic ID	**Field 48, Usage 36**[18] Length: Variable 1 byte, binary +19 ANS, EBCDIC; maximum 20 bytes · Length Subfield · Pos. 1-2 Field Identifier: This field must contain the value of $$ (dollar signs) to indicate that the field contains driver or vehicle identification information for the Issuer. · Pos. 3–19: This field must contain Vehicle ID or Driver ID or Generic ID.	TC05, TCR6 Pos. 111-127 Length: 17 Format: AN · Visa standard recommends all numeric (due to current POS keypad limitations, Issuers should use only Numerics for Driver or Vehicle or Generic identification) · The "ID"/data must be left justified. Unused positions of the field should be space-filled
Odometer	**Field 104, Dataset 5C, tag '0B'** Length: 7[19] Format: AN	TC05, TCR3 Format Code FT Pos. 98-104 Length: 7 Format: AN
Fleet Work Order/ Purchase Order Number	**Field 62.7, Pos. 2-26** Length: 25 Format: AN	TC05, TCR1 Pos. 133-157 Length: 25 Format: AN

[16] AN is defined as alpha characters (A-Z, a-z), numbers (0-9), and the space character.
[17] Merchant/Acquirer submission of data in authorization and clearing messages is strongly recommended to be in upper case.
[18] See the *BASE I Technical Specifications, Volume 1* for complete details on the VisaNet authorization message field descriptions.
[19] Generally, the VisaNet fields that contain fleet data are longer than the field definitions for the data elements in the Conexxus/IFSF specifications; however, be aware that Odometer is defined with a length of 9 in the Conexxus/IFSF specification while defined with a length of 7 in VisaNet.

Data Element	Authorization	Clearing
Fleet Employee Number	**Field 104, Dataset 5C, tag '11'** Length: 12 Format: AN	TC05, TCR3 Format Code FT Pos. 5-16 Length: 12 Format: AN
Fleet Trailer Number	**Field 104, Dataset 5C, tag '12'** Length: 16 Format: AN	TC05, TCR3 Format Code FT Pos. 109-124 Length: 16 Format: AN
Fleet Additional Prompted Data 1	**Field 104, Dataset 5C, tag '13'** Length: 20 Format: AN	TC05, TCR3 Format Code FT Pos. 125-144 Length: 20 Format: AN
Fleet Additional Prompted Data 2	**Field 104, Dataset 5C, tag '14'** Length: 20 Format: AN	TC05, TCR3 Format Code FT Pos. 145-164 Length: 20 Format: AN

E.2 Fleet Chip Data and Other Fleet Data

The following tables highlights:

- The seven (7) fleet prompting data elements that VisaNet supports (see VisaNet Authorization and Clearing Messages for Fleet Data and Table E-3).
- The two (2) new fields to support Host-Based Purchase Restrictions (Method 2), see Chapter 2: Issuer Steps / Guidelines. For more information on the definition and usage of these fields, see VisaNet Authorization and Clearing Messages for Fleet Data.
- Other fleet data that is carried in VisaNet messages

These tables are presented here to provide a more complete picture of the fleet related data that may be present in the messages. For more information about the full set of VisaNet authorization and clearing messages, see the following documents:

- **Authorization**— *VisaNet-Authorization-Only-Online-Messages-Technical-Specifications*
- **Authorization**— *SMS POS (Visa & Visa Electron) Technical Specifications*
- **Clearing**—*BASE II Clearing: Interchange Formats, TC01 to TC49*
- **Clearing**—*BASE II Clearing: Interchange Formats, TC50 to TC92*

Note: The fleet data carried in VisaNet authorization and clearing messages varies by region and those specific details are outside the scope of this document. Contact your Visa representative for more information.

E.3 VisaNet Authorization and Clearing Messages for Fleet Data

Table E-2: VisaNet Authorization and Clearing Messages for Fleet Data

Note: For easier reading, an Excel file containing the following tables is provided as an attachment to this document. The Excel file is available in the Attachments pane, located at the left of the PDF window. Double-click the attachment to open the Excel file.

Field Details			VisaNet - Transaction & Enhanced Data Records							Visa Business Data Solutions Platform - Transaction & Enhanced Data Records							
Authorization/Clearing Fields as of April 2021	Description	Level 2/ Level 3 Data	Authorization: Auth Only/Full Service Messages 0100/0120/0220/0300			Clearing:				VCF Field:				API Field			
Current Field Name			Field Info	Length	Format	Field Info	Length	Format	Position	Field Info	Length	Format	Position	Field Info	Length	Format	Position
Basic Transaction Details [See section below]		L3															
Purchase ID Format		L2															
Purchase ID* Field used for Fleet Work Order/Purchase Order Number		L2															
Business Format Code		L2	N/A							N/A							
Type of Purchase		L2															
Service Type		L2															
Fuel Type		L2															
Expanded Fuel Type		L2															
Unit of Measure		L2															
Quantity		L2															
Unit Cost		L2															
Gross Fuel Price		L2															
Net Fuel Price		L2															
Gross Non-Fuel Price		L2															
Net Non-Fuel Price		L2															
Odometer Reading*		L2															
VAT Tax Rate		L2															
Misc. Fuel Tax Exemption Status		L2															
Fleet Employee Number*		L2															
Fleet Trailer Number*		L2															
Fleet Additional Prompted Data 1*		L2															
Fleet Additional Prompted Data 2*		L2															

Key

	Prompted Data
	Clearing Data
	Authorization Data

Field Details			VisaNet - Transaction & Enhanced Data Records							Visa Business Data Solutions Platform - Transaction & Enhanced Data Records							
Authorization/Clearing Fields as of April 2021	Description	Level 2/ Level 3 Data	Authorization: Auth Only/Full Service Messages 0100/0120/0200/0300			Clearing:				VCF Field:				API Field			
Current Field Name			Field Info	Length	Format	Field Info	Length	Format	Position	Field Info	Length	Format	Position	Field Info	Length	Format	Position
Business Application ID																	
Local Tax Included																	
Local Tax																	
National Tax Included																	
National Tax																	
Other Tax																	
Merchant VAT Registration/Single Business Reference Number																	
Customer VAT Registration Number																	
Visa Fleet Service (Purchasing Card Data*; Vehicle ID or Driver ID or Generic ID)																	
Message Identifier																	
Additional Data Indicator																	
Summary Commodity Code																	
Non-Fuel Product Code 1																	
Non-Fuel Product Code 2																	
Non-Fuel Product Code 3																	
Non-Fuel Product Code 4																	
Non-Fuel Product Code 5																	
Non-Fuel Product Code 6																	
Non-Fuel Product Code 7																	
Non-Fuel Product Code 8																	
Purchase Restrictions Flag																	
Host Based Purchase Restrictions																	

Key

	Prompted Data
	Clearing Data
	Authorization Data

Additional Enhanced Data TC50 Records (sent separately after Transaction-Clearing Records)

Various Invoice Header/Summary Fields REQUIRED: Additional invoice level summary fields for non-fuel purchases in the transaction Note the Header Level PURCH A records receive minimal data in these fields for Fleet (Fuel / Non - Fuel) transactions. Fields such as Authorization Code, Order Date, Zip codes, country codes and discount amounts may only be present		Level 2/ Level 3 Data	Authorization:			Record and Field Information:	Clearing:			VCF Field:				API Field			
Expended Fuel Type (Note: parties should plan to begin using the field Oct 2021 given Fuel Type field will sunset TBA)	Description		Field Info	Length	Format	Field Info	Length	Format	Position	Field Info	Length	Format	Position	Field Info	Length	Format	Position
Service Identifier	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Mandatory	[illegible]	AN	[illegible]	T6 - 117 Service Identifier	[illegible]	AN	N/A	serviceId	[illegible]	AN	N/A
Message Identifier	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Mandatory	[illegible]	AN	[illegible]	T6 - 33 Message Identifier	[illegible]	AN	N/A	messageId	[illegible]	AN	N/A
Item Sequence Number	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Mandatory	[illegible]	UN	[illegible]	N/A							
Discount Amount	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Conditional	[illegible]	UN	[illegible]	[illegible] Discount Amount	[illegible]	N	N/A	discountAmt	[illegible]	N	N/A
Freight/Shipping Amount	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Conditional	[illegible]	UN	[illegible]	[illegible] Freight Amount	[illegible]	N	N/A	freightShipAmt	[illegible]	N	N/A
Duty Amount	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Conditional	[illegible]	UN	[illegible]	[illegible] Duty Amount	[illegible]	N	N/A	dutyAmt	[illegible]	N	N/A
Destination Postal/ZIP Code	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Conditional	[illegible]	AN	[illegible]	[illegible] Destination Postal Code	[illegible]	AN	N/A	destPostalCd	[illegible]	AN	N/A
Ship From Postal/ZIP Code	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Conditional	[illegible]	AN	[illegible]	[illegible] Source Postal Code	[illegible]	AN	N/A	[illegible]	[illegible]	AN	N/A
Destination Country Code	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Conditional	[illegible]	AN	[illegible]	[illegible] Destination Country Code	[illegible]	N	N/A	[illegible]	[illegible]	N	N/A
Unique VAT Invoice Reference Number	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Mandatory	[illegible]	AN	[illegible]	[illegible] VAT Reference Number	[illegible]	AN	N/A	[illegible]	[illegible]	AN	N/A
Order Date (YYMMDD)	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Conditional	[illegible]	UN	[illegible]	[illegible] Order Date	[illegible]	N	N/A	[illegible]	[illegible]	UN	N/A
Account Number	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Optional	[illegible]	UN	[illegible]	[illegible] Account Number	[illegible]	N	N/A	[illegible]	[illegible]	N	N/A
Account Number Extension	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Optional	[illegible]	UN	[illegible]	N/A							
VAT/Tax Amount (Freight /Shipping)	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Conditional	[illegible]	UN	[illegible]	[illegible] Freight/Shipping VAT/Tax Amount	[illegible]	N	N/A	[illegible]	[illegible]	N	N/A
VAT/Tax Rate (Freight/ Shipping)	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Conditional	[illegible]	UN	[illegible]	[illegible] Freight/Shipping VAT/Tax Rate	[illegible]	N	N/A	[illegible]	[illegible]	N	N/A
Authorization Code	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Optional	[illegible]	AN	[illegible]	[illegible] Authorization Number	[illegible]	AN	N/A	[illegible]	[illegible]	AN	N/A
Invoice Level Discount Treatment Code	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Mandatory	[illegible]	UN	[illegible]	N/A							
Tax Treatments	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Mandatory	[illegible]	UN	[illegible]	N/A							
Discount Amount Signage	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Mandatory	[illegible]	AN	[illegible]	Signage is already embedded in the appropriate amount field (if credit will have minus sign in front of amount)							
Freight/ Shipping Amount Signage	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Mandatory	[illegible]	AN	[illegible]	Signage is already embedded in the appropriate amount field (if credit will have minus sign in front of amount)							
Duty Amount Signage	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Mandatory	[illegible]	AN	[illegible]	Signage is already embedded in the appropriate amount field (if credit will have minus sign in front of amount)							
VAT/Tax Amount Signage	[illegible]	L3	N/A	N/A	N/A	TC50, TCR0 PURCH A Mandatory	[illegible]	AN	[illegible]	Signage is already embedded in the appropriate amount field (if credit will have minus sign in front of amount)							

Key

- Prompted Data
- Clearing Data
- Authorization Data

Various Invoice Line Item Detail Fields REQUIRED: Additional invoice line item detail fields for non-fuel purchases in the transaction Note the Line Item Level PURCH L records receive data in most of these fields for Fleet (Fuel / Non – Fuel) transactions to describe line item product details in the transaction / purchase.		Level 2/ Level 3 Data	Authorization:			Record and Field Information:	Clearing:			VCF Field:				API Field			
Current Field Name	Description		Field Info	Length	Format	Field Info	Length	Format	Position	Field Info	Length	Format	Position	Field Info	Length	Format	Position
Service Identifier		L2	N/A	N/A	N/A												
Message Identifier		L2	N/A	N/A	N/A												
Item Sequence Number		L2	N/A	N/A	N/A												
Item Commodity Code		L2	N/A	N/A	N/A												
Item Description		L2	N/A	N/A	N/A												
Product Code		L2	N/A	N/A	N/A												
Quantity		L2	N/A	N/A	N/A												
Unit of Measure		L2	N/A	N/A	N/A												
Unit Cost		L2	N/A	N/A	N/A												
VAT/Tax Amount		L2	N/A	N/A	N/A												
VAT/Tax Rate		L2	N/A	N/A	N/A												
Discount per Line Item		L2	N/A	N/A	N/A												
Line Item Total		L2	N/A	N/A	N/A												
Line Item Detail Indicator		L2	N/A	N/A	N/A												
Line Item Level Discount Treatment Code		L2	N/A	N/A	N/A					N/A							
Timing of TCSIs with TC05		L2	N/A														
Arithmetic Validation of the Transaction		L2	N/A														

Key

	Prompted Data
	Clearing Data
	Authorization Data

Basic Transaction Details																				
Field Details			VisaNet - Transaction & Enhanced Data Records								Visa Business Data Solutions Platform - Transaction & Enhanced Data Records									
Authorization/Clearing Fields	Description	Level 1	Authorization: Auth-Only/Full Service Messages 0100/0120/0220/0200			Clearing:				VCF Field:				API Field						
Current Field Name			Field Info	Length	Format	Field Info	Length	Format	Position	Field Info	Length	Format	Position	Field Info	Length	Format	Position			
Basic Transaction Details																				
PAN (Account Number)																				
Account Number Extension																				
Local Transaction Date/Purchase Date (MMDD)																				
Source Amount																				
Cardholder Billing Amount/Destination Amount																				
Merchant's Type/Merchant Category Code (MCC)																				
Card Acceptor Name/Merchant Name																				
Card Acceptor Location-City/Merchant City																				
Card Acceptor Country Code/Merchant Country Code																				
Card Acceptor State or Province Code/Merchant State/Province Code																				
Card Acceptor Postal/Merchant Zip Code																				
POS Entry Mode																				

Key

	Prompted Data
	Clearing Data
	Authorization Data

Table E-3: VisaNet Clearing Messages for Fleet Data

Clearing Transaction	Description	Type of Data
TC05, TCR0	Draft Data (Sales Draft)	· Standard Transaction Data (PAN, Amount, Merchant)
TC05, TCR1	Additional Data	· Various Indicators · Purchase ID (Fleet Work Order/Purchase Order Number)
TC05, TCR3 (FL Format) and (FT Format)	Industry Specific Data—Fleet Service	· Fuel: - Standard Fuel Purchase Data (Fuel Type, Odometer, Quantity, Price, Unit of Measure, VAT/Tax Rate, Fleet Employee Number, Fleet Trailer Number, Fleet Additional Data 1, Fleet Additional Data 2) · Note: Tax rate not applicable in the US, applicable outside the US
TC05, TCR6	Limited Use Data	· Customer Code/CRI (Vehicle ID or Driver ID or Generic ID) · Non-Fuel Product Codes (2 char) **Note**: All Conexxus product codes will have a 2-character Visa code equivalent. See Table J-1: Visa Non-Fuel Product Codes List to obtain the 2-character code. · Local Tax (can be used for VAT) · National Tax (can be used for VAT) · VAT Registration Number
TC50, TCR0	Commercial Card—Invoice (Header and Summary)	· Required: Typically Non-Fuel, can be used for Fuel (to provide VAT Tax Breakdown): - Summary details of a non-fuel purchase (Freight, Shipping, Customer Acct #, VAT Tax Amount and Rate, etc.)
TC50, TCR0	Commercial Card – Invoice (Line Detail) (line seq. up to 999)	· Required: Typically Non-Fuel, can be used for Fuel (to provide VAT Tax Breakdown): - Line item detail of a non-fuel purchase (Product Code (12 char), Item Descriptor, Quantity, Unit Cost, VAT Tax Amount, Rate, Discounts, etc.)

E.4 Fleet Clearing Records

The following tables outline the BASE II clearing records that comprise a fleet transaction:

- TC05, TCR0: Draft Data
- TC05, TCR1: Additional Data
- TC05, TCR3: Industry Specific Data – Fleet Service
- TC05, TCR6: Limited Use Data
- TC50: TCR0: Commercial Card – Invoice (Header and Summary)
- TC50: TCR0: Commercial Card – Invoice (Line Detail)

While details on the VisaNet clearing messages are outside the scope of this document, these tables are presented here to provide a more complete picture of the fleet related data that may be present in clearing messages.

For more information about VisaNet clearing messages, see the following documents or contact your Visa representative:

- BASE II Clearing: Interchange Formats, TC01 to TC49
- BASE II Clearing: Interchange Formats, TC50 to TC92

TC05, TCR0: Draft Data

Table E-4: TC05, TCR0: Draft Data

Position	Field Length	Format	Contents
1–2	2	UN	Transaction Code
3	1	UN	Transaction Code Qualifier
4	1	UN	Transaction Component Sequence Number
5–20	16	UN	Account Number
21–23	3	UN	Account Number Extension
24	1	AN	Floor Limit Indicator
25	1	AN	CRB/Exception File Indicator
26	1	AN	Reserved
27–49	23	UN	Acquirer Reference Number
50–57	8	UN	Acquirer's Business ID
58–61	4	UN	Purchase Date (MMDD)
62–73	12	UN	Destination Amount
74–76	3	AN	Destination Currency Code
77–88	12	UN	Source Amount
89–91	3	AN	Source Currency Code
92–116	25	AN	Merchant Name
117–129	13	AN	Merchant City
130–132	3	AN	Merchant Country Code
133–136	4	UN	Merchant Category Code
137–141	5	UN	Merchant ZIP Code
142–144	3	AN	Merchant State/Province Code
145	1	AN	Requested Payment Service
146	1	AN	Number of Payment Forms

Position	Field Length	Format	Contents
147	1	UN	Usage Code
148–149	2	UN	Reason Code
150	1	UN	Settlement Flag
151	1	AN	Authorization Characteristics Indicator
152–157	6	AN	Authorization Code
158	1	AN	POS Terminal Capability
159	1	AN	Reserved
160	1	AN	Cardholder ID Method
161	1	AN	Collection-Only Flag
162–163	2	AN	POS Entry Mode
164–167	4	UN	Central Processing Date (YDDD)
168	1	AN	Reimbursement Attribute

Format: AN = Alphanumeric, ANS = Alphanumeric Special, DX = Display Hexadecimal, N = Numeric,UN = Unpacked Numeric

TC05, TCR1: Additional Data

Table E-5: TC05, TCR1: Additional Data

Position	Field Length	Format	Contents
1–2	2	UN	Transaction Code
3	1	UN	Transaction Code Qualifier
4	1	UN	Transaction Component Sequence Number
5	1	AN	Business Format Code
6–7	2	AN	Token Assurance Level
8–12	5	AN	Rate Table ID
13–16	3	AN	Reserved
17–22	6	UN	Reserved
23	1	AN	Documentation Indicator
24–73	50	AN	Member Message Text
74–75	2	AN	Special Condition Indicators
76–78	3	AN	Fee Program Indicator
79	1	AN	Issuer Charge
80	1	AN	Persistent FX Applied Indicator
81–95	15	AN	Card Acceptor ID
96–103	8	AN	Terminal ID
104–115	12	UN	National Reimbursement Fee
116	1	AN	Mail/Phone/Electronic Commerce and Payment Indicator
117	1	AN	Special Chargeback Indicator
118–121	4	AN	Conversion Date
122–123	2	AN	Reserved
124	1	AN	Acceptance Terminal Indicator

Position	Field Length	Format	Contents
125	1	AN	Prepaid Card Indicator
126	1	AN	Service Development Field
127	1	AN	AVS Response Code
128	1	AN	Authorization Source Code
129	1	AN	Purchase Identifier Format
130	1	AN	Account Selection
131–132	2	AN	Installment Payment Count
133–157	25	AN	Purchase Identifier
158–166	9	UN	Cashback
167	1	AN	Chip Condition Code
168	1	AN	POS Environment

Format: AN = Alphanumeric, ANS = Alphanumeric Special, DX = Display Hexadecimal, N = Numeric,UN = Unpacked Numeric

TC05, TCR3: Industry Specific Data – EMV Fleet Service

Important: The new TCR3 Fleet Service Record is now reflected below with the additional prompting data.

Table E-6: TC05, TCR3: Industry Specific Data – EMV Fleet Service

Position	Field Length	Format	Contents
1–2	2	UN	Transaction Code
3	1	UN	Transaction Code Qualifier
4	1	UN	Transaction Component Sequence Number
5–16	12	AN	Fleet Employee Number
17–18	2	AN	Business Format Code (FT)
19	1	AN	Type of Purchase
20–23	4	AN	Expanded Fuel Type
24	1	AN	Service Type
25	1	AN	Unit of Measure
26–37	12	UN	Quantity
38-49	12	UN	Unit Cost
50–61	12	UN	Gross Fuel Price
62–73	12	UN	Net Fuel Price
74–85	12	UN	Gross Non-Fuel Price
86–97	12	UN	Net Non-Fuel Price
98–104	7	AN	Odometer Reading
105–108	4	UN	VAT/Tax Rate (Not applicable in US. Required in Europe.)
109–124	16	AN	Fleet Trailer Number
125–144	20	AN	Fleet Additional Prompted Data 1
145–164	20	AN	Fleet Additional Prompted Data 2
165–166	2	AN	Business Application ID
167–168	2	AN	Reserved

Format: AN = Alphanumeric, ANS = Alphanumeric Special, DX = Display Hexadecimal, N = Numeric,UN = Unpacked Numeric

TC05, TCR6: Limited Use Data

Table E-7: TC05, TCR6: Limited Use Data

Position	Field Length	Format	Contents
1–2	2	UN	Transaction Code
3	1	UN	Transaction Code Qualifier
4	1	UN	Transaction Component Sequence Number
5–16	12	UN	Local Tax
17	1	UN	Local Tax Included
18–29	12	UN	National Tax
30	1	UN	National Tax Included
31–50	20	AN	Merchant VAT Registration/Single Business Reference Number
51–63	13	AN	Customer VAT Registration Number
64–75	12	AN	Reserved
76–79	4	AN	Summary Commodity Code
80–91	12	UN	Other Tax
92–106	15	AN	Message Identifier
107–110	4	UN	Time of Purchase
111–127	17	AN	Customer Code/Customer Reference Identifier (CRI)
128–129	2	AN	Non-Fuel Product Code 1
130–131	2	AN	Non-Fuel Product Code 2
132–133	2	AN	Non-Fuel Product Code 3
134–135	2	AN	Non-Fuel Product Code 4
136–137	2	AN	Non-Fuel Product Code 5
138–139	2	AN	Non-Fuel Product Code 6
140–141	2	AN	Non-Fuel Product Code 7

Position	Field Length	Format	Contents
142–143	2	AN	Non-Fuel Product Code 8
144–154	11	AN	Merchant Postal Code
155–168	14	AN	Reserved

Format: AN = Alphanumeric, ANS = Alphanumeric Special, DX = Display Hexadecimal, N = Numeric,UN = Unpacked Numeric

TC50, TCR0: Commercial Card – Invoice (Header and Summary)

Table E-8: TC50, TCR0: Commercial Card – Invoice (Header and Summary)

Position	Field Length	Format	Contents
1-2	2	UN	Transaction Code
3	1	UN	Transaction Code Qualifier
4	1	UN	Transaction Component Sequence Number
5-10	6	UN	Destination Identifier
11-16	6	UN	Source Identifier
17-22	6	AN	Service Identifier
23-37	15	AN	Message Identifier
38-40	3	UN	Item Sequence Number
41-52	12	UN	Discount Amount
53-64	12	UN	Freight/Shipping Amount
65-76	12	UN	Duty Amount
77-86	10	AN	Destination Postal/ZIP Code
87-96	10	AN	Ship From Postal/ZIP Code
97-99	3	AN	Destination Country Code
100-114	15	AN	Unique VAT Invoice Reference Number
115-120	6	UN	Order Date (YYMMDD)
121-136	16	UN	Account Number
137-139	3	AN	Account Number Extension
140-151	12	UN	VAT/Tax Amount (Freight/Shipping)
152-155	4	UN	VAT/Tax Rate (Freight/Shipping)
156-161	6	AN	Authorization Code
162	1	AN	Reserved
163	1	UN	Invoice Level Discount Treatment Code

Position	Field Length	Format	Contents
164	1	UN	Tax Treatments
165	1	AN	Discount Amount Signage
166	1	AN	Freight/Shipping Amount Signage
167	1	AN	Duty Amount Signage
168	1	AN	VAT/Tax Amount Signage

Format: AN = Alphanumeric, ANS = Alphanumeric Special, DX = Display Hexadecimal, N = Numeric,UN = Unpacked Numeric

TC50, TCR0: Commercial Card – Invoice (Line Detail)

Table E-9: TC50, TCR0: Commercial Card – Invoice (Line Detail)

Position	Field Length	Format	Contents
1-2	2	UN	Transaction Code
3	1	UN	Transaction Code Qualifier
4	1	UN	Transaction Component Sequence Number
5-10	6	UN	Destination Identifier
11-16	6	UN	Source Identifier
17-22	6	AN	Service Identifier
23-37	15	AN	Message Identifier
38-40	3	UN	Item Sequence Number
41-52	12	AN	Item Commodity Code
53-78	26	AN	Item Descriptor
79-90	12	AN	Product Code
91-102	12	UN	Quantity
103-114	12	AN	Unit of Measure
115-126	12	UN	Unit Cost
127-138	12	UN	VAT/Tax Amount
139-142	4	UN	VAT/Tax Rate
143-154	12	UN	Discount per Line Item
155-166	12	UN	Line Item Total
167	1	UN	Line Item Detail Indicator
168	1	UN	Line Item Level Discount Treatment Code

Format: AN = Alphanumeric, ANS = Alphanumeric Special, DX = Display Hexadecimal, N = Numeric,UN = Unpacked Numeric

E.5 VisaNet records for an Issuer/Processor to consider when setting up a Fleet Program:

There are many types of VisaNet records that are available for different reasons in both the authorization and clearing processes. Below are tables that advise potential records to consider for a Fleet program. Each Issuer/Processor must make their own decision according to their business situation and requirements. The following is just an initial guide to assist in planning.

Table E-10: VIP (Auth Only – Dual Message Issuer) & SMS (Full-Service – Single Message Issuer)

Messages	Description	Visa System
0100 / 0110	Authorization messages	VIP & SMS
0120 / 0130	Confirmation advice messages	VIP
0220 / 0230	Full-Service Completion message (Auth & Clearing)	SMS
0200 / 0210	Full Financial message (Auth & Clearing)	SMS
04xx series	Reversal messages	VIP & SMS

Resources available from VisaNet to support:

- *VIP System Service Guide*
- *VIP System – SMS – Processing Specifications*

Table E-11: BASE II (Clearing – Dual Message Issuer)

BASE II Clearing Record	Description
TC 01-04:	Most likely not applicable but check with your Processor
TC 05	Purchase transaction Yes
TC 06	Credit of Purchase Yes
TC 07, 17, 27,37	These are ATM funds related OR going into a bank Branch and using card for funds, if the Issuer allows these capabilities on the cards, then these records would be used.
TC10, 20	Fee Collection/Funds disbursement, probably YES given how the Issuer is setup with their processor, used for member-to-member transactions
TC15,16	Chargebacks & Credits of chargebacks YES
TC 25,26	Reversal of TC05 and TC06 YES

BASE II Clearing Record	Description
TC30,31	Pertains to the Issuers Clearinghouse Service to help issuers from issuing cards to fraudulent accounts – Maybe, given how the Issuer is setup with their Processor
TC33	Multipurpose – used for a few items, namely transmit-report/data type information – maybe required given how the Issuer is setup with their processor
TC35,36	Reversals of TC15/16 YES
TC38/39	Most likely not applicable but check with your Processor
TC40	Issuer Fraud reporting, YES, given how Issuer is setup with the Processor
TC 42-47	Most likely not applicable but check with your Processor
TC 48	Provides information when Visa does stand-in processing on behalf of an Issuer, YES, given how Issuer is setup with the Processor
TC 50	Text Messages for L3 data for Fuel / Non-Fuel – YES
TC52	Request copies, possibly YES given Issuer is set up with the Processor
TC54, 55	Most likely not applicable but check with your Processor
TC56	Currency conversion rate updates – Maybe, given how Issuer is set up with the Processor
TC57-59	Most likely not applicable but check with your Processor
TC90, 91	Most likely not applicable but check with your Processor

Resources available from VisaNet to support:

- *BASE II Overview Guide*

E.6 Specific Situations and Approaches

In certain cases in the U.S. market, specific situations (such as reversal, disputes, etc.) are encountered. This section contains relevant information for these situations and the messages/records required.

Figure E-1: Specific Situations and Approaches—Standard Messages

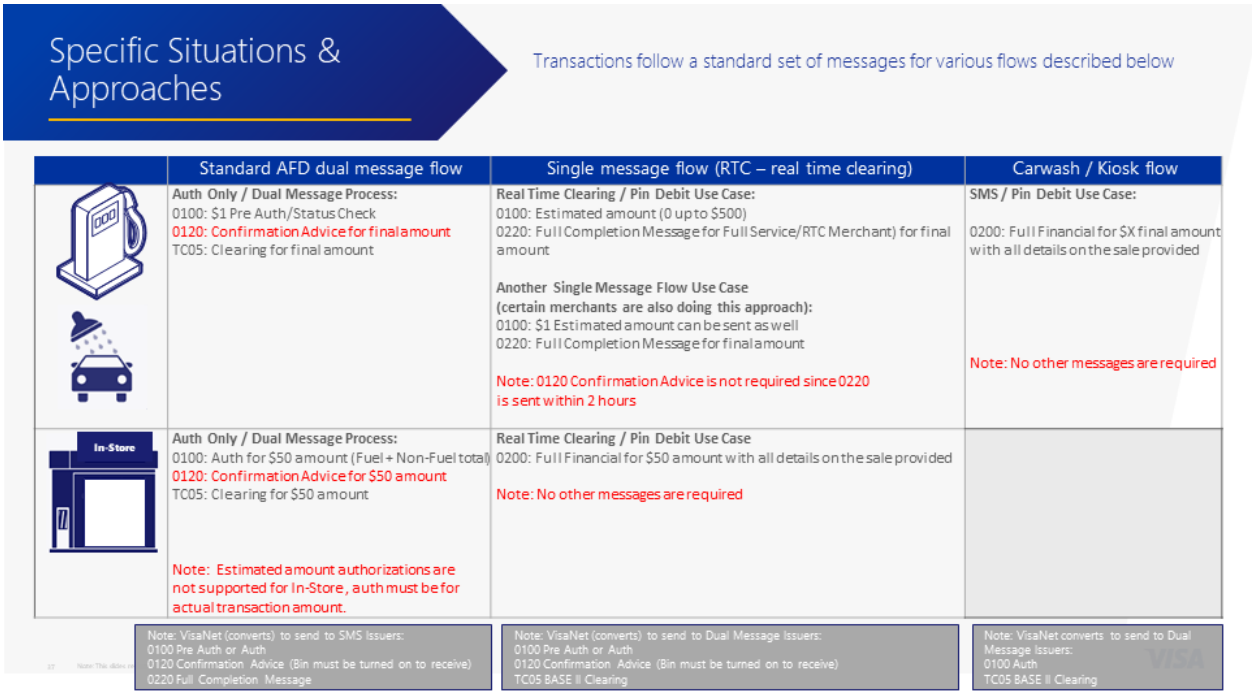


Figure E-2: Specific Situations and Approaches—Reversals

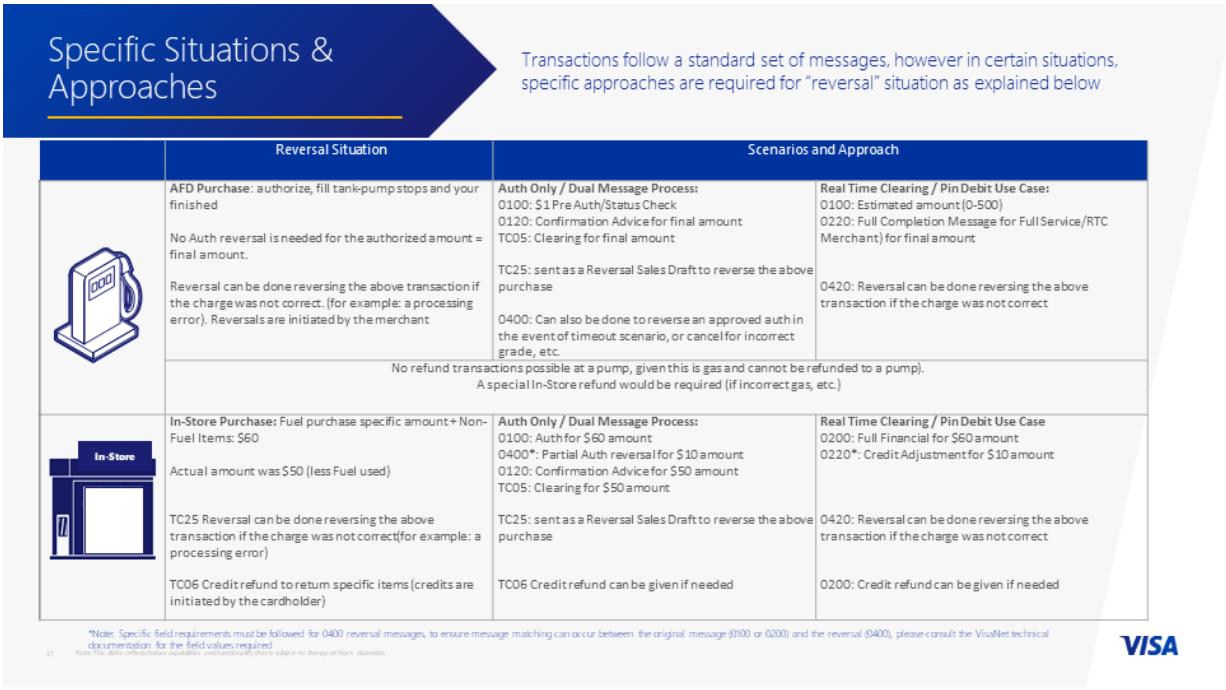


Figure E-3: Specific Situations and Approaches—Disputes and Chargebacks

Specific Situations & Approaches

Transactions follow a standard set of messages, however in certain situations, specific approaches are required for the dispute/chargeback situation as explained below

	Dispute / Chargeback Situation	Scenarios and Approach	
	**AFD Purchase:** authorize, fill tank-pump stops and your finished	**Auth Only / Dual Message Process:** 0100: $1 Pre Auth/Status Check 0120: Confirmation Advice for final amount TC05: Clearing for final amount	**Real Time Clearing / Pin Debit Use Case:** 0100: Estimated amount (0-500) 0220: Full Completion Message for Full Service/RTC Merchant) for final amount
	Dispute / Chargeback can be done to charge the transaction back to the merchant, they are initiated by the Issuer (possibly done with a cardholder) (i.e., Fraud, No authorization, etc.)	TC15: sent as a Dispute Chargeback from Issuer to the Acquirer	0422: sent as a Dispute Chargeback from Issuer to the Acquirer
	**In-Store Purchase:** Fuel purchase specific amount + Non-Fuel Items: $60 Actual amount was $50 (less Fuel used)	**Auth Only / Dual Message Process:** 0100: Auth for $60 amount 0400*: Partial Auth reversal for $10 amount 0120: Confirmation Advice for $50 amount TC05: Clearing for $50 amount	**Real Time Clearing / Pin Debit Use Case** 0200: Full Financial for $60 amount 0220*: Credit Adjustment for $10 amount
	Dispute / Chargeback can be done to charge the transaction back to the merchant, they are initiated by the Issuer (possibly done with a cardholder) (i.e., Fraud, no authorization, etc.)	TC15: sent as a Dispute Chargeback from Issuer to the Acquirer	0422: sent as a Dispute Chargeback from Issuer to the Acquirer

*Note: Specific field requirements must be followed for 0400 reversal messages, to ensure message matching can occur between the original message (0100 or 0200) and the reversal (0400), please consult the VisaNet technical documentation for the field values required

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Figure E-4: Updated Data Requirements—Specific Situations & Approaches

Updated Data Requirements – Specific Situations & Approaches

Fields required / not required to be sent for specific situations & approaches

Fleet 2.0 Requirement | Fields available for Prompting | Not available to pass

			VIP / SMS: 0400 / 0420 **Authorization (Auth Only or Full Service) Reversals** Purchase is being reversed for various reasons – purchase is not going to happen	BASE II Clearing TC25 / 0420 **Reversal of Sales Draft / full financial** (Reverses a TC05 / 0200) AFD or In-Store should match data sent in the original transaction (TC05 / 0200)	0100-TC06 / 0200 **Credit Refund for a Sales Draft / full financial** (Credits a portion of a sale) In-Store Only Can Occur at time of purchase OR later in time Is a brand-new transaction (linked to the original)
Field Name		**Authorization Location**	**Requirement**	**Requirement**	**Requirement**
Type of Purchase		Field 104, dataset 5C, tag 01	Required	Required	Required
Service Type		Field 104, dataset 5C, tag 02	Required	Required	Required
Fuel Type		Field 104, dataset 5C, tag 03		Required	Required
Expanded Fuel Type		Field 104, dataset 5C, tag 1F10		Required	Required
Unit of Measure		Field 104, dataset 5C, tag 04		Required	Required
Quantity		Field 104, dataset 5C, tag 05		Required	Required
Unit Cost		Field 104, dataset 5C, tag 06		Required	Required
Gross Fuel Price		Field 104, dataset 5C, tag 07		Required	Required
Gross Non-Fuel Price		Field 104, dataset 5C, tag 09	Optional	Required	Required
Odometer Reading		Field 104, dataset 5C, tag 08	Optional	Required	Required
Non-Fuel Product Code 1 thru 8		Field 104, dataset 5C, tag 1F01 thru 1F08	Optional	Required	Required
Visa Fleet Service (Vehicle ID/Driver ID/Generic ID)		Field 48, dataset 5C, usage 36	Optional	Required	Required
Fleet Work Order Number		Field 62.7	Optional	Required	Required
Fleet Employee Number		Field 104, dataset 5C, tag 1F11	Optional	Required	Required
Fleet Trailer Number		Field 104, dataset 5C, tag 1F12	Optional	Required	Required
Fleet Additional Prompted Data 1		Field 104, dataset 5C, tag 1F13	Optional	Required	Required
Fleet Additional Prompted Data 2		Field 104, dataset 5C, tag 1F14	Optional	Required	Required
Purchase Restrictions Flag		Field 125, dataset 6B, tag 0D	0100	Required	0200
Host-Based Purchase Restrictions		Field 125, dataset 6B, tag 0E	0110	Required	0210
TC50 Invoice Level Data (Header/Summary and Line-Item Detail)					
Item Descriptor for Purchase					
Product Code					
Commodity Code					
Quantity					
Unit of Measure					
Unit Cost					
Discount Per Line Item					
Line-Item Total					

Note: Fields are conditionally required for situations such as: card prompts, items purchased (Fuel Purchased/Non-Fuel Purchased)

Appendix F: Visa Fleet Chip Card Personalization Profile þ

This appendix defines a sample personalization profile for the global Visa Fleet chip card. While the sample personalization profile defined in this section is the recommended profile for Visa Fleet chip cards, Issuers may make configuration and personalization choices for their fleet cards that are different from the ones shown in this default profile. Contact your Visa representative for assistance.

F.1 Card Overview

This card profile template is for a Visa Fleet chip card with the minimum required data elements and the following properties:

- Dual-interface (i.e., supporting contact chip and contactless chip)
- A single application personalized with the Visa Debit/Credit Application Identifier (AID) = 'A0000000031010'
- Online authorization for transactions (i.e., no offline authorization support)
- Signature is the only contactless Cardholder Verification Method (CVM) supported
- Signature and No CVM are the contact CVMs supported

  Important: Offline PIN for contact chip transactions may be desirable in some markets and may be added to the chip card personalization profile.

- Contactless Offline Data Authentication (ODA) for mass transit use is supported.

  Important: Visa open loop mass transit includes a "first ride risk" framework to provide limited protection to transit Merchants for the first declined transaction on a Visa contactless card. Contact your Visa representative for additional information.

- Cryptogram Version Number (CVN) '22' and Derivation Key Index (DKI) '01' for contact and contactless.
- The Conexxus Prompting data object and Purchase Restrictions data object may be personalized with fleet prompting and POS purchase restrictions.

F.2 Fleet Data

The following data is specific to fleet and needs to be personalized on the card. The tables listed in the reference column provide the personalization details and the specific data elements are highlighted in blue and underlined in the tables.

Table F-1: Fleet Data

Tag	Data Element	Description	Reference
Magnetic Stripe	Track 1 Data	Contains Fleet Service Enhancement Indicator and Fleet Service Prompt.	Table F-2: Track 1 Data
Magnetic Stripe	Track 2 Data	Same as above.	Table F-3: Track 2 Data
'57'	Track 2 Equivalent Data	Same as above.	Table F-5: DGI '0102' (Contact Data)
'9F0A'	Application Selection Registered Proprietary Data (ASRPD)	Indicates that the card is a fleet card.	Table F-4: DGI '9102' (SELECT PPSE Response) Table F-12: DGI '9102' (SELECT Response over the Contact Interface) Table F-13: DGI '9103' (SELECT Response over the Contactless Interface)
'DF30'	Prompting	Contains the data that the Issuer wants to prompt for at the POS.	Table F-12: DGI '9102' (SELECT Response over the Contact Interface) Table F-13: DGI '9103' (SELECT Response over the Contactless Interface)
'DF32'	Purchase Restrictions	Contains the purchase restrictions enforced at the POS that apply to the Issuer's program.	Table F-12: DGI '9102' (SELECT Response over the Contact Interface) Table F-13: DGI '9103' (SELECT Response over the Contactless Interface)

F.3 Magnetic Stripe Data

This section outlines the Magnetic Stripe data required on the chip card.

Track 1 Data

The following table displays the Track 1 data encoded on to the Magnetic Stripe. The maximum length of the Track 1 on the Magnetic Stripe is 79 characters. The maximum length of Field 10 Discretionary Data depends on the length of the Cardholder Name and the presence of PIN Verification Data.

Table F-2: Track 1 Data

Field	Field Name	Length (chars)	Value
1	Start Sentinel	1	'%' (percentage sign)
2	Format Code	1	'B'
3	Primary Account Number (PAN)	16	*Card-specific*
4	Separator	1	'^' (caret)
5	Cardholder Name	2 to 26	*Card-specific*
6	Separator	1	'^' (caret)
7	Card Expiration Date	4	*Card-specific*
8	Service Code	3	*Card-specific*
9	PIN Verification Data	0 or 5	*Card-specific* (optional—may be excluded)
10	Discretionary Data	var.	*Card-specific* (optional—may be excluded)
11	Visa Reserved	11	'00 VVV 00 A 0 F P', where: · VVV = Card Verification Value (CVV) · A = Authorization Control Indicator (ACI) · F = Fleet Service Enhancement Indicator · P = Fleet Service Prompt
12	End Sentinel	1	'?' (question mark)
13	Longitudinal Redundancy Check (LRC)	1	*Card-specific*

Track 2 Data

The following table displays the Track 2 data encoded on to the Magnetic Stripe. The maximum length of the Track 2 on the Magnetic Stripe is 40 characters. The maximum length of Field 7.2 Discretionary Data may be 2 to 7 characters, depending on the presence of PIN Verification Data.

Table F-3: Track 2 Data

Field	Field Name	Length (characters)	Value
1	Start Sentinel	1	';' (semicolon)
2	Primary Account Number (PAN)	16	*Card-specific*
3	Separator	1	'=' (equal sign)
4	Card Expiration Date	4	*Card-specific*
5	Service Code	3	*Card-specific*
6	PIN Verification Data	0 or 5	*Card-specific* (optional—may be excluded)
7.1	Card Verification Value (CVV)	3	*Card-specific*
7.2	Discretionary Data	0 to 2 or 0 to 7	*Card-specific* (optional—may be excluded)
7.3	Fleet Data	3	'0 F P', where: · F = Fleet Service Enhancement Indicator · P = Fleet Service Prompt
8	End Sentinel	1	'?' (question mark)
9	Longitudinal Redundancy Check (LRC)	1	*Card-specific*

F.4 Chip Data

This section defines the contact and contactless chip data personalized on to the chip card. The following DGI is used to personalize the PPSE.

Table F-4: DGI '9102' (SELECT PPSE Response)

Tag	Data Element Name	Length (bytes)	Value
'A5'	FCI Proprietary Template	'25'	
'BF0C'	FCI Issuer Discretionary Data	'22'	
'61'	Directory Entry Template	'20'	
'4F'	Application Dedicated File Name (ADF Name)	'07'	'A0000000031010'
'50'	Application Label	'0A'	'5649534120464c454554' ("VISA FLEET")
'9F0A'	Application Selection Registered Proprietary Data (ASRPD)	'08'	*Card-specific*: '000205 AA BBBB 00 80', where: · AA = Region Code; example - '10' (U.S.) · BBBB = Country Code; example - '0840' (U.S.) · '80' = Fleet Indicator

The remaining DGIs in this section are used to personalize the payment application.

Table F-5: DGI '0102' (Contact Data)

Tag	Data Element Name	Length	Value
'70'	Record Template	Var.	
'57'	Track 2 Equivalent Data	'10'	*Card-specific*: 'PPPPPPPPPPPPPPPP D YYMM SSS NNNNN VVV X 0 F P', where: · PPPPPPPPPPPPPPPP = Primary Account Number (PAN) · 'D' = Field Separator · YYMM = Card Expiration Date · SSS = Service Code · NNNNN = PIN Verification Data (optional—may be excluded) · VVV = iCVV · X = Discretionary Data (optional—may be excluded) (maximum length of 2 or 7 characters, depending on the presence of PIN Verification Data) · F = Fleet Service Enhancement Indicator · P = Fleet Service Prompt **Note**: The Track 2 Equivalent Data should mirror the Track 2 data on the physical magnetic stripe. The Track 2 Equivalent Data is padded with 'F' if needed to ensure whole bytes.
'5F20'	Cardholder Name	Var.	*Card-specific*

Table F-6: DGI '0103' (Contact Data)

Tag	Data Element Name	Length	Value
'70'	Record Template	Var.	
'5A'	Application Primary Account Number (PAN)	'08'	*Card-specific*: 'PPPPPPPPPPPPPPPP' = 16-digit PAN
'5F24'	Application Expiration Date	'03'	*Card-specific*: YYMMDD; example - '241231' (31 December 2024)
'5F28'	Issuer Country Code	'02'	*Issuer-specific*
'5F34'	Application PAN Sequence Number (PSN)	'01'	*Card-specific* or default value of '00'
'8C'	Card Risk Management Data Object List 1 (CDOL1)	'15'	'9F0206 9F0306 9F1A02 9505 5F2A02 9A03 9C01 9F3704'
'8D'	Card Risk Management Data Object List 2 (CDOL2)	'19'	'8A02 9F0206 9F0306 9F1A02 9505 5F2A02 9A03 9C01 9F3704'
'8E'	Cardholder Verification Method (CVM) List	'0C'	'0000 0000 0000 0000 5E00 1F00' · Signature always, apply next CVM if unsuccessful · No CVM always, fail Cardholder verification if unsuccessful Note: For other CVM Lists, contact your Visa regional representative.
'9F07'	Application Usage Control (AUC)	'02'	'3D00' · Valid for Domestic goods & services · Valid for International goods & services · Valid at terminals other than ATMs
'9F08'	Application Version Number	'02'	'00A0'
'9F0D'	Issuer Action Code (Default)	'05'	'FF FF FF FF FF'
'9F0E'	Issuer Action Code (Denial)	'05'	'00 00 00 00 00'
'9F0F'	Issuer Action Code (Online)	'05'	'FF FF FF FF FF'

Table F-7: DGI '0202' (Contactless Data)

Tag	Data Element Name	Length	Value
'70'	Record Template	Var.	
'8F'	Certificate Authority Public Key Index	'01'	Identifies the CA key used to produce the IPK Certificate
'90'	Issuer Public Key (IPK) Certificate	Var.	*Issuer-specific*
'9F32'	Issuer Public Key (IPK) Exponent	'01'	'03'
'92'	Issuer Public Key (IPK) Remainder	Var.	Present only if public key does not fit in the Issuer Public Key Certificate (tag '90')

Table F-8: DGI '0203' (Contactless Data)

Tag	Data Element Name	Length	Value
'70'	Record Template	Var.	
'9F46'	ICC Public Key Certificate	Var.	*Card-specific*
'9F47'	ICC Public Key Exponent	'01'	'03'
'9F48'	ICC Public Key Remainder	Var.	Present only if public key does not fit in the ICC Public Key Certificate (tag '9F46')
'5A'	Application Primary Account Number (PAN)	'08'	*Card-specific:* 'PPPPPPPPPPPPPPPP' = 16-digit PAN
'5F20'	Cardholder Name	'0F'	*Card-specific*: '43415244484F4C4445522F56495341' = "CARDHOLDER/VISA" (displays as VISA CARDHOLDER) **Note**: The Cardholder Name that can be read over the contactless interface is a generic value ("VISA CARDHOLDER") instead of a real Cardholder name.
'5F24'	Application Expiration Date	'03'	*Card-specific*: YYMMDD; example—'241231' (31 December 2024)
'5F34'	Application PAN Sequence Number (PSN)	'01'	*Card-specific* or default value of '00'
'9F6E'	Form Factor Indicator	'04'	'20 70 00 00' (Full size card)
'9F69'	Card Authentication Related Data	'07'	'01 00000000 0000'

Table F-9: DGI '3001' (Application Internal Data)

Tag	Data Element Name	Length	Value
'57'	Track 2 Equivalent Data	'10'	*Card-specific:* *See* Table F-5: DGI '0102' (Contact Data) for format and value information
'5F20'	Cardholder Name	'0F'	*Card-specific*: '43415244484F4C4445522F56495341' = "CARDHOLDER/VISA" (displays as VISA CARDHOLDER)
'5F34'	Application PAN Sequence Number (PSN)	'01'	*Card-specific* or default value of '00'
'9F58'	Consecutive Transaction Counter Limit (CTCL)	'01'	'00'
'9F59'	Consecutive Transaction Counter Upper Limit (CTCUL)	'01'	'00'
'9F68'	Card Additional Processes	'04'	'10001000' · Signature supported
'9F6C'	Card Transaction Qualifiers	'02'	'0000'
'9F6E'	Form Factor Indicator	'04'	'20 70 00 00' (Full size card)

Table F-10: DGI '8000' (DES Keys)

Tag	Data Element Name	Length	Value
–	Unique Derived Key (UDK)	'10'	Card-specific data from Issuer HSM

Table F-11: DGI '8201' through '8205' (ICC Private Keys—CRT)

DGI	Tag	Data Element Name	Length	Value
'8201'	–	ICC Key CRT constant q^{-1} mod p	Var.	*Card-specific data from Issuer HSM*
'8202'	–	ICC Private Key CRT constant d mod (q-1)	Var.	*Card-specific data from Issuer HSM*
'8203'	–	ICC Private Key CRT constant d mod (p-1)	Var.	*Card-specific data from Issuer HSM*
'8204'	–	ICC Private Key CRT constant prime factor q	Var.	*Card-specific data from Issuer HSM*
'8205'	–	ICC Private Key CRT constant prime factor p	Var.	*Card-specific data from Issuer HSM*

Table F-12: DGI '9102' (SELECT Response over the Contact Interface)

Tag	Data Element Name	Length	Value
'A5'	FCI Proprietary Template	Var.	
'50'	Application Label	'0A'	'5649534120464c454554' ("VISA FLEET")
'BF0C'	FCI Issuer Discretionary Data	Var.	
'9F0A'	Application Selection Registered Proprietary Data (ASRPD)	'08'	*Card-specific*: '000205 AA BBBB 00 80', where: · AA = Region Code; example - '10' (U.S.) · BBBB = Country Code; example - '0840' (U.S.) · '80' = Fleet Indicator
'DF30'	Prompting	Var.	*Card-specific;* (optional—may be excluded) Example—'2500C0 293000' (Coding to prompt for Driver ID and Odometer)
'DF32'	Purchase Restrictions	Var.	*Card-specific;* (optional—may be excluded) Example—'C6800000000000E0' (Coding to restrict to gas purchases only)

Table F-13: DGI '9103' (SELECT Response over the Contactless Interface)

Tag	Data Element Name	Length	Value
'A5'	FCI Proprietary Template	Var.	
'50'	Application Label	'0A'	'5649534120464c454554' ("VISA FLEET")
'9F38'	Processing Options Data Object List (PDOL)	'18'	'9F6604 9F0206 9F0306 9F1A02 9505 5F2A02 9A03 9C01 9F3704'
'BF0C'	FCI Issuer Discretionary Data	Var.	
'9F5A'	Application Program ID	'05'	'XX YYYY ZZZZ' XX = Region Code; example - '11' (U.S.) YYYY = Currency Code; example - '0840' (U.S. Dollar) ZZZZ = Country Code; example - '0840' (U.S.)
'9F0A'	Application Selection Registered Proprietary Data (ASRPD)	'08'	*Card-specific*: '000205 AA BBBB 00 80', where: · AA = Region Code; example - '10' (U.S.) · BBBB = Country Code; example - '0840' (U.S.) · '80' = Fleet Indicator
'DF30'	Prompting	Var.	*Card-specific;* (optional—may be excluded) Example—'2500C0 293000' (Coding to prompt for Driver ID and Odometer)
'DF32'	Purchase Restrictions	Var.	*Card-specific;* (optional—may be excluded) Example—'C6800000000000E0' (Coding to restrict to gas purchases only)

Table F-14: DGI '9104' (GPO Response Data over the Contact Interface)

Tag	Data Element Name	Length	Value
'82'	Application Interchange Profile (AIP)	'02'	'1800'
'94'	Application File Locator (AFL)	'04'	'08020300'

Table F-15: DGI '9200' (Issuer Application Data)

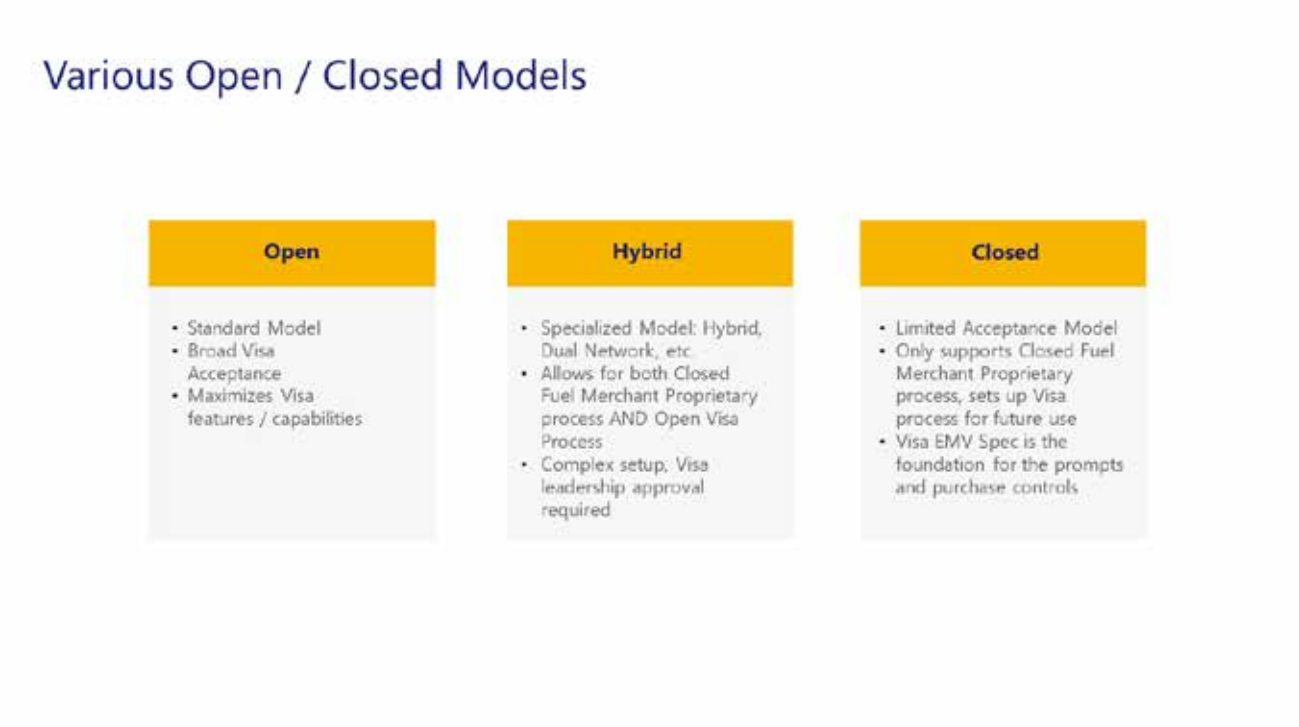
Tag	Data Element Name	Length	Value
'9F10'	Issuer Application Data (IAD)	'20'	'1F2201000000000000000000000000000000000000000000000000000000000000'

Table F-16: DGI '9207' (GPO Response Data over the Contactless Interface)

Tag	Data Element Name	Length	Value
'82'	Application Interchange Profile (AIP)	'02'	'2020'
'94'	Application File Locator (AFL)	'04'	'10020300'

Appendix G: Acceptance Models þ

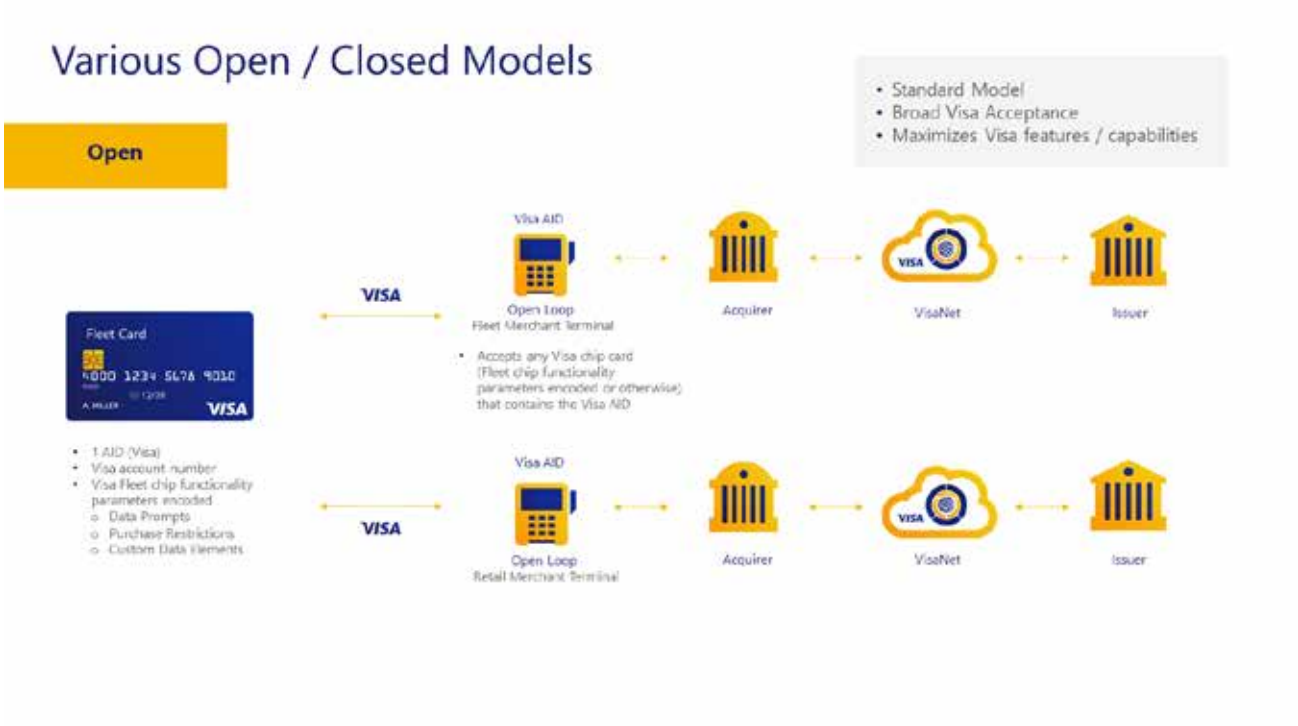
Fleet solutions can be Open Loop, Closed-Loop, or Hybrid. Visa can play a key role to support various organizations in each of these models as described below.



G.1 Open-Loop Model

One or more Issuers and one or more Merchants where Cardholders can use their fleet card at any participating Merchant for fleet transactions. Cards can also be used at any Visa Merchant worldwide for non-fleet transactions. Cards are issued with the Visa AID and a Visa account number and transactions flow through VisaNet.

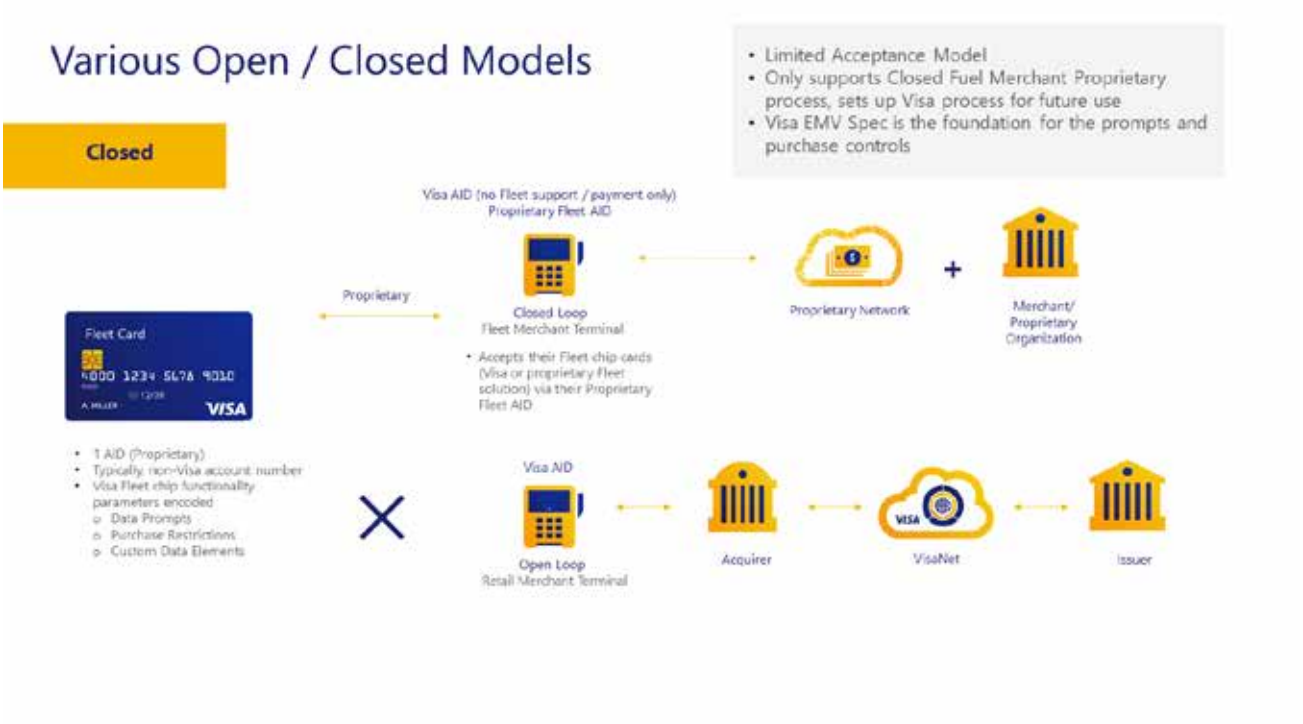
Figure 6-1: Open-Loop Model Data Flow



G.2 Proprietary Network/Closed-Loop Model

Cards can only be used for fleet purchases within a single fleet Merchant. Cards are typically issued with a proprietary fleet AID and a proprietary (i.e., non-Visa) account number. All transactions (i.e., authorization and clearing) remain within the fleet provider's systems for routing and messaging (i.e., they do not flow through VisaNet.

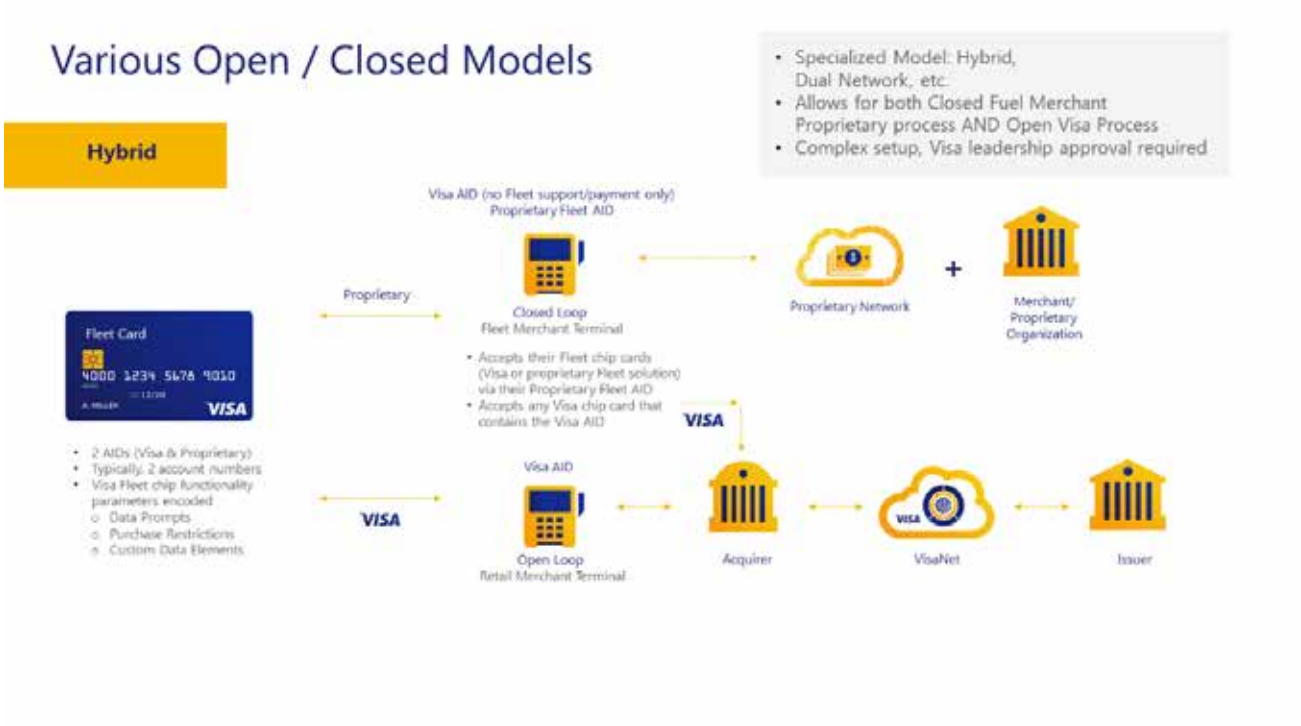
Figure 6-2: Proprietary Network/Closed-Loop Data Flow



G.3 Hybrid Model

This is a combination of open-loop and proprietary network/closed-loop fleet models where the card and terminal also contain the Visa AID in addition to the proprietary fleet AID. The Visa Fleet card can only be used for fleet purchases within a single Merchant's environment, but the card can also be used for non-fleet purchases at any Visa Merchant worldwide

Figure 6-3: Hybrid Model Data Flow



Appendix H: Fleet Test Scripts þ

An Excel file that contains test scripts for Merchants, Acquirers, and Issuers to use for fleet testing is provided as an attachment to this PDF. These test scripts line up with the Visa Fleet Test Cards that are represented in the VMCP tool for testing as outlined in Chapter 5: Certification and Confirmation. The Excel file is available in the Attachments pane, located at the left of the PDF window. Double-click the attachment to open the Excel file.

- Merchants/Acquirers – Merchants and Acquirers may use the test scripts to perform end-to-end testing:
  - Ensure the terminal is able to read and act on a variety of test cards personalized with the ASRPD (tag '9F0A'), Prompting (tag 'DF30'), and Purchase Restrictions (tag 'DF32').
  - Ensure the terminal can properly pass the prompting data to the Merchant/Acquirer systems in authorization and clearing.
  - Ensure that the Merchant/Acquirer systems can properly pass the data to the Issuer in VisaNet authorization and clearing messages.
- Issuers – The scripts are a sample set for Issuers to review and get familiarized. Issuers should create test cards that reflect their personalization settings for Prompting (tag 'DF30') and Purchase Restrictions (tag 'DF32'). They can use the sample personalization profile in Appendix F: Visa Fleet Chip Card Personalization Profile to create their test cards. Then, they can perform end-to-end testing with their tests cards to ensure the terminal, Merchant/Acquirer systems, and authorization and clearing messages are properly supporting the fleet chip functionality and associated data.

For assistance obtaining test cards, contact your Visa representative.

Appendix I: Visa Fuel Type Codes þ

This appendix cross-references the 3-digit Conexxus fuel product codes to the 2-digit Visa fuel type codes. When providing product codes in VisaNet messages, the 2-digit Visa code must be used.

For important information and key points to be aware of, see the section Visa Fuel Type Codes and Visa Non-Fuel Product Codes above.

Table I-1: Visa Fuel Product Codes List

Fuel Product Description	Conexxus Product Code	Visa Product Code
Dispensed Motor Fuels and Additives		
Regular	001	01
Mid/Plus	002	02
Premium/Super	003	03
Mid/Plus 2	004	04
Premium/Super 2	005	05
<Deprecated> Unleaded Methanol (5.7% blend)	006	06
<Deprecated> Unleaded Plus Methanol (5.7% blend)	007	07
<Deprecated> Super Unleaded Methanol (5.7% blend)	008	08
<Deprecated> Unleaded Methanol (7.7% blend)	009	09
<Deprecated> Unleaded Plus Methanol (7.7% blend)	010	10
<Deprecated> Ethanol (5.7% blend)	011	11
<Deprecated> Mid/Plus Ethanol (5.7% blend)	012	12
<Deprecated> Premium/Super Ethanol (5.7% blend)	013	13
<Deprecated> Ethanol (7.7% blend)	014	14
<Deprecated> Mid/Plus Ethanol (7.7% blend)	015	15
Green Gasoline Regular (Plant based not petroleum based)	016	16
Green Gasoline Mid/Plus (Plant based not petroleum based)	017	17

Fuel Product Description	Conexxus Product Code	Visa Product Code
Green Gasoline Premium/Super (Plant based not petroleum based)	018	18
Regular Diesel #2	019	19
Premium Diesel #2	020	20
Regular Diesel #1	021	21
Compressed Natural Gas	022	22
Liquid Propane Gas	023	23
Liquid Natural Gas	024	24
<Deprecated> M-85	025	25
E-85	026	26
Reformulated 1	027	27
Reformulated 2	028	28
Reformulated 3	029	29
Reformulated 4	030	30
Reformulated 5	031	31
Diesel Off-Road (#1 and #2 Non-Taxable)*	032	32
Diesel Off-Road (Non-Taxable)*	033	33
Biodiesel Blend Off-Road (Non-Taxable)	034	34
<Deprecated> Biodiesel Blend Off-Road (Non-Taxable)	035	35
Racing Fuel	036	36
Mid/Plus 2 (10% Blend)	037	37
Premium/Super 2 (10% Blend)	038	38
Mid/Plus Ethanol 2 (15% Blend)	039	39
Premium/Super Ethanol 2 (15% Blend)	040	40

Fuel Product Description	Conexxus Product Code	Visa Product Code
<Deprecated> Premium/Super Ethanol (7.7% Blend)	041	41
Regular Ethanol (10% Blend)	042	42
Mid/Plus Ethanol (10% Blend)	043	43
Premium/Super Ethanol (10% Blend)	044	44
B2 Diesel Blend 2% Biodiesel	045	45
B5 Diesel Blend 5% Biodiesel	046	46
B10 Diesel Blend 10% Biodiesel	047	47
B11 Diesel Blend 11% Biodiesel	048	48
B15 Diesel Blend 15% Biodiesel	049	49
B20 Diesel Blend 20% Biodiesel	050	50
B100 Diesel Blend 100% Biodiesel	051	51
B1 Diesel Blend 1% Biodiesel	052	52
Additized Diesel #2	053	53
Additized Diesel #3	054	54
<Deprecated> Ultra Low Sulfur Biodiesel Blend 2%	055	55
<Deprecated> Ultra Low Sulfur Biodiesel Blend 5%	056	56
<Deprecated> Ultra Low Sulfur Biodiesel Blend 10%	057	57
<Deprecated> Ultra Low Sulfur Biodiesel Blend 11%	058	58
<Deprecated> Ultra Low Sulfur Biodiesel Blend 15%	059	59
<Deprecated> Ultra Low Sulfur Biodiesel Blend 20%	060	60
Renewable Diesel (Biodiesel 6%-20%) (meets ASTM D7467 in US)	061	61
DEF (Diesel Exhaust Fluid)	062	62
Premium Diesel #1	063	63

Fuel Product Description	Conexxus Product Code	Visa Product Code
Regular Ethanol (15% Blend)	064	64
Mid/Plus Ethanol (15% Blend)	065	65
Premium/Super Ethanol (15% Blend)	066	66
Premium Diesel Blend <20% Biodiesel	067	67
Premium Diesel Blend >= 20% Biodiesel	068	68
B75 Diesel Blend 75% Biodiesel	069	69
B99 Diesel Blend 99% Biodiesel	070	70
Reserved for Preauthorization Use Only	071-075	71-75
Undefined Fuel – Reserved for Proprietary Use	076-098	76-98
Miscellaneous Fuel	099	99
Aviation Fuels		
Jet Fuel	150	A0
Aviation Fuel Regular	151	A1
Aviation Fuel Premium	152	A2
Aviation Fuel JP8	153	A3
Aviation Fuel 4	154	A4
Aviation Fuel 5	155	A5
Biojet (Diesel)	156	A6
Aviation Biofuel (Gasoline)	157	A7
Undefined Aviation Fuel – Reserved for Conexxus Future Use	158-167	YR-YZ, ZA
Undefined Aviation Fuel – Reserved for Proprietary Use	168-173	A8
Miscellaneous Aviation Fuel	174	A9
Marine Fuels		

Fuel Product Description	Conexxus Product Code	Visa Product Code
Marine Fuel 1	225	M1
Marine Fuel 2	226	M2
Marine Fuel 3	227	M3
Marine Fuel 4	228	M4
Marine Fuel 5	229	M5
Marine – Other	230	M6
Marine Diesel	231	ZB
Undefined Marine Fuel – Reserved for Conexxus Future Use	232-242	M7
Undefined Marine Fuel – Reserved for Proprietary Use	243-248	M8
Miscellaneous Marine Fuel	249	M9
Other Dispensed Fuel and Metered Products		
Kerosene – Low Sulfur	300	F0
White Gas	301	F1
Heating Oil	302	F2
<Deprecated> Bottled Propane	303	F3
Other Fuel (Non-Taxable)	304	F4
Kerosene – Ultra Low Sulfur	305	F5
Kerosene – Low Sulfur (Non-Taxable)	306	F6
Kerosene – Ultra Low Sulfur (Non-Taxable)	307	F7
EVC-1 – Level 1 charge = 110v 15 amp	308	FA
EVC-2 – Level 2 charge = 240v 15-40 amp	309	FB
EVC-3 – Level 3 charge = 480v 3 phase charge	310	FC
Biodiesel Blend 2% Off-Road (Non-Taxable)	311	FD

Fuel Product Description	Conexxus Product Code	Visa Product Code
Biodiesel Blend 5% Off-Road (Non-Taxable)	312	FE
Biodiesel Blend 10% Off-Road (Non-Taxable)	313	FF
Biodiesel Blend 11% Off-Road (Non-Taxable)	314	FG
Biodiesel Blend 15% Off-Road (Non-Taxable)	315	FH
Biodiesel Blend 20% Off-Road (Non-Taxable)	316	FI
Diesel #1 Off-Road (Non-Taxable)	317	FJ
Diesel #2 Off-Road (Non-Taxable)	318	FK
Diesel #1 Premium Off-Road (Non-Taxable)	319	FL
Diesel #2 Premium Off-Road (Non-Taxable)	320	FM
Additive Dosage	321	FN
Ethanol Blends E16-E84	322	FO
Low Octane UNL	323	FP
Blended Diesel (#1 and #2)	324	FQ
Off-Road Regular (Non-Taxable)	325	FR
Off-Road Mid/Plus (Non-Taxable)	326	FS
Off-Road Premium/Super (Non-Taxable)	327	FT
Off-Road Mid/Plus 2 (Non-Taxable)	328	FU
Off-Road Premium/Super 2 (Non-Taxable)	329	FV
Recreational Fuel (90 Octane)	330	FW
Hydrogen H35	331	FX
Hydrogen H70	332	FY
Renewable Diesel (>=R95) (Non-Taxable) (meets ASTM D975 in US / EN 590 in Europe) Off-Road (Non-taxable)	333	G0
Biodiesel Blend 1% Off-Road (Non-Taxable)	334	H0

Fuel Product Description	Conexxus Product Code	Visa Product Code
Biodiesel Blend 75% Off-Road (Non-Taxable)	335	I0
Biodiesel Blend 99% Off-Road (Non-Taxable)	336	J0
Biodiesel Blend 100% Off-Road (Non-Taxable)	337	K0
Renewable Diesel (Biodiesel 6%-20%) Off-Road (Non-Taxable) (meets ASTM D7467 in US)	338	L0
Undefined Other Fuel – Reserved for Conexxus Future Use	339-380	F8
Undefined Other Fuel – Reserved for Proprietary Use	381-398	FZ, G1-G9, GA-GH
Miscellaneous Other Fuel	399	F9
Packaged Fuels		
Packaged DEF (Diesel Exhaust Fluid)	600	JN
Packaged B99	601	JO
Packaged B100	602	JP
Packaged Additive	603	JQ
Packaged Kerosene	604	JR
Packaged Propane	605	JS
Undefined Packaged Fuels – Reserved for Conexxus Future Use	606-612	JT-JZ
Undefined Packaged Fuels – Reserved for Proprietary Use	613-623	K1-K9, KA-KB
Miscellaneous Packaged Fuels	624	KC
Reserved for Conexxus Future Use	625-649	KD-KZ, NP-NQ
Unknown/Undefined	N/A	00

Appendix J: Visa Non-Fuel Product Codes þ

This appendix cross-references the 3-digit Conexxus non-fuel product codes to the 2-digit Visa fuel type codes. When providing product codes in VisaNet messages, the 2-digit Visa code must be used.

For important information and key points to be aware of, see the section Visa Fuel Type Codes and Visa Non-Fuel Product Codes above.

Table J-1: Visa Non-Fuel Product Codes List

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Vehicle Products/Services		
General Automotive Merchandise	100	B9
Motor Oil	101	30
Car Wash	102	45
Oil Change	103	31
Oil Filter	104	BA
Work Order	105	BB
Anti-Freeze	106	BC
Washer Fluid	107	BD
Brake Fluid	108	BE
Tires	109	41
Federal Excise Tax (Tires)	110	BF
Tire Rotation	111	BG
Batteries	112	42
<Deprecated> Tires, Batteries, and Accessories	N/A	40
Lube	113	BH
Inspection	114	BI
Labor	115	BJ

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Towing	116	BK
Road Service	117	BL
Vehicle Accessories	118	43
Vehicle Parts	119	BM
Preventative Maintenance	120	BN
Air Conditioning Service	121	BO
Engine Service	122	32
Transmission Service	123	33
Brake Service	124	34
Exhaust Service	125	BP
Body Work	126	BQ
Vehicle Glass	127	44
Synthetic Oil	128	BR
Lamps	129	BS
Wipers	130	BT
Hoses	131	BU
Tire-related (Wheel Balance, Valve Stem)	132	BV
Repairs	133	39
Service Package	134	BW
Vehicle Parking	135	BX
Truck Tank Cleaning	136	BY
Other Lubricants	137	BZ
Vehicle Fuel Additives/Treatment (Injected)	138	C1

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Vehicle Rental	139	C2
Air Filter	140	C3
Vehicle Prep	141	C4
Fuel System	142	C5
Undefined Vehicle Product/Services – Reserved for Proprietary Use	143-148	C6-C9, CA-CB
Miscellaneous Vehicle Products / Services	149	CC
Unassigned. Reserved for Future Use	N/A	01–29
Unassigned Repair Values	N/A	35-38
Unassigned Automotive Products and Services	N/A	46
Unassigned Automotive Products and Services	N/A	67-69
Scales	650	NR
Shower	651	NS
Tire Repair	652	NT
Lodging	653	NU
Wash Out	654	NV
Trailer Wash	655	NW
RV Dump Fee	656	NX
EV Charging Fee	657	NY
EV Battery Exchanges	658	NZ
Toll Payments	659	P1
Undefined Vehicle Product/Services – Reserved for Conexxus Use	660-689	P2-P9, PA-PV

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Undefined Vehicle Product/Services – Reserved for Proprietary Use	690-699	PW-PZ, Q1-Q6
Aviation Products/Services		
Storage	175	AB
Aircraft Ground Hauling	176	59
Aircraft Ground Power Unit	177	AC
Aircraft Labor	178	AD
Aircraft Work Order	179	AE
Aircraft Maintenance	180	65
Aircraft Service	181	AF
Transportation	182	AG
De-icing	183	47
Ramp Fees	184	51
Catering	185	71
Hangar Fee	186	49
<Deprecated> APU or Aircraft Jump Seat	N/A	48
Landing Fee	187	50
Call Out Fee	188	52
Aircraft Rental	189	53
Instruction Fee	190	54
Flight Plans/Weather Brief	191	AH
<Deprecated> Flight Planning Fees	N/A	56
<Deprecated> Weather Fees	N/A	57
Charter Fee	192	58

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Communication Fee	193	60
Aircraft Cleaning	194	61
Cargo Handling	195	62
Aircraft Accessories	196	63
<Deprecated> Avionics	N/A	64
Pilot Supplies	197	AI
Aircraft Parking Fees	198	AJ
Aircraft Tie Down Fees	199	AK
Aircraft Sanitation Fees	200	AL
Aircraft Fuel Additive	201	66
AC Parts 052-061	202	AM
Oxygen	203	AN
De-fuel	204	AO
Re-service	205	AP
Static Dissipater Additive	206	AQ
Corrosion Inhibitor	207	AR
Airport Fees	208	AS
Overtime Fees	209	AT
IT/Bladder	210	AU
Ground Equipment Service Fees	211	AV
Secure Fees	212	AW
Flow Fee	213	AX

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Undefined Aviation – Reserved for Conexxus Future Use	214-215	AY-AZ
Undefined Aviation – Reserved for Proprietary Use	216-223	B1-B8
Miscellaneous Aviation Products/Services	224	55
Marine Products/Services		
Marine Service	250	MA
Marine Labor	251	MB
Marine Work Order	252	MC
Launch Fee	253	MD
Slip Rental	254	ME
Undefined Marine Services – Reserved for Conexxus Future Use	255-280	MF-MZ, N1-N5
Undefined Marine Services – Reserved for Proprietary Use	281-298	N6-N9, NA-NN
Miscellaneous Marine Products/Services	299	NO
Merchandise		
General Merchandise	400	ZC
General Ice	401	ZD
General Undefined – Reserved for Conexxus Future Use	402-409	ZE-ZL
General Tobacco	410	ZM
Cigarettes	411	ZN
Tobacco - Other	412	ZO
Undefined Tobacco – Reserved for Conexxus Future Use	413-417	ZP-ZT

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Undefined Tobacco – Reserved for Proprietary Use	418-419	ZU-ZV
General Packaged Beverage	420	ZW
Packaged Beverages (non-alcoholic)	421	ZX
Packaged Juice	422	ZY
Other Packaged Beverages	423	ZZ
Undefined Packaged Beverages – Reserved for Conexxus Future Use	424-427	B0, C0, D0, E0
Undefined Packaged Beverages – Reserved for Proprietary Use	428-429	CD-CE
General Dispensed Beverage	430	CF
Soda	N/A	80
Hot Dispensed Beverages	431	CG
Cold Dispensed Beverages	432	CH
Frozen Dispensed Beverages	433	CI
Other Dispensed Beverages	434	CJ
Undefined Dispensed Beverages – Reserved for Conexxus Future Use	435-437	CK-CM
Undefined Dispensed Beverages – Reserved for Proprietary Use	438-439	CN-CO
Unassigned Beverage Items	N/A	83-89
General Snacks	440	CP
Salty Snacks	441	CQ
Alternative Snacks	442	CR
Sweet Snacks - Packaged	443	CS
Undefined Snacks – Reserved for Conexxus Future Use	444-447	CT-CW

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Undefined Snacks – Reserved for Proprietary Use	448-449	CX-CY
General Candy	450	CZ
Undefined Candy – Reserved for Conexxus Future Use	451-457	D1-D7
Undefined Candy – Reserved for Proprietary Use	458-459	D8-D9
General Dairy	460	82
Fluid Milk Products	461	DA
Packaged Ice Cream/Novelties	462	DB
Other Dairy	463	DC
Undefined Dairy – Reserved for Conexxus Future Use	464-467	DD-DG
Undefined Dairy – Reserved for Proprietary Use	468-469	DI-DH
General Grocery	470	79
Groceries - Edible	471	DJ
Groceries - Non-Edible	472	DK
Groceries - Perishable	473	DL
Unassigned Food and Grocery Items	N/A	72-77
Bread - Packaged	474	DM
Frozen Foods	475	DN
Undefined Grocery – Reserved for Conexxus Future Use	476-477	DO-DP
Undefined Grocery – Reserved for Proprietary Use	478-479	DQ-DR
General Alcohol	480	DS
Beer - Alcoholic	481	81
Beer - Non-Alcoholic	482	DT
Wine	483	DU

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Liquor	484	DV
Undefined Alcohol – Reserved for Conexxus Future Use	485-487	DW-DY
Undefined Alcohol – Reserved for Proprietary Use	488-489	DZ, E1
General Deli	490	E2
Packaged Sandwiches/Deli Products	491	E3
Prepared Foods	492	E4
Deli Items	493	E5
Undefined Deli – Reserved for Conexxus Future Use	494-497	E6-E9
Undefined Deli – Reserved for Proprietary Use	498-499	EA-EB
General Foodservice	500	EC
Undefined Foodservice – Reserved for Conexxus Future Use	501-507	ED-EJ
Undefined Foodservice – Reserved for Proprietary Use	508-509	EK-EL
General Lottery	510	EM
Lottery - Instant	511	EN
Lottery - Online	512	EO
Lottery - Other	513	EP
Undefined Lottery – Reserved for Conexxus Future Use	514-517	EQ-ET
Undefined Lottery – Reserved for Proprietary Use	518-519	EU-EV
General Money Order	520	EW
Money Order - Vendor Payment	521	EX
Money Order - Payroll Check	522	EY

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Money Order - Gift Certificate	523	EZ
Money Order - Refund Check	524	GI
Money Order - Official Check	525	GJ
Money Order - Rebate Check	526	GK
Money Order - Dividend Check	527	GL
Money Order - Utility Check	528	GM
Undefined Money Order – Reserved for Conexxus Future Use	529	GN
General Store Service	530	GO
Home Delivery	531	GP
<Deprecated> Miscellaneous	N/A	90
<Deprecated> Sales Tax as Shown for Non-Fuel Products	N/A	91
<Deprecated> Unassigned. Reserved for Future Use	N/A	92-99
Prepaid Cards - Purchase	532	GQ
Prepaid Cards - Activation/Recharge	533	GR
Membership/Loyalty	534	GS
Undefined Store Services – Reserved for Conexxus Future Use	535-537	GT-GV
Undefined Store Services – Reserved for Proprietary Use	538-539	GW-GX
General Health & Beauty Care	540	78
Undefined Health & Beauty Care – Reserved for Conexxus Future Use	541-547	GY-GZ, H1-H5
Undefined Health & Beauty Care – Proprietary Use	548-549	H6-H7
General Publications	550	H8

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Undefined General Publications – Reserved for Conexxus Future Use	551-557	H9, HA-HF
Undefined General Publications Reserved for Proprietary Use	558-559	HG-HH
Prepaid and Bill Pay (Secondary Network)		
PIN Activate Prepaid Card	560	HI
PIN Return Prepaid Card	561	HJ
Enable Device/Handset Unlock	562	HK
Disable Device/Handset Lock	563	HL
3rd Party Prepaid Card Activate	564	HM
3rd Party Prepaid Card Reload	565	HN
Financial Prepaid Card Activate	566	HO
Financial Prepaid Card Reload	567	HP
Proprietary Prepaid Card Activate	568	HQ
Proprietary Prepaid Card Reload	569	HR
General Purpose Activate	570	HS
General Purpose Reload	571	HT
Real Time Recharge	572	HU
Wireless Real Time Recharge	573	HV
Single Payee Bill Pay	574	HW
Multiple Payee Bill Pay	575	HX
Undefined Prepaid and Bill Pay – Reserved for Conexxus Future Use	576-583	HY-HZ, J1-J6
Undefined Prepaid and Bill Pay – Reserved for Proprietary Use	584-590	J7-J9, JA-JD

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Undefined Merchandise – Reserved Proprietary Use	591-599	JE-JM
Cannabinoids		
Cannabidiol (CBD)	700	Q7
Undefined Cannabinoid – Reserved for Conexxus Future Use	701-717	Q8-Q9, QA-QO
Undefined Cannabinoid – Reserved for Proprietary Use	718-719	QP-QQ
Reserved for Conexxus Future Use	720-799	QR-QZ, R1-R9, RA-RZ, S1-S9, SA-SZ, T1
Reserved for Proprietary Use	800-899	T2-T9, TA-TZ, U1-U9, UA-UZ, V1-V9, VA-VV
Negative Transactions		
Discount 1	900	VW
Discount 2	901	VX
Discount 3	902	VY
Discount 4	903	VZ
Discount 5	904	W1
Coupon 1	905	W2
Coupon 2	906	W3
Coupon 3	907	W4
Coupon 4	908	W5
Coupon 5	909	W6
Lottery Pay Out - Instant	910	W7
Lottery Pay Out - Online	911	W8

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Lottery Pay Out - Other	912	W9
Split Tender	913	WA
Tax Discount/Forgiven	914	WB
Local Discount 1	915	WC
Local Discount 2	916	WD
Local Discount 3	917	WE
Local Discount 4	918	WF
Local Discount 5	919	WG
POS/Loyalty Reserved Discount 1	920	WH
POS/Loyalty Reserved Discount 2	921	WI
POS/Loyalty Reserved Discount 3	922	WJ
POS/Loyalty Reserved Discount 4	923	WK
POS/Loyalty Reserved Discount 5	924	WL
Undefined Negative – Reserved for Conexxus Future Use	925-940	WM-WZ, X1-X2
Undefined Negative – Reserved for Proprietary Use	941-948	X3-X9, XA
Miscellaneous Negative Administrative	949	XB
Administrative		
Tax 1	950	XC
Tax 2	951	XD
Tax 3	952	XE
Tax 4	953	XF
Tax 5	954	XG
Cash Back	955	XH

Non-Fuel Product Description	Conexxus Product Code	Visa Product Code
Cash Back Fee	956	XI
Fee 1	957	XJ
Fee 2	958	XK
Fee 3	959	XL
Fee 4	960	XM
Fee 5	961	XN
Miscellaneous Aviation Tax	962	XO
GST/HST (Canadian)/VAT 1	963	XP
PST/QST (Canadian) VAT 2	964	XQ
SWT Rate (Canadian)	965	XR
Tax 6	966	XS
Tax 7	967	XT
Tax 8	968	XU
Jet Federal Excise Tax	969	XV
AvGas Federal Excise Tax	970	XW
Charity	971	XX
Gratuity	972	XY
Undefined Administrative – Reserved for Conexxus Future Use	973-990	XZ, Y1-Y9, YA-YH
Undefined Administrative – Reserved for Proprietary Use	991-998	YI-YP
Miscellaneous Administrative	999	YQ
Unknown/Undefined	N/A	00

Appendix K: Issuer Sent Account Information þ

Table K-1: Issuer Sent Visa Company/Client and Card Account Information

Issuers who send a flat file in with card account and company details need to manually create a company in VBS/VSM for the information to be loaded. The information needs to be created in VIDS using the File Specification—Simple Type. See below for the Legend for this table.

CUSTOM_FIELD_NAME*	CUSTOM_FIELD_TYPE	LENGTH*	SCALE	REQUIRED	FIELD_FORMAT	FIELD_DESCRIPTION
Issuer Identification	STRING			Y		Bank ID
Processor Identification	DECIMAL			Y		Processor ID
Region Identification	DECIMAL			Y		Region ID
Company Identification	DECIMAL			Y		Company ID
Account Number	STRING			Y		Card Account Number
Card expire date	DATE			N		Card Account Expiry Date
Status Code	DECIMAL			Y		Status of Card Account
First Name	STRING			Y		Cardholder's First Name
Last Name	STRING			Y		Cardholder's Last Name
Cardholder ID	STRING			N		Identification Number Used by a Client Company to Uniquely Identify an Employee or Cardholder
Address Line1	STRING			N		First Line of Cardholder Address
Address Line2	STRING			N		Second Line of Cardholder Address
City	STRING			N		City Where The Cardholder Works
State	STRING			N		Code of The State or Province Where The Cardholder Works
Zip or Postal Code	STRING			N		Zip or Postal Code for The Cardholder's Business
Hier Node	STRING			N		Hierarchy Node of The Cardholder
Parent Hier Node	STRING			N		Parent Hierarchy Node on an Organization Chat to Which This Node Reports or is Associated
Hier Node Description	STRING			N		Name or Label Associated with a Hierarchy Node
Hier Node Effective Date	DATE			N		Effective Date of the Hierarchy Node
Optional Field 1	STRING			N		Optional Field
Optional Field 2	STRING			N		Optional Field
Optional Field 3	STRING			N		Optional Field
Optional Field 4	STRING			N		Optional Field

Legend for the above table:

Column	Required	Description
CUSTOM_FIELD_NAME	Mandatory	Custom Field Name
FIELD_TYPE	Mandatory	Field Type (Data type of the field)
LENGTH	Optional	Length of the field (Optional for delimiter file). Required for fixed length file. **Note**: Please do not specify the length in "LENGTH" column if your file is delimited.
SCALE	Optional	Decimal points. (If we receive the amount in the file as 100.33 then decimal point (scale) will be 2)
REQUIRED	Optional	If required then "Y" else "N". If not provided then assumed as "N"
FIELD_FORMAT	Optional	Format of the field. (e.g. for DATE we have different formats YYYYMMDD, MMDDYYYY, DDMMYYYY, MM-DD-YYYY etc.)
FIELD_DESCRIPTION	Optional	Description of the field.

Appendix L: Electric Vehicle Transaction Flow þ

The following figures show the authorization processing steps for a typical Electric Vehicle (EV). These transactions are normally performed via charging stations. Similar flows can be utilized in other environments as well.

Figure L-1: Electric Vehicle (EV) Transaction Authorization

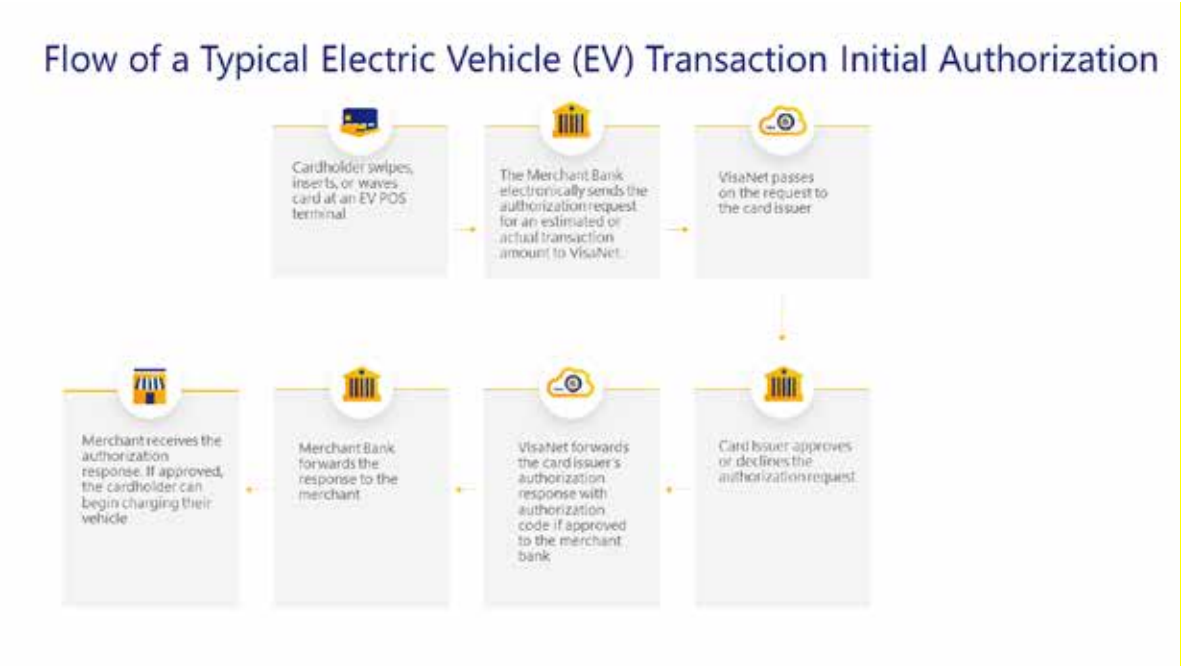


Figure L-2: Electric Vehicle (EV) Transaction Incremental Authorization

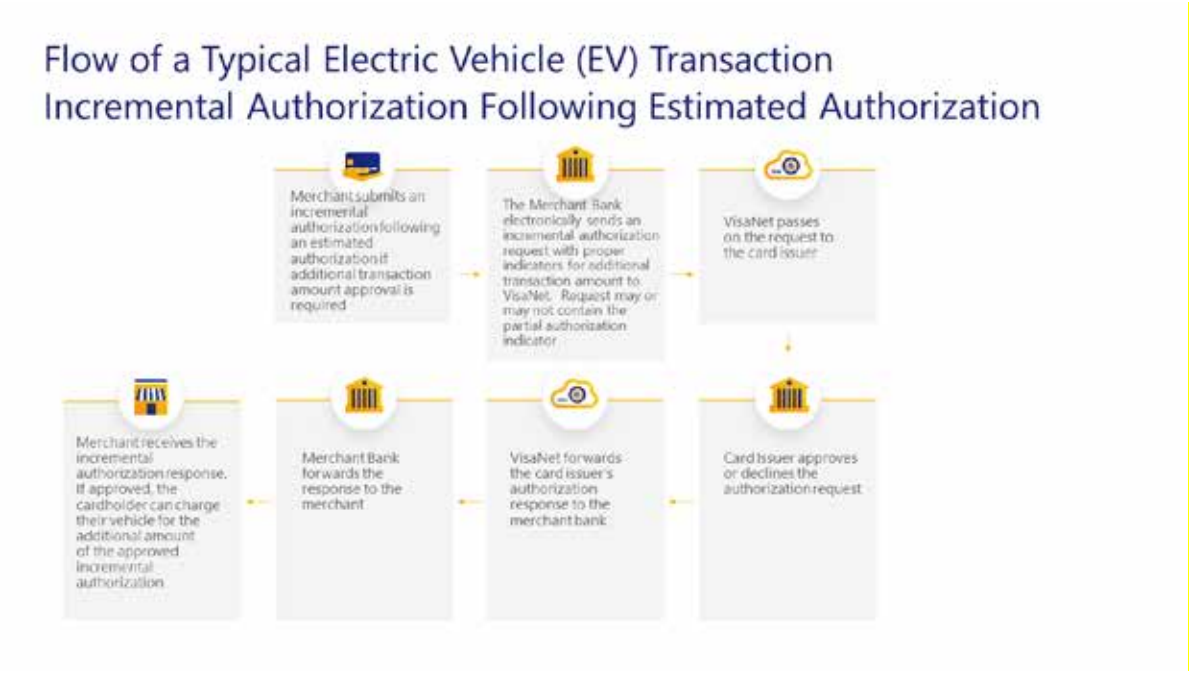


Figure L-3: Electric Vehicle (EV) Transaction Incremental Authorization Reversal

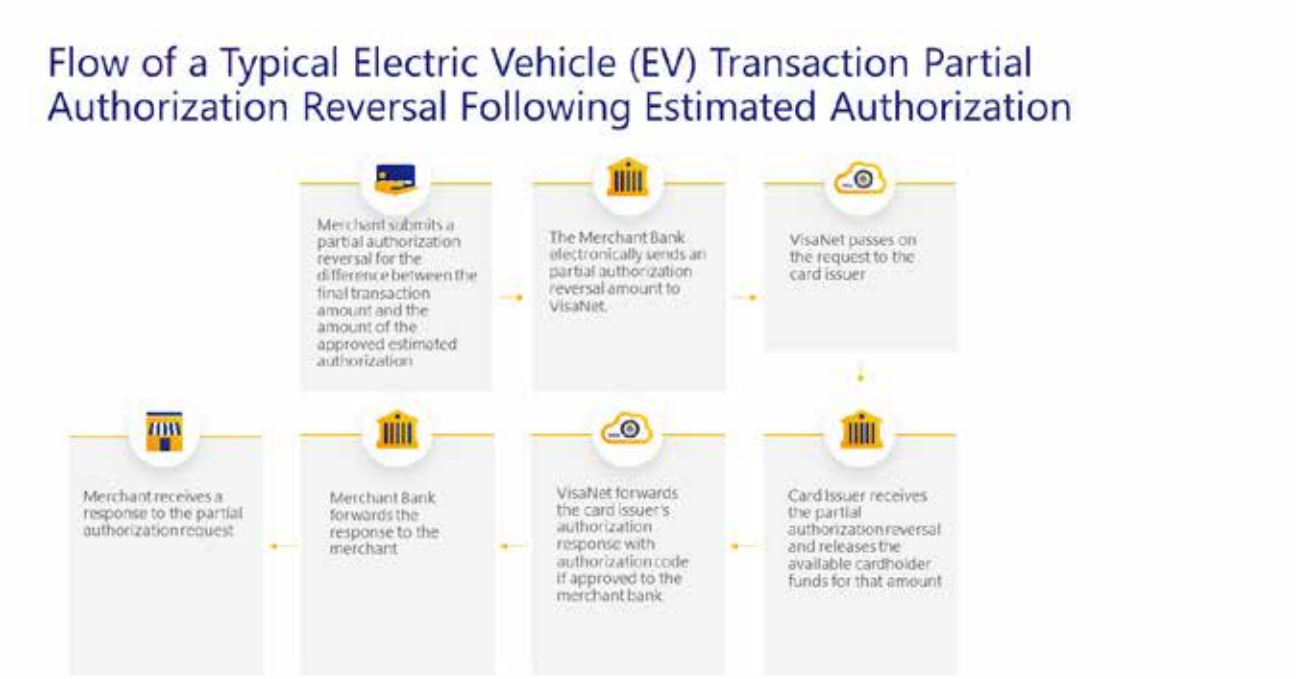


Figure L-4: Electric Vehicle (EV) Exact Amount Clearing & Settlement

Note: For EV we do not require a 0120 confirmation advice. The EV enhanced data can be provided as part of the Transaction Authorization or the Transaction Partial Authorization Reversal.

Appendix M: Implementation Plans þ

The following tables represent examples of the steps you might consider taking to implement your Visa Fleet Card solution. For easier reading, an Excel file containing the tables is provided as an attachment to this document. The Excel file is available in the Attachments pane, located at the left of the PDF window. Double-click the attachment to open the Excel file.

Table M-1: Issuer Implementation Plan

Issuer Implementation Plan - Fleet 2.0				
Task No.	**Task Name**	**Owner**	**Timeframe**	**Comments**
A	**Business Items:**			
A.1	Determine overall objectives and business goals for the Issuer's Fleet Program			
A.2	Determine the target Clients and the sales strategy and channel to obtain business			
A.3	Identify card capabilities, benefits, and program offerings that the Issuer will support			
A.4	Outline the platforms (Processor and Issuer specific) that will be used to support this program. Include any downstream files or system processing test that need to be conducted when doing the testing below for the card activity			
A.5	Identify the exact standard card product offerings will be part of this process (statements, reporting, websites, discounts, tax information, etc.)			
A.6	Identify BINs and Numerics (card ranges) to be used			
A.7	Define card design, card personalization (Client or Issuer specific), and production process to order and create cards (along with the platforms and tools required for this effort)			
A.8	Determine payment terms, underwriting, collections, and fees			
A.9	Map out a high-level Issuer project plan, including timeframe to prepare/develop/launch and assess the success of the card program			
A.10	Contact your Visa representative for specific teams to support (account management, implementation, etc.)			
A.11	Get a new Visa BIN if that is your selected Issuer approach:			
A.11.1	BIN Licensing Agreement for a new BIN			
A.11.2	Incorporate all rules and regulations governing BIN Licensing and Administration, as defined in the [VCR]			
B	**Chip Pre-Work Items:**			
B.1	Include the BIN information on the U.S. VSDC Client Information Questionnaire (CIQ). Complete and submit it to Visa. The Issuer Processor CIQ will be required for PCR updates. Complete and submit the Key Conveyance Form that will be used to establish or change translation of Working Keys			
B.2	Complete the Visa Chip Services enrollment via the Client Information Questionnaire (CIQ) and a signed participation agreement if enrolling to participate in Visa Chip Authenticate or iCVV Convert			
B.2.1	Determine which Visa Chip Services you will participate in			
B.3	Complete the Global Testing Questionnaire (testing for chip specifically)			
B.4	Issuer must have a Hardware Security Module (HSM) for cryptogram activities			
B.5	Create the Data Encryption Standard (DES) Keys			

Issuer Implementation Plan - Fleet 2.0				
Task No.	**Task Name**	**Owner**	**Timeframe**	**Comments**
B.6	Provide your keys to Visa on a Key Conveyance Form (or work with Visa to generate for you)			
B.7	Issuer to generate Master Derivation Keys (MDKs) – used to validate Cryptograms – at least one per BIN			
B.8	Regarding the processor, consider using the U.S. Processor Express program – it streamlines the chip implementation process:			
B.8.1	Use Predefined Profile or VPA to configure the Cards with standard chip data elements along with Fleet specifics:			
B.8.2	Ensure Profile includes:			
B.8.2.1	Visa Fleet Tags DF30 — Prompting			
B.8.2.2	Visa Fleet Tags DF32 — Purchase Restrictions			
B.8.2.3	Include ASPRD tag to identify a Fleet card			
C	**Execution Items:**			
C.1	Engage Visa Global Client Testing (GCT) team to plan and line up the project and testing timeframe for test transactions between VCMS and Issuer testing system			
C.2	Create a first batch of cards to test with:			
C.2.1	Internal tests between Issuer and VisaNet			
C.3	Cater for Chip related data elements in the online messages you will receive:			
C.3.1	Field 22 — POS Entry Mode			
C.3.2	Field 39 — Response Codes			
C.3.3	Field 60.2 — Terminal Entry Capability			
C.3.4	Field 44.8 — Card Authentication Results Code			
C.3.5	Field 60.3 — Chip Condition Code (Optional)			
C.3.6	Field 60.6 — Chip Transaction Indicator			
C.3.7	Field 60.7 — Card Authentication Reliability Indicator			
C.3.8	Field 23 — Card Sequence Number			
C.3.9	Field 55 — VSDC Data Elements			
C.3.10	For Fleet			
C.3.11	Field 48, Usage 36 — Purchasing Card Data			
C.3.12	Field 62.7 — Purchase Identifier			
C.3.13	TLV Field 104, Usage 2, Dataset ID 5C			
C.3.14	TLV Field 125, Usage 2, Dataset ID 6B			
C.4	Test with Visa Chip Team:			
C.4.1	Stream 1: Physical cards-chip/personalization testing			

Issuer Implementation Plan - Fleet 2.0				
Task No.	Task Name	Owner	Timeframe	Comments
C.5	Test with Visa Global Client Testing Team:			
C.5.1	Stream 2: Specific Authorization and Clearing message testing; business scenario transaction testing (BIN and Issuer setup and configured in VisaNet as prerequisite)			
C.6	Sign off on Stream 1 and Stream 2 testing for test cards			
C.7	Identify first set of production users			
C.7.1	Create first production batch of cards			
C.7.2	Do a friends and family pilot			
C.8	Controlled Production test			
C.8.1	Check AFD and C-Store integration			
C.8.2	Check Full Chip, Tag 57 Magstripe processing, fallback to Magstripe processing			
C.8.3	Check all data elements is prompted for			
C.8.4	Check all data elements is received in the online and in Clearing and Settlement messages			
C.8.5	Check processing system handles data correctly and that all file feeds and reports is correct (include downstream systems as needed)			
C.9	Validate Client statements, billing cycle and reporting works correctly			
C.10	Signoff production test			
C.11	Lessons learned			
C.12	Go Live			

Table M-2: Acquirer Implementation Plan

Acquirer Implementation Plan - Fleet 2.0				
Task No.	**Task Name**	**Owner**	**Timeframe**	**Comments**
A	**Acquirer Pre-Work Items:**			
A.1	Register a project with your Visa for Fleet 2.0 certification			
A.2	Determine if you will self-certify your Clients or utilize Visa GCT			
B	**Execution Items:**			
B.1	Acquirers need to perform VIP and Clearing and Settlement testing with Visa			
B.2	Acquirers need to test Merchant systems			
B.3	Ask for relevant LOA for Terminal Level 1 and Terminal Level 2 compliance from your Merchants			
B.4	Perform Acquirer testing as per Acquirer requirements. Include:			
B.4.1	VisaNet message testing			
B.4.2	VisaNet Clearing and Settlement testing			
B.4.3	Acquirers are responsible to create their own test data. A set of sample Test Scripts has been provided in the Visa Fleet 2.0 implementation guide for reference			
B.5	Cater for Chip related data elements in the online message:			
B.5.1	Field 22 — POS Entry Mode			
B.5.2	Field 39 — Response Codes			
B.5.3	Field 60.2 — Terminal Entry Capability			
B.5.4	Field 44.8 — Card Authentication Results Code			
B.5.5	Field 60.3 — Chip Condition Code (Optional)			
B.5.6	Field 60.6 — Chip Transaction Indicator			
B.5.7	Field 60.7 — Card Authentication Reliability Indicator			
B.5.8	Field 23 — Card Sequence Number			
B.5.9	Field 55 — VSDC Data Elements			
B.6	Cater for Fleet related data elements in the online message			
B.6.1	Field 48, Usage 36 — Purchasing Card Data			
B.6.2	Field 62.7 — Purchase Identifier			
B.6.3	TLV Field 104, Usage 2, Dataset ID 5C			
B.6.4	TLV Field 125, Usage 2, Dataset ID 6B			
B.6.4.1	Ensure Purchase Restrictions Flag Tag '0D' correctly reflects the Merchants and your capability to process Host-Based Purchase Restrictions			
B.6.4.2	Cater for Host-Based Purchase Restrictions, Tag '0E' being returned on the 0110/0210 response message. Return to merchant			
B.7	Merchant testing — special attention to:			
B.7.1	Prompting data elements — ensure data correctly prompted for on terminal			
B.7.2	Purchase Restriction – Chip Based and Host-Based Purchase Restrictions must be catered for and tested for correct application on the Merchant POS solution			
B.7.3	Ensuring data elements sent from the Merchant to Acquirer is correct and forwarded correctly to Visa			

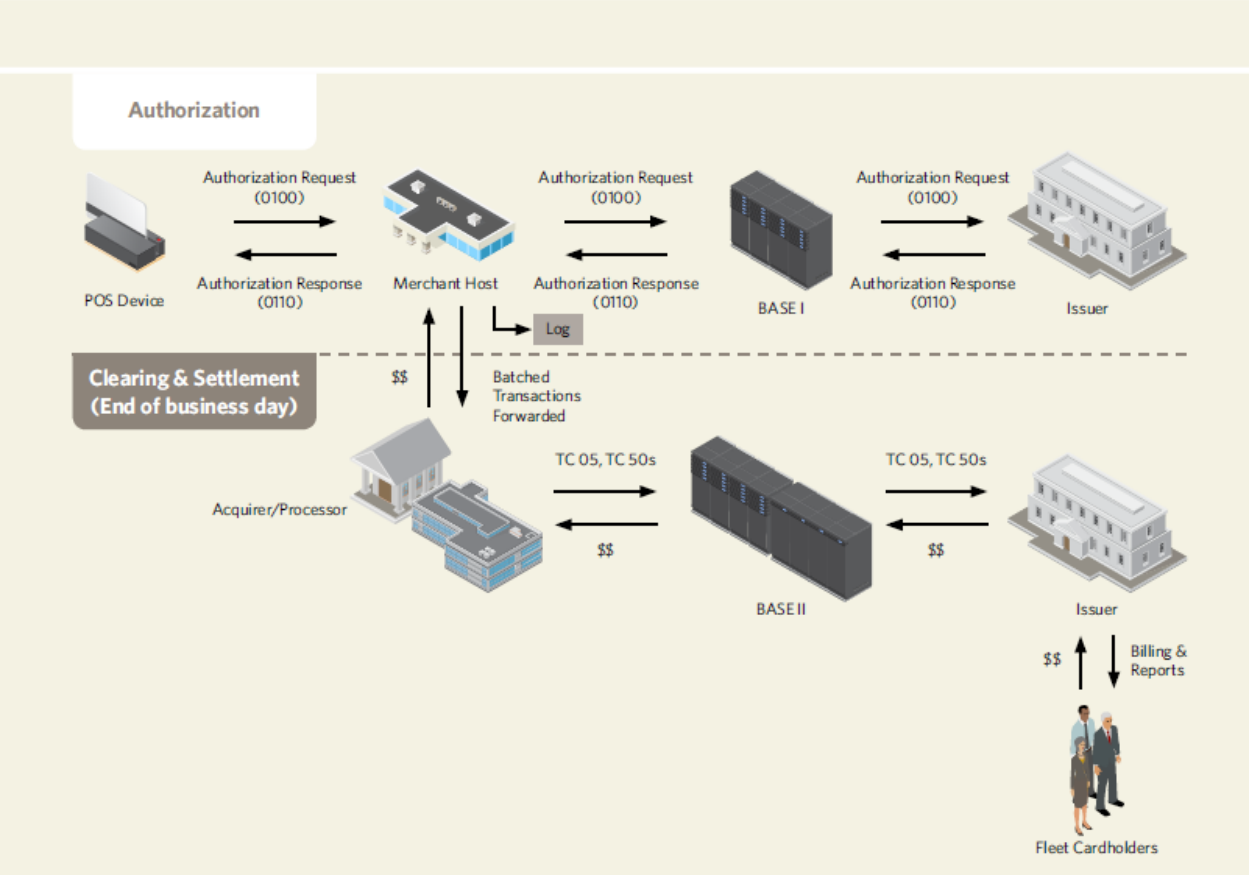
Table M-3: Merchant Implementation Plan

Merchant Implementation Plan - Fleet 2.0				
Task No.	**Task Name**	**Owner**	**Timeframe**	**Comments**
A	**Merchant Pre-Work Items**			
A.1	POS system must be enhanced by your vendor to cater for the Fleet 2.0 (VFCE – Visa Fleet Enhancement Specifications)			
A.2	Register a project with your Acquirer for the Fleet 2.0 certification			
A.3	Acquire LOA for Terminal Level 1 and Terminal Level 2 compliance and submit to your Acquirer			
B	**Execution Items:**			
B.1	Perform Acquiring testing as per Acquirer requirements. Include:			
B.1.1	Level 3 POS testing			
B.1.2	Acquirer message testing			
B.1.3	Acquirer Clearing and Settlement testing			
B.2	When testing, pay special attention to:			
B.2.1	Full Chip			
B.2.1.1	Prompting Tag 'DF30'			
B.2.1.2	Purchase restriction Tag 'DF32'– Chip Based and Host-Based Purchase Restriction			
B.2.2	Tag '57' Magstripe equivalent cards			
B.2.3	Fallback to Magstripe testing			
B.2.4	Test for correct prompting			
B.2.5	Include prompted data elements in online messages as well as Clearing and Settlement fields			
B.2.6	Ensuring data elements sent to the Acquirer correctly			
	It is recommended to use the VMCP test app, as it includes all Visa Fleet test cards as well as ADVT and CDET test packs. Alternatively test suites from Test Tool provided can be utilized			

Appendix N: Legacy Magnetic Stripe Processing þ

Fleet transaction authorization processing for a Merchant host *with a direct connection to VisaNet* is illustrated in Figure N-1. The steps are described below.

Figure N-1: Transaction Processing for Merchant Host with a Direct VisaNet Connection



Note: VisaNet also supports a Full Service / Single Message System (SMS) flow that combines both authorization and clearing functions in a single message record.

1. The cardholder swipes a Visa Fleet card through a magnetic stripe reader. The POS device verifies it is a fleet card Issuing (ISO) BIN; if it is, the Merchant checks the last three positions of the magnetic stripe. Based on the service prompt in the magnetic stripe, the POS device may prompt the Cardholder for a six-digit numeric ID (Vehicle, Driver, or Generic), an odometer reading, or both. If the magnetic stripe cannot be read and the card number is manually entered, the POS device must prompt for an ID and the odometer reading.

   Note: Merchants that support product restrictions must read the Service Enhancement Indicator in the magnetic stripe to process the transaction. Merchants must decline transactions for purchases that are not allowed based on the value of the Service Enhancement Indicator (*0 = No Restriction; 1 = Only fuel and maintenance purchases are allowed; 2 = Only fuel purchases are allowed).*

2. The POS device routes an electronic authorization request message to the Merchant host that includes: (a) transaction type and amount; (b) merchant data; (c) full and unaltered track data; (d) Vehicle, Driver, or Generic ID; and (e) Odometer.
3. The Merchant host logs the authorization request and forwards it to the Acquirer, ensures that all required fields are included in the message, and the Acquirer forwards it to VisaNet. The message carries information to uniquely identify the transaction so the Issuer can describe the event on the Cardholder's statement.
4. VisaNet validates the integrity of the authorization request message, logs it, and routes it to the appropriate issuer.
5. The Issuer or an outside Processor authorizes the request. Authorization includes: (a) verifying the six-digit numeric Vehicle, Driver, or Generic ID; checking the transaction amount against the Cardholder's available balance; checking the daily activity limits; and (d) logging the approved authorization request for posting to the Cardholder's account.
6. The Issuer routes an authorization response through VisaNet (approved or declined) back to the Acquirer, who then sends it to the Merchant host. If the Merchant, Acquirer, and Issuer support Host-Based Purchase Restrictions, those restrictions can be returned as part of the response message for the Merchant/Acquirer to act upon.

   Note: When the VIP system sends a request message to an Issuer, it must receive a response message that contains correctly formatted data within the established timeframe. If these conditions are not met, the transaction is processed by VIP as a Stand-In Processor (STIP). Visa will not validate the Vehicle, Driver, or Generic ID in the authorization message.

7. The Merchant host logs the authorization response and forwards it to the POS so the transaction can be completed. The Merchant host validates that the POS device received and successfully processed the authorization response.
8. At the end of the business day, the Merchant processing system collects all transaction data and sends it in batch files to BASE II Clearing through the Acquirer or Processor.
9. The Acquirer or Processor creates applicable financial and non-financial records, including Draft Data TC 05s and Text Message TC 50s required for fleet transactions and routes them to the Issuer through BASE II Clearing.

   Note:

   - TC 05 and TC 50 record layouts are in Appendix E: Host System Changes for Fleet Data.
   - The Vehicle, Driver, or Generic ID and the Odometer reading must be included in the fleet clearing and settlement records.

Appendix O: DF30 / DF32 Magnetic Stripe Equivalent Values þ

Tag DF30 Prompting Calculator

Figure O-1: DF30 Magnetic Stripe Equivalent Values for Vehicle ID

Tag DF30 Prompting Calculator

*** If no prompting required, do not configure this data element. Max of 7 prompting elements allowed**
*** Update the Drop Down Selection fields in Yellow to configure the tag**

	Byte 1	Byte 2	Byte 3
Overall coding string binary	00010001	00000000	00000000
Overall coding string hex	11	00	00

Byte 1 Section: What do you want to prompt for?	Drop Down Selection		Binary	Hex
What prompt do you want?	Vehicle ID	00010	00010001	11
Is the value ***(Numeric/Alphanumeric)?***	Numeric	0		
Is the value Numeric or Alphanumeric ***(Optional/Mandatory)***?	Optional	0		
Is manual entry allowed?	Yes	1		

Byte 2 Section: Do you support an Separate Device for capturing this data element?	Drop Down Selection		Binary	Hex
What is the primary separate device you support, if any?	Not Used (indicates no device available)	0000	00000000	00
What is the secondary prmary device you support, if any?	Not Used (indicates no device available)	0000		

Byte 3 Section: Print on Receipt, Enter in the Clear and Code Table	Drop Down Selection		Binary	Hex
Do you want to print on this value on the Receipt?	No	0	00000000	00
Do you want to enter the value in the clear?	No	0		
Fleet Data, Part 2	Vehicle ID	00		
	RFU	0000		

Figure O-2: DF30 Magnetic Stripe Equivalent Values for Driver ID

Tag DF30 Prompting Calculator

*** If no prompting required, do not configure this data element. Max of 7 prompting elements allowed**
*** Update the Drop Down Selection fields in Yellow to configure the tag**

	Byte 1	Byte 2	Byte 3
Overall coding string binary	00100001	00000000	00000000
Overall coding string hex	21	00	00

Byte 1 Section: What do you want to prompt for?	Drop Down Selection		Binary	Hex
What prompt do you want?	Driver ID	00100	00100001	21
Is the value ***(Numeric/Alphanumeric)?***	Numeric	0		
Is the value Numeric or Alphanumeric ***(Optional/Mandatory)***?	Optional	0		
Is manual entry allowed?	Yes	1		

Byte 2 Section: Do you support an Separate Device for capturing this data element?	Drop Down Selection		Binary	Hex
What is the primary separate device you support, if any?	Not Used (indicates no device available)	0000	00000000	00
What is the secondary prmary device you support, if any?	Not Used (indicates no device available)	0000		

Byte 3 Section: Print on Receipt, Enter in the Clear and Code Table	Drop Down Selection		Binary	Hex
Do you want to print on this value on the Receipt?	No	0	00000000	00
Do you want to enter the value in the clear?	No	0		
Fleet Data, Part 2	Driver ID	00		
	RFU	0000		

Figure O-3: DF30 Magnetic Stripe Equivalent Values for Generic ID

Tag DF30 Prompting Calculator

*** If no prompting required, do not configure this data element. Max of 7 prompting elements allowed**
*** Update the Drop Down Selection fields in Yellow to configure the tag**

	Byte 1	Byte 2	Byte 3
Overall coding string binary	00001001	00000000	00000000
Overall coding string hex	09	00	00

Byte 1 Section: What do you want to prompt for?	Drop Down Selection		Binary	Hex
What prompt do you want?	Generic ID	00001	00001001	09
Is the value ***(Numeric/Alphanumeric)?***	Numeric	0		
Is the value Numeric or Alphanumeric ***(Optional/Mandatory)***?	Optional	0		
Is manual entry allowed?	Yes	1		

Byte 2 Section: Do you support an Separate Device for capturing this data element?	Drop Down Selection		Binary	Hex
What is the primary separate device you support, if any?	Not Used (indicates no device available)	0000	00000000	00
What is the secondary prmary device you support, if any?	Not Used (indicates no device available)	0000		

Byte 3 Section: Print on Receipt, Enter in the Clear and Code Table	Drop Down Selection		Binary	Hex
Do you want to print on this value on the Receipt?	No	0	00000000	00
Do you want to enter the value in the clear?	No	0		
Fleet Data, Part 2	Generic ID	00		
	RFU	0000		

Figure O-4: DF30 Magnetic Stripe Equivalent Values for Odometer

Tag DF30 Prompting Calculator

*** If no prompting required, do not configure this data element. Max of 7 prompting elements allowed**

*** Update the Drop Down Selection fields in Yellow to configure the tag**

	Byte 1	Byte 2	Byte 3
Overall coding string binary	00101001	00000000	11000000
Overall coding string hex	29	00	C0

Byte 1 Section: What do you want to prompt for?	Drop Down Selection		Binary	Hex
What prompt do you want?	Odometer	00101	00101001	29
Is the value ***(Numeric/Alphanumeric)?***	Numeric	0		
Is the value Numeric or Alphanumeric ***(Optional/Mandatory)***?	Optional	0		
Is manual entry allowed?	Yes	1		

Byte 2 Section: Do you support an Separate Device for capturing this data element?	Drop Down Selection		Binary	Hex
What is the primary separate device you support, if any?	Not Used (indicates no device available)	0000	00000000	00
What is the secondary prmary device you support, if any?	Not Used (indicates no device available)	0000		

Byte 3 Section: Print on Receipt, Enter in the Clear and Code Table	Drop Down Selection		Binary	Hex
Do you want to print on this value on the Receipt?	Yes	1	11000000	C0
Do you want to enter the value in the clear?	Yes	1		
Fleet Data, Part 2	Odometer	00		
	RFU	0000		

Tag DF32 Purchase Restrictions Calculator

Figure O-5: DF32 Magnetic Stripe Equivalent Purchase Options for Fuel Only

VISA Tag DF32 Purchase Restrictions Calculator

* If no purchase restrictions required, do not configure this data element
* Update the Drop Down Selection fields in Yellow to configure the tag

	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7	Byte 8
Overall coding string binary	01000111	11111111	00000000	00000000	00000000	00000000	00000000	00000000
Overall coding string hex	47	FF	00	00	00	00	00	00

Byte 1 Section: General	Drop Down Selection		Conexxus PSPC	Binary	Hex
Do you always want to: - **Host Based:** Use chip based purchase restriction only if online purchase restrictions is not returned/device offline - **Chip Based:** Always use chip based purchase restrictions	Host Based	0		01000111	47
Is Fuel Purchases Allowed	Fuel Allowed	1			
If Fuel supported, do you support: - **Fuel Category** (e.g. Gas, Diesel, etc.) or - **Fuel Grade** (e.g. Regular, Super, etc.)	Fuel Category	0			
RFU		00			
Do you allow Negative Transactions (Discounts, Coupons, Split Tender) **-Recommendation is that this is always allowed**	Yes	1	900-949		
Administrative (Taxes and Fees) **-Recommendation is that this is always allowed**	Yes	1	950-999		
Bulk (Packaged Fuels) – note that this includes container DEF	Yes	1	303, 600-624		

Byte 2 Section: Fuels - Only Configure if **Fuel Allowed** and **Fuel Category** set	Drop Down Selection		Conexxus PSPC	Binary	Hex
Dispensed Gasoline (including ethanol blends)	Yes	1	001-018, 025-031, 036-044, 064-066, 128, 301, 321-323, 330, 603	11111111	FF
Dispensed Diesel (including Biodiesel, DEF, Heating Oil)	Yes	1	019-021, 045-063, 067-070, 224, 600-602		
Dispensed Off-Road fuels	Yes	1	030-035, 304, 311, 320, 325-329, 600		
Dispensed Electric	Yes	1	308-310		
Dispensed CNG or LNG	Yes	1	022-024, 303, 331, 332		
Dispensed Kerosene	Yes	1	300, 302, 305-306		
Aviation Fuels	Yes	1	150-174		
Marine Fuels	Yes	1	225-249		

Byte 3 Section: Products/Services	Drop Down Selection		Conexxus PSPC	Binary	Hex
Vehicles Products/Services	No	0	100-149, 650-699	00000000	00
Aviation Products/Services	No	0	175-224		
Marine Products/Services	No	0	250-299		
Merchandise Products/Services	No	0	400-409		
Store Service	No	0	530-539		
RFU	RFU	000			

Byte 4 Section: Miscellaneous	Drop Down Selection		Conexxus PSPC	Binary	Hex
Tobacco	No	0	410-419	00000000	00
Alcohol	No	0	480-489		
Food	No	0	420-479, 490-509		
Lottery	No	0	510-519		
Money Order	No	0	520-529		
Health & Beauty Care	No	0	540-549		
General Publications	No	0	550-559		
Prepaid and Bill Pay (Secondary Network)	No	0	560-590		

Tag DF32 Purchase Restrictions Calculator

* If no purchase restrictions required, do not configure this data element
* Update the Drop Down Selection fields in Yellow to configure the tag

	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7	Byte 8
Overall coding string binary	01000111	11111111	00000000	00000000	00000000	00000000	00000000	00000000
Overall coding string hex	47	FF	00	00	00	00	00	00

Byte 5 Section: Miscellaneous	Drop Down Selection		Conexxus PSPC	Binary	Hex
Cannabinoid	No	0	700-719	00000000	00
RFU	RFU	0000000			

Byte 6-7 Sections: RFU			Binary	Hex
		00000000	00000000	00

Byte 8 Section: Gasoline Grades	Drop Down Selection		Conexxus PSPC	Binary	Hex
Regular Gasoline (including blends)	No	0	001, 006, 009, 011, 014, 016, 027, 038, 042, 064	00000000	00
Plus/Midgrade Gasoline (including blends)	No	0	002, 004, 007, 010, 012, 015, 017, 028, 037, 039, 043, 065, 328		
Super/Premium Gasoline (including blends)	No	0	003, 005, 008, 013, 018, 029, 038, 040, 044, 066, 329		
RFU		00000			

Figure O-6: DF32 Magnetic Stripe Equivalent Purchase Options for Fuel and Maintenance

VISA Tag DF32 Purchase Restrictions Calculator

* If no purchase restrictions required, do not configure this data element
* Update the Drop Down Selection fields in Yellow to configure the tag

	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7	Byte 8
Overall coding string binary	01000111	11111111	11100000	00000000	00000000	00000000	00000000	00000000
Overall coding string hex	47	FF	E0	00	00	00	00	00

Byte 1 Section: General	Drop Down Selection		Conexxus PSPC	Binary	Hex
Do you always want to: - **Host Based:** Use chip based purchase restriction only if online purchase restrictions is not returned/device offline - **Chip Based:** Always use chip based purchase restrictions	Host Based	0		01000111	47
Is Fuel Purchases Allowed	Fuel Allowed	1			
If Fuel supported, do you support: - **Fuel Category** (e.g. Gas, Diesel, etc.) or - **Fuel Grade** (e.g. Regular, Super, etc.)	Fuel Category	0			
RFU		00			
Do you allow Negative Transactions (Discounts, Coupons, Split Tender) -**Recommendation is that this is always allowed**	Yes	1	900-949		
Administrative (Taxes and Fees) -**Recommendation is that this is always allowed**	Yes	1	950-999		
Bulk (Packaged Fuels) – note that this includes container DEF	Yes	1	303, 600-624		

Byte 2 Section: Fuels - Only Configure if **Fuel Allowed** and **Fuel Category** set	Drop Down Selection		Conexxus PSPC	Binary	Hex
Dispensed Gasoline (including ethanol blends)	Yes	1	001-018, 025-031, 036-044, 064-066, 128, 301, 321-323, 330, 603	11111111	FF
Dispensed Diesel (including Biodiesel, DEF, Heating Oil)	Yes	1	019-021, 045-063, 067-070, 224, 600-602		
Dispensed Off-Road fuels	Yes	1	030-035, 304, 311, 320, 325-329, 600		
Dispensed Electric	Yes	1	308-310		
Dispensed CNG or LNG	Yes	1	022-024, 303, 331, 332		
Dispensed Kerosene	Yes	1	300, 302, 305-306		
Aviation Fuels	Yes	1	150-174		
Marine Fuels	Yes	1	225-249		

Byte 3 Section: Products/Services	Drop Down Selection		Conexxus PSPC	Binary	Hex
Vehicles Products/Services	Yes	1	100-149, 650-699	11100000	E0
Aviation Products/Services	Yes	1	175-224		
Marine Products/Services	Yes	1	250-299		
Merchandise Products/Services	No	0	400-409		
Store Service	No	0	530-539		
RFU	RFU	000			

Byte 4 Section: Miscellaneous	Drop Down Selection		Conexxus PSPC	Binary	Hex
Tobacco	No	0	410-419	00000000	00
Alcohol	No	0	490-489		
Food	No	0	420-479, 490-509		
Lottery	No	0	510-519		
Money Order	No	0	520-529		
Health & Beauty Care	No	0	540-549		
General Publications	No	0	550-559		
Prepaid and Bill Pay (Secondary Network)	No	0	560-590		

Tag DF32 Purchase Restrictions Calculator

* If no purchase restrictions required, do not configure this data element
* Update the Drop Down Selection fields in Yellow to configure the tag

	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7	Byte 8
Overall coding string binary	01000111	11111111	11100000	00000000	00000000	00000000	00000000	00000000
Overall coding string hex	47	FF	E0	00	00	00	00	00

Byte 5 Section: Miscellaneous	Drop Down Selection		Conexxus PSPC	Binary	Hex
Cannabinoid	No	0	700-719	00000000	00
RFU	RFU	0000000			

Byte 6-7 Sections: RFU			Binary	Hex
		00000000	00000000	00

Byte 8 Section: Gasoline Grades	Drop Down Selection		Conexxus PSPC	Binary	Hex
Regular Gasoline (including blends)	No	0	001, 006, 009, 011, 014, 016, 027, 038, 042, 064	00000000	00
Plus/Midgrade Gasoline (including blends)	No	0	002, 004, 007, 010, 012, 015, 017, 028, 037, 039, 043, 065, 328		
Super/Premium Gasoline (including blends)	No	0	003, 005, 008, 013, 018, 029, 038, 040, 044, 066, 329		
RFU		00000			

Figure O-7: DF32 Magnetic Stripe Equivalent Options for Open to All

VISA Tag DF32 Purchase Restrictions Calculator

* If no purchase restrictions required, do not configure this data element
* Update the Drop Down Selection fields in Yellow to configure the tag

	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7	Byte 8
Overall coding string binary	01000111	11111111	11110000	11111111	00000000	00000000	00000000	00000000
Overall coding string hex	47	FF	F0	FF	00	00	00	00

Byte 1 Section: General	Drop Down Selection		Conexxus PSPC	Binary	Hex
Do you always want to: - **Host Based:** Use chip based purchase restriction only if online purchase restrictions is not returned/device offline - **Chip Based:** Always use chip based purchase restrictions	Host Based	0		01000111	47
Is Fuel Purchases Allowed	Fuel Allowed	1			
If Fuel supported, do you support: - **Fuel Category** (e.g. Gas, Diesel, etc.) or - **Fuel Grade** (e.g. Regular, Super, etc.)	Fuel Category	0			
RFU		00			
Do you allow Negative Transactions (Discounts, Coupons, Split Tender) -**Recommendation is that this is always allowed**	Yes	1	900-949		
Administrative (Taxes and Fees) -**Recommendation is that this is always allowed**	Yes	1	950-999		
Bulk (Packaged Fuels) – note that this includes container DEF	Yes	1	503, 600-624		

Byte 2 Section: Fuels - Only Configure if **Fuel Allowed** and **Fuel Category** set	Drop Down Selection		Conexxus PSPC	Binary	Hex
Dispensed Gasoline (including ethanol blends)	Yes	1	001-018, 025-031, 036-044, 064-066, 128, 301, 321-323, 330, 603	11111111	FF
Dispensed Diesel (including Biodiesel, DEF, Heating Oil)	Yes	1	019-021, 045-063, 067-070, 224, 600-602		
Dispensed Off-Road fuels	Yes	1	030-035, 304, 311, 320, 325-329, 600		
Dispensed Electric	Yes	1	308-310		
Dispensed CNG or LNG	Yes	1	022-024, 303, 331, 332		
Dispensed Kerosene	Yes	1	300, 302, 305-306		
Aviation Fuels	Yes	1	150-174		
Marine Fuels	Yes	1	225-249		

Byte 3 Section: Products/Services	Drop Down Selection		Conexxus PSPC	Binary	Hex
Vehicles Products/Services	Yes	1	100-149, 650-699	11110000	F0
Aviation Products/Services	Yes	1	175-224		
Marine Products/Services	Yes	1	250-299		
Merchandise Products/Services	Yes	1	400-409		
Store Service	No	0	530-539		
RFU	RFU	000			

Byte 4 Section: Miscellaneous	Drop Down Selection		Conexxus PSPC	Binary	Hex
Tobacco	Yes	1	410-419	11111111	FF
Alcohol	Yes	1	480-489		
Food	Yes	1	420-479, 490-509		
Lottery	Yes	1	510-519		
Money Order	Yes	1	520-529		
Health & Beauty Care	Yes	1	540-549		
General Publications	Yes	1	550-559		
Prepaid and Bill Pay (Secondary Network)	Yes	1	560-590		

Tag DF32 Purchase Restrictions Calculator

* If no purchase restrictions required, do not configure this data element
* Update the Drop Down Selection fields in Yellow to configure the tag

	Byte 1	Byte 2	Byte 3	Byte 4	Byte 5	Byte 6	Byte 7	Byte 8
Overall coding string binary	01000111	11111111	11110000	11111111	00000000	00000000	00000000	00000000
Overall coding string hex	47	FF	F0	FF	00	00	00	00

Byte 5 Section: Miscellaneous	Drop Down Selection		Conexxus PSPC	Binary	Hex
Cannabinoid	No	0	700-719	00000000	00
RFU	RFU	0000000			

Byte 6-7 Sections: RFU			Binary	Hex
		00000000	00000000	00

Byte 8 Section: Gasoline Grades	Drop Down Selection		Conexxus PSPC	Binary	Hex
Regular Gasoline (including blends)	No	0	001, 006, 009, 011, 014, 016, 027, 038, 042, 064	00000000	00
Plus/Midgrade Gasoline (including blends)	No	0	002, 004, 007, 010, 012, 015, 017, 028, 037, 039, 043, 065, 328		
Super/Premium Gasoline (including blends)	No	0	003, 005, 008, 013, 018, 029, 038, 040, 044, 066, 329		
RFU		00000			

Appendix P: USA PATRIOT Act

In response to the requirements outlined in Section 352 of the *USA PATRIOT Act*, Visa provides the following information for bank use and assistance regarding banks' anti-money laundering and/or terrorist-financing efforts as they pertain to Visa payment products, including PLUS and Interlink.

Visa has an anti-money laundering program reasonably designed to prevent the use of the Visa system to launder money or to finance terrorist activities. In light of the enhanced bank due-diligence and "know your customer" requirements of the USA PATRIOT Act, it is Visa's policy to make reporting recommendations for bank consideration and use.

Although it is the financial institution's responsibility to comply with the anti-money laundering provision of the USA PATRIOT Act, the Bank Secrecy Act, and OFAC, Visa recommends the implementation of reporting mechanisms (shown in Table P-1) to help detect and prevent money laundering and/or terrorist financing through the use of Visa payment products, including PLUS and Interlink.

Table P-1: Recommended Reporting Mechanisms Supporting USA PATRIOT Act

Area of concern	Description
Large-dollar transactions	Reports monitoring individual or aggregated large-dollar transactions.
Suspicious or terrorist activity	Reports monitoring of suspicious and/or terrorist activity. Indicators and vulnerability areas include: · Lack of separation of duties between the card issuing and PIN issuing functions · Poor control of un-issued cards and PINs · Poor control of returned mail · Increase in customer complaints on lost or stolen cards · Poor control of credit limit increases · Poor control of name and address changes · Frequent malfunctions of payment authorization system · Long delays in card and PIN receipts by customers · No limiting of amount of cash customers can extract from ATMs in a given day
Account manipulation and consolidation	Reporting detecting possible manipulation and consolidation of accounts.
Improper transactions	Reporting allowing for scrutiny of transactions outside normal deposits and withdrawals.

Area of concern	Description
Inconsistent or unusual dollar amounts	Reports detecting possibly inconsistent or unusual dollar amounts.
Countries known to be sources of narcotics	Reports identifying transactions occurring in countries that are known sources of narcotics according to the U.S. State Department.
Countries known to be uncooperative or ineffective in controlling money laundering	Reports identifying transactions occurring in countries found to be uncooperative or ineffective in controlling money laundering as published by the Financial Action Task Force (FATF).
Countries known to harbor terrorist organizations	Reports identifying transactions occurring in countries known to harbor terrorist organizations.

Appendix Q: Frequently Asked Questions

This list of Frequently Asked Questions is a living document. Additional questions may be added based on support inquiries to the Visa Fleet team.

Visa Fleet FAQs þ

How/when does Visa assess its currency conversion fee for a cross border transaction? Is it strictly when the original currency and the source currency are different and, therefore, needs to be converted? Or is it a cross border fee when the merchant company does not have the same country code as the issuer?

Issuers will be assessed ISA when the following conditions are met:

- Issuer country must be different from the Merchant country
- Transaction currency = Any valid currency
- Cardholder billing currency = Any valid currency

Exceptions to ISA Processing

The ISA processing rule will not apply to the following international transactions:

- Card type = Visa Commerce
- Transaction type = Cardholder Funds Transfer
- All transactions with the Issuer Country and Merchant Country combinations listed in the following table:

Issuer Country	Merchant Country	Comments
Any Visa Europe country	Any Visa Europe country	CEMEA ISA processing rules currently apply to Issuers from the eight New Member States in Visa Europe. All Visa Europe Issuers will be subject to the ISA processing rules for interregional transactions.
Puerto Rico (PR)	US Us Virgin Islands (VI)	
US	Puerto Rico (PR) US Virgin Islands (VI)	

Issuer Country	Merchant Country	Comments
US Virgin Islands (VI)	Puerto Rico (PR) US	
Puerto Rico (PR) **US** **Us Virgin Islands (VI)**	American Samoa (AS) Guam (GU) Marshall Islands (MH) Northern Marianna Islands (MP) Palau (PW) US Minor Outlying Islands (UM)	Exception only applies to single-currency transactions where the transaction currency is the same as the cardholder billing currency. ISA will apply to transactions where the transaction currency is different from the cardholder billing currency.

Note: Transactions from U.S. military bases are designated with a merchant country of U.S. Therefore, if the Issuer BIN is designated as US, ISA will not apply.

Will Issuers receive a TC 05 - TCR 3 data for all fuel (MCCs 4468, 5499, 5541, 5542, and 5983) Merchants, regardless of the Visa Fleet 1.0 or 2.0 spec?

For Fleet 2.0 you should receive a TCR3 business format code FT. You should receive it definitively for 5541 / 5542. The other 3 MCCs are emerging and will take time to adhere to the requirement – it depends on the Merchant/Acquirer platform and processes, as we have pushed Fleet 2.0, we have required them to send it for all 5 MCCs.

What TC50's will we receive with Fleet 2.0?

Re TC50s, per the Fleet Implementation Guide, Chapter 4 . You will ONLY receive TC50 TCR 0 data with the following **Purch A / Purch L Service Identifiers** for Level 3 data.

Specifically for the Purch L – line item record, it can handle a large amount of non-fuel items, it is approximately 999 line items. Keep in mind – if Acquirers send in a Fuel and Non-Fuel combination on a transaction – you should get TC50 Purch L line items for both (fuel and non-fuel) in that scenario.

What taxes for fuel are passed on fleet transactions in the US Region?

Taxes for fuel are part of the Unit Cost in the U.S. Fuel merchants do not send reliable fuel tax data, Visa utilizes NECS for public sector clients who require Fuel Tax Calculation and Recovery.
The one field that we see some data in is: Local Tax Amount / Local Tax CD, however this is not correct all-encompassing tax data. (TCR 6 Local Tax Amt & Local Tax Included field). Taxes are not passed on the non-fuel TC50 Purch A & Purch L (line items).

How do merchant discounts currently get passed on fleet transactions in the US Region?

The current VisaNet records for Fleet/Fuel do not support merchant discounts holistically with all the details required for proper and complete discount information. Visa is working on a future project to ensure Fuel merchant discounts are correctly supported for both merchants and Issuer/FinTechs.

How should toll transactions be handled with Fleet 2.0?

For Fleet Cards only, transactions for MCC 4784 (for tolls, bridge fees, etc.), the following process could be followed:

- Tolls is a non-fuel product type code, there is already a Conexxus code defined for it: Connexus code: 659 (Toll Payments) -> Visa Code: P1
- Per our Fleet 2.0 Guide, you would do the following:
  - Indicate on the VIP message portion of the transaction, the Non-Fuel Product Code (fields are under Field 104 Dataset 5C: 1F01 – 1F08) for tolls
  - Indicate this code on the BASE II TC05 TCR6 using one of the Non-Fuel Product Codes 1 – 8 (starting position 128)
  - Ensure the non-fuel price fields are properly updated/reflected on the TCR 3 FT format for the toll values
  - Ensure a TC50 Purch A and Purch L record (line item detail) is sent with the correct sequencing of the line item to the Non Fuel Product Code number
    - If you use Non-Fuel Product Code 1 then your Purch L line item detail must be aligned as line item 01
    - On your Purch L (line item detail) ensure item commodity code reflects this same Non-Fuel Product Code value of “P1”

Note: Toll Merchants are not mandated to implement Fleet 2.0 requirements, and can optionally implement these requirements

What commodity codes must a merchant fill out with Fleet 2.0?

The commodity code on the TC50 Purch L (line item detail) must be filled out with the Visa non-fuel product code for a non-fuel product line item. The summary commodity code on the TCR 6 is an optional field that can be used by a region if they choose to do so but is not required by the Fleet 2.0 solution.

My new Fleet program and Fleet cards are allowing the purchase of products that should not be purchased, such as vending machines, restaurant dinners, and so on. How can I control that?

The Fleet 2.0 chip card has purchase restrictions on the DF 32 tag, however Fleet processing is only mandated for certain POS devices at specific Merchant MCCs (AFD 5542, C-Store 5541, General Stores 5499, Fuel Dealers 5983, and Marinas 4468).

Issuers/Processors should evaluate specific MCC controls on their processor systems to augment controls for certain MCC spending.

My Fleet card is being declined at the pump and I have to go in store, why?

There could be a number of scenarios why this is occurring, for example (but not limited to):

- The merchant AFD POS systems may not be properly set up for a Fleet Card and are having issues processing the card.
- The chip restrictions do not permit this product to be purchased at AFD.
- It's possible that there was a non-match response from the issuer for AVS (address verification service) ZIP code prompting.
- The Fraud Scoring processes have flagged this particular transaction to be done from in the store. Briefly, Visa assigns a fraud (VAA) score to every transaction. This is always sent to issuers to help with their authorization approve/decline decision. In the case of AFDs, merchants set a fraud score threshold (called VTA) such that if a non-PIN magstripe, MSD or App transaction's fraud score exceeds this threshold, e.g. 30 then a '19' authorization response is sent back to the merchant who usually interprets this decline response code at the AFD to "See attendant" or a similar message to direct the cardholder inside to complete the transaction.
- The card has been used a number of times at the same station within a certain time period, causing Velocity checks to flag potential fraud and the transaction must be completed inside the store.

My Fleet card is being declined in the store, why?

There could be a number of scenarios why this is occurring, for example (but not limited to):

- The merchant In-Store POS systems may not be properly setup for a Fleet Card and is having issues processing the card.
- The chip restrictions do not permit this product to be purchased in the Store.
- The card has been used a number of times at the same station within a certain time period, causing Velocity checks to flag potential fraud in the Store as well.

My Fleet card prompts don't seem to work at the AFD and In-store, why?

There could be a number of scenarios why this is occurring, for example (but not limited to):

- - The merchant AFD or In-store POS may not be properly setup for Fleet Cards (Fleet Bin or ASRPD tag) and/or proper prompt handling (DF30).
- - The chip card itself may have an issue with how the DF30 prompting tag has been coded.

Does Visa support enhanced data for EV type transactions?

Visa Fleet is working on a future project to support/provide specific enhanced data fields for EV transactions on a fleet card in a post-pay model (after charging, send transaction) or open loop model (authorize for charging, send clearing portion for transaction after charge is complete). A pre-pay (wallet top up model) does not have enhanced data flowing at time of transaction – the transaction is just to top up the wallet funds.

Does Visa support mobile payment with a Fleet card loaded in a wallet?

A Fleet card can be loaded in a wallet today to support payment for that transaction however no proper purchase restrictions or prompting information is present and actioned, it is just a payment process via that card / token.

Visa Fleet is working on a future project to support the specific data tags for restrictions and prompting to be present and passed in a mobile payment from a phone (NFC) at an AFD or In-Store.

What tools are available for testing fields/records with VisaNet?

Fleet 2.0 test scripts have been developed for both Issuers/Processors AND Merchants/Acquirers to thoroughly test out Fleet 2.0 specifications / fields / capabilities for VisaNet transactions.
External parties should work with their regional client testing teams to submit requests and schedule/execute testing activities for their systems.

How can I test my POS with Visa tools?

Visa provides L3 testing scripts.

Visa EMV-compliant L3 Test Set Files (Build-012 or higher) (use the EMV-Qualified and Visa-Confirmed L3 Test Tools list to locate a test tool vendor).

Refer to section 5.3 Merchant Testing, of the Visa Fleet 2.0 Implementation Guide.

The following table outlines the steps required to perform L3 testing.

Step	Description	Details
1.	**Test Tool**	Obtain a test tool from a vendor or work with your existing vendor (if applicable) to get access to the **Visa EMV-compliant L3 Test Set Files (Build-012 or higher) (use the** EMV-Qualified and Visa-Confirmed L3 Test Tools list to locate a test tool vendor).
2.	**Terminal and Environment Set Up**	Configure terminal for deployment and set up environment. L3 testing should mirror production as closely as possible and include all relevant merchant and acquirer systems. Set up includes configuring systems with the Fleet test BIN **448558** and connecting to VCMS or a Visa confirmed host simulator (use the EMV-Qualified and Visa-Confirmed L3 Test Tools list to locate a host simulator vendor, if applicable).
3.	**L3 Testing**	Use the L3 test tool to perform L3 testing. This testing is self-administered and does not require Visa involvement. For a Fleet solution, there will be general test cases as well as Fleet-specific ones and the test cases include both contact and contactless tests.
4.	**Test Results**	Submit test results to Visa using the Chip Compliance Reporting Tool (which is accessible on Visa Online). The test tool that the acquirer uses to perform L3 testing will be able to generate a report with test results (called a .tsez file) which can be uploaded to the Chip Compliance Reporting Tool (CCRT). When all tests are successful, the test report is automatically accepted by the Chip Compliance Reporting Tool and L3 testing is completed.

What is the process to Report Fleet related problems or Data Quality Issues such as missing data, incorrect auth data, no prompting, purchase restrictions not enforced, POS error messages, and so on?

Any party that experiences data quality issues are asked to contact their Visa representative. Your Visa representative will bring in the appropriate individuals to help research and solve the issue. Include information such as merchant group and location as well as a description of what was observed or what went wrong.

Can a PIN be set-up on a Fleet Card and is that normal practice?

The traditional "PIN" referred to by closed loop fleet providers is on most cases a Vehicle ID/Driver ID/ Generic ID.

A traditional offline PIN or online PIN as supported by EMV can be supported by Visa on credit or debit rails, but most AFD's in the US will default to processing a credit card transaction without a PIN. Several legacy credit card acquirers do not cater for the handling of PIN in the AFD environment. It is highly recommended to not enforce PIN processing on a Fleet Credit Card in the US. Please contact your Visa representative for a more detailed discussion.

As an SMS issuer, can you receive Level 2 data via the 0220 Full-Service Completion Message?

You can receive L2 data via the 0220 Full Service Completion Message. See Figure 2-4: Updated Data Requirements in this guide, which outlines this capability (2nd column, all the rows above the TC50 Invoice line are considered L2 data).

Can we receive Level 3 data through a file transfer? If not, what methods are available to receive Level 3 data?

There are 2 options for Level 3 data:

Option 1:

SMS Issuers don't normally cater for the BASE II clearing system and clearing files. Some SMS Issuers have adjusted to cater for receiving these files which contain the TC50 Level 3 data. They make changes to support obtaining this information given the criticality and timeliness of it for their clients. The TC50 data of interest are 2 records which are TC50 Invoice Level Data: Header & Summary (called PurchA) and Line-Item Detail (called PurchL). Work with your Visa Account Manager to arrange for receiving this file (we are not the VisaNet team), along with timing/process from the VisaNet BASE II system. Attached is the specifications for TC50s (PurchA page 56 and PurchL page 69)

Option 2:

The data can also be provided by the VBS Data Platform, this is currently an outbound file only process (no API), there are however implications re effort/timing/costs for using this service:

1. The Bin Sponsor must be the only entity setup in the data platform – each Bin Sponsor (for you as a processor would have to be setup), sign an enrollment form, agree to certain tasks required to support the data effort for clients.
2. Costs for this setup are: $12K one time implementation fee; .06c transaction OR $3K monthly min for any outbound data sent out of the data platform to any endpoint. This cost would be billed automatically to the Bin Sponsor, you would have to arrange/agree with the Bin Sponsor on these costs.
3. The timing for the data is typically targeted at 5-7 days (after transaction date) to be sent, this is because:
    a. Level 3 TC50 data is sent by the Acquirer 24-48 hours after the transaction as separate data (not part of L1/L2 data with the transaction)
    b. Next, it has to be brought into the data platform from VisaNet, processed and then sent out to the outbound end point
4. Discussion and configuration of how the card accounts would be provided to obtain the data from VisaNet into the data platform must take place, currently there are 3 options:
    a. Send a file of card accounts on a regular basis (to allow for moves/adds/changes to card accounts)
    b. Register each card account 1 by 1 via a specific self-registration web page
    c. Configure the system to subscribe an entire BIN – this requires special work/time with the Visa Development team to do this configuration
5. Note, all the requirements for sending data with Fleet 2.0 are with using the Visa Fleet Card solution. Merchants and Acquirers are mandated to send the data for this card product as part of Visa Rules.

6. Any other card product (such as debit) do not have these requirements, merchants may send for interchange breaks, but you do not see this type of data on these cards.

What is different between a Fleet chip profile and my other chip profiles?

The following changes must be made

- MSD support must be switched off
- Tag “9FOA” ASRPD must be present
- Tag “DF30” Prompting must be added to chip profile. The tag will only be present if you will be prompting
- Tag “DF32” Purchase restriction must be added to chip profile. Only present if you add purchase restrictions

Do I have to re-issue all my existing cards in the market to be compliant with Fleet 2.0 requirements?

Cards already in the market can be swapped out as part of your card replacement strategy, however all new cards MUST be Fleet 2.0 cards

Is it only new Fleet programs that must be Fleet 2.0?

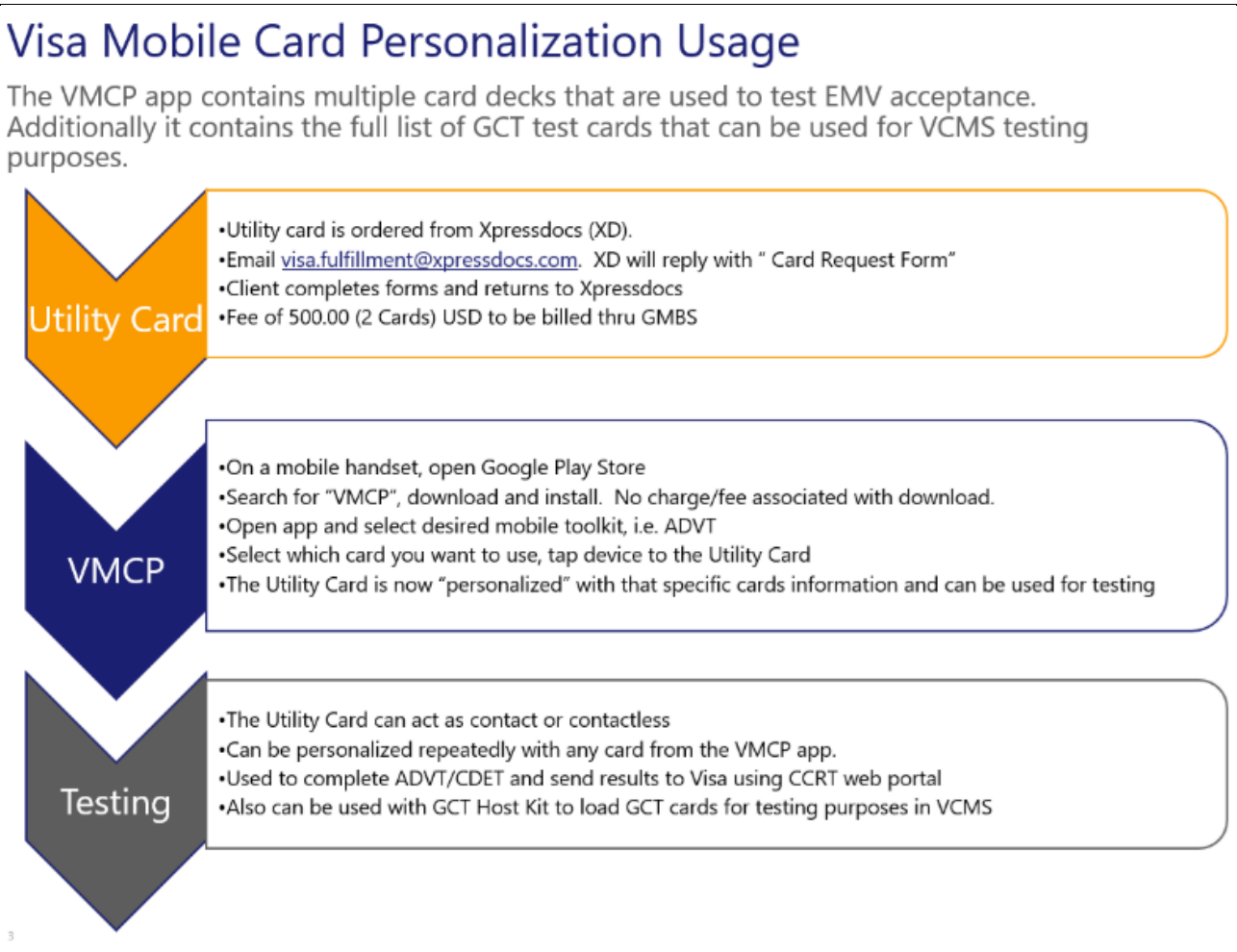
All existing Fleet programs MUST be converted to Fleet 2.0. Any new cards released must be Fleet 2.0 compliant cards

How can I get test cards?

There are 2 methods of getting test cards:

- **VMCP test cards** – (Should only be used for internal testing and Host Certification with GCT)
- **Visa EMV-compliant L3 Test Set Files (Build-012 or higher) (use the** EMV-Qualified and Visa-Confirmed L3 Test Tools list to locate a test tool vendor).

Information on ordering and using the VMCP App	
VMCP Billing and Fulfillment Instructions on how to order the kit à	vmcp-utility-card-billing-and-fulfillment.pdf
VMCP Download Installation & Instructions - à	VMCP App Download Installation and Instru



A project will need to be registered via your AM/AE with GCT. They can guide you through the process.

Can a Merchant or Acquirer select not to support Fleet changes?

A Merchant must prompt and pass the data to Visa, see below extracts from the Visa Rules.

5.8.14.2 Visa Fleet Card Merchant Requirements – US Region

In the US Region: A Merchant that accepts a Visa Fleet Card must both:

- Prompt the Cardholder to provide the data required by the service prompt indicator
- Pass complete and accurate prompt-input data with the Visa Fleet Card Enhanced Data

ID# 0027525 Edition: Oct 2021 | Last Updated: Oct 2014

This old requirement is enhanced to now move to Fleet 2.0 as a mandate from 23 April 2022:

Effective 23 April 2022 Data elements must be printed according to the setting in DF30, prompting the data element tag and purchase restrictions as per tag FD32 must be applied. The additional prompted data elements per Issuer must comply with applicable requirements specified in the *Visa Fleet Card 2.0 Implementation Guide*

In the US, Enhanced data must be sent for Fleet:

7.4.11.2 Visa Fleet Card Enhanced Data Requirements – US Region

In the US Region: A Merchant that accepts a Visa Fleet Card must provide Enhanced Data for Visa Fleet Card Transactions classified with any of the following MCCs:

- 4468 (Marinas, Marine Service, and Supplies)
- 5499 (Miscellaneous Food Stores – Convenience Stores and Specialty Markets)
- 5541 (Service Stations)
- 5542 (Automated Fuel Dispensers)
- 5983 (Fuel Dealers – Fuel Oil, Wood Coal, and Liquefied Petroleum)

An Acquirer that processes Visa Fleet Card Transactions must provide both Cardholder-supplied data and supplemental Transaction data for these Transactions.

ID# 0027524 Edition: Oct 2021 | Last Updated: Oct 2021

In the Appendix it refers to the following 2 documents as the guide for what needs to be done:

- Visa Fleet Card 2.0 Implementation Guide
- Visa Fleet Chip Enhancements

Appendices

Appendix A

Visa Core Rules and Visa Product and Service Rules

Title	Applicable in Visa Region:
Data Framework for Visa Services – Europe Region	Europe
Data Transfer Framework for Visa Services – Europe Region	Europe
PSD2 Strong Customer Authentication for Remote Electronic Transactions – European Economic Area and United Kingdom	Europe
V PAY Card and Acceptance Device Technical Specifications	Europe
Visa Delegated Authentication Program Implementation Guide	Europe
Visa Digital Commerce Program Data Privacy and Security Terms and Role Requirements	All, where available
Visa Digital Solutions API Reference Guide	All, where available
Visa Fleet Card 2.0 Implementation Guide	US
Visa Fleet Chip Enhancements	US

Customer Code/Customer Reference Identifier (CRI)

Conditional, if Card is configured to prompt for Fleet ID (Vehicle ID, Driver ID, or Generic ID)

- Must provide the value entered by Cardholder
- Visa standard recommends all numeric (due to current POS keypad limitations, Issuers should use only Numerics for Vehicle or Driver or Generic identification)
- The "ID"/data must be left justified. Unused positions of the field should be space-filled
- Otherwise leave blank
- Legacy Fleet advised acquirers to populate this field with a value of '0"=ID not prompted.

This field has unfortunately been extensively abused to manipulate the system to provide lower interchange to Merchants.

The Level 2 interchange was provided as incentive for Merchants to perform the additional work/development to capture the additional information to the Issuer of this card. As capture of this data is mandatory and merchants will not comply if prompted values is not captured and provided to the issuer, a change will be made in the future to remove this fields as a required field to obtain Level 2 interchange. Currently however this field is still required, even though not all issuers of fleet solutions will capture require that it be captures.

As an interim solution until the oversight in interchange can be addressed, we will allow merchants/acquirers to set the CRI in clearing to “0”=ID not prompted only in the cases where the terminals is fully capable of prompting but no prompt is requested by a specific card. This field MAY NOT be defaulted to “0” for non-compliant terminals or merchants in order to qualify for lower interchange. Incorrectly defaulting this value will be considered non-compliance and liable for compliance actions with fines to the merchant for providing incorrect information

What was the implementation timeline that was published in the previous Fleet Implementation Guide (V1.1)?

April 2020 >	**December 2020 >**	
Visa	**Visa**	
Visa Fleet Chip Enhancement (VFCE) 1.0 Published	Visa Fleet Chip Enhancement (VFCE) 1.1 Published	
April 2021 >	**October 2021 >**	**October 2021 - April 2022**
Visa	**U.S. Issuers & Processors**	**U.S. Acquirers & Merchants**
VisaNet Release April 2021	Mandatory Support on Oct 2021	Optional Support: Oct 2021 Mandatory Support: April 2022
Visa has enhanced VisaNet to support Fleet 2.0 Initiative: · Field 104/125/62.7/48 changes · Fleet “FT” Record Type introduction · Additional data support · Support Host-Based Product Restrictions · Acquirers and issuers should not implement these changes as part of the April 2021 release.	Issuers begin producing Fleet Cards with Fleet 2.0 Capabilities: · Support changes in Field 104/125/62.7/48 for the new EMV Fields (Auth) · Support receiving 0120 confirmation advice for In-Store Transactions · Support new “FT” Record Type (Clearing) to continue receiving Fleet Level II Enhanced Data and obtain new EMV fields · Support Additional Data in Auth · New cards must utilize the VFCE with ASRPD tag, ‘DF30’, and ‘DF32’ · Map “FT” Expanded Fuel Type (first 2 char) to VCF Fuel Type or plan to use VisaNet Enrichment/VIDS · Map FT record to VCF or plan to use VisaNet Enrichment and VIDS--VBS Data Platform · Update Platforms supporting card program · Support Conexxus/Visa Fuel Type and Non-Fuel Product Codes in Appendix I and J · Optional: Host-Based Purchase Restrictions	Merchants support functionality of Fleet 2.0: · Support changes in Field 104/125/62.7/48 for the new EMV Fields (Auth) · Support sending 0120 confirmation advice for In-Store Transactions · Support new “FT” Record Type (Clearing) · Support fields updates including host-based purchase restrictions · Support submission of Additional Data for Auth & Clearing · Recognize and support ASRPD, ‘DF30’, ‘DF32’, and VFCE functionality · Support Conexxus/Visa Fuel Type and Non-Fuel Product Codes in Appendix I and J · Effective April 2022, Visa will always bridge 0200 (SMS messages) such as RTC messages to the new FT clearing format (bridging to the old FL clearing format will stop in April 2022)