

# Compass Batch Technical Specification

## Compass Batch Processing Format Specification

### Version 2.11

15 FEB 2013

Note: Blue Text within this Version 2.11 indicates updates to the specification from the last published version.

Highlighted areas are new additions to the specification

THIS EXAMPLE HAS TEXT SUBSTITUTED WITH LATIN PHRASING TO MAINTAIN CONFIDENTIALITY OF THE ORIGINAL CONTENT

egimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur! . Id autem cetero vim, sit et laoreet definitionem! Eum

*Data Corporation. No disclosure or distribution of any portion of these materials may be made without the express written consent of First Data Corporation.*

*This page intentionally blank*

## Table of Contents

<b>TABLE OF CONTENTS</b>	<b>3</b>
<b>CURRENT REVISION HISTORY (RH)</b>	<b>9</b>
2.11	9
2.10	9
2.09	10
<b>FORMAT SPECIFICATIONS</b>	<b>11</b>
Introduction	11
Outline	11
Synopsis of Format for Transaction Files	12
Preferred Methodologies and Protocols for File Transfers with First Data	12
<b>RECORD LAYOUTS</b>	<b>15</b>
Introduction	15
(PID) Header Record	17
(TPP) Third Party Processor ID Record	18
(M) Merchant Descriptor Record – Credit Card	19
(M) Merchant Descriptor Record – Credit Card Samples	21
Detail Record - (“S” Record)	22
Detail Record ACTION CODES	27
(EAX001) Extension Record: American Express 1	30
(EAX002) Extension Record: American Express 2	31
(EAX003) Extension Record: American Express 3	32
(EAX004) Extension Record: American Express Authentication	35
(EMC001) Extension Record: MasterCard	37
(EMC002) Extension Record: MasterCard Authentication	40
(EMD001) Extension Record: MasterCard Diners	41
(EVI001) Extension Record: Visa	43
(EVI002) Extension Record: Visa Authentication	46
(EED001) Extension Record: European Direct Debit	48
(EBL001) Extension Record: Bill Me Later “BML”	49
(ESW001) Extension Record: UK Domestic Maestro “UKDM”	51
2.11 NEW: (ETC001) Extension Record: TeleCheck 1	53
2.11 NEW: (ETC002) Extension Record: TeleCheck 2	55
2.11 NEW: (EXA001) Extension Record: Extended Account Number	56
(IPI) Information Record: Personal Information	57
(PAF001) Product Record: Advanced Fraud Mitigation	59
(PFR001) Product Record: Fraud	61
(PRR001) Product Record: Retail	62
(PTA001) Product Record: TransArmor	63
(PVL001) Product Record: ValueLink	64
(PDT001) Product Record: Effective Date/Time	66
(PSM002) Product Record: Soft Merchant Information 2	67
(PPB001) Product Record: Partial Authorization	69
(PP0001) Product Record: Procurement Level 3, Visa: Order Level Record	71
(PP1) Product Record: Procurement Level 3, Visa: Record #1 – Line Item Level Data	73

(PP2) Product Record: Procurement Level 3, Visa: Record #2 – Line Item Level Data .....	75
(PPO001) Product Record: Proc Level 3, MasterCard and MasterCard Diners Order Level Rec .....	77
(PP1) Product Record: Proc Level 3, MasterCard and MasterCard Diners Rec #1 – Line Item Level Data .....	79
(PP2) Product Record: Proc Level 3, MasterCard and MasterCard Diners Rec #2 – Line Item Level Data .....	81
2.11 NEW: (PTF001) Product Record: Transaction Fingerprint 1 .....	83
2.11 NEW: (PTF002) Product Record: Transaction Fingerprint 2 .....	84
<b>ADDRESS RECORDS .....</b>	<b>85</b>
<b>Introduction .....</b>	<b>85</b>
PART I: (LN) Formatted Address Record: Bill-To Name .....	86
PART I: (LA) Formatted Address Record: Bill-To Address .....	87
PART I: (LT) Formatted Address Record: Bill-To Telephone .....	89
PART I: (HN) Formatted Address Record: Ship-To Name .....	90
PART I: (HA) Formatted Address Record: Ship-To Address .....	91
PART I: (HT) Formatted Address Record: Ship-To Telephone .....	93
PART II: Unformatted Address Record .....	94
PART III: Address Format Examples .....	103
Batch Totals Record “B RECS=” .....	106
Totals Record “T RECS=” .....	108
Trailer Record “PID=” .....	110
“S” Record OUTPUT “S” .....	111
<b>FORMAT USAGE .....</b>	<b>114</b>
General Information .....	114
Sending Pre-Approved Records. ....	115
First Data Output .....	115
Sample Input and Output Files.....	116
Sample Input File 1: .....	117
Sample Input File 1 Line Item Description: .....	119
Sample Output File 1: .....	120
Sample Output File 1 Line Item Description:.....	121
<b>COMPASS APPENDICES.....</b>	<b>122</b>
<b>APPENDIX A: RESPONSE REASON CODE DESCRIPTION AND USAGE .....</b>	<b>123</b>
Response Reason Code KEY .....	123
Response Reason Codes Detail .....	124
<b>APPENDIX B: ADDRESS VERIFICATION (AVS &amp; AAV).....</b>	<b>136</b>
Introduction .....	136
Types Of Address Records.....	136
AVS/AAV Process .....	136
AVS Response Codes KEY .....	138
Postal Code Formats (US, CANADA, UK) .....	139
AVS Response Codes Detail .....	139
<b>APPENDIX C: ERROR SCREENING.....</b>	<b>142</b>
Bad Card Number Check .....	142
Card Prefix and Account Number Length Check .....	142
MOD 10 Check Digits .....	145

<b>APPENDIX D: INTERNATIONAL PROCESSING .....</b>	<b>147</b>
Introduction .....	147
Contractual Agreement .....	147
Division Numbers.....	147
Zero Decimal Currency Example .....	147
Global E-Pricing.....	148
Presentment Currencies .....	148
Global Merchant Acquiring (GMA).....	152
GMA Supported Countries.....	153
GMA Supported Currencies .....	154
Alternate Payments: Paypal, Google Checkout/BML, ValueLink.....	155
PayPal .....	155
Google Checkout / BML .....	155
ValueLink .....	155
<b>APPENDIX E: CARD SECURITY VERIFICATION .....</b>	<b>157</b>
Introduction .....	157
American Express Identification (CID) Processing.....	157
Discover Card Identification (CID) Processing .....	158
Visa CVV2, & MasterCard/MasterCard Diners Program.....	158
Gift Card Application.....	158
Guidelines for Populating Card Security .....	159
Card Types .....	159
Response Reason Codes .....	160
To Get Started.....	160
<b>APPENDIX F: AUTHORIZATION REVERSALS .....</b>	<b>161</b>
Introduction .....	161
How it Works .....	161
Transaction Types and Requirements.....	162
Card Types / Supported Currencies .....	162
Response Reason Codes .....	163
To Get Started.....	163
<b>APPENDIX G: PARTIAL AUTHORIZATIONS .....</b>	<b>164</b>
Introduction .....	164
How it Works .....	164
All Supported Cards .....	164
Transaction Types and Requirements.....	165
Card Types / Supported Currencies .....	166
Response Reason Codes .....	166
To Get Started.....	166
<b>APPENDIX H: VERIFIED BY VISA .....</b>	<b>167</b>
Introduction .....	167
How it Works .....	167
Merchant Requirements.....	169
Merchant Guidelines .....	170
Failed Authentications .....	170
Split Shipments .....	170

Late Fulfillment .....	171
Recurring Transactions .....	171
Online Auctions.....	171
Chargeback Liability Shift Instructions .....	171
Front End Edit / Reject Codes .....	172
<b>APPENDIX H1: AMERICAN EXPRESS SAFEKEY .....</b>	<b>173</b>
Introduction .....	173
How it Works: .....	173
Merchant Requirements .....	175
Merchant Guidelines .....	176
Failed Authentications .....	176
Supported Card Types/ Currencies .....	176
Front End Edit / Reject Codes .....	176
<b>APPENDIX I: MASTERCARD SECURECODE .....</b>	<b>177</b>
Introduction .....	177
How it Works .....	177
Merchant Guidelines .....	179
<b>APPENDIX J: MERCHANT DESCRIPTOR “M” RECORD.....</b>	<b>181</b>
Introduction .....	181
Rules and Guidelines (Credit Card) .....	181
File Layout.....	182
Record Layout.....	182
<b>APPENDIX K: UK DOMESTIC MAESTRO SECURECODE.....</b>	<b>184</b>
Introduction .....	184
How it Works .....	184
Merchant Requirements .....	185
Merchant Guidelines .....	186
Supported Card Types / Currencies .....	186
<b>APPENDIX L: DEBIT PROCESSING .....</b>	<b>188</b>
Introduction .....	188
Authorizations and Deposits .....	188
Refunds.....	188
Reversals.....	189
PINless Debit.....	189
PINless Debit Transaction Types .....	190
PINless Debit Transaction Matching Criteria.....	191
Transaction Types and Requirements.....	193
Supported Card Types/ Currencies .....	196
<b>APPENDIX M: VALUE LINK CLOSED LOOP GIFT CARD .....</b>	<b>198</b>
Introduction .....	198
How it Works .....	198
Transaction Types and Requirements.....	199
Supported Currencies .....	208
<b>APPENDIX N: TELECHECK® PROCESSING .....</b>	<b>209</b>
Introduction .....	209

How it Works .....	210
Definitions: .....	210
<b>Compass Requirements for TeleCheck NF2F</b> .....	211
Transaction Types and Requirements: BATCH .....	211
<b>Transaction Types and Requirements: ONLINE</b> .....	215
<b>APPENDIX O: BILL ME LATER</b> .....	<b>219</b>
Introduction .....	219
How it Works .....	219
Merchant Requirements .....	219
Transaction Types and Requirements .....	220
Card Types / Supported Currencies .....	221
<b>APPENDIX Q: VERIFICATION ONLY</b> .....	<b>222</b>
Introduction .....	222
Transaction Types and Requirements .....	222
<b>APPENDIX T: SOFT MERCHANT INFORMATION</b> .....	<b>224</b>
Introduction .....	224
Supported Card Types .....	225
Authorizations & Deposits .....	225
Deposit Clarifications .....	227
<b>APPENDIX U: TEST SYSTEM ENHANCEMENTS</b> .....	<b>228</b>
First Data's Test Environment .....	228
Online Testing .....	228
Batch Testing .....	228
Response Reason Code .....	229
Address Verification Response Code .....	229
Card Security Value Response Code .....	230
Cardholder Authentication .....	230
Partial Authorizations .....	231
Bill Me Later .....	231
PayPal and GoogleCheckout .....	231
<b>APPENDIX V: PROCUREMENT CARDS</b> .....	<b>232</b>
Introduction .....	232
Edit Checks .....	232
BIN Ranges .....	232
Currency Restrictions .....	233
American Express Level 2/3 .....	233
Visa / MasterCard / MasterCard Diners Level 2 .....	234
Visa / MasterCard / MasterCard Diners Level 3 .....	234
Record Sequence .....	235
Record Sequence Example .....	236
Units of Measure .....	237
<b>APPENDIX W: RESERVED FOR FUTURE USE</b> .....	<b>242</b>
<b>APPENDIX Y: RESERVED FOR FUTURE USE</b> .....	<b>243</b>
<b>APPENDIX Z: RETAIL</b> .....	<b>244</b>



Introduction .....	244
How it Works .....	244
Transaction Types and Requirements .....	244
<b>APPENDIX AA: FRAUD FLEXDETECT .....</b>	<b>246</b>
Introduction .....	246
How it Works .....	246
Auth Reversal Support .....	247
Minimum Field Requirements .....	247
<b>Compass Specification Changes for Fraud FlexDetect .....</b>	<b>249</b>
<b>APPENDIX AB – European (EU) Direct Debit .....</b>	<b>257</b>
Introduction .....	257
How it Works .....	257
Processing Requirements .....	258
Transaction Types and Requirements .....	258
<b>PRIOR REVISION HISTORY .....</b>	<b>261</b>

## Current Revision History (RH)

2.11

Version 2.11	Action	Description Of Change
V2.11	Draft1	<ul style="list-style-type: none"> <li>NO content changes, WORD formatting updates only</li> </ul>
V2.11 Rev Hist	Update (click link to go there)	<ul style="list-style-type: none"> <li><a href="#">Limit on # of batches daily</a></li> <li><a href="#">Update S record Action Code &amp; MOP for TC</a></li> <li><a href="#">Update S record Account Number field for TC</a></li> <li><a href="#">Update S record Response Reason Code for PINless Debit</a></li> <li><a href="#">Update S record Transaction Type for TC</a></li> <li><a href="#">S record Response Date</a></li> <li><a href="#">Update S record authorization verification code</a></li> <li><a href="#">Update S record Action Code CH &amp; DO</a></li> <li><a href="#">Update S record action code RF clarification</a></li> <li><a href="#">Update CAVV Response code list in EVI002 record</a></li> <li>NEW TeleCheck records               <ul style="list-style-type: none"> <li><a href="#">ETC001 (new)</a></li> <li><a href="#">ETC002 (new)</a></li> <li><a href="#">EXA001 (new)</a></li> <li><a href="#">PID001 (new)</a></li> <li><a href="#">PTF001 (new)</a></li> <li><a href="#">PTF002 (new)</a></li> <li><a href="#">Address Record Type AM (new)</a></li> <li><a href="#">Address Record AM details (new)</a></li> </ul> </li> <li><a href="#">Update IOI Record with Amex Ship-To Store</a></li> <li><a href="#">Update IOI Record Tracking # field length</a></li> <li><a href="#">Address Records section organization</a></li> <li><a href="#">PDC001 update CH Currency code requirement</a></li> <li><a href="#">PSM002 Country Code clarification</a></li> </ul>
2.11 Revision Hist Appendicesy	Update	<ul style="list-style-type: none"> <li><a href="#">Changes in Appendix A for Reason Code 307</a></li> <li><a href="#">Changes in Appendix N for TeleCheck</a></li> <li><a href="#">Update Appendix X for Cardholder Currency Code Requirements</a></li> </ul>

2.10

Version 2.10	Action	Description Of Change
V2.10	Update	<ul style="list-style-type: none"> <li>Pg 26: S Record Order Number changed from 12 to 22 bytes</li> <li>Pg 30: added Amex (AX) to Action code "VF" definition</li> <li>Pg 39-40: S record position 81,86 &amp; position 87,92 clarification of date requirement &amp; auth verification code for PayPal and Google Checkout</li> <li>Pg 69-70: American Express Safekey. New Extension Record EAX004: American Express Authentication added. It should be noted: American Express Safekey is a licensed implementation of Verified by Visa.</li> <li>Pg 90-91: Product Record: DCC field names &amp; comments clarified</li> </ul>

Version 2.10	Action	Description Of Change
		<ul style="list-style-type: none"> <li>● Pg 106-107 PB record, clarification of use for Partial Authorization</li> <li>● Pgs 148,149,150,151: clarification of "Absolute Amounts" &amp; unsigned amounts</li> <li>● Pg 155: S record output: Position 87,92 "authorization code responses" added a table of possible responses</li> <li>● Pg 168 Appendix A, changes to Response reason code 352</li> <li>● Pg 176 Appendix A, Added Response reason code 843</li> <li>● Pg 176 Appendix A, removed table containing authorization verification code responses. Moved to page 157, pos 87,92 of the S output record</li> <li>● Pg 192,193 Appendix D, New &amp; Changed Presentment Currencies</li> <li>● Pg 203-205: Appendix G Partial Authorizations: Enhanced for clarification</li> <li>● Pg 212-216: New Appendix H1 created for Amex Safekey</li> <li>● Pg 256-257 Appendix P, Paypal; Batch deposit response date, auth verification code requirement info added</li> <li>● Pg 259-260 Appendix Q; Clarification of VF for Amex</li> <li>● Pg 261-262 Appendix R, Google checkout; Batch deposit response date, auth verification code requirement info added</li> <li>● Pg 291-293 Appendix X: reworked verbiage for Dynamic Currency Conversion DCC functionality</li> <li>● Pgs: all: verify all page footers contain version #.</li> </ul> <p>TOC review &amp; corrections</p>

**2.09**

Version 2.09	Action	Description Of Change
V2.9 AND OLDER		<ul style="list-style-type: none"> <li>● See Prior Revision History at end of this document</li> </ul>

## FORMAT SPECIFICATIONS

### Introduction

The First Data format was developed for merchants and vendors who want to use First Data payment processing services. This format was designed to give great flexibility to users when transmitting data by using extension and product records related to specific methods of payments and products.

This format allows merchants to use only the records that are needed for their business. Multiple Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. oriented. It also supports the sending of name and address information, which is required from all merchants and vendors for the proper processing of some products. First Data accepts files at any time, 24 hours per day, every day of the year.

**All fields** are required unless otherwise stated.

**All alpha characters** should be in capital letters, unless otherwise specified

First Data supports standard ASCII characters only.

### Outline

The general outline for the First Data format is as follows:

Record	Begins With
Header	PID =
Merchant Descriptor	M
Detail	S
Extension	E
Information	I
Product	P
Formatted Bill -To Address	L
Formatted Ship-To Address	H
Unformatted Address	A
Batch Totals	B
Totals	T
Trailer	PID =

**Note:** The Level 2 and all Level 3 Product Records must follow the last Product Record for a transaction.

### ***Synopsis of Format for Transaction Files***

All transaction Quot legends mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. record) must also contain one or more batches accompanied by a Batch Totals Record. A Totals Record MUST follow the last Batch Totals Record, even if there is only one batch in the file.

The limit of records in Quot legends mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. be used in any way deemed appropriate.

[<return to RevHist>](#)

There is a Quot legends mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. also have the same limit. Discuss with your account representative if you need to exceed this recommended limit.

Notes: For maximum U.S. dollar amount per individual transaction, please refer to amount field comments in the Detail Record. It is against the card organization regulations to sort a batch by the Methods of Payment.

It may not be necessary to include extension and product records with deposit transactions.

The Trailer Record marks the end of the transaction file and is an end of transmission indicator.

---

### ***Preferred Methodologies and Protocols for File Transfers with First Data***

#### **Option 1: HTTPS – Hypertext Transfer Protocol over SSL (Secure Socket Layer)**

- This process is the easiest for clients to implement Quot legends mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. t facility to upload
- This method does not allow a client to create automation and is best suited for a manual process where client staff will perform this upload and download function.
- Files will always be transferred over the public internet. No dedicated line is available for this option.
- Quot legends mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel..

#### **Option 2: SFTP via SSH – Secure File Transfer Protocol**

- This process uses the SSH (Secure Shell) protocol to encrypt the “tunnel” or “path” that the data will follow through the internet.
- Client uses public Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel.

### **Alternative Method for SFTP:**

- Client uses ID and Password combination and pulls data from First Data over the public internet. Passwords expire every 60 days and will need to be reset. This is a client self help feature on the MessageWay sign-on website.
- Client wanting to use dedicated connectivity/VPN rather than over the open internet, will require additional network setup and charges.

### **Client Self-Help features for Option 1 and Option 2**

- Self-help feature: Requeue files  
Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. folder within each client’s home directory. Those files that were not downloaded but cancelled or deleted by clients are stored in a “cancelled” folder.  
There is a client self-help feature to allow clients to download previously downloaded or cancelled files as many times as they want within the 10 day retention period without having to contact and engage First Data. Files older than the 10 days will require the client to contact First Data and request a ticket opened to requeue their file.
- Self-help feature: Reset Password  
Client passwords are stored in the MessageWay database as encrypted values. The self-help feature allows clients to change their password via the MessageWay web.
- Self-help feature: File research tools  
Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. the 10 day archival period without having to contact First Data.

### **Vendor Tested SFTP software products**

Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. be purchased. However, the short list below are some that have been tested with the MessageWay vendor and provided to First Data it is the client’s responsibility to research the capabilities they want to use.

- WS-FTP Pro version 9.01 and above
- Cute FTP – version 8.3
- Filezilla – version 2.2.32 (Filezilla does not support Public Key authentication)

- Command Line SFTP from Linux – version 3
- Command Line SFPT from Unix – version 3

## RECORD LAYOUTS

### Introduction

Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.

- Each record contains an example. The example includes a 'ruler' line to show column positions. The record chart following the example contains all necessary field information.
- The position column defines the starting and ending positions of the field.
- Length and data type columns follow the position column. The data type is either A (alpha-numeric) or N (numeric only; 0-9 or space).
- The comments column gives the values of constants or a description of the field's meaning.

**Notes:** Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. Soleat aliquando mel et, eum ignota putant periculis at.

Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. Soleat aliquando mel et, eum ignota putant periculis at (Reserved Field).

Each record must be terminated by a line feed [↵] (hex 0A) in position 121. [↵] will be used in this document to represent line feed.

- For Batch Files, hex 0A should be used
- For Online Files, hex 0D should be used

Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. Soleat aliquando mel et, eum ignota putant periculis at. Mea te natum accusamus voluptaria, probo phaedrum ad vim.

Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.



Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. Vim verear discere ex, usu eruditi signiferumque ea. Nec nonumes recteque instructor ei, eum congrue accommodare consequuntur no? Usu maiestatis incorrupte ad, ei purto scribentur pro? Cum ea ridens postulant, pro eu posse legendos delicata.

Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!

Cu postea aperiatur fuisset has, an case molestiae argumentum nam, unum menandri suscipiantur quo ei. Tincidunt complectitur te sea? Nam in offendit sadipscing, dicat maiestatis no ius! Et brute dicta vel? Duo ad invenire periculis, in case posse pro. Id vim nulla aperiatur!

Illud legere ea quo. Putent phaedrum ut est, brute accusam vim no. Eu per cibo prima menandri, an eum essent dolorem! Cu saepe doming nam, mutat tempor voluptua ne nam. Ius dicat delectus nominati ad.

Ius case primis prodesset et, vim cu atomorum prodesset, mei oratio perfecto menandri ea. Dolorem nominavi an pri, petentium vituperata an ius. Pro aequae rationibus ex, usu ei dicat sanctus, probo appetere mei eu. Possit recusabo ad eam, tollit voluptatum quaerendum vix eu, ei mei quem alia reque. Per saepe persius deleniti ne, suas dolore euripidis sea at.

Ei sea noluisse constituto, quo legimus fastidii intellegam ex? Etiam quando melius ius cu, ad tempor facilis sea, id labitur luptatum per. Saepe ornatus ne has, invenire maiestatis nam no. Mutat inermis praesent quo no, eum ei nostro vocent occurreret? Ut qui diam iusto pericula, ludus diceret constituam ne est?

(PID) Header Record

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
AAAANNNNNNAAAAAAAAAAAAAAAAANNNNNNAAAAAAAAAAAAAAAAANNNNNNAAAAAAAAAAAAAAAAAAAAAAAA						

8	9	10	11	12
01234567890123456789012345678901234567890				
AA				
DEPFILE ↵				

Header Record (PID)				
Position	Length	Data Type	Field Name	Comments
1, 4	4	A	Constant	"PID="
5, 10	6	N	Presenter's ID (PID)	Assigned by First Data  Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel.)
11	1	A	Constant	Blank
40	1	A	Constant	Blank
41, 45	5	A	Constant	"START"
46, 47	2	A	Reserved	Space Fill
48, 53	6	N	Creation Date	Date the file was created. (Optional)  YYMMDD format
54	1	A	Reserved	Blank
55, 59	5	A	Constant	3.0.0
61, 71	11	A	Submission Number	First Data's Submission number populated by First Data in output.  Leave blank on incoming submission
72, 112	41	A	Reserved	Space Fill
113, 120	8	A	Merchant Space	Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel.)  This data is returned with the reply file.

**(TPP) Third Party Processor ID Record**

<b>Third Party Processor ID Record – (XXX)</b>				
Position	Length	Data Type	Field Name	Comments
1,3	3	A	Constant	“XXX” Constant – Third Party Processor ID  Specifies this record as an additional processing format of the First Data standard format.
10,120	111	A	Reserved	Blanks

**Notes:** If First Data Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. a new XXX record would be sent that is blank filled.

Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel..

**(M) Merchant Descriptor Record – Credit Card**

Merchant Descriptor Record – (“M” Record) Credit Card												
Position	Length	Data Type	Field Name	Comments								
1	1	A	Constant	“M” Constant. Specifies this record as a detail record of the First Data standard format								
2,23	22	A	Pri an quas delenit convenire, meis utinam copiosae ea v	<p>Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant</p> <p>Left justified/space filled</p> <p>There are 3 possible formats:</p> <table><tr><th>Option</th><th>Description</th></tr><tr><td>1</td><td>3 byte company identifier “*” 18 byte descriptor</td></tr><tr><td>2</td><td>7 byte company identifier “*” 14 byte descriptor</td></tr><tr><td>3</td><td>12 byte company identifier “*” 9 byte descriptor</td></tr></table> <p>Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant purchased.</p> <p>Note: For international transactions DO NOT USE the following punctuation: caret (^), backslash (\), open bracket ([), closed bracket (]), tilde (~), or accent key ( ` ). If used, the transaction will reject for Response Reason Code 225 (Invalid Field Data).</p>	Option	Description	1	3 byte company identifier “*” 18 byte descriptor	2	7 byte company identifier “*” 14 byte descriptor	3	12 byte company identifier “*” 9 byte descriptor
Option	Description											
1	3 byte company identifier “*” 18 byte descriptor											
2	7 byte company identifier “*” 14 byte descriptor											
3	12 byte company identifier “*” 9 byte descriptor											
28, 40	13	A	V Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune	<p>Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune</p> <p>Left justified/space filled</p> <p>Recommended formats by merchant channel:</p> <table><tr><th>Channel</th><th>Format</th></tr><tr><td>Retail</td><td>City of store location formatted as AAAAAAAAAAAAA</td></tr><tr><td>Direct Marketing</td><td><ul style="list-style-type: none"><li>Customer Service phone number formatted as NNN-NNN-NNNN NNN-AAAAAAA</li><li>URL (see Note below)</li><li>Email address</li></ul></td></tr></table>	Channel	Format	Retail	City of store location formatted as AAAAAAAAAAAAA	Direct Marketing	<ul style="list-style-type: none"><li>Customer Service phone number formatted as NNN-NNN-NNNN NNN-AAAAAAA</li><li>URL (see Note below)</li><li>Email address</li></ul>		
Channel	Format											
Retail	City of store location formatted as AAAAAAAAAAAAA											
Direct Marketing	<ul style="list-style-type: none"><li>Customer Service phone number formatted as NNN-NNN-NNNN NNN-AAAAAAA</li><li>URL (see Note below)</li><li>Email address</li></ul>											

Merchant Descriptor Record – (“M” Record) Credit Card				
Position	Length	Data Type	Field Name	Comments
				Note: For international Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune If used, the transaction will reject for Response Reason Code 225 (Invalid Field Data).
41,120	80	A		Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune

**Notes:**

- Please see Appendix J: “M” Record Payment Processing for placement of this record within the file.
- This descriptor will be displayed on the cardholder statement subject to the Issuer discretion.
- Non e-Commerce transactions sent with URL will not qualify for the best interchange rate.
- For MasterCard MOTO lus case primis prodesset et, vim cu atomorum prodesset, mei oratio perfecto menandri ea. Dolorem nominavi an pri, petentium vituperata an ius. Pro aequae rationibus ex, usu ei dicat sanctus, probo appetere mei eu. Possit recusabo ad eam, tollit voluptatum quaerendum vix eu, ei mei quem alia reque. Per saepe persius deleniti ne, suas dolore euripidis sea at. Service Phone Number, then a Customer Service Phone Number must be populated in the Merchant City/Customer Service Phone Number field or the transaction will reject with Response Reason Code 257 (Service Phone).



**Detail Record - ("S" Record)**[<return to RevHist>](#)

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
ANNNNNNNNNNAAANNNNNNNNNNNNNNNNNNNNNNNNA						
1						

8	9	10	11	12
01234567890123456789012345678901234567890				
ANNNNNNAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA				

Detail Record ("S" Record)				
Position	Length	Data Type	Field Name	Comments
1	1	A	Constant	"S" Constant. Specifies this record as a detail record of the First Data standard format
12, 33	22	A	Merchant's Order Number	<p>Ius case primis prodesset et, vim cu atomorum prodesset, mei oratio perfecto menandri ea. Dolorem nominavi an pri, petentium vituperata an ius. Pro aequae rationibus ex, usu ei dicat sanctus, probo appetere mei eu. Possit recusabo ad eam, tollit voluptatum quaerendum vix eu, ei mei quem alia reque. Per saepe persius deleniti ne, suas dolore euripidis sea at.</p> <p>For Bill Me Later, Pay Pal, and GoogleCheckout, the first 12 bytes should be unique and numeric.</p> <p><b>Notes:</b> For <b>non-international</b> transactions, American Express (AMEX) utilizes the first 9 characters of this field. Discover utilizes the first 8 bytes, replacing any alpha character with a zero. Therefore, the unique characters of this field should be contained within the first 8 positions of the field.</p> <p>Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. Soleat aliquando mel et, eum ignota putant periculis at.</p> <p>Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. Soleat aliquando mel et, eum ignota putant periculis at.</p> <p>Merchants <b>MUST</b> pass the same order number on authorization, redemption and reversal transactions for ValueLink.</p> <p>Merchants <b>MUST</b> pass the same order number on Authorizations, Settle, and Refund transactions for UKDM.</p>

Detail Record ("S" Record)				
Position	Length	Data Type	Field Name	Comments
				<p>Debit transactions can only use upper and lower case alpha (A-Z, a-z) and numeric (0-9).</p> <p>For non-international transactions, DO NOT USE the following characters: pipe ( ), caret (^), percent symbol (%), backslash (\), or forward slash (/).</p> <p>For international transactions DO NOT USE the following punctuation: caret (^), backslash (\), open bracket ([), closed bracket (]), tilde (~) or accent key ('). If used the transaction will reject for Response Reason Code 225 (Invalid field data)</p>
34, 35	2	A	Action Code	<p><b>Valid values:</b></p> <p>AR – Authorization Reversal (Amex, MasterCard, Visa, Discover, JC, GoogleCheckout, PayPal, ValueLink, <b>TeleCheck</b>)</p> <p>AU – Authorize (Credit Card, Alt Pay, ValueLink, <b>TeleCheck</b>)</p> <p>ZZ – Current Balance Inquiry (Visa, <b>MasterCard</b>, ValueLink)</p> <p>ZZ – Change (<b>TeleCheck</b>)</p> <p>ZZ - Cash Out (Value Link)</p> <p>ZZ - Redemption Reversal (Value Link)</p> <p>ZZ – Deposit Available (ValueLink)</p> <p>ZZ – Conditional Deposit (Credit Card, Bill Me Later, PayPal, Google Checkout, PINless Debit)</p> <p>Ius case primis prodesset et, vim cu atomorum prodesset, mei oratio perfecto menandri ea. Dolorem nominavi an pri, petentium vituperata an ius. Pro aequae rationibus ex, usu ei dicat sanctus, probo appetere mei eu. Possit recusabo ad eam, tollit voluptatum quaerendum vix eu, ei mei quem alia reque. Per saepe persius deleniti ne, suas dolore euripidis sea at.</p> <p>Detailed field definitions for each Action Code follow the Detail Record layout.</p>
38, 56	19	A	Account Number	<p>Ius case primis prodesset et, vim cu atomorum prodesset, mei oratio perfecto menandri ea. Dolorem nominavi an pri, petentium vituperata an ius. Pro aequae rationibus ex, usu ei dicat sanctus, probo appetere mei eu. Possit recusabo ad eam, tollit voluptatum quaerendum vix eu, ei mei quem alia reque. Per saepe persius deleniti ne, suas dolore euripidis sea at.</p> <p>Any references elsewhere in this document to MOP's or Functionality not indicated specifically in this section are intended for potential future use and are not supported currently.</p> <p>Effective October 2009 US Dollar JC Transactions and all Diners Transactions acquired in the US will be converted to Discover.</p>



Detail Record ("S" Record)				
Position	Length	Data Type	Field Name	Comments
				<p>For PayPal and GoogleCheckout Transactions, this field will contain a 16-Digit Certification Number obtained during the Authentication process between the Merchant and Cardinal Commerce</p> <p>Compass does not perform the MOD-10 check for Bill Me Later with dummy account numbers or TransArmor "tokenized" values.</p>
57, 60	4	N	XXXX	<p>MMYY format send blanks if the card has expired since the order was placed or if the true expiration date is not known. (Optional)</p> <p>Ius case primis prodesset et, vim cu atomorum prodesset, mei oratio perfecto menandri ea. Dolorem nominavi an pri, petentium vituperata an ius. Pro aequae rationibus ex, usu ei dicat sanctus, probo appetere mei eu. Possit recusabo ad eam, tollit voluptatum quaerendum vix eu, ei mei quem alia reque. Per saepe persius deleniti ne, suas dolore euripidis sea at.</p> <p>For PINless Debit, Alt Pay, and <b>TeleCheck</b> transactions, expiration date should be blank.</p> <p>Default Space filled</p>
73, 75	3	N	XXX	<p>Currency code for the transaction.</p> <p><b>Notes:</b> This field should always be populated with the presentment currency. Must match for both authorization and subsequent deposit.</p> <p><b>See Appendix D:</b> International Processing for complete list of Valid Values</p>
76, 78	3	N	XXXX	<p>Ius case primis prodesset et, vim cu atomorum prodesset, mei oratio perfecto menandri ea. Dolorem nominavi an pri, petentium vituperata an ius. Pro aequae rationibus ex, usu ei dicat sanctus, probo appetere mei eu. Possit recusabo ad eam, tollit voluptatum quaerendum vix eu, ei mei quem alia reque. Per saepe persius deleniti ne, suas dolore euripidis sea at.</p> <p><b>For Deposit (DP) transactions:</b> this field should be populated with the information provided from the authorization response. Previously approved PayPal and Google Checkout Conditional Deposit Transactions (DC) may also contain this field.</p>

Detail Record ("S" Record)				
Position	Length	Data Type	Field Name	Comments
				<p>lus case primis prodesset et, vim cu atomorum prodesset, mei oratio perfecto menandri ea. Dolorem nominavi an pri, petentium vituperata an ius. Pro aeque rationibus ex, usu ei dicat sanctus, probo appetere mei eu. Possit recusabo ad eam, tollit voluptatum quaerendum vix eu, ei mei quem alia reque. Per saepe persius deleniti ne, suas dolore euripidis sea at.</p> <p><b>For all other action codes/situations</b> this field should be space filled.</p> <p><b>See Appendix A:</b> For a full list of Response Reason Codes.</p>
80	1	A	Reserved	Blank
81, 86	6	N	Response Date	<p>The date the response was obtained.</p> <p>YYMMDD format</p> <p><b>Notes:</b></p> <p>For Deposit (DP ) transactions, it is recommended that this field be populated with the information provided from the authorization response.</p> <p>Previously approved PayPal and Google Checkout Conditional  lus case primis prodesset et, vim cu atomorum prodesset, mei oratio perfecto menandri ea. Dolorem nominavi an pri, petentium vituperata an ius. Pro aeque rationibus ex, usu ei dicat sanctus, probo appetere mei eu. Possit recusabo ad eam, tollit voluptatum quaerendum vix eu, ei mei quem alia reque. Per saepe persius deleniti ne, suas dolore euripidis sea at.</p> <p>For Refund (RF) transactions on PINless Debit this field must be populated with date provided from the refund authorization (RA) response.</p> <p>For any other action codes this field should be space filled.</p>
87, 92	6	A		
93, 94	2	A		
95	1	A	Reserved	Space Fill
96	1	A	Bill Payment Indicator	<p>Bill payment indicator. (Optional)</p> <p>Valid values:  <b>Y</b> = Yes  <b>N</b> = No</p>

Detail Record ("S" Record)				
Position	Length	Data Type	Field Name	Comments
				<b>A</b> = Aggregated eCommerce Auth Transactions <b>D</b> = Payment of Existing Debit Transaction <b>" "</b> = Blank  <b>Note:</b> Bill Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d. match for both authorization and subsequent deposit.
97 , 99	3	A	Account Flag)	
100,101	2	A	Reserved	Space Fill
102	1	A	Reserved	Space Fill – reserved for First Data Internal use only.
103,112	10	A	Reserved	Space Fill
113,120	8	A	Merchant Space	For merchant use (Optional)  This is space reserved for the merchant's use. This data is not stored at First Data, but is returned with the reply file.  Left Justified/Space filled

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
ANNNNNNNNNNAAANNNNNNNNNNNNNNNNNNNNNNNNA						

8	9	10	11	12
01234567890123456789012345678901234567890				
ANNNNNNAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA				
R ↵				

## Detail Record ACTION CODES

Detail ("S") Record ACTION CODES		
Action Code	Name	Definition
AR	Authorization Reversal	
AU	Authorize	
BI	Balance Inquiry	
CH	Change	
CO	Cash Out	
CV	Redemption Reversal	
DA		
DC		Deposit this transaction ONLY if a valid authorization is obtained
DO		<p>Et per omnium postulant, an ius homero eusmod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.</p> <p>Account information is not validated prior to the deposit.</p> <p>Validation must be performed using the Validate Only (LO) transaction prior to every Deposit Only (DO), otherwise the deposit will decline.</p>
DP		<p>Reverses a prior Action Code = AU (Authorize).</p> <p><b>Notes:</b> The Reversal is only valid if the authorization has not expired.</p> <p>See Appendix F: Authorization Reversal for specific credit card information.</p>
ER		Authorize this transaction and First Data will fill the Response Reason Code, Auth Date, Auth Source, Auth Code and AVS/AAV field, if applicable, with the authorization results.
IR	Void Activation	Cash Out a ValueLink Gift Card - Used to remove the remaining balance from a card.
LO	Validate Only	Used to void a redemption transaction on a ValueLink Gift Card
OR	Offsetting Refund	Quot legendos mnesarchum qui in, legimus detracto vel id! Cum autem copiosae deserunt no, ea dolorum phaedrum disputationi vel. to zero. The merchant must check the returned balance fields to determine the redeemed amount (subtract current balance from previous balance). If the redeemed amount is less than the requested amount, the customer must pay the difference some other way, or void the transaction.
RF	Refund	Issue a credit to this account number. For debit transactions the merchant must send a prior approval otherwise First Data will reject the transaction.

Detail ("S") Record ACTION CODES		
Action Code	Name	Definition
		<p>A TeleCheck RF transaction must include either Auth Code or TC format.</p> <p>Note: Refunds are one of two types:</p> <ul style="list-style-type: none"> <li>◦ 'refund of prior sale' – refund can only be applied to a prior sale and information identifying/matching that prior sale must be provided.</li> <li>◦ 'stand-alone' – refund is not directly tied to a prior sale.</li> </ul>
RM	Request Mandate Action	<p>File a UK Direct Debit mandate request, update, or cancel an existing one, for a bank account. If successfully filed, a mandate id will be returned however this mandate may not become active for up to 5 UK business days.</p> <p><b>A mandate must be filed prior to the first Validate Only (LO) or Deposit Only (DO) on a UK account.</b></p> <p>Used for EU Direct Debit transactions.</p>
RV	Refund Reversal	This transaction is used to void a ValueLink Refund (Action Code RF)
SA	Add Value	Reload – This transaction adds value to an already active card.
ZZ	Stored Value Deactivation	<p>Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.</p> <p>The amount of the transaction must be \$0.00.</p>
ZZ	Stored Value Issuance	<p>This is a merchant specific transaction and activates a gift card.</p> <p>The amount of the transaction must be greater than \$0.00.</p>
ZZ	Void of Cashout	This transaction is used to void a ValueLink CO (Cashout) Action
ZZ	Void	<p>Reverse an approved eCheck Validate and Deposit Request.</p> <p><b>Note:</b> This transaction must be sent in prior to settlement taking place in order for the void to be registered</p>
VF	Verification Only	<p>Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.</p> <p>When using this Action Code transactions must contain an amount of \$0. See Appendix Q: Verification Only for more information.</p>
VR	Add Value Reversal	This transaction is used to void a ValueLink reload transaction

Detail ("S") Record ACTION CODES		
Action Code	Name	Definition
		(Action Code SA)

**(EAX001) Extension Record: American Express 1**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890 . . . 0								
AA								

Extension Record: American Express 1				
Position	Length	Data Type	Field Name	Comments
1	1	A	Extension Record Identifier	Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. Soleat aliquando mel et, eum ignota putant periculis at
2,3	2	A	Extension Record MOP Type	"AX" Constant
4,6	3	N	Extension Record Sequence Number	Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.
7,46	40	A	Reserved	Space Fill
47, 86	40	A	Reserved	Space Fill
87,120	74	A	Reserved	Space Fill

**Notes:**

- Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. Soleat aliquando mel et, eum ignota putant periculis at.
- The Ship-To Address Record is required by American Express when sending this record. If Ship-To Address Record is not sent with the transaction, the division default postal code will be used.

**(EAX002) Extension Record: American Express 2**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890
AAANNNA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA
EAX002XYZ	COMPANY	PRODUCT3		XYZ	COMPANY	PRODUCT4		

Extension Record: American Express (002)				
Position	Length	Data Type	Field Name	Comments
1	1	A	Extension Record Identifier	"E" Constant – Specifies this record as an extension record of the First Data standard format
2,3	2	A	Extension Record MOP Type	"
7,46	40	A	Reserved	Space Fill
47,86	40	A	Reserved	Space Fill
87,120	34	A	Reserved	Space Fill

**Notes:**

- TAA fields are not supported for International currency processing or telecommunication transactions.
- The Et per omnium postulant, an ius homero eusmod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.



Extension Record: American Express 3 (003)				
Position	Length	Data Type	Field Name	Comments
1	1	A	Extension Record Identifier	“” Constant Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.
2,3	2	A	Extension Record MOP Type	Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.
4,6	3	N	Product Record Sequence Number	“003” Constant
22	1	A	POS Capability Code	<p>This field defines the ability of the POS terminal or cash register.</p> <p>Valid Values:</p> <ul style="list-style-type: none"> <li>0 – Unknown</li> <li>1 – Manual, no terminal (Internet or PC based transaction)</li> <li>2 – Magnetic stripe reader</li> <li>5 – Chip capable terminal</li> <li>6 – Key entered</li> <li>X – Magnetic strip signature</li> </ul>
24	1	N	Card Capture Capability	<p>This field indicates if the terminal is capable of capturing card data.</p> <p>Valid values:</p> <ul style="list-style-type: none"> <li>0 – None or unknown</li> <li>1 – Capture</li> </ul>
25	1	A	Operating Environment	<p>Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.</p> <p>Valid values:</p> <ul style="list-style-type: none"> <li>0 – No terminal used or unknown</li> </ul>

Extension Record: American Express 3 (003)				
Position	Length	Data Type	Field Name	Comments
				1 – On premises of card acceptor, attended 2 – On premises of card acceptor, unattended 3 – Off premises of card acceptor, attended 4 – Off premises of card acceptor unattended 5 – On premises of cardholder, unattended 9 – Delivery mode unknown, unspecified S – Electronic delivery of product T – Physical delivery of product
27	1	A	Card Present	This field indicates if the card is present at the point of service.  Valid values: 0 – Card not present 1 – Card present W – American Express Transponder (RFID token). For transactions initiated by an electronic, radio-frequency device.
28,29	2	A	POS Entry Mode	This field indicates how the transaction was entered.  Valid values: 0 Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.
30	1	A	POS Card ID Method	This field indicated the method utilized for identifying the cardholder at the point of sale.  Valid values: 0 – Not authenticated, unknown 1 – PIN S – Electronic ticket environment (For example, event tickets delivered electronically/printable tickets)
31	1	N	Cardholder Authentication Entity	This field indicates component or person who verified cardholder identity reported in POS Card ID Method.  Valid values: 0 – Not authenticated, unknown 1 – Chip card 2 – Card Acceptor Device 4 – By merchant 5 – Other

Extension Record: American Express 3 (003)				
Position	Length	Data Type	Field Name	Comments
32	1	N	Card Data Output Capability	This field indicates the ability of the terminal to update the card.  Valid values: 0 – Unknown 1 – None
34	1	N	PIN Capture Capability	This field indicates the PIN length that the terminal is capable of capturing.  Valid Values: 0 – No PIN capture capability 1 –Device PIN capture capability unknown.
35,46	12	N	Authorized Amount	Should reflect the amount of the original authorized transaction.  2 decimal implied/right justified/zero filled
47,120	74	A	Reserved	Space Fill

**Note:**

- Only send this record if Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.).



Extension Record: American Express Authentication (004)						
Position	Length	Data Type	Field Name	Comments		
					Participating, Access Control Server (ACS) not available, Network Key	
				A	AEVV Passed – Attempt, Participating, Access Control Server (ACS) not available, Network Key	

**Notes:**

- When Et per omnium postulant, an ius homero eusmod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d.SAFEKEY.
- Only Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu..
- This record could be returned for any American Express transaction that used American Express Authentication at time of authorization.
- Merchants are strongly Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. to perform a new authorization, the AEVV will be included in the new authorization.



Extension Record: MasterCard (001)				
Position	Length	Data Type	Field Name	Comments
				<p><b>Notes:</b> This value should be exactly what was returned at authorization time.</p> <p>Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu.</p>
11	1	N		<p>Et per omnium postulant, an ius homero euismod equidem. Quot accusam sit ea. Per quot suscipit probatus ad. Sit te everti insolens assentior, ei cum wisi prompta? No liber homero appareat sit, sale petentium referrentur pri ne.d..</p> <p>Valid values:</p> <ul style="list-style-type: none"> <li>1 – Signature obtained (use for best Retail interchange rate)</li> <li>2 – Personal Identification Number (PIN) utilized</li> <li>3 – Unattended terminal, no PIN pad</li> <li>4 – Mail order (not valid for retail interchange)</li> </ul> <p><b>Note:</b> If this Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. may not qualify for the best interchange rate.</p>
12	1	A	Reserved	Space Fill
32,43	12	N	Authorized Amount	<p>Should reflect the amount of the original authorized transaction.</p> <p>2 decimal implied/right justified/zero filled</p>
44,47	4	N	BankNet Date	<p>Authorization date assigned by the MasterCard authorization system</p> <p>MMDD format</p> <p>Date assigned by MasterCard to indicate when the authorization was provided by the MasterCard authorization system.</p>
48,51	4	N	Merchant Category Code (MCC)	<p>Merchant Category Code used for the authorization</p> <p>The MCC is a four-digit number that corresponds to a description of the merchant's primary business.</p> <p><b>Note:</b> MCC code for authorization and deposit per transaction must match.</p>
52	1	N	Reserved	<p>Reserved for Future Use</p> <p>Valid values:</p> <p>“ ” – Blank</p>
53,120	68	A	Reserved	Space Fill

**Note:**

- Only send this record if the authorization was obtained from a source other than First Data.



**(002) Extension Record: MasterCard Authentication**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890
AAANNNA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA

Extension Record: MasterCard Authentication (002)				
Position	Length	Data Type	Field Name	Comments
1	1	A	Extension Record Identifier	
2,3	2	A	Extension Record MOP Type	
4,6	3	N	Extension Record Sequence Number	
7,38	32	A	Accountholder Authentication Value (AAV)	<p>Unique Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. n using MasterCard SecureCode.</p> <p>Left justified/space filled</p> <p><b>Notes:</b> Must be sent in Base 64 Encoding. This is the same format used by MasterCard when returning the AAV data to the merchant during the authentication step.</p> <p><b>DO NOT MANIPULATE</b> this value in any way.</p>
39,120	82	A	Reserved	Space Fill

**Notes:**

- See Appendix I: MasterCard SecureCode for product information.
- Division level flag must be set in order Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. Reason Code 246 (Merchant Not MasterCard SecureCode Enabled).



Extension Record: MasterCard Diners (001)				
Position	Length	Data Type	Field Name	Comments
				authorization time. If this information is unavailable, this field must contain blanks; however, the transaction may not qualify for the best interchange rate.
12	1	A	Reserved	Blank
13,21	9	A	BankNet Reference Number	Reference Number assigned by the MasterCard authorization system  Unique identifier, assigned by MasterCard to identify all related messages and records used to authorize and settle the transaction through the MasterCard system.
32,43	12	N	Authorized Amount	Should reflect the amount of the original authorized transaction.  2 decimal implied/right justified/zero filled
44,47	4	N	BankNet Date	Authorization date assigned by the MasterCard authorization system  MMDD format  Date Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. system.
52	1	N	Reserved	Reserved for Future Use  Valid values: “ ” – Blank
53,120	68	A	Reserved	Space Fill

**Notes:**

- This value Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu.; however, the transaction may not qualify for the best interchange rate.



Extension Record: Visa (001)				
Position	Length	Data Type	Field Name	Comments
11	1	N	POS Card ID Method	<p>This field indicated the method utilized for identifying the cardholder at the point of sale.</p> <p>Valid values:</p> <ul style="list-style-type: none"> <li>1 – Signature obtained (use for best retail interchange rate)</li> <li>2 – Personal Identification Number (PIN) utilized</li> <li>3 – Unattended terminal, no PIN pad</li> <li>4 – Mail order (not valid for retail interchange)</li> </ul> <p><b>Note:</b> If this information is unavailable, this field must contain blanks; however, the transaction may not qualify for the best interchange rate.</p>
13,27	15	N		<p>TID value is assigned by the Visa authorization system.</p> <p>An Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. ction through Visa.</p>
28,31	4	A		<p>Validation code value is assigned by the Visa authorization system.</p> <p>A code calculated by Visa, utilized to determine the accuracy of the authorization data contained in the settlement record.</p>
32,43	12	N		<p>Should reflect the amount of the original authorized transaction.</p> <p>2 decimal implied/right justified/zero filled</p>
44,47	4	N		<p>Merchant category code used for the authorization</p> <p>The MCC is a four-digit number that corresponds to a description of the merchant's primary business.</p> <p><b>Note:</b> MCC code for authorization and deposit per transaction must match.</p>
48,59	12	N		<p>Current amount authorized for deposit. If any partial reversals were performed, this would be the replacement amount. If this amount is zero, the authorization data is invalid.</p> <p>2 decimal implied/right justified/zero filled</p>
60	1	A		<p>Valid values:</p> <ul style="list-style-type: none"> <li>B – Bill Payment</li> <li>H – Hotel</li> <li>“ ” – Blank</li> </ul>

Extension Record: Visa (001)				
Position	Length	Data Type	Field Name	Comments
				<b>Note:</b> Do not send Bill Payment value for refunds.
61	1	N		Reserved for Future Use  Valid values: “ ” – Blank
62,63	2	A		Card level result value is assigned by the Visa authorization system.  Field used to identify card product at the transaction level.  Left Justified/space filled
64,120	57	A	Reserved	Space Fill

**Note:**

- Only send this record if the authorization was obtained from a source other than First Data.

(002) Extension Record: Visa Authentication

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890
AAANNNA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA
=		4523643286389		=		↵		

Extension Record: Visa Authentication (002)																
Position	Length	Data Type	Field Name	Comments												
1	1	A														
2,3	2	A														
4,6	3	N														
7,46	40	A	Transaction ID (XID)	<p>Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. uthentication/Service in the Authentication Request message. (Optional)</p> <p>Left justified/space filled</p> <p><b>Notes:</b> Must be sent in Base 64 encoding. This is the same format used by Visa when returning CAVV data to the merchant during the authentication step.</p> <p><b>DO NOT MANIPULATE</b> this value in any way.</p>												
47,86	40	A	Cardholder Authentication Verification Value (CAVV)	<p>Cryptographic Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. number, the Transaction Identifier (XID), and other data.</p> <p>Required field/left justified/space filled</p> <p><b>DO NOT MANIPULATE</b> this value in any way.</p>												
87	1	A	CAVV Response Code	<p>This field should remain blank on input.</p> <p>First Data will populate with response code received from Visa.</p> <table><tr><th>CAVV Response Code</th><th>Description</th></tr><tr><td>'Blank</td><td>CAVV Not Present</td></tr><tr><td>3</td><td>Extension Record Identifier</td></tr><tr><td>4</td><td></td></tr><tr><td>5</td><td>is ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. uthentication/Service in the</td></tr><tr><td>6</td><td>CAVV Not Vis ei laudem aliquid. Modo antiopam</td></tr></table>	CAVV Response Code	Description	'Blank	CAVV Not Present	3	Extension Record Identifier	4		5	is ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. uthentication/Service in the	6	CAVV Not Vis ei laudem aliquid. Modo antiopam
CAVV Response Code	Description															
'Blank	CAVV Not Present															
3	Extension Record Identifier															
4																
5	is ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. uthentication/Service in the															
6	CAVV Not Vis ei laudem aliquid. Modo antiopam															

Extension Record: Visa Authentication (002)				
Position	Length	Data Type	Field Name	Comments
				delicata ea mea, purto invidunt consetetur mel cu. the “do not verify” flag to be established for its BINs. This parameter enables an Issuer to temporarily stop CAVV verification while resolving CAVV key issues. VisaNet processes this value as a valid CAVV.
				00 is ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. uthentication/Service in the
				I Invalid Security Data
				U Issuer does not participate or 3-D Secure data not utilized.
88,120	33	A	Reserved	Space Fill

**Notes:**

- When Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. back from the merchant plug-in software. See Appendix H: VERIFIED BY VISA
- Only send this record for Action Codes AU, DC or DP.
- This record could be returned for any Visa transaction that used Visa Authentication at time of authorization.
- Merchants are strongly encouraged to submit the Visa Authentication extension record at deposit time. In the event Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu.. By doing so, the merchant will maintain both the Verified by Visa fraud chargeback liability shift, as well as Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. best interchange for the transaction.



Extension Record: European Direct Debit (001)				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2,3	2	A		
4,6	3	N		
7,8	2	A	Country Code	Customer's Bank Country Code  Valid values: GB – United Kingdom
9,20	12	A		Customer's Bank Sort Code.  Left justified/blank filled  <b>Note:</b> Must be blank for country code = NL. Must be populated for all other country codes.
21	1	A		
85, 86	2	A		Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
87, 120	34	A	Reserved	Blanks

- Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur! See Appendix AB: European Direct Debit for additional information on populating this format Indicator.

**(001) Extension Record: Bill Me Later “BML”**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890 . . . 0								
AAANNNAA								
0001500210220031115N 4000								

Extension Record: Bill Me Later “BML” (001)				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2,3	2	A		
4,6	3	N		
15,19	5	N	T&C Version	<p>The Terms and Conditions version number the consumer agreed to. (Required) Left justified/space filled</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"> <li>• If an Internet transaction, the default value of 32103 would be used unless otherwise instructed BML for the merchant.</li> <li>• If a MOTO transaction, the default value of 12103 would be used unless otherwise instructed by BML for the merchant.</li> </ul>
20,27	8	N		
28,29	2	A	Customer Type Flag	<p>New or existing customer with merchant. (Optional)</p> <p>Left Justified/space filled</p> <p>Valid values:</p>
30,33	4	N	Item Category	<p>Product description code assigned by Bill Me Later. (Required)</p> <p>Left justified/space filled</p>
34,49	16	A	Pre-approval Invitation Number	<p>Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!</p> <p>Left justified/space filled</p>
50,53	4	A	Merchant Promotional	Merchant promotional code. (Optional)

Extension Record: Bill Me Later “BML” (001)				
Position	Length	Data Type	Field Name	Comments
			Code	Left justified/space filled
56	1	A		Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
57	1	A		Indicates if customer has updated phone number at merchant site. (Optional) Valid values: Y – Customer’s phone number has changed N – No change to customer’s phone number  Default space filled
58,120	63	A	Reserved	Space Fill

**001) Extension Record: UK Domestic Maestro “UKDM”**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567 . . . 0								
AAANNNAANNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN . . . A								
001101101								↵

Extension Record: UK Domestic Maestro “UKDM” (001)				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2, 3	2	A		
4, 6	3	N		
7, 10	4	A	Card Start Date	<p>Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!</p> <p>If the card displays both a Start Date and an Issue Number, the Card Start Date must be left blank and the Card Issue Number field must be populated. If both are sent, the Card Start Date is ignored.</p>
11, 12	2	A	Card Issue Number	<p>An incremental counter of either one or two characters defined by the issuer. (Optional)</p> <p>Right justified/blank filled</p> <p>Notes: If a card is lost, the Issuer issues a replacement card with the issue number increased by one.</p>
13,44	32	A		<p>U Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!</p> <p>Left justified/space filled</p> <p>Notes: Must be sent in Base 64 Encoding or the transaction rejects with Response Code 245 (Missing or Invalid Secure Payment Data).</p> <p>This is the same format used by MasterCard/Maestro when returning the AAV data to the merchant during the authentication step.</p>

Extension Record: UK Domestic Maestro “UKDM” (001)				
Position	Length	Data Type	Field Name	Comments
				<b>DO NOT MANIPULATE</b> this value in any way.
45, 120	76	A	Reserved	Blanks

## 2.11 NEW: (001) Extension Record: TeleCheck 1

[<return to RevHist>](#)

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						

Extension Record: TeleCheck 1 (001)				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2, 3	2	A		
4, 6	3	N		
7	1	A	Check Type	Valid values:- P – Personal C – Company
8,10	3	A	TeleCheck Product	Valid Values:- ICA - Internet Check Acceptance® CBP - Checks By Phone PPD - Prearranged Payments and Deposits
11,19	9	N	RDFI/Bank ID	Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur! Left justified/space filled
20,29	10	A		Required This field is required regardless of whether the full MICR (including Check number) is sent via the Extended Account Number (EXA001) format.
				(Optional)
				(Optional)  Valid Values:- D – Home Delivery P – Preorder S – Ship-To store X – Express Home Delivery
37,48	12	N	Gift Card Amount	(Optional)  Should be populated on Gift Card purchases.

Extension Record: TeleCheck 1 (001)				
Position	Length	Data Type	Field Name	Comments
				Right justified,/zero filled with 2 implied decimal places Space filled when data is not available
49,70	22	A	TeleCheck Trace ID	Space fill on Auth (AU) [populated on response] Populate on other actions <b>if known</b>
71	1	N	ACH Status (Response)	Space fill on submission  Values: 0 – call center or data error 1 – Approved 2 – Approved (Delayed Ship available) 3 – Code 3 decline 4 – Code 4 decline
72,78	7	N	Denial Record Number (Response)	Space fill on submission (Only on Decline)
79,88	10	A	Delayed Ship ID (Response)	Space fill on submission
				Space fill on submission Y = Preferred
				Space fill on submission MMDDYYYY
98,120	23	A	Filler	Space Filled

**Note:**

- All TeleCheck (TC) MOP transactions must include an 001 extension record.
- See Appendix N for TeleCheck details.





**2.11 NEW: (001) Extension Record: Extended Account Number**[<return to RevHist>](#)

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
AAANNNAA						

Extension Record: Extended Account Number (001)				
Position	Length	Data Type	Field Name	Comments
1	1	A		
		A		
		N		
7,8	2	A	Extended Account Number Type	Valid Values: "CK" – TeleCheck
9, 73	65	A		<p>Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur! For account type CK: Enter the entire MICR, digits only, i.e. ALL digits from the bottom of the check, in the order they appear, without spaces or separation characters.</p> <p>Left justified/space filled</p>
74, 120	47	A	Reserved	Space Fill

**Note:**

- Introduced in 13.02
- This record is sent when the Detail (S) Record account number exceeds 19 characters

Information Record: Personal Information (IPI)				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2,3	2	A		
4,6	3	N		
7,14	8	N	Customer Date of Birth	Customer date of birth. (Optional)  YYYYMMDD format  Default space filled
15,23	9	N		
24,26	3	N		
27,36	10	N	Gross Household Annual Income	Gross household annual income. (Optional)  Right justified/zero filled 2 decimal implied Space filled when data is not available
37	1	A	Customer Residence Status	Status of customer residence. (Optional)  Valid values: Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
38,39	2	N	Customer Years at Residence	Number of years at current residence. (Optional)  Left justified. Default space filled.  Round up to nearest year. Example: 5 months = 1
40,41	2	N	Customer Years at	Number of years with current employer. (Optional)

Information Record: Personal Information (IPI)				
Position	Length	Data Type	Field Name	Comments
			Employer	Left justified. Default space filled.  Round up to nearest year. Example: 6 months = 1
42	1	A	Customer Checking Account	Customer checking account indicator. (Optional)  Valid values: Y – Yes customer has checking account N – No customer does not have checking account
43	1	A	Customer Savings Account	Customer savings account indicator. (Optional)  Valid values: Y – Yes customer has savings account N – No customer does not have savings account
86,87	2	A	Consumer Driver's License Country	Consumer driver's license country. (Optional)  Default space filled
88,120	33	A	Reserved	Space Fill

**Note:**

- This Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!

**(001) Product Record: Advanced Fraud Mitigation**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890
AAANNNA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA

Product Record: Advanced Fraud Mitigation (001)				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2,3	2	A		
4,6	3	N		
7	1	A	ZIP Code Match Indicator	Valid Values: Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
				Valid Values: Y = match N = No Match S = Service Unavailable U = Unchecked R = Retry <space> = Data Not Sent
				Valid Values: Y = match N = No Match S = Service Unavailable U = Unchecked R = Retry <space> = Data Not Sent
				Valid Values: Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
				Valid Values: Y = match N = No Match S = Service Unavailable U = Unchecked R = Retry

Product Record: Advanced Fraud Mitigation (001)				
Position	Length	Data Type	Field Name	Comments
				<space> = Data Not Sent
				Valid values: <b>Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!</b> prevented or not supported by association)
15,120	106	A	Reserved	Blanks

**Note:**

- **Amex Support:** Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
- 
- **Discover Support:** In this record, only the Address Change Notification Indicator is supported by Discover at this time. Discover currently only supports a Monitoring period of 45 days.

(001) Product Record: Fraud

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890
AAANNNA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA	AAAAAAAA
PFR001321	1							

Product Record: Fraud (001)				
Position	Length	Data Type	Field Name	Comments
7,10	4	A	Card Security Value	<p>Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!</p> <p><b>Note:</b> It is against card association regulations to store this value.</p>
				<p>Valid values:</p> <ul style="list-style-type: none"> <li>1 – Value is present (VI, MC, MD, DI)</li> <li>2 – Value is on card, but illegible (VI, MC, MD, DI)</li> <li>9 – Cardholder states that the card has no card security value (VI, MC, MD, DI)</li> <li>“ ” – Blank, indicator not sent (MC, MD, AX)</li> </ul> <p><b>Note:</b> This field should be blank for American Express if populated it will be ignored.</p>
12,120	109	A	Reserved	Space Fill

Notes:

- For Visa, MasterCard, MasterCard Diners, American Express, and Discover this fraud record is used for authorizations and conditional deposits only.
- If not populating Card Security Value and Card Security Presence fields, do not send this record.

**(001) Product Record: Retail**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890	...	0						
AAANNNA	AA							
43	29							↵

Product Record: Retail (001)				
Position	Length	Data Type	Field Name	Comments
7,22	16	A	Terminal Identification	Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
37,120	84	A	Reserved	Blanks

**(001) Product Record: T**

1	2	3	4	5	6	7	8	12							
1234567890123456789012345678901234567890123456789012345678901234567890	. . . 0														
AAANNNAAA															
0010001								↵							

Product Record: Trr (001)				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2,3	2	A		
4,6	3	N		
7,10	4	A	Token Type	Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
11,120	110	A	Reserved	Space filled

**Notes:**

- This record is for Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!Fo Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
- This record is required for all Merchant specific Token Values (R-Token) transaction types. This record will be returned on all TransArmor submissions.



**(001) Product Record: ValueLink**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890
AA	AA	AA	AA	AA	AA	AA	AA	AA
1234567812340000P0000000005000N00000000								

Product Record: ValueLink (001)				
Position	Length	Data Type	Field Name	Comments
1	1			
2,3	2			
4,6	3			
7, 18	12	N	Current Balance	<p>This field reflects what the current balance is of the ValueLink card.</p> <p>2 decimal implied/right justified/zero filled (for output file)</p> <p>This field should be blank filled on the input file.</p> <p>The output file will populate the current balance.</p>
19, 30	12	N	Previous Balance	<p>Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!</p>
				<p>Unencrypted EAN. Must be provided when present on Card. (Optional).</p> <p>Left justified, space filled</p>
				<p>Used by merchants who are converting to ValueLink from an external gift card program (Optional).</p> <p>For more information contact your First Data representative.</p> <p>Left justified, space filled</p>
				<p>Card Type (Optional)</p> <p>Valid values:</p> <p>C – Virtual with SCV/CSV</p> <p>F – Foreign (non-ValueLink)</p> <p>P – Physical (consumer does not have an Account Number)</p> <p>S – Card Activation without EAN or SCV (**must be certified to send)</p> <p>V – Virtual</p>
48,59	12	A	Card Cost	<p>Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id</p>

Product Record: ValueLink (001)				
Position	Length	Data Type	Field Name	Comments
				autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
60	1	A	Escheatable	<p>Should be provided when Action Code = SI</p> <p>Valid values:</p> <p>Y – Yes. The value of the card will become property of the issuing state after an allotted period of time.</p> <p>N – No. The value of the card will never become property of the issuing state.</p> <p>Default Space filled. System default = N.</p>

**Notes:**

- This Record, Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!227 (Missing Companion Data).
- Methods of Payment (MOP) must equal VL when sending this product record.
- Input fields may be space filled on response for BI (Balance Inquiry).
- Please Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!.

**(01) Product Record: Effective Date/Time**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567 . . . 0								
AAANNNAA								
<div>↩</div>								

Product Record: Effective Date/Time (001)				
Position	Length	Data Type	Field Name	Comments
		A		
		A		
		N		
7,12	6	N	Effective Date	YYMMDD (Optional)  Effective Date of the Card Activation  Default Space fill
13,18	6	N	Effective Time	HHMMSS (24 hour clock) (Optional)  Effective Time of the Card Activation  Default Space fill
19,120	102	A	Reserved	Space Fill

Notes:

- Reserved for future use.

Product Record: Soft Merchant Information 2 (002)				
Position	Length	Data Type	Field Name	Comments
1	1			
2,3	2			
4,6	3			
		A	Street	<p>Merchant street address where the transaction took place (Optional)</p> <p>Left justified/space filled</p> <p><b>Note:</b> First Data will pass the first 25 bytes of this field to the associations</p>
69,83	15	A	Postal Code	<p>Merchant Zip/Postal code where the transaction took place (Optional)</p> <p>Left justified/space filled</p> <p><b>Note:</b> First Data will store the first 9 bytes of this field</p>
84,86	3	A	Country Code	<p>Merchant country code where the transaction took place (Optional)</p> <p>Valid ISO Country Codes</p> <p>Left justified/space filled</p>
87,120	34	A	Reserved	Space Fill

- This record Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!processing American Express. It is

optional for all other products and card types. The information in this record may not be displayed on the Cardholder's statement

- **See Appendix T:** Soft Merchant Information for additional information on populating these fields.

[illegible]

Product Record: Partial Authorization (001)				
Position	Length	Data Type	Field Name	Comments
1	1			
2,3	2			
4,6	3			
7	1	A	Partial Redemption Indicator Flag	<p>Indicator Flag value Determines approval functionality for pre-paid/gift card authorizations.</p> <p>Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!</p> <p>Valid values for <b>Visa/MasterCard/MasterCard Diners</b>:</p> <p><b>Y</b> – Attempt a partial authorization if allowed for the account.  <b>N</b> – Do not attempt a partial authorization.</p> <p><b>Note:</b> Partial Authorizations are not supported for other payment types.</p>
32.120	89	A	Reserved	Space Fill

- This record is only valid for Action Code = AU.
- Merchant's must use the Partial Authorization Indicator Flag set to value Y to indicate when they wish to allow Partial Authorizations.
- Sending a partial indicator flag set to N allows balances to be returned.

See *Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!*

- American Express returns the current balance.

- This Partial Authorization (PB record) with Partial Redemption Indicator Flag should not be sent unless the merchant has been certified with American Express for Partial Authorization.

### **Discover Notes:**

- Discover Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!ce.

### **MasterCard, MasterCard Diners and Visa Notes:**

- Visa, MasterCard and MasterCard Diners may return the current balance.

Product Record: Procurement Level 3 – Visa: Order Level Record				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2,3	2	A		
4,6	3	N		
7,18	12	N	Freight Amount	<p>Total freight or shipping and handling charges.</p> <p>Right justified/zero filled 2 decimal implied Space filled when data is not available</p> <p>Required for best possible interchange rate. See Note at end of record.</p>
44,53	10	A	Ship From Zip/Postal Code	<p>The zip/postal code of the location from which the goods were shipped.</p> <p>Left justified/space filled</p>
54,65	12	N	Discount Amount Applied to Order	<p>Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!</p>
66,77	12	N	VAT/Tax Amount	<p>The total amount of VAT or other tax included in this transaction.</p> <p>Right justified/zero filled 2 decimal implied Space filled when data is not available</p>
78,81	4	N	VAT/Tax Rate	<p>The rate of VAT or other tax (expressed in percentage terms) for this line item.</p> <p>Right justified/zero filled 2 decimal implied Space filled when data is not available</p>



Product Record: Procurement Level 3 – Visa: Order Level Record				
Position	Length	Data Type	Field Name	Comments
				Example: 0100 = 01.00 = 1%
82,120	39	A	Reserved	Space Fill

## Note:

If any Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!of the following fields are all spaces, or all zeros, for any of the Level 3 records for

a particular transaction, the transaction will not qualify for Level 3 interchange.

- Description (located on PP1 record)
- Product Code (located on PP1 record)
- Quantity (located on PP1 record)
- Unit of Measure (located on PP1 record)
- Line Item Total (located on PP2 record)
- Item Commodity Code (located on PP2 record)
- Unit Cost (located on PP2 record)

If any of the following fields ar

Level 3 is supported for U.S. and Canadian merchants.

This information will be displayed on the cardholder's statement subject to the Issuer discretion.

**() Product Record: Procurement Level 3, Visa: Record #1 – Line Item Level Data**  
**(must match to corresponding Line Item Level Data Record #2)**

1	2	3	4	5	6	7	8	12
12345678901234567890123456789012345678901234567890123456789012345678901234567890123456....0								
AAANNNAANNNNNNNNNNNNNNAAAAAAAAAAAAAAAAAANNNNNNNNNNNNNNNNNNNNA..... A								
0000000003000001      ↩								

Product Record: Procurement Level 3 – Visa: Record #1 – Line Item Level Data () (must match to corresponding Line Item Level Data Record #2)				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2,3	2	A		
4,6	3	N		
7,32	26	A	Description	Text description of the item purchased  Left justified/space filled  Required for best possible interchange rate. See Note at end of record.
33,44	12	A	Product Code	Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
		N	Quantity	Number of units of the item purchased  4 decimal implied/right justified/zero filled  Cannot be all zeroes  Required for best possible interchange rate. See Note at end of record.
		A	Unit of Measure	The unit of measure, or unit of measure code used for this item  Left justified/space filled  Required for best possible interchange rate. See Note at end of record.
69,80	12	N	Tax Amount	The tax amount for this item  Right justified/zero filled 2 decimal implied Space filled when data is not available

Product Record: Procurement Level 3 – Visa: Record #1 – Line Item Level Data () (must match to corresponding Line Item Level Data Record #2)				
Position	Length	Data Type	Field Name	Comments
81,84	4	N	Tax Rate	Tax rate applied to the item  Right justified/zero filled 2 decimal implied Space filled when data is not available  Example: 0100 = 01.00= 1%
84,120	36	A	Reserved	Space Fill

Note: If any of the following fields are all spaces, **or** all zeros, for any of the Level 3 records for a particular transaction, the transaction will not qualify for Level 3 interchange.

Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!

- Freight Amount (located on PP0 record)
- Duty Amount (located on PP0 record)
- Discount Amount Applied to Order (located on PP0 record)
- Discount Amount for Line Item (located on PP2 record)

Level 3 is supported for U.S. and Canadian merchants.

This information will be displayed on the cardholder's statement subject to the Issuer discretion.



- Description (located on PP1 record)
- Product Code (located on PP1 record)

If any of the following fields are all spaces, for any of the Level 3 records for a particular transaction, the transaction will not qualify for Level 3 interchange.

- Freight Amount (located on PP0 record)
- Duty Amount (located on PP0 record)
- Discount Amount Applied to Order (located on PP0 record)
- Discount Amount for Line Item (located on PP2 record)

Level 3 is supported for U.S. and Canadian merchants.

This information will be displayed on the cardholder's statement subject to the Issuer discretion.

**(001) Product Record: Proc Level 3, MasterCard and MasterCard Diners Order Level Rec**  
**(Must be preceded by Product Record: Procurement Level 2)**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890								0
ABC12332111	000001599							

Product Record: Procurement Level 3, MasterCard and MasterCard Diners Order Level Record (001) (Must be preceded by Product Record Procurement Level 2)				
Position	Length	Data Type	Field Name	Comments
1	1			
2,3	2			
4,6	3			
7,15	9	N	Freight Amount	Total freight or shipping and handling charges.  Right justified/zero filled 2 decimal implied Space filled when data is not available
			Duty Amount	Total charges for any import and/or export duties included in this transaction.  Right justified/zero filled 2 decimal implied Space filled when data is not available
			Destination Zip/Postal Code	The zip/postal code of the "Ship-To" location. This field is equal to the "Ship-From" zip/postal code when the customer takes possession of the items at the merchant's site.  Left justified/space filled  Required for best possible interchange rate. See Note at end of record.
			Destination Country Code	The ISO-assigned code of the country to which the goods were shipped.  Default space filled
38,47	10	A		
48,62	15	A	Alternate Tax ID	Tax ID number for the alternate tax associated with this transaction.  Left justified/space filled

Product Record: Procurement Level 3, MasterCard and MasterCard Diners Order Level Record (001) (Must be preceded by Product Record Procurement Level 2)				
Position	Length	Data Type	Field Name	Comments
				Required for best possible interchange rate. See Note at end of record.
63,71	9	N	Alternate Tax Amount	Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
72,120	49	A	Reserved	Space Fill

**Note:**

- Level 3 is supported for

**() Product Record: Proc Level 3, MasterCard and MasterCard Diners Rec #1 – Line Item Level Data****(Must match to corresponding Line Item Level Data Record #2)**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890 . . . 0								
AAANNNAAANNNNNAANNNNNNNNNNNNNNNAAAAAAAAAAAAA								
LC101099	00002EA	00000129901000	↵					

**Product Record: Procurement Level 3, MasterCard and MasterCard Diners Record #1 – Line Item Level Data (**

Position	Length	Data Type	Field Name	Comments
1	1			
2,3	2			
4,6	3			
7,41	35	A	Description	Text description of the item purchased  Left justified/space filled  Required for best possible interchange rate. See Note at end of record.
			Product Code	Product code of the item purchased  Left justified/space filled  Required for best possible interchange rate. See Note at end of record.
			Quantity	Number of units of the item purchased  Right justified/zero filled 2 decimal implied Space filled when data is not available  Required for best possible interchange rate. See Note at end of record.
			Unit of Measure	The unit of measure, or unit of measure code used for this item  Left justified/space filled  Required for best possible interchange rate. See Note at end of record.
62,70	9	N	Tax Amount	The tax amount for this item



Product Record: Procurement Level 3, MasterCard and MasterCard Diners Record #1 – Line Item Level Data (				
Position	Length	Data Type	Field Name	Comments
				Right justified/zero filled 2 decimal implied Space filled when data is not available
71,75	5	N	Tax Rate	Tax rate applied to the item  Right justified/zero filled 5 decimal implied Space filled when data is not available  Example: 0100 = 01.00= 1% 02250 = .02250 = 2.25%
76,120	45	A	Reserved	Space Fill

**Notes:**

Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!

Level 3 is supported for U.S. and Canadian merchants.

Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!

Level 2 is required for MasterCard and MasterCard Diners Level 3 interchange rate.

### () Product Record: Proc Level 3, MasterCard and MasterCard Diners Rec #2 – Line Item Level Data

(Must match to corresponding Line Item Level Data Record #1)

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890 . . . 0								
AAANNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAA								

### Product Record: Procurement Level 3, MasterCard and MasterCard Diners Record #2 – Line Item Level Data ()

(Must match to corresponding Line Item Level Data Record #1)

Position	Length	Data Type	Field Name	Comments
1	1			
2,3	2			
4,6	3			
7,15	9	N	Line Item Total	The amount of the item. Normally calculated as price multiplied by quantity.  2 decimal implied/right justified/zero filled  Required for best possible interchange rate. See Note at end of record.
16,24	9	N	Discount Amount	Amount of discount applied to the line item.  Right justified/zero filled 2 decimal implied Space filled when data is not available
				Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
			Tax Type Applied	Type of tax being applied  Left justified/space filled
30	1	A	Discount Indicator	Indicates whether the amount is discounted  Valid values: Y – amount is discounted N – amount is not discounted

**Product Record: Procurement Level 3, MasterCard and MasterCard Diners Record #2 – Line Item Level Data ()**  
**(Must match to corresponding Line Item Level Data Record #1)**

Position	Length	Data Type	Field Name	Comments
				If value = Y, and Discount Amount field is space filled or zero filled, First Data will change the Discount Indicator field value to "N" before sending the data to MasterCard.
31,120	90	A	Reserved	Space Fill

**Notes:**

Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!

Level 3 is supported for U.S. and Canadian merchants.

This information will be displayed on the cardholder's statement subject to the Issuer discretion.

Level 2 is required for MasterCard and MasterCard Diners Level 3 interchange rate.

## 2.11 NEW: (001) Product Record: Transaction 1

[<return to RevHist>](#)

1	2	3	4	5	6	7	8
12345678901234567890123456789012345678901234567890123456789012345678901234567890							
AAANNNA	AA						
5							

Product Record: Transaction 1 (001)				
Position	Length	Data Type	Field Name	Comments
1	1			
2, 3	2			
4, 6	3			
7, 70	64	A	Session ID 1	ant cu quo. Legimus theoph
71, 120	50	A	Filler	Space Filled

### Note:

- Introduced in 13.02

)

## 2.11 NEW: (02) Product Record:

[<return to RevHist>](#)

1	2	3	4	5	6	7	8
1234567890123456789012345678901234567890123456789012345678901234567890							
AAANNNA							

Product Record:)				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2, 3	2	A		
4, 6	3	N		
7, 70	64	A		ant cu quo. Legimus theoph
71, 120	50	A	Filler	Space Filled

### Note:

- Introduced in 13.02

**ADDRESS RECORDS****Introduction**

Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!

Two options exist for submitting Address Records:  
FORMATTED and UNFORMATTED.

Both are explained in the following pages.

PART I: Formatted address records are preferred for Bill-To and Ship-To information. *Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!*

PART II: Unformatted address records Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!A. *Unformatted address records*, if needed, must follow *Formatted address records*

PART III: Examples of both Formatted and Unformatted records are presented here in Part III.

**PART I: () Formatted Address Record: Bill-To Name**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890								0
AA								
SMITH								

Formatted Address Record: Bill-To Name ()				
Position	Length	Data Type	Field Name	Comments
1,2	2			
3,17	15			
18,47	30	A	Last Name	<p>Accountholder's last name (Optional)</p> <p>Left justified/space filled</p> <p>Bill-To Last Name is required for eCheck transactions when Action Code = DO</p> <p><b>Note:</b> Uppercase required</p>
48,120	73	A	Reserved	Space Fill

**Notes:**

- LN Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. LA record.
- This record overrides the Name Text field populated in the Formatted Bill-To Address record (LA).
- For American Express Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu., otherwise, response reason code 225 (Invalid Field Data) will be returned.

**PART I: () Formatted Address Record: Bill-To Address**

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
AA						
SMITH	2240	NEWMARKET	PKWY.			

8	9	10	11	12
01234567890123456789012345678901234567890				
AA				
ATLANTA	GA30318	US		

Formatted Address Record: Bill-To Address ()				
Position	Length	Data Type	Field Name	Comments
1,2	2			
3,30	28			
31,58	28	A	Address Line 1	Accountholder's street address  Left justified/space filled  <b>Note:</b> Uppercase required
59,86	28	A	Address Line 2	Additional accountholder's address information  Left justified/space filled  <b>Note:</b> Uppercase required
87,106	20	A	City	Accountholder's city  Left justified/space filled  <b>Note:</b> Uppercase required
107,108	2	A	State	Accountholder's state  Default space filled  <b>Note:</b> Uppercase required
109,118	10	A	Postal Code	Accountholder's postal code  Left justified/space filled
119,120	2	A	Country Code	Country code  A Bill-To Country Vis ei laudem aliquid. Modo antiopam delicata



Formatted Address Record: Bill-To Address ()				
Position	Length	Data Type	Field Name	Comments
				<p>ea mea, purto invidunt consetetur mel cu. those listed below. Please contact your First Data Representative for list of valid eCheck Country Codes</p> <p>Valid values (Credit Card):</p> <ul style="list-style-type: none"> <li>US – United States</li> <li>CA – Canada</li> <li>GB – Great Britain</li> <li>UK – United Kingdom</li> <li>“ “ – Blank for all other countries</li> </ul> <p><b>Note:</b> If not populated with a valid value the transaction will return with AVS/AAV response code N2 (Edit Error).</p>

**Notes:**

- The field used for AVS locale matching is Address Line 2 if populated, otherwise Address Line 1 is used.
- For American Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. returned.

**PART I: () Formatted Address Record: Bill-To Telephone**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890								0
AA								
6186000								0

Formatted Address Record: Bill-To Telephone ()				
Position	Length	Data Type	Field Name	Comments
1,2	2	A		
3	1	A	Telephone Type	Telephone type  Valid values: D – Day H – Home N – Night W – Work
4,17	14	A	Telephone Number	The accountholder's phone number formatted as  AAAEENNNNXXXX where: AAA = Area Code EEE = Exchange NNNN = Number XXXX = Extension
18,120	103	A	Reserved	Space Fill

**Note:**

- This is an optional record. If sent, this record must immediately follow the Formatted Bill-To Address record () otherwise, response reason code 227 (Missing Companion Data) will be returned.
- Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!.

**PART I: () Formatted Address Record:**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890								0
AA								

Formatted Address Record: ()				
Position	Length	Data Type	Field Name	Comments
1,2	2	A		
3,17	15	A		
18,47	30	A	Last Name	Accountholder's last name  Left justified/space filled  <b>Note: Uppercase required</b>
48,120	73	A	Reserved	Space Fill

**Notes:**

- This is an Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu. wise, response reason code 227 (Missing Companion Data) will be returned.
- This record overrides the Name Text field populated in the Formatted Ship-To Address record (HA).
- For American Express address verification the street address, name, and telephone fields cannot be populated with all zeros and/or slashes, otherwise, Response Reason Code 225 (Invalid Field Data) will be returned.

**PART I: () Formatted Address Record: Ship-To Address**

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
AA						
WILD	2240 NEWMARKET PKWY.					

8	9	10	11	12
01234567890123456789012345678901234567890				
AA				
ATLANTA	GA30318	US		

Formatted Address Record: Ship To Address ()				
Position	Length	Data Type	Field Name	Comments
1,2	2			
3,30	28			
31,58	28	A	Address Line 1	Ship-To street address  Left justified/space filled  <b>Note:</b> Uppercase required
59,86	28	A	Address Line 2	Additional Ship-To address information  Left justified/space filled  <b>Note:</b> Uppercase required
87,106	20	A	City	Ship-To city  Left justified/space filled  <b>Note:</b> Uppercase required
107,108	2	A	State	Ship-To state  Left justified/space filled  <b>Note:</b> Uppercase required
109,118	10	A	Postal Code	Ship-To postal code  Left justified/space filled
119,120	2	A	Country Code	Country code  Valid values:

Formatted Address Record: Ship To Address ()				
Position	Length	Data Type	Field Name	Comments
				US – United States CA – Canada GB – Great Britain UK – United Kingdom “ ” – Blank for all other countries  <b>Note:</b> If not populated with a valid value the transaction will return with AVS/AAV response code N2 (Edit Error).

**Note:**

- For American Express address verification the street address, name, and telephone fields cannot be populated. The transaction will return with AVS/AAV response code N2 (Edit Error).

**PART I: () Formatted Address Record: Ship-To Telephone**

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890								0
AA								
HTH7706186000								↵

Formatted Address Record: Ship-To Telephone ()				
Position	Length	Data Type	Field Name	Comments
1,2	2	A		
3	1	A		
4,17	14	A	Telephone Number	The accountholder's phone number formatted as  AAAEENNNNXXXX  Where: AAA = Area Code EEE = Exchange NNNN = Number XXXX = Extension
18,120	103	A	Reserved	Space Fill

**Note:**

- This is an optional record. If sent, this record must immediately follow the Formatted Ship To Address (Vis ei laudem aliquid. Modo antiopam delicata ea mea, purto invidunt consetetur mel cu.), otherwise, response reason code 227 (Missing Companion Data) will be returned.
- For Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!be returned.

**PART II: Unformatted Address Record**[<return to RevHist>](#)**Unformatted Address Record.****Positions 1 “” and Position 2 “Address Type” Record Identifier**

Position*	Length	Data Type	Field Name	Comments																																				
1	1																																							
2	1	A	Address Type	<div><div><b>Address Type values: (Record Identifier part 2)</b> Note: Records using Types below may be followed by any necessary Extension Record types</div><table><thead><tr><th>Address Type</th><th>Description</th><th>Payment Type</th></tr></thead><tbody><tr><td></td><td></td><td>CC, BML</td></tr><tr><td></td><td></td><td>CC, BML</td></tr><tr><td></td><td></td><td>CC</td></tr><tr><td></td><td></td><td>CC</td></tr><tr><td></td><td></td><td>CC, BML,</td></tr><tr><td></td><td></td><td>CC, BML,</td></tr><tr><td></td><td></td><td>TC</td></tr><tr><td>N</td><td>Customer ANI (Automatic Number Identification)</td><td>CC</td></tr><tr><td>R</td><td>“Customer Browser</td><td>CC</td></tr><tr><td>S</td><td>“Ship-To” address (asterisk should precede last name) Please note that Ship-To records are for information only and are not screened for AVS.</td><td>CC, BML</td></tr></tbody></table><div><b>Payment Types:</b> CC - Credit Card BML – Bill Me Later TC - TeleCheck</div><div>Any of the above address record types may be followed by up to 4 Extension Records. Extension Records start with the letter “A” + Extension number. The first extension number is 2.</div><table><thead><tr><th>Address Type for Ext Records</th><th>Extension Records</th><th>Payment Type</th></tr></thead></table></div>	Address Type	Description	Payment Type			CC, BML			CC, BML			CC			CC			CC, BML,			CC, BML,			TC	N	Customer ANI (Automatic Number Identification)	CC	R	“Customer Browser	CC	S	“Ship-To” address (asterisk should precede last name) Please note that Ship-To records are for information only and are not screened for AVS.	CC, BML	Address Type for Ext Records	Extension Records	Payment Type
Address Type	Description	Payment Type																																						
		CC, BML																																						
		CC, BML																																						
		CC																																						
		CC																																						
		CC, BML,																																						
		CC, BML,																																						
		TC																																						
N	Customer ANI (Automatic Number Identification)	CC																																						
R	“Customer Browser	CC																																						
S	“Ship-To” address (asterisk should precede last name) Please note that Ship-To records are for information only and are not screened for AVS.	CC, BML																																						
Address Type for Ext Records	Extension Records	Payment Type																																						

**Unformatted Address Record.**

**Positions 1 “” and Position 2 “Address Type” Record Identifier**

Position*	Length	Data Type	Field Name	Comments		
				2	1st Extension Record	Any
				3	2nd Extension Record	Any
				4	3rd Extension Record	Any
				5	4th Extension Record	Any
				Note: See Address Format Examples		



**PART II: (A\*) Unformatted Address Record (A) for Address Types:**

Please see Address Format Examples.

Unformatted Address Record.												
Positions 3 thru 120 for Address Types:												
Position	Length	Data Type	Field Name	Comments								
3,32	30	A	Address Line	<p>Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!suffix with the string “,” (e.g., PATRICK P. *OCONNOR, MD).</p> <p>Address extension records (A2 – A5) should be used as necessary to send the full address information. The last address record sent should contain:</p> <table><tr><th>Country</th><th>Address Information</th></tr><tr><td>US</td><td>City, State, Postal Code</td></tr><tr><td>CA</td><td>City, Province, Postal Code</td></tr><tr><td>UK/GB</td><td>City, Postal Code</td></tr></table> <p><b>Note:</b> All alpha characters in these records must be UPPERCASE only.</p>	Country	Address Information	US	City, State, Postal Code	CA	City, Province, Postal Code	UK/GB	City, Postal Code
Country	Address Information											
US	City, State, Postal Code											
CA	City, Province, Postal Code											
UK/GB	City, Postal Code											
33	1											
34,47	14	A										
48,49	2	A	Country Code	<p>2-byte ISO country Code</p> <p>See Appendix W: Country Codes for list of valid Country Codes</p> <p>Default space filled</p>								
50,120	71	A	Reserved	Space Fill								

**Notes:**

- For multiple street address lines, the line immediately preceding city, state, and postal code will be used. Suite and apartment numbers should be included on the street address line.
- For Am Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!

**PART II: () Unformatted Address Record () for address type:**

Please see Address Format Examples.

<b>Unformatted Address Record</b>				
<b>position 3 thru 120 for address Type: I</b>				
Position	Length	Data Type	Field Name	Comments
3				
4,48	45	A	Customer IP Address	Customer's IP address  Left justified/space filled  Customer's IP address is required for eCheck transactions when eCheck Authorization Method = Internet
49,120	72	A	Reserved	Space Fill

**PART II: () Unformatted Address Record (A) for address type: L**

Please see Address Format Examples.

<b>Unformatted Address Record position 3 thru 120 for address type: L</b>				
Position	Length	Data Type	Field Name	Comments
3	1			
4,53	50	A	Customer Email Address	Customer's email address  Left justified/space filled  Note: Customer email address is required for eCheck when Authorization Method = I and Action Code = DO
54,120	67	A	Reserved	Space Fill

**Notes:**

- Characters are acceptable (i.e. dots)
- An Address Subtype = B Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur! Bill Me Later requests this data be sent for all Bill Me Later transactions (First Data will not front-end reject the transaction if it is not present). Bill Me Later may decline the transaction without this information.

**211 NEW: PART II: () Unformatted Address Record () for address type:**[<return to RevHist>](#)

Please see Address Format Examples.

Unformatted Address Record				
position 3 thru 120 for address Type: M (Telecheck)				
Position	Length	Data Type	Field Name	Comments
3, 27	25	A		
28, 120	91	A	Reserved	Space filled

**Note:**

- Introduced in 13.02
- International** Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!

**PART II: (AN) Unformatted Address Record (A) for address type: N**

Please see Address Format Examples.

<b>Unformatted Address Record position 3 thru 120 for address Type: N</b>				
Position	Length	Data Type	Field Name	Comments
3,12	10	A		
13,14	2	A	Customer ii Digits	Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
15,120	67	A	Reserved	Space Fill

**PART II: () Unformatted Address Record () for address type:**

Please see Address Format Examples.

<b>Unformatted Address Record position 3 thru 120 for address Type: R</b>				
Position	Length	Data Type	Field Name	Comments
3,62	60	A	Customer Browser Name	Customer HTTP Browser type Example: Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!)
63,120	67	A	Reserved	Space Fill





## Address Format Examples (CONTINUED)

The following are three (3) separate examples of valid Unformatted Address Record combinations for credit card transactions (address types B, and S):

### #1 – Postal Code Only

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890
AA	AA	AA	AA	AA	AA	AA	AA	AA
↩								

### #2 – Name and Billing Address

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890
AA	AA	AA	AA	AA	AA	AA	AA	AA
↩								

### #3 – Billing Address and Shipping Address

1	2	3	4	5	6	7	8	12
1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890	1234567890123456789012345678901234567890123456789012345678901234567890
AA	AA	AA	AA	AA	AA	AA	AA	AA
↩								

## Address Format Examples (CONTINUED)

The following are four (4) separate examples of valid Unformatted Address Record combinations (Address Types E, L, I, and G):

(Address Type E)

### #1 – Employer Address

1	2	3	4	5	6	7	8	12
123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890
AA	AA	AA	AA	AA	AA	AA	AA	AA
└─								
A3ATLANTA, GA 30318								└─

(Address Type L)

### #2 – Email Address

1	2	3	4	5	6	7	8	12
123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890
AA	AA	AA	AA	AA	AA	AA	AA	AA
└─								

(Address Type I)

### #3 – IP Address

1	2	3	4	5	6	7	8	12
123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890
AA	AA	AA	AA	AA	AA	AA	AA	AA
└─								

(Address Type G)

### #4 – Gift Recipient Information – Shipping Address

1	2	3	4	5	6	7	8	12
123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890	123456789012345678901234567890123456789012345678901234567890
AA	AA	AA	AA	AA	AA	AA	AA	AA
								└─

Batch Totals Record "B RECS="

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
AA						

8	9	10	11	12
01234567890123456789012345678901234567890				
AA				

Batch Totals Record				
Position	Length	Data Type	Field Name	Comments
1,7	7	A		
8,16	9	N		
17	1	A	Constant	Blank
			Constant	"ORDS ="
			Batch Order Count	Total number of all orders within this batch. ("S" Records)  Right justified/zero filled
			Constant	Blank
			Constant	"\$TOT="
38,51	14	N	Batch Amount Totals	Total amount of all detail records in this batch, which contains an amount in positions 61,72.  (ABSOLUTE AMOUNT sales + ABSOLUTE AMOUNT refunds + ABSOLUTE AMOUNT validate and deposits + ABSOLUTE AMOUNT authorizations)  Right justified/zero filled
52	1	A	Constant	Blank
53,58	6	A	Constant	"\$SALE="
59,72	14	N	Batch Amount Sales	Total amount o Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!f all sale records in the batch. Do not include authorization, verification, validation, pre-note, or refund records.

Batch Totals Record				
Position	Length	Data Type	Field Name	Comments
				Note: Conditional deposit amounts must be included as sales.
73	1	A	Constant	Blank
82,95	14	N	Batch Amount Refunds	Total amount of all refund records in the batch. (unsigned) Right justified/zero filled
96,120	25	A	Reserved	Blank

**Note:**

Absolute Amount Example: A \$2 sale and a \$1 refund total as \$3.00 (not \$1.00)

Totals Record "T RECS="

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
AA						

8	9	10	11	12
01234567890123456789012345678901234567890				
AA				

Totals Record				
Position	Length	Data Type	Field Name	Comments
1,7	7			
8,16	9	N	File Record Count	Total number of records in the file up to, but NOT including, the current Record.  Right justified/zero filled
17	1	A	Constant	Blank
18,22	5	A	Constant	"ORDS="
23,31	9	N	Batch Order Count	Total number of all orders within this batch. ("S" Records)  Right justified/zero filled
32	1	A	Constant	Blank
		A	Constant	"\$TOT="
		N	Batch Amount Totals	Total amount of all detail records in this batch, which contains an amount in positions 61,72. Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!  Right justified/zero filled  <b>Note:</b> If this total is not correct, the submission processing will fail.
			Constant	Blank
			Constant	"
59,72	14	N	File Amount Sales	Total amount of all sale records in the file. Do not include authorization, verification, validation, pre-note, or refund amounts.

Totals Record				
Position	Length	Data Type	Field Name	Comments
				Right justified/zero filled  <b>Note:</b> Conditional deposit amounts must be included as sales
73	1	A	Constant	Blank
74,81	8	A	Constant	"\$REFUND="
82,95	14	N	File Amount Refunds	Total amount of all refund records in the file. (unsigned)  Right justified/zero filled
96,120	25	A	Reserved	Space Fill

**Note:**

Absolute Amount Example: A \$2 sale and a \$1 refund total as \$3.00 (not \$1.00)

## Trailer Record "PID="

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
AAAAANNNNNAAAAAAAAAAAAAAAAANNNNNAAAAAAAAAAAAAAAAANNNNNAAAAAAAAAAAAAAAAAAAAAAAAAAAA						

8	9	10	11	12
01234567890123456789012345678901234567890				
AANNNNNNNNNNNNAAAAAAAAAAAAAAAAAAAAAAAAAAAA				
D=00000000000000				↵

Trailer Record				
Position	Length	Data Type	Field Name	Comments
1, 4	4			
5, 10	6			
11	1	A	Constant	Blank
12, 19	8	A	PID Password	Assigned by First Data  Left justified/space filled
			Constant	Blank
			Constant	"SID="
			Submitter's ID (SID)	Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
31	1	A	Constant	Blank
32, 39	8	A	SID Password	Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
		A	Constant	Blank
		A	Constant	"
		A	Constant	Space Fill
46,51	6	N	Creation Date	The date the file was created (Optional)  YYMMDD format  Default space filled
52,120	69	A	Reserved	Space Fill

**“S” Record OUTPUT “S”**

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
ANNNNNNNNNNAAANNNNNNNNNNNNNNNNNNNNNNNA						

8	9	10	11	12
01234567890123456789012345678901234567890				
ANNNNNNAAAAAAAAAAAAAAAAANNAAAAAAAAAAAAAAAAAAAAA				
031115654321	Y		REC001	↵

“S” Record Output				
Position	Length	Data Type	Field Name	Comments
1	1	A		
2,11	10	N		
12,33	22	A		
34,35	2	A	Action Code	Action requested (echoed back from Input Record)
		A		Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!
		A	Account Number	The account number (echoed back from Input Record.)  Left justified/space filled
		N	Expiration Date	MMYY format (echoed back from Input Record)  Note: May be returned as blanks for Visa, MasterCard and MasterCard Diners transactions.
61,72	12	N	Amount	Amount of transaction (echoed back from Input Record).
73,75	3	N	Currency Code	Currency code for transaction (echoed back from Input Record)
76,78	3	N	Response Reason Code	Result of action requested  <i>See Appendix A: Response Reason Code/Auth Code Responses</i>
79	1	A	Transaction Type	Transaction type (echoed back from Input Record).





“S” Record Output				
Position	Length	Data Type	Field Name	Comments
96	1	A	Bill Payment Indicator	Bill Payment Indicator  Echoed back from Input Record
100,101	2	N		Valid values: 01 – New account information available. Obtain new account information. 02 – Try again later. Recycle transaction in 72 hours. 03 – Do not try again. Obtain another type of payment from customer. 21 – Do not try again. Issuer has blocked recurring payment transaction.  Default space filled
102	1	A	Reserved	Space Fill
103	1	A	Partial Auth Flag	Defines whether or not the transaction has been partially authorized and a product record “PB” follows.  Valid values: Y – Partial Auth N – No Partial Auth  Default space filled
104,112	9	A	Reserved	Space Fill
113,120	8	A	Merchant Space	For merchant use (echoed back from Input Record)

1	2	3	4	5	6	7
123456789012345678901234567890123456789012345678901234567890123456789						
ANNNNNNNNNNNAAANNNNNNNNNNNNNNNNNNNNNNNNA						

8	9	10	11	12
01234567890123456789012345678901234567890				
ANNNNNNAAAAAAAAAAAAANNAAAAAAAAAAAAAAAAAAAAA				
↵				

## FORMAT USAGE

### **General Information**

The First Data format is flexible and may be used in several different ways based on merchant or vendor needs. There are two general methods that fit most needs

A merchant or vendor that knows items are in stock before sending transactions to First Data usually benefits the most from using conditional deposits ("DC" action code). A conditional deposit is one that requests that First Data deposit the transaction if it passes authorization/verification. Conditional Deposits may also be used with the two-pass method for pre-approved GoogleCheckout and PayPal Transactions.

When received, a conditional deposit transaction is sent out for authorization/verification. Any approved transactions are automatically deposited in First Data's next deposit window (First Data deposits several times per day).

The output returned to the merchant or vendor contains the authorization/verification results with only approved transactions having been deposited. Refunds can be mixed in with Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

other transactions and are returned with an authorization/verification status as well.

Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

Authorization may be obtained online in real time with the use of First Data's Specification for On-Line Authorization. Contact your First Data Representative for a copy of our latest specification.

---

### ***Sending Pre-Approved Records.***

When a transaction has been previously approved (via First Data, voice authorization, or a point-of-sale terminal) and is sent for deposit, it is extremely important that the merchant or vendor accurately provide the authorization information previously obtained.

The authorization response reason code should have a value of 100 (approved), and the authorization date and authorization code must be accurately populated.

Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

If a merchant includes an authorization code and authorization date in the detail of a conditional deposit ("DC" action code), First Data will deposit the transaction regardless of the result of any re-authorization attempt.

Pre-approved records should be deposited with a "DP" action code, except for GoogleCheckout and PayPal which must be deposited with "DC"

---

### ***First Data Output***

First Data does not return any Address Records in the output file unless requested by the merchant or vendor. All Header, Trailer, Batch Totals Records are echoed in the output file exactly as they are received. All Detail Records are returned in the output file with the most recent authorization information being supplied in the proper fields.

Some products return additional records. Records are noted as such in the record layout section.

---

***Sample Input and Output Files***

Sample files have been provided to demonstrate the format of input files sent by the merchant and the format of the output returned by First Data. The input and output Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

Record usage. Below each example, a line-by-line item description is supplied.

**Notes:**

- The numbers in brackets [n], at the end of each line in the file examples, indicate the line number corresponding to the line item description.
- These numbers are not part of the input or output files.
- These Records may contain unsupported methods of payment/functionality that are currently unsupported.

Sample Input File 1:

1	2	3	4	5	6	7	8	9	10	11	12
1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890											
PID=123456 XYZCO      SID=123456 XYZCO      START   031202 3.0.0      DEPFILE      [ 1]											
[18]											
LAJOHN D. *SMITH      2240 NEWMARKET PKWY.      ATLANTA      GA30318      US      [19]											
LTH55512312340001      [20]											
AIB10.10.10.5      [21]											
ALBJDSMITH@XYZCOMPANY.COM      [22]											
IPI00119800101      12345678912345      GA      [23]											
S00001234569898981234PURCH      DCVI4123456789012345      1204000000015797840      1      [24]											
PPC001CUSTREF123456789 000000000000      [25]											
ABTHE BIG COMPANY      W60355588880810US      [26]											
A254 NORTHWEST RD      [27]											
A3SALEM, NH 03079-9099      [28]											
[39]											
S00001234569898981234AUTH      AUBL5049900000000000      000000007575840      7 031130      [40]											
ABSAM *BROWNE      D6035554444      US      [41]											
A223 NORTH POLICY RD      [42]											
A3SALEM, NH 03079-9099      [43]											
AIB10.10.10.5      [44]											
ALBJDSMITH@XYZCOMPANY.COM      [45]											
AS03079-9099      [46]											
EBL001      [47]											
IOI      [48]											
B RECS=000000050 ORDS=000000009 \$TOT=00000000045122 \$SALE=00000000024872 \$REFUND=00000000009575      [51]											
T RECS=000000051 ORDS=000000009 \$TOT=00000000045122 \$SALE=00000000024872 \$REFUND=00000000009575      [52]											
PID=123456 XYZCO      SID=123456 XYZCO      END   031202      [53]											
EOFE0FE0F      [54]											
1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890											
1	2	3	4	5	6	7	8	9	10	11	12

Please see the following page for Sample Input File 1 Line Item Description



**Sample Input File 1 Line Item Description:**

Line 1:	Header Record
Line 2:	Merchant Descriptor [populated]
Line 3:	Detail Record [Visa authorization with address verification & fraud]
Line 4:	Product Record [Fraud record for Visa CVV2]
Line 5-7:	Address Record [With billing address]
Line 22:	Consumer Email Address
Line 23:	Personal Information Record
Line 24:	Detail Record [Visa conditional deposit for a Procurement Card]
Line 25:	Product Record: Procurement (Level 2)
Line 26-28:	Address Record [With bill-to-address]
Line 29:	Address Record [With ship-to-address postal code]
Line 30:	Detail Record [American Express deposit for a Procurement Card with TAA's]
Line 33:	Product Record: Procurement (Level 2)
Line 34-36:	Address Record [With bill-to-address]
Line 37:	Address Record [With ship-to-address postal code]
Line 38:	Detail Record [Star PINless Debit Deposit]
Line 39:	Product Record [PINless Debit]
Line 40:	Detail Record [Bill Me Later Authorization]
Line 41-43:	Bill-To Address
Line 50:	Detail Record [GoogleCheckout Reversal]
Line 51:	Batch Totals Record
Line 52:	Totals Record
Line 53:	Trailer Record
Line 54:	EOFEOFEOF (Note: only required for TCPIP protocol)



Sample Output File 1:

1	2	3	4	5	6	7	8	9	10	11	12		
1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890													
PID=123456 XYZCO SID=123456 XYZCO START 031202 3.0.0										DEPFILE		[ 1]	
S00001234569898981234AUTH				AUVI4123456789012345				12040000000001008401001M031202567890I4N				MERCHSPC	[ 2]
S00001234569898981234DEP				DPMC5412345678901234				120400000000010008401001 031130877865 Y					[ 3]
S00001234569898981234REFUND				RFDI6011345678901234				120400000000020008401001 031130 Y					[ 4]
S00001234569898981234ECP				DOEC12344321765612				0000000030008401001 031202123456 Y					[ 5]
EOFE OFEOF											[16]		
1234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890													
1	2	3	4	5	6	7	8	9	10	11	12		

Please see the following page for Sample Output File 1 Line Item Description

**Sample Output File 1 Line Item Description:**

Line 1: Header Record  
 Line 2: Suas soleat admodum sea ad, solum abhorreant cu quo.  
 Line 3: Detail Legimus theophrastus ne mea, eum ut prima soleat regione.Result  
 Line 4: Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at ha  
 Line 14: Totals Record  
 Line 15: Trailer Record  
 Line 16: EOFEOFEOF

**Notes:**

- only required for TCPIP protocol on inbound, but created for all protocols on outbound unless otherwise requested.)
- If an RFR record is received by First Data, and there is no file available for pick up, the following message will be given:

```
YY-MM-DD HH:MM:SS NO DATA TO SEND BACK AT THIS TIME.  

EOFEOFEOF
```

- ◆ This message is sent in text file format without header or PID information and begins in position 2
- ◆ TCPIP merchants will receive entire message noted above, with the EOF line
- ◆ Bsync merchants will receive message above, without the EOF line

RFR is a separate record sent to First Data. It should not be sent as part of the input data file.

## COMPASS APPENDICES

The following Compass Appendices are identical in 4 documents:

*COMPASS BATCH*

*COMPASS ONLINE*

*COMPASS XML BATCH*

*COMPASS XML ONLINE*

## APPENDIX A: RESPONSE REASON CODE DESCRIPTION AND USAGE

The following Response reason codes table reflects all currently defined First Data response reason codes. Many of these codes will never be returned in your output.

For Suas soleat admodum sea ad, solum abhorreant cu quo. Legimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur!. If you are receiving codes not listed here, please contact your Account Manager.

**Response Reason  
Code KEY**

First, the following KEY describes the Column Headings and the values appearing in those columns.

Response Reason Code KEY	
Column Heading	Value & Description
Type	S - Successful Response Codes R - Reject Response Codes D - Decline Response Codes
Code	3-digit response code
Name	Description of the response code
Action	Resend - Send this transaction back at any time Wait - Wait 2-3 days before sending back, or try to resolve with your customer Cust. - Try to resolve with customer, or get an alternate method of payment Fix - There is an invalid field being sent Fix and resend N/A - Not applicable Voice - Perform a voice authorization per First Data instructions Call - Call First Data
Payment Method	BML - Bill Me Later CC - All Credit Cards DB - All Debit Cards ED - European Direct Debit GC - GoogleCheckout PY - PayPal SV - ValueLink SW - UK Domestic Maestro TC – TeleCheck

## Response Reason Codes Detail

### Notes:

- Not Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?
- Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.
- (000) is received for a Deposit (DP) transaction, the transaction should be reattempted until a non-timeout response is received.

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
D	000	No Answer	Resend	All	Suas soleat admodum sea ad, solum abhorreant cu quo. L
S			N/A	All	Suas soleat admodum sea ad, solum abhorreant cu quo. L
S			N/A	ED	Suas soleat admodum sea ad, solum abhorreant cu quo. L
S			N/A		Suas soleat admodum sea ad, solum abhorreant cu quo. L
S	678	Pre-Noted	N/A		Passed pre-note
S	2364	No Reason to Decline	N/A		Successfully approved
S		Received and Stored	N/A	CC	
S		Provided Auth	N/A	CC	Note: Indicates customized code was used in processing
S		Request Received	N/A	CC	Successfully approved  Note: Indicates customized code was used in processing
S		Approved for Activation	N/A	CC	Successfully Activated
S		Previously Processed Transaction	N/A	DB	Transaction was not re-authorized with the Debit Network because it was previously processed

## APPENDIX A: RESPONSE REASON CODES

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
S	110	BIN Alert	N/A	CC	Successfully approved  Note: Indicates customized code was used in processing
S	111	Approved for Partial	N/A	CC	Successfully approved  Note: Indicates customized code was used in processing
S	164	Conditional Approval	Wait	BML	Conditional Approval – Hold shipping for 24 hours
N/A	200	Suspected Fraud	N/A	CC	Suas soleat admodum sea ad, solum abhorreant cu quo. L Fraud is suspected in a non Face-To-Face transaction environment.  MasterCard Non Face to Face FULL Reversal Only
R			Cust	All	Bad check digit, length, or other credit card problem
R			Fix	All	Suas soleat admodum sea ad, solum abhorreant cu quo. L maximum allowable amount.
R			Fix	CC	Amount sent was zero
R			Fix	All	Unidentifiable error
R			Fix	CC	Suas soleat admodum sea ad, solum abhorreant cu quo. L does not equal detail record authorization Amount.  Suas soleat admodum sea ad, solum abhorreant cu quo. L over ceiling limit, or exceeds Maximum allowable amount.
R	218	Invalid SKU Number	Fix	CC	Non-numeric value was sent
R	219	Invalid Credit Plan	Fix	CC	Non-numeric value was sent
R	220	Invalid Store Number	Fix	CC	Non-numeric value was sent
R	225	Invalid Field Data	Fix	CC, DB, PY, GC, BML	Data within transaction is incorrect
R	227	Missing Companion Data	Fix	CC, BML, ED, PY, GC	Specific and relevant data within transaction is absent  Note: For ED = Missing Companion Data

## APPENDIX A: RESPONSE REASON CODES

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
R	231	Invalid Division Number	Fix	All	Division number incorrect
R	233				
R	234				
R	238				
R	239				
R	241	Illegal Action	Fix	All	Invalid action attempted
R	243	Invalid Purchase Level 3	Fix	CC	Data is inaccurate or missing, or the BIN is ineligible for P-card
R	244	Invalid Encryption Format	Fix	CC	Invalid encryption flag. Data is inaccurate.
R	245	Missing or Invalid Secure Payment Data	Fix	CC, SW	Suas soleat admodum sea ad, solum abhorreant cu quo. L
R	246	Merchant not MasterCard Secure code Enabled	Call	CC, SW	Suas soleat admodum sea ad, solum abhorreant cu quo. L
R	247	Check Conversion Data Error	Fix	none	Suas soleat admodum sea ad, solum abhorreant cu quo. L
R	248	Blanks not passed in reserved field	Fix	All	Suas soleat admodum sea ad, solum abhorreant cu quo. L Field
R	249	Invalid (MCC)	Fix	All	Invalid Merchant Category (MCC) sent
R	251	Invalid Start Date	Fix	SW	Incorrect start date or card may require an issue number, but a start date was submitted.
R	252	Invalid Issue Number	Fix	SW	Issue number invalid for this BIN.
R	253	Invalid Tran. Type	Fix	All	Invalid Transaction Type for this order
R	257	Missing Cust Service Phone	Fix	CC	Suas soleat admodum sea ad, solum abhorreant cu quo. L Note: MasterCard/MasterCard Diners Only

## APPENDIX A: RESPONSE REASON CODES

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
R	258	Not Authorized to Send Record	Call	All	Division does not participate in Soft Merchant Descriptor.  Contact your First Data Representative for information on getting set up for Soft Merchant Descriptor.
D	260	Soft AVS	Cust.	CC	Suas soleat admodum sea ad, solum abhorreant cu quo. L Note: Conditional deposits only
R	262	Suas soleat admodum sea ad, solum abhorreant cu quo. L	Fix	CC	Authorization code and/or response date is invalid.  Note: MOP = MC, MD, VI only
R	263	Suas soleat admodum sea ad, solum abhorreant cu quo. L Request Note Valid	Fix	CC	Suas soleat admodum sea ad, solum abhorreant cu quo. L.
R	264	Duplicate Deposit Transaction	N/A	DB	Transaction is a duplicate of a previously deposited transaction. Transaction will not be processed.
R	274	Suas soleat admodum sea ad, solum abhorreant cu quo. L	N/A	CC	Suas soleat admodum sea ad, solum abhorreant cu quo. L
D			Resend	CC, SV, SW	Suas soleat admodum sea ad, solum abhorreant cu quo. L
D			Wait	CC, BML, SV	Insufficient funds
D			Cust.	CC, PY, GC, SV	Suas soleat admodum sea ad, solum abhorreant cu quo. L
D			Cust.	CC, PY, GC, SV	No card record, or invalid/non-existent to account specified
D	305	Already Reversed	N/A	CC, DB, SV	Transaction previously reversed. Note: MOP = any Debit MOP, SV, MC, MD, VI only
D	306	Amount Mismatch	Fix	CC	Requested reversal amount does not match original approved authorization amount. Note: MOP = MC, MD, VI only
D	307	Authorization Not Found <a href="#">&lt;return to RevHist&gt;</a>	Fix	CC, PY, <b>TC</b>	Transaction cannot be matched to an authorization / <b>approval</b> that was stored in the database. <b>Note:</b> MOP = MC, MD, VI, <b>TC</b> and PY only



## APPENDIX A: RESPONSE REASON CODES

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
R	351	TransArmor Service Unavailable	Resend	CC, DB	TransArmor Service temporarily unavailable.
D	352	Expired Lock	Cust.	SV, EUDD	ValueLink - Lock on funds has expired. Lock on funds has expired.
R	353	TransArmor Invalid Token or PAN	Fix	CC,DB	TransArmor Service encountered a problem converting the given Token or PAN with the given Token Type.
R	354	TransArmor Invalid Result	Cust	CC,DB	TransArmor Service encountered a problem with the resulting Token/PAN.
D	401	Call	Voice	CC, PY, GC , SW	Issuer wants voice contact with cardholder
D	401	Decline	Cust.	BML	Decline
D	402	Default Call	Voice	CC	Decline
D	501	Pickup	Cust	CC, BML, SW	Card Issuer wants card returned
D	502	Lost/Stolen	Cust	CC, SV	Card reported as lost/stolen  Note: Does not apply to American Express
D	503	Fraud / Security Violation	Cust	CC	CID did not match  Note: Discover only
D	505	Negative file	Cust	BML	On negative file
D	508	Excessive PIN try	Cust	CC	Allowable number of PIN tries exceeded
D	509	Over the limit	Cust	CC, PY, GC, SV	Exceeds withdrawal or activity amount limit
D	510	Over Limit Frequency	Cust	CC, SV, PY, GC	Exceeds withdrawal or activity count limit
D	519	On negative file	Cust	none	Account number appears on negative file
D	521	Insufficient funds	Cust	CC, BML, ED, GC, SV	Insufficient funds/over credit limit
D	522	Card is expired	Cust	CC, SV, SW	Card has expired
D	524	Altered data	Fix	DB, BML	Altered DataMagnetic stripe incorrect

## APPENDIX A: RESPONSE REASON CODES

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
D	530	Do Not Honor	Cust	CC, BML, SV, PY, GC, SW	Generic Decline – No other information is being provided by the issuer.  Note: This is a hard decline for BML (will never pass with recycle attempts)
D	531	CVV2/VAK Failure	Cust	CC	Issuer has declined auth request because CVV2 or VAK failed
D	534	Do Not Honor – High Fraud	Cust	PY,GC	The transaction has failed PayPal or GoogleCheckout risk models
D	540	Under 18 Years Old	Cust	BML	The date of birth indicates customer is less than 18 years of age
D	541	Possible Compromise	Cust	BML	Customer reported possible compromise and blocked account
D	542	Bill-To Not Equal to Ship To	Cust	BML	Bill-To address does not match ship to address
D	543		Cust		Suas soleat admodum sea ad, solum abhorreant cu quo. L
D	544		Cust		Suas soleat admodum sea ad, solum abhorreant cu quo. L
D	545		Cust		Suas soleat admodum sea ad, solum abhorreant cu quo. L
D	546		Cust		Suas soleat admodum sea ad, solum abhorreant cu quo. L
D	547		Fix		Suas soleat admodum sea ad, solum abhorreant cu quo. L
D	548	Not on Credit Bureau	Cust	BML	Need more information. Request full social security number
D	549	Previously Declined	Cust	BML	Customer previously declined Closed Account
D	550	Closed Account, New Account Issued	Cust	BML	New Account Issued
D	551	Duplicate transaction	Fix	BML	Re-authorization request is declined. The customer account number, merchant id, or amount did not match the original authorization
D	560	Re authorization	Fix	BML	Re-authorization request is declined. Original Auth could not be found.

## APPENDIX A: RESPONSE REASON CODES

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
D	<b>561</b>	Re authorization no match	Fix	BML	Re-authorization request is declined. The customer account number, merchant id, or amount did not match the original authorization
D	<b>562</b>	Re authorization amount exceeded	Fix	BML	Re-authorization request is declined. The amount significantly exceeds the original request amount
D	<b>563</b>	Re authorization timeframes exceeded	Fix	BML	Re-authorization request is declined. The timeframes for re-authorization have been exceeded
D	<b>564</b>	Counter Offer	Cust.	BML	Counter Offer to Supply Personal Guaranty
D	<b>567</b>	Pending Review	Cust	BML	Pending review by BillMeLater – wait 24 hours
D	<b>570</b>	Stop payment order one time recurring/ installment	Fix	CC	Cardholder has requested this one recurring/installment payment be stopped.
D	<b>571</b>	Revocation of Authorization for All Recurring / Installments	Cust	CC	Cardholder has requested all recurring/installment payments be stopped
D	<b>572</b>	Revocation of All Authorizations – Closed Account	Cust	CC	Cardholder has requested that all authorizations be stopped for this account due to closed account.  Note: Visa only
D	<b>580</b>	Account previously activated	Cust	SV	Account previously activated
D	<b>581</b>	Unable to void	n/a	SV	Unable to void
D	<b>582</b>	Block activation failed	Fix	SV	Reserved for Future Use
D	<b>583</b>	Block Activation Failed	Fix	SV	Reserved for Future Use
D	<b>584</b>	Issuance Does Not Meet Minimum Amount	Fix	SV	Issuance does not meet minimum amount
D	<b>585</b>	No Original Authorization Found	n/a	SV	No original authorization found
D	<b>586</b>	Outstanding Authorization, Funds on Hold	n/a	SV	Outstanding authorization, funds on hold

## APPENDIX A: RESPONSE REASON CODES

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
D	587	Activation Amount Incorrect	Fix	SV	Activation amount incorrect
D	588	Block Activation Failed	Fix	SV	Reserved for Future Use
D	589	CVD Value Failure	Cust	SV	Magnetic stripe CVD value failure
D	590	Maximum Redemption Limit Met	Cust	SV	Maximum redemption limit met
D	591	Invalid CC Number	Cust	CC, DB	Bad check digit, length or other credit card problem. Issuer generated
D	592	Bad Amount	Fix	CC, BML	Amount sent was zero or unreadable. Issuer generated
D	594	Other Error	Fix	CC, BML, DB, ED, GC, PY, SV	Suas soleat admodum sea ad, solum abhorreant cu quo. L
D	595	New Card Issued	Cust	CC	BML
					BML
					BML
					BML
					BML
D	596		Cust	CC	Suas soleat admodum sea ad, solum abhorreant cu quo. L
D	599		N/A	DB, ED	B Suas soleat admodum sea ad, solum abhorreant cu quo. L
D	602		Fix	CC	Suas soleat admodum sea ad, solum abhorreant cu quo. L
D	603		Cust	CC, DB	BML
D	605		Cust	CC, SW	Suas soleat admodum sea ad, solum abhorreant cu quo. L
D	606	Invalid Transaction Type	Cust	CC, DB, SW	Issuer does not allow this type of transaction
D	607	Invalid Amount	Fix	CC DB, SV	Amount not accepted by network
D	610	BIN Block	Cust	CC	Merchant has requested First Data not process credit cards with this BIN

## APPENDIX A: RESPONSE REASON CODES

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
R	<b>740</b>	Match Failed	Fix	DB	Unable to validate the Debit  Authorization Record – based on amount, action code, and MOP (Batch response reason code for Debit Only)
R	<b>741</b>	Validation Failed	Fix	DB	Unable to validate the Debit  Authorization Record – based on amount, action code, and MOP (Batch response reason code for Debit Only)
R/D	<b>750</b>	Invalid Transit Routing Number	Fix	ED	Invalid Trans Routing Number  EC – ABA transit routing number is invalid, failed check digit
R/D	<b>751</b>	Transit Routing Number Unknown	Fix	ED	Transit routing number not on list of current acceptable numbers
R	<b>752</b>	Missing Name	Fix	None	Pertains to deposit transactions only
R	<b>753</b>	Invalid Account Type	Fix	SV	Pertains to deposit transactions only
R/D	<b>754</b>	Account Closed	Cust	CC, PY, GC, SV	Bank account has been closed  For PayPal and GoogleCheckout – the customer's account was closed / restricted
R	<b>755</b>	No Account/ Unable to Locate	Cust	none	Does not match any account for the customer at the bank
R/D	<b>756</b>	Account-Holder Deceased	Cust.	ECP	Customer or accountholder has died
R	<b>757</b>	Beneficiary Deceased	Cust	ECP	Beneficiary on account has died
R	<b>758</b>	Account Frozen	Cust	SV	Transaction Posting to Account Prohibited
R/D	<b>759</b>	Customer Opt-out	Cust.	ECP, PY	Customer has refused to allow transaction  For PayPal – the customer's billing agreement was cancelled

## APPENDIX A: RESPONSE REASON CODES

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
R/D	<b>760</b>	ACH Non-Participant	Cust.		EC – Banking Institution does not accept ACH transactions
R	<b>763</b>	Invalid Account Number	Cust	SV	Account number is incorrect
R	<b>764</b>	Authorization Revoked by Consumer	Cust	none	Customer has notified their bank not to accept these transactions
R	<b>765</b>	Customer Advises Not Authorized	Cust		Customer has not authorized bank to accept these transactions
R/D	<b>767</b>	Invalid Account Number Format	Fix	ED	Formatting of account number is incorrect
R/D	<b>768</b>	Bad Account Number Data	Fix		Invalid characters in account number
D	<b>771</b>	Decline Lost or Stolen Checks	Cust		Transaction did not pass Authorizers fraud detection checks
D	<b>772</b>	Incorrect Length	Cust.		
D	<b>776</b>	Duplicate Transaction	Cust		
D	<b>777</b>	Original transaction not approved	Cust		
D	<b>778</b>	Refund greater than original amount	Cust		The amount that the consumer is attempting to refund is greater than the amount of the settled transaction
D	<b>781</b>	Invalid MICR Data	Cust		The merchant's Routing, Account, or Check number(s) is invalid
D	<b>784</b>	Decline-Code 47	Cust		
D	<b>786</b>	Call Center	Call		Call Center
D	<b>787</b>	Decline High Risk	Cust		Transaction was declined due to high risk
D	<b>802</b>	Positive ID	Voice	CC	Issuer requires further information
D	<b>806</b>	Restraint	Cust	CC, ED, SV, SW	Card has been restricted
D	<b>811</b>	Invalid Security Code	Fix	CC	American Express CID is incorrect

## APPENDIX A: RESPONSE REASON CODES

First Data Response Reason Codes Detail					
Response Type	Code	Name	Action	Payment Method	Comments
D	813	Invalid PIN	Cust	CC, DB	PIN for online debit transactions is incorrect
D	825	No Account	Cust	CC, SV	Account does not exist
D			Fix	CC, DB, BML, SV	. Id autem cetero vim, sit et laoreet definitionem! Eum
R			Fix	ALL	. Id autem cetero vim, sit et laoreet definitionem! Eum
D			Cust.	CC	. Id autem cetero vim, sit et laoreet definitionem! Eum
R			Fix	ED	. Id autem cetero vim, sit et laoreet definitionem! Eum
R			Wait	ED	. Id autem cetero vim, sit et laoreet definitionem! Eum
D			Fix	SV	EAN or Card Security Value was not provided or invalid, but is required for this transaction.
D	843	Mandate Error	Fix	EUDD	There is a problem with the provided mandate ID.
D	902	Process Unavailable	Resend/ Call/ Cust.	CC, BML, SV	System error/malfunction with Issuer  For Debit – The link is down or setup issue; contact your First Data Representative.  Notes: For BML – Decline from Processor
D	903	I . Id autem cetero vim, sit et laoreet definitionem! Eum	Cust	CC	. Id autem cetero vim, sit et laoreet definitionem! Eum
D	904	I	Cust./ Resend	CC, BML	. Id autem cetero vim, sit et laoreet definitionem! Eum
D	905	Stand in Rules	Resend	BML	Declined authorization using stand-in rules.  Notes: Authorization may be obtained when systems are available





### APPENDIX B: ADDRESS VERIFICATION (AVS & AAV)

#### **Introduction**

The Visa, MasterCard, Diners, and Discover Address Verification Service (AVS) and American Express Automated Address Verification (AAV) are intended to reduce the fraudulent use of credit cards for mail, telephone, and other card not present transactions.

Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

is defined as the card Issuer and the merchant being from two different countries. For example, a card Issuer in the U.S. and a merchant from the UK, or a card issuer in Canada and a merchant in the U.S. For Visa, these scenarios would receive any of the AVS Response Codes notes as "International." MasterCard and AMEX do not differentiate between international and domestic.

If the card Issuer and the merchant are from the same country, it is considered "domestic" Address Verification, regardless of the country. For example, a card Issuer in Canada and a merchant in Canada. This scenario would receive any of the AVS Response Codes known as "domestic".

---

#### **Types Of Address Records**

First Data supports two types of batch address records.

- One is formatted
- One is not formatted.

The *Formatted address records* are recommended for best AVS results.

---

#### **AVS/AAV Process**

Each verification process is executed by comparing the transmitted billing address with the billing address data that is kept on file for the accountholder. The Address Verification request is routed from the merchant through the First Data system, directly to the specific credit card organization. The

## APPENDIX B ADDRESS VERIFICATION (AVS & AVV)

---

address information is then compared to the accountholder billing address on file.

The result of the Address Verification comparison is included in the authorization response message returned to the merchant. The Address Verification response is reflected as two-character code (e.g., I3 or ID). In the First Data address format, merchants may transmit either the zip/postal code only or multiple lines of address information. First Data recommends Country Code be sent.

### AVS/AAV Process (continued)

If the country code sent on the record is not "US", "CA", "GB", or "UK", First Data will return AVS Response Code "N2"

If the country code is not sent on the record, First Data will attempt to parse the zip/postal code in the following ways:

1. Attempt a U.S. zip code format.
2. Attempt a Canadian postal code format
3. Attempt a GB/UK postal code format
4. Return AVS Response Code "N2".

In each of the card organizations' address verification formats, the Address Verification fields consist of 29 bytes of data: 9 bytes for the 9 byte postal code and 20 bytes for the alphanumeric street address.

The number in the street address and any numeric street name must be sent in numeric form. For example, 123 FIRST STREET should be sent as 123 1ST STREET and ONE MAIN STREET as 1 MAIN STREET. Any apartment number associated with the address should follow directly after the street address on the same line.

For multiple street address lines, the line immediately preceding city, state, and postal code will be used. Suite and apartment numbers should be included on the street address line.

For Visa and MasterCard/MasterCard Diners, MCC's that do not require AVS include:

- Government (9211, 9222, 9399)
- School (8211, 8220, 8299)
- Utility (4900)
- Insurance (5960, 6300)
- Cable and Other Pay TV (4899)
- Healthcare (4119, 5975, 5976, 7277, 8011, 8021, 8031, 8041, 8042, 8043, 8049, 8050, 8062, 8071, 8099) AVS is not required for Bill Payment transactions unless transaction type is 5, 6, or 7.

## APPENDIX B ADDRESS VERIFICATION (AVS & AAV)

For Visa AVS transactions from a US merchant to a UK Visa Issuer:

- If a US merchant submits a standard authorization requests with AVS data for a UK issued Visa Credit card, the merchant will receive the appropriate AVS matching code in the response. If a merchant submits an authorization request with AVS and no amount, the AVS data will be removed by Visa Europe and behave as if AVS is not applicable.

First Data recommends sending postal code as a minimum on all transactions.

For American Express:

To support full American Express AAV, the following records must be provided with Online authorizations:

“LN” – Formatted Bill-To Name  
“AB” – Bill-To Address  
“HN” – Formatted Ship-To Name  
“AS” – Ship-To Address

To support full American Express AAV, the following records must be provided with batch authorizations:

“LN” – Formatted Bill-To Name  
“LA” – Formatted Bill-To Address  
“LT” – Formatted Bill-To Telephone  
“HN” – Formatted Ship-To Name  
“HA” – Formatted Ship-To Address  
“HT” – Formatted Ship-To Telephone

For American Express address verification, the street address, street name and telephone number fields cannot be populated with all zeros and/or slashes.

Note:

After September 2010, Compass will pass all American Express Enhanced responses in the Responses to the merchant if they are received from Amex. Merchants should expect to receive all Compass AVS responses when submitting an AVS transaction. If a merchant certified with Compass before September 2010, they would be required to accept the new values at their next certification.

### AVS Response Codes KEY

AVS & AAV Response Codes KEY	
Item	Definition
ZIP/Postal	Zip/Postal Code
Plus-4	4 digit portion of a 9-digit U.S. zip code

## APPENDIX B ADDRESS VERIFICATION (AVS & AVV)

AVS & AAV Response Codes KEY	
Item	Definition
Locale	Street address, PO Box, or other local delivery destination
A,B,I	Responses from the Issuer or Network
N	Responses from First Data
Match	Information presented in the record field matches the information stored on the card Issuer's file
No Match	Information presented in the record filed does not match the information stored on the card Issuer's file.

### Postal Code Formats (US, CANADA, UK)

Postal Code Formats KEY		
U.S. Postal Code Format	Canadian Postal Code Formats	United Kingdom Postal Code Formats
NNNNN NNNNN-NNNN	ANANAN ANANAN	AN NAA ANA NAA ANN NAA AAN NAA AANN NAA AANA NAA

N = Numeric

A = Alpha

### AVS Response Codes Detail

AVS Response Codes Detail	
Response	Explanation
N1	No address given with order
N2	Bill-to address did not pass First Data's edit checks (e.g., may be foreign)
4439	AVS not performed (Blanks returned)
IG	AVS not performed by Issuer (International Issuer). Address information unavailable for the account number, the card Issuer does not support AVS, or card Issuer declined authorization and did not perform AVS.
IU	AVS not performed by Issuer (Domestic Issuer). Address information unavailable for the account number, the card Issuer does not support AVS, or card Issuer declined authorization and did not perform AVS.
*ID	Issuer does not participate in AVS
*IE	Edit Error – AVS data is invalid
*IS	System unavailable or time-out
IA	International street address and postal code match (International Only)
*IB	Street address match. Postal code not verified due to incompatible formats (both were sent)

## APPENDIX B ADDRESS VERIFICATION (AVS & AVV)

AVS Response Codes Detail			
Response	Explanation		
*IC	Street address and postal code not verified due to incompatible format (both were sent)		
*IP	Postal code match. Street address not verified due to incompatible formats (both were sent)		
A1	Accountholder name matches		
A3	Accountholder name, billing address and postal code match		
A4	Accountholder name and billing postal code match		
A7	Accountholder name and billing address match		
B3	Accountholder name incorrect, billing address and postal code match		
B4	Accountholder name incorrect, billing postal code matches		
B7	Accountholder name incorrect, billing address matches		
B8	Accountholder name, billing address and postal code are all incorrect		
	Zip/Postal	Plus-4	Locale
I1	Match	Match	Match
I2	Match	Match	No Match
I3	Match	No Match	Match
*I4	Match	No Match	No Match
I5	No Match	Match	Match
I6	No Match	Match	No Match
*I7	No Match	No Match	Match
*I8	No Match	No Match	No Match

### Notes:

- A1 – B8 will only be returned for American Express transactions that use formatted address information.
- Shared codes in the AVS tables shown above are no longer provided by Visa. Visa eliminated the distinction between Zip and Zip+4 and consolidated the response code previously provided.
- \*These codes are for Domestic and International AVS. All other codes are for Domestic AVS except where noted. International AVS codes are for Visa only.

### AVS Support:

- U.S. Address Verification is supported by:  
Visa, MasterCard, MasterCard Diners, American Express, Discover, Diners.
- Canadian Address Verification is supported by:  
Visa, MasterCard, MasterCard Diners, and American Express
- United Kingdom (UK/GB) Address Verification is supported by:  
Visa, MasterCard, MasterCard, and American Express



## APPENDIX C: ERROR SCREENING

**Bad Card Number Check**

There are three common edits which catch the greatest majority of bad card and Certification numbers:

- MOD 10 check digit
- Credit card prefix check
- Credit card / Certification Number length validation

A discussion of these edits follows

**Card Prefix and Account Number Length Check**

Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

cards generally supported within the First Data system. Please check with a Client Certification and Implementation (CC&I) Group representative / Certification Analyst for additional details

Card Prefix and Account Number Length Check						
Card Type	Length	When in production	Card Begins With			
VISA	16	Now	4			
MASTERCARD	16	Now	5			
AMERICAN EXPRESS	15	Now	37, 34			
DINERS CLUB INTERNATIONAL*	14	Now	Start	End		
			3600000	3699999		
	16	TBD	Start	End		
			3000000	3059999		
			3095000	3095999		
			3800000	3999999		
			DCI 30, 38, and 39 will be re-activated in the future. Currently no cards issued within these ranges.			
	DISCOVER	14 or 16	Refer to the Bin Range Reference Document for Details.	Size	Start	End
16				3000000	3059999	DCI*
16				3095000	3095999	DCI*
16				3528000	3589999	JC**
14				3600000	3699999	DCI*

Card Prefix and Account Number Length Check						
Card Type	Length	When in production	Card Begins With			
DISCOVER			16	3800000	3999999	DCI*
			16	6011000	6011099	DISC
			16	6011200	6011499	DISC
			16	6011740	6011749	DISC
			16	6011770	6011799	DISC
			16	6011860	6011999	DISC
			16	6221260	6229259	CUP
			16	6240000	6269999	CUP
			16	6282000	6288999	CUP
			16	6440000	6599999	DISC
JC**	16	Now	Start		End	
			352800		358999	
PayPal	16	Now	N/A			
GoogleCheckout	16	Now	N/A			
Bill Me Later	16	Now	N/A			
eCheck	Up to 17	Now	N/A			
ValueLink	Up to 19	Now	N/A			

\* In July 2008, Discover acquired Diners Club International (DCI) whereby Diners cards will be enabled and routed to Discover's Network on October 16, 2009. This means that a merchant who currently accepts Discover, but not Diners, will now be required to accept Diners cards and vice versa.

\*\* In December 2006, JC and Discover announced a strategic alliance whereby Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

required to accept JC cards and vice versa.

- Compass will consider JC transactions covered by the Discover alliance to be Discover transactions for all authorizations and settlement processing



- JC transactions not covered by the Discover alliance (e.g. CAD and YEN transactions, or transactions acquired in Canada) will continue to be routed to JC via VisaNet for authorization and JC for settlement

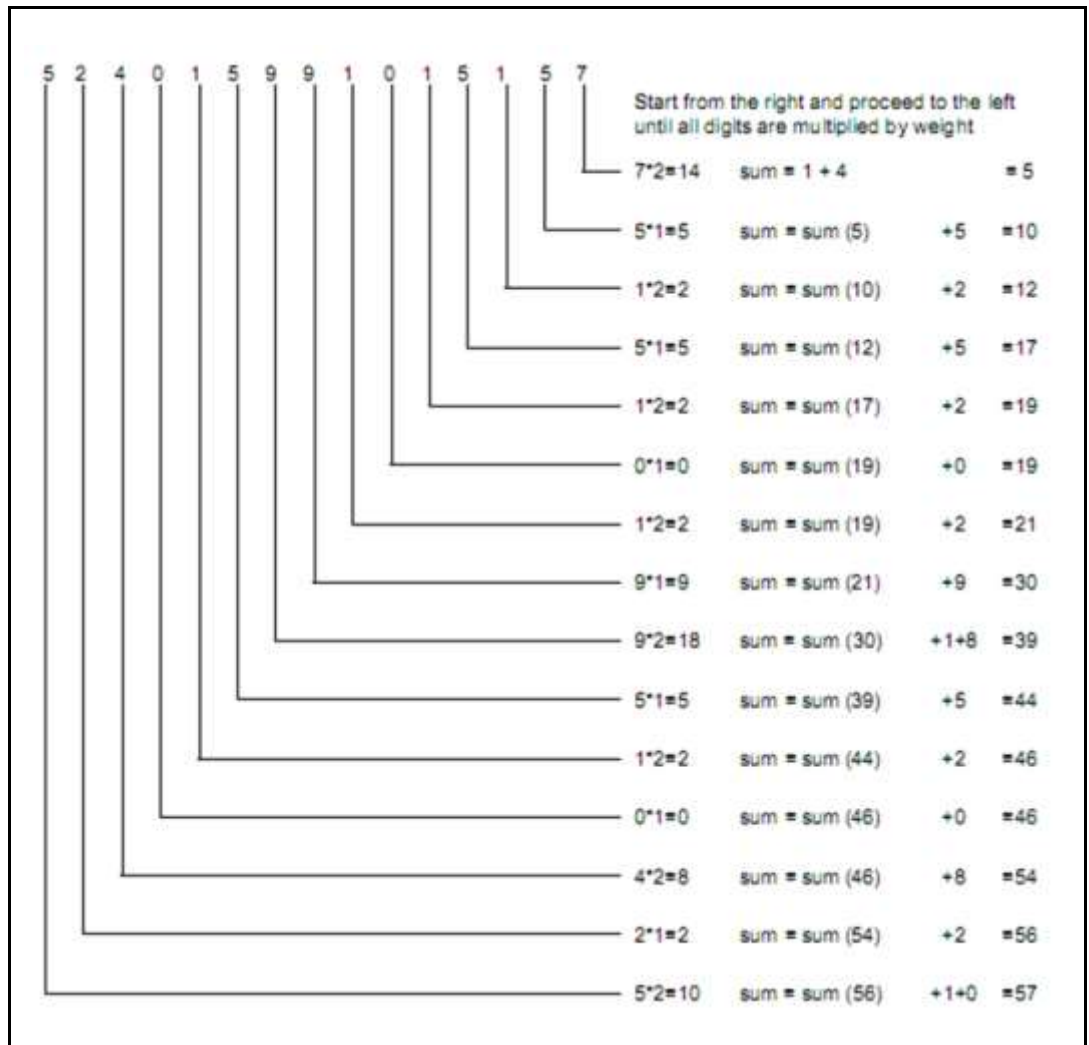
## MOD 10 Check Digits

The MOD 10 check digit calculation validates the credit card or Certification Number by calculating the last digit of the card/cert number from all the other numbers in the card.

The last digit of a credit card or Certification Number can be calculated based on a calculation performed upon all the digits preceding it. This operation is called a MOD 10 check digit routine.

The general idea of this calculation is as follows:

**Examples: Card number 5240159910151573**



**MOD 10 Check Digits  
(continued)**

The following routine is a check digit routine written in the 'C' programming language.

```

/* The operator for mod in 'C' is % */
long mod10 (card,card_len-1)          /* module 10 check digit function */
char *card;                          /* credit card number */
short card_len                       /* card length */
{
    register int count;               /* a counter */
    register int weight;              /* weight to apply to digit being checked */
    register int sum;                 /* sum of weights */
    register int digit;               /* digit being checked */
    long mod;

    weight=2;
    sum=0;

    /* compute the sum */
    for (count = card_len - 1; count >=0; count = count -1)
    {
        digit = weight * (card[count] - '0');

        /* add both the tens digit and the ones digit to the sum */
        sum = sum + (digit / 10) + (digit % 10)

        if (weight ==2)
            weight = 1;
        else
            weight = 2;
    }

    /* subtract the ones digit of the sum from 10 and return the ones digit of that
    result */

    mod = (10 - sum%10) % 10;
    return (mod)
}

```

**Notes:**

- DISC – Acronym for DISCOVER
- DCI – DINERS CLUB INTERNATIONAL
- CUP – CHINA UNION PAY

### APPENDIX D: INTERNATIONAL PROCESSING

#### **Introduction**

For the processing of international transactions, Compass supports two of First Data's international currency solutions products, **Global E-Pricing and Global Merchant Acquiring**

The **Global E-Pricing** product allows merchants to collect payments from consumers in one currency and receive settlement proceeds in US Dollars

The **Global Merchant Acquiring** product gives multi-national corporations the opportunity to consolidate global payments processing to one acquirer and receive funding in a multitude of currencies.

---

#### **Contractual Agreement**

The merchant is required to establish separate contractual agreements with First Data in order to process International transactions. Contractual agreements vary by country and Method of Payment.

---

#### **Division Numbers**

First Data Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

in the same currency.

---

#### **Zero Decimal Currency Example**

Certain International currencies have zero decimals.

Since the amount field is two decimal implied:

- to represent one Japanese Yen, (1 = 000000000100)
- to represent one hundred Japanese Yen, (100 = 000000010000)

## Global E-Pricing

Global E-Pricing is a First Data International Processing product which allows US domiciled clients to price their goods in any number of foreign currencies.

This product allows e-commerce merchants to collect payments from consumers in one currency and receive settlement proceeds in US Dollars. This product is ideally suited for e-commerce and MOTO merchants who are only domiciled in the United States and need to consolidate foreign currency settlement.

Example: Merchant A markets a product/service in Australian Dollars, bills the consumer in Australian Dollars, and receives funding in U.S Dollars from First Data.

## Presentment Currencies

The following chart lists all supported presentment currencies, ISO Currency Codes, and Currency Decimals.

Global E-Pricing: Presentment Currencies			
Country Name	Currency	ISO Currency Code	Currency Decimals
Afghanistan	Afghani	971	2
Albania	LEK	008	2
Algeria	Algerian Dinar	012	2
Andorra	Euro	978	2
Angola	Angola Kwanza	973	2
Anguilla	East Caribbean Dollar	951	2
Argentina	Argentine Peso	032	2
Armenia	Armenian Dram	051	2
Aruba	Aruban Guilder	533	2
Australia	Australian Dollar	036	2
Azerbaijan	Azerbaijan Manat	944	2
Bahamas	Bahamian Dollar	044	2
Bahrain	Bahraini Dinar	048	2
Bangladesh	Bangladesh Taka	050	2
Barbados	Barbados Dollar	052	2
Belize	Belize Dollar	084	2
Bermuda	Bermuda Dollar	060	2
Bhutan	Ngultrum	064	2
Bolivia	Bolivian Boliviano	068	2
Bosnia	Convertible Mark	977	2

Global E-Pricing: Presentment Currencies			
Country Name	Currency	ISO Currency Code	Currency Decimals
Botswana	Pula	072	2
Brazil	Brazilian Real	986	2
Brunei Darussalam	Brunei Dollar	096	2
Bulgaria	Lev	975	2
Burundi	Burundi Franc	108	2
Cambodia	Riel	116	2
Canada	Canadian Dollar	124	2
Cape Verde Islands	Cape Verde Escudo	132	2
Cayman Islands	Caymans Islands Dollar	136	2
Chad	CFA Franc BCEAO	950	0
Chile	Chilean Peso	152	2
China	Yuan Renminbi	156	2
Colombia	Colombian Peso	170	2
Comoros	Comoros Franc	174	0
Costa Rica	Costa Rican Colon	188	2
Croatia	Croatian Kuna	191	2
Czech Republic	Czech Koruna	203	2
Democratic Republic of the Congo	Congo Franc	976	2
Denmark	Danish Krone	208	2
Djibouti	Djibouti Franc	262	0
Dominican Republic	Dominican Peso	214	2
Egypt	Egyptian Pound	818	2
El Salvador	El Salvador Colon	222	2
Eritrea	Eritrean Nakfa	232	2
Estonia	Euro	978	2
Ethiopia	Birr	230	2
Falkland Islands (Malvinas)	Falkland Island Pound	238	2
Fiji	Fiji Dollar	242	2
French Polynesia	CFP Franc	953	0
Gambia	Dalasi	270	2
Georgia	Georgia Lari	981	2
Ghana	Cedi	936	2
Gibraltar	Gibraltar Pound	292	2
Guatemala	Quetzal	320	2
Guinea	Guinea - Franc	324	2
Guinea-Bissau	Guinea - Bissau Peso	624	2
Guyana	Guyana Dollar	328	2

Global E-Pricing: Presentment Currencies			
Country Name	Currency	ISO Currency Code	Currency Decimals
Haiti	Gourde	332	2
Honduras	Lempira	340	2
Hong Kong	Hong Kong Dollar	344	2
Hungary	Forint	348	2
Iceland	Icelandic Krona	352	0
India	Indian Rupee	356	2
Indonesia	Rupiah	360	2
Iraq	Iraqi Dinar	368	3
Israel	Shekel	376	2
Jamaica	Jamaican Dollar	388	2
Japan	Yen	392	0
Jordan	Jordanian Dinar	400	3
Kazakhstan	Tenge	398	2
Kenya	Kenyan Shilling	404	2
Korea, Republic of	Won	410	0
Kuwait	Kuwaiti Dinar	414	3
Kyrgyzstan	Som	417	2
Lao, Peoples Democratic Republic	Kip	418	2
Latvia	Latvian Lats	428	2
Lebanon	Lebanese Pound	422	2
Lesotho	Maloti	426	2
Liberia	Liberian Dollar	430	2
Libyan Arab Jamahiriya	Libyan Dinar	434	2
Liechtenstein	Swiss Franc	756	2
Lithuania	Lithuanian Litas	440	2
Macao	Pataca	446	2
Macedonia (former Yugoslav Republic)	Denar	807	2
Madagascar	Ariary	969	2
Malawi	Kwacha	454	2
Malaysia	Malaysian Ringgit	458	2
Maldives	Rufiya	462	2
Mauritania	Ouguiya	478	2
Mauritius	Mauritius Rupee	480	2
Mexico	Mexican Peso	484	2
Moldova	Moldovan Leu	498	2
Mongolia	Tugrik	496	2

Global E-Pricing: Presentment Currencies			
Country Name	Currency	ISO Currency Code	Currency Decimals
Morocco	Moroccan Dirham	504	2
Mozambique	Metical	943	2
Myanmar	Kyat	104	2
Namibia	Namibian Dollar	516	2
Nepal	Nepalese Rupee	524	2
Netherlands Antilles	Netherlands Antillean Guilder	532	2
New Zealand	New Zealand Dollar	554	2
Nicaragua	Cordoba	558	2
Nigeria	Naira	566	2
Norway	Norwegian Krone	578	2
Oman	Rial Omani	512	3
Pakistan	Pakistan Rupee	586	2
Panama	Balboa	590	2
Papua New Guinea	Kina	598	2
Paraguay	Guarani	600	0
Peru	Nuevo Sol	604	2
Philippines	Philippine Peso	608	2
Poland	Zloty	985	2
Qatar	Qatari Rial	634	2
Romania	Romanian Leu	946	2
Russian Federation (Belarus)	New Ruble	643	2
Rwanda	Rwanda Franc	646	0
Saint Helena, Ascension and Tristan Da Cunha	Saint Helena Pound	654	2
Samoa	Tala	882	2
Sao Tome & Principe	Dobra	678	2
Saudi Arabia	Saudi Riyal	682	2
Serbia (Republic of)	Serbian Dinar	941	2
Seychelles	Seychelles Rupee	690	2
Sierra Leone	Leone	694	2
Singapore	Singapore Dollar	702	2
Solomon Islands	Solomon Islands Dollar	090	2
Somalia	Somali Shilling	706	2
South Africa	Rand	710	2
Sri Lanka	Sri Lanka Rupee	144	2
Sudan	Sudanese Pound	938	2



Global E-Pricing: Presentment Currencies			
Country Name	Currency	ISO Currency Code	Currency Decimals
South Sudan	South Sudanese Pound	728	2
Suriname	Suriname Dollar	968	2
Swaziland	Lilangeni	748	2
Sweden	Swedish Krona	752	2
Taiwan	New Taiwan Dollar	901	2
Tajikistan	Somoni	972	2
Tanzania, United Republic of	Tanzanian Shilling	834	2
Thailand	Baht	764	2
Togo	CFA Franc BCEAO	952	0
Tonga	Pa'anga	776	2
Trinidad and Tobago	Trinidad and Tobago Dollar	780	2
Tunisia	Tunisian Dinar	788	3
Turkey	Turkish Lira	949	2
Turkmenistan	New Manat	934	2
Uganda	Uganda Shilling	800	2
Ukraine	Ukrainian Hryvnia	980	2
United Arab Emirates	UAE Dirham	784	2
United Kingdom	Pound Sterling	826	2
Uruguay	Peso Uruguayo	858	2
Uzbekistan	Som	860	2
Vanuatu	Vatu	548	0
Venezuela	Bolivar Fuerte	937	2
Vietnam	Dong	704	0
Yemen	Yemeni Rial	886	2
Zambia	Kwacha	894	2

## Notes:

- Please contact your **First Data Representative** for complete list supported Methods of Payment and Currencies.
- Special Rules apply for AMEX processing

## Global Merchant Acquiring (GMA)

The Global Merchant Acquiring (GMA) product gives multi-national corporations the opportunity to consolidate global payments processing to one acquirer and receive funding in a multitude of currencies.

GMA leverages a single technical interface and local bank sponsorships to authorize payments, process settlements, and virtually eliminate the risk of downtime. US transactions are processed on the First Data Domestic platform and non-US transactions on the First Data International platform.

**Example:** Using GMA, a European Merchant markets a product/service in British Pounds, bills the consumer in British Pounds, and receives a British Pound settlement from First Data. That same merchant markets a product/service in Poland, bills the consumer in Polish New Zlotys, and receives funding in Euros.

### **GMA Supported Countries**

For GMA, the relationship between Transaction currency, Settlement currency and Fund currency depends on which region the transaction took place in. The following table lists all First Data Supported Countries.

**Note:** Please contact your **First Data Representative** for supported Methods of Payment and Settlement Currencies.

Acquiring Country	Acquiring Country
Andorra	Japan
Australia	Latvia
Austria	Lichtenstein
Belgium	Lithuania
Bulgaria	Luxemburg
Croatia	Malta
Cyprus	Monaco(France)
Czech Republic	Netherlands
Denmark	Norway
Estonia	Poland
Finland	Portugal
France	San Marino
Germany	Singapore
Greece	Slovakia
Hong Kong	Slovenia
Hungary	Spain
Iceland	Sweden
Ireland	Switzerland
Israel	Turkey
Italy	UK

## GMA Supported Currencies

### Global Merchant Acquiring (GMA) - Supported Currency Table

The table below defines the relationship between Transaction Currency, Settlement Currency and Funding Currency, per region

GMA Supported Currency Table				
Country or Region	Transaction Currency	MasterCard Settlement Currency	Visa Settlement Currency	Merchant Funding Currency
EU Region	USD	USD	USD	USD
	CAD	CAD	CAD	CAD
	CHF	CHF	CHF	CHF / USD
	DKK	DKK	DKK	DKK / USD
	EUR	EUR	EUR	EUR
	GBP	GBP	GBP	GBP
	NZD	NZD	NZD	NZD
	JPY	JPY	USD	JPY
	NOK	NOK	USD / *NOK	USD
	SEK	SEK	USD / *SEK	USD
	AUD	USD	USD	AUD
	JPY	USD	USD	JPY
	PLN	USD	USD	EUR
Hong Kong	HKD	HKD	HKD	HKD
Singapore	SGD	SGD	SGD	SGD
Japan	JPY	JPY	JPY	JPY
Australia	AUD	AUD	AUD	AUD

#### \*Note:

- At present NOK and SEK settle in USD for Visa.

#### Notes:

- Global acquiring supports conveyance of American Express and Diner's international in the following currencies:
- Amex Merchant Account in:  
AUD, CHF, DKK, EUR, GBP, JPY, NOK, SEK
- Diners Merchant Account in:  
AUD, CAD, CHF, DKK, EUR, GBP, HKD, JPY, NOK, NZD, SEK, SGD, USD

## Alternate Payments: PayPal, Google Checkout/BML, ValueLink

PayPal supports International transactions for a select few currencies. Bill Me Later and GoogleCheckout are U.S. only.

### PayPal

Supported Presentment / Settlement / Funding Currencies:  
USD, Euros, Yen, CAN Dollars, Pounds, Australian Dollars

### Google Checkout / BML

Supported Presentment / Settlement / Funding Currencies:  
USD

### ValueLink

Accepts the following presentment currencies. Please Contact your FD representative for Funding currency options:

Value Link: Presentment Currencies			
Country Name	Currency	ISO Currency Code	Currency Decimals
Andorra	Euro	978	2
Argentina	Argentinean Peso	032	2
Australia	Australian Dollar	036	2
Brazil	Brazilian Real	986	2
Canada	Canadian Dollar	124	2
China	Hong Kong Dollar	344	2
Denmark	Danish Krone	208	0
Great Britain	British Pound	826	2
Greece	Greek Drachma	300	2
Japan	Japanese Yen	392	0
Kuwait	Kuwaiti Dinar	414	2
Mexico	Mexican Peso	484	2
New Zealand	New Zealand Dollar	554	2
Norway	Norwegian Krone	578	2
Philippines	Philippine Peso	608	2
Singapore	Singapore Dollar	702	2
South Korea	South Korean Won	410	2
Sweden	Swedish Krone	752	2
Switzerland	Swiss Franc	756	2
Thailand	Thailand Baht	764	2
United States	United States Dollar	840	2
Yuan	Yuan Renminbi	156	2



### APPENDIX E: CARD SECURITY VERIFICATION

#### **Introduction**

First Data supports Card Security Verification (C) for Visa, Discover, MasterCard, MasterCard Diners, and American Express via the card association's proprietary services. Additionally, First Data also supports this functionality for our proprietary gift card program. A card security value consists of an additional 3 or 4 byte numeric identified on the card.

Designed Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

authorization response will reflect whether that card security value for that specific card is accurate. Used in conjunction with the valid expiration date (credit card only), this service provides a valuable tool in assessing that the true accountholder has placed the order with you for your services or product.

**This value must NOT be stored as it is against regulations to do so.**

---

#### **American Express Identification (CID) Processing**

The Card Identification (CID) number is printed, not embossed on the laminated surface of all American Express cards and appears on the right Identification order of the card. (4 bytes)

It is the goal of American Express to have merchants accepting card-not-present transactions to request the CID from the cardholder at the point of sale Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

American Express Client Manager to have their American Express service establishment numbers flagged to accept the American Express CID value.

## APPENDIX E: CARD SECURITY VERIFICATION

---

American Express will not provide validation of the CID value if this piece is not complete

---

### ***Discover Card Identification (CID) Processing***

The Card Identification (CID) number is printed, not embossed, on the laminated surface of all Discover cards and appears on the right side of the signature panel. (3 bytes)

It is the goal of Discover to have merchants accepting card-not-present transactions to request the CID from the cardholder at the point of sale and include the CID in the transaction authorization request. The CID is then passed on to Discover and validated by their system.

#### **Note:**

- Decline Response Code 503 is ALWAYS provided if the CID value is present, but does not match what Discover has on file.
- 

### ***Visa CVV2, & MasterCard/MasterCard Diners Program***

First Data supports Visa's CVV2 (Card Verification Value 2) and MasterCard/MasterCard Diners CVC2 (Card Validation Code 2) fraud reduction programs. This 3-byte numeric is located on the signature panel on the reverse side of the credit card and is represented by the three digits following the account number.

Decline Response Code 531 is provided at the issuing bank's discretion when Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

that they perform additional verification on the transaction before they proceed.

---

### ***Gift Card Application***

The First Data Gift Card program supports CVD2 (Card Verification Data 2) as an optional feature determined by the merchant. The four-digit value may be imprinted on the back of the stored value card, and used to facilitate a secure MOTO transaction when the consumer wishes to use a Gift Card as their methods of payment.

The Gift Card system will decline the transaction if the value sent by the merchant does not match the value in the stored value system.

---

### **Guidelines for Populating Card Security**

#### **For all MOP's:**

- If not performing Card Security Verification do not send the fraud format indicator. Fields
- If Presence Indicator = blank or 1, Card Security Value must be present otherwise, the C Response will = I
- If Presence Indicator = 2 or 9, Card Security Value must be blank, otherwise, the C Response will = I

#### **For Visa:**

- If Presence Indicator = 1, Card Security Value must be present (3 bytes) otherwise, the C Response will = I
- If Presence Indicator = 2 or 9, Card Security Value must be blank, otherwise, the C Response will = I
- If Presence Indicator = blank, C Response will = I

#### **For MasterCard / MasterCard Diners:**

- If Presence Indicator = blank or 1, Card Security Value must be present (3 bytes) otherwise, the C Response will = I
- If Presence Indicator = 2 or 9, Card Security Value must be blank, otherwise, the C Response will = I

#### **For Discover:**

- If Presence Indicator = 1, Card Security Value must be present (3 bytes) otherwise, the C Response will = I
- If Presence Indicator = 2 or 9, Card Security Value must be blank, otherwise, the C Response will = I
- If Presence Indicator = blank, C Response will = I

#### **For American Express:**

- The Presence Indicator should be "blank". If populated, it will be ignored.
  - Card Security Value must be present, otherwise, the CSV Response will = I
- 

### **Card Types**

Visa, MasterCard, MasterCard Diners, Amex, Discover, UK Domestic Maestro



## APPENDIX E: CARD SECURITY VERIFICATION

---

---

***Response Reason  
Codes***

See Appendix A: Response Reason Code Description/Usage

---

***To Get Started***

Contact your First Data Representative.

### APPENDIX F: AUTHORIZATION REVERSALS

#### **Introduction**

The merchant-initiated authorization reversal transaction can be sent in a real-time or batch submission. The purpose of the authorization reversal is to free-up the accountholder's Open to Buy, which has been reversed by the original authorization. This is done at the Issuer's discretion.

Merchant-initiated authorization reversals have specific rules, edits and response reason codes, Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

for which details are provided in the sections below.

#### **How it Works**

##### **In order for the merchant to use Authorization Reversals functionality:**

- 1.) The original authorization must have been obtained through First Data, or the transaction will decline with Response Reason Code 307 (Authorization Not Found).
- 2.) A merchant must always reverse the full amount that was received in the authorization.
- 3.) Authorization reversals should be sent to the same First Data system as the original transaction.
- 4.) Authorizations can be reversed via Online for up to 3 days.
- 5.) Authorizations can be reversed via batch for up to 7 – 10 days.
- 6.) For batch authorization reversals, if extended authorization data (Extension Records EVI001, EMC001, EMD001 or EDI001) is sent with the authorization reversal request, it will be ignored.
- 7.) If the Response Date and/or Authorization Code are not provided or are not the same as the original response, the transaction will reject with Response Reason Code 262 (Authorization Code/ Response Date Invalid)
- 8.) A merchant should never send an authorization reversal for an authorization request for which they did not receive an approval or the transaction will decline with Response Reason Code 307 (Authorization Not Found).

- 9.) The following criteria is used to find a matching authorization for the authorization reversal request:
- a.) Account Number
  - b.) Division Number
  - c.) Authorization Code
  - d.) Response Date
  - e.) Amount
  - f.) Order Number
- 

### ***Transaction Types and Requirements***

#### **Online**

##### **Request:**

- 1.) Online Processing Detail Record
  - a.) Action Code = AR
  - b.) Amount = approved, original, authorized amount
- 2.) Format Indicator
  - a.) Prior Authorization (PA)
  - b.) Response Date = approved, original, authorized date
  - c.) Authorization Code = approved, original, authorization code

##### **Response:**

- 1.) Online Processing Return Format Record

#### **Batch**

##### **Request:**

- 1.) Detail Record
  - a.) Action Code = AR
  - b.) Amount = approved, original, authorized amount
  - c.) Response Date = approved, original, authorized date
  - d.) Authorization Code = approved, original, authorization code

##### **Response:**

- 1.) "S" Record Output
- 

### ***Card Types / Supported Currencies***

Amex, Visa, MasterCard, MasterCard Diners, Discover/All currencies  
Authorization Reversals are not supported for Alt Pay transaction in Batch, but are supported in the Online format.

---

## APPENDIX F: AUTHORIZATION REVERSALS

---

### ***Response Reason Codes***

See Appendix A: Response Code Description/Usage

---

### ***To Get Started***

Contact your First Data Representative

## APPENDIX G: PARTIAL AUTHORIZATIONS

### Introduction

Partial authorization functionality allows a merchant to receive an approval for a portion of the original amount when the full amount cannot be approved.

This functionality is supported for American Express, Discover, MasterCard and Visa MOPS.

Defaults for partial authorizations will be set to "No".

### How it Works

If a merchant wishes to accept partial authorizations, the division default of "No" must be overridden at a Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

transaction level by use of the PB form (online) or the PPB001 record (batch). This appendix will provide the details for processing partial authorizations.

(PB = Partial Authorization Format Indicator Record which contains the Partial Redemption Indicator Flag value)

### Conditional Deposits and Deposits

Partial authorizations cannot be performed on Conditional Deposit transactions.

If a Deposit transaction is re-authorized per First Data's normal process for obtaining best interchange, a partial authorization will not be performed.

### All Supported Cards

The following chart list conditions and results when considering Partial Authorizations.

Request	Reply
---------	-------

## APPENDIX G: PARTIAL AUTHORIZATIONS

Partial Redemption Indicator Flag	If Amount of Authorization Request is:	Response Code	'Current Balance' in PB/PPB001	'Redemption Amount' in PB/PPB001
Not Sent	Less Than or Equal To Available	100	n/a	n/a
Not Sent	Greater Than Available	decline	n/a	n/a
Y	Less Than or Equal To Available	100	May be populated	Populated with approved amount (matches requested amount)
Y	Greater Than Available	100	May be populated	Populated with approved amount ( <b>differs</b> from requested amount)
N	Less Than or Equal To Available	100	May be populated	Populated with approved amount**
N	Greater Than Available	decline	May be populated	May be zero or space filled**

- If a current balance or redemption amount is provided in an authorization where the Partial Redemption Indicator was sent, it will be returned. When not provided, spaces are returned.
- \*\* When Indicator Flag value of "N" is sent – the approval/decline of an authorization is indicated purely by the Response Reason Code, not by any returned balance.
- If the transaction is PARTIALLY approved the redemption amount in the response WILL be valued in the PB reply.
- If the transaction is FULLY approved the redemption amount in the response MAY be valued in the PB reply. (it may be spaces and varies based on the card type, i.e. Amex, Discover, Visa, MC)

### Transaction Types and Requirements

#### Online

##### **Request:**

- 1.) Online Processing Detail Record
  - a.) Action Code = AU
  - b.) Amount = requested amount
- 2.) Format Indicator
  - a.) Partial Authorization Format Indicator (PB)

##### **Response:**

- 1.) Online Processing Return Record

### 2.) Format Indicator

#### a.) Partial Authorization Reply Format Indicator (PB)

### **Batch**

#### **Request:**

##### 1.) Detail Record

###### a.) Action Code = AU

###### b.) Amount = requested amount

##### 2.) Partial Authorization (request) Record (PPB001)

#### **Response**

##### 1.) "S" Record Output

##### 2.) Partial Authorization (response) Record (PPB001)

---

#### ***Card Types / Supported Currencies***

American Express, Discover, MasterCard, Visa

---

#### ***Response Reason Codes***

See Appendix A: Response Code Description/Usage

---

#### ***To Get Started***

Contact Your First Data Representative

## APPENDIX H: VERIFIED BY VISA

### *Introduction*

#### **Relates to: Extension Record - Visa Authentication**

Verified by Visa is a solution designed to authenticate cardholders when online. Created to add a new level of security to Internet transactions, Verified by Visa Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

solution for merchants and consumers. Verified by Visa is based on the 3-D Secure Protocol, which uses Secure Sockets Layer (SSL) encryption to collect and protect payment card information transmitted via the Internet.

Verified by Visa defines three domains for the authentication process:

- Issuer Domain – where the Issuer is responsible for determining whether authentication is available for the card account presented in a purchase.
- Acquirer Domain – where the Acquirer accepts Internet transaction data from the merchant and passes it to Visa.
- Interoperability/Visa Domain – operated by Visa, where transaction information is exchanged and stored using 3-D Secure as the common protocol.

### *How it Works*

The cardholder shops at participating Internet merchants with no changes to the shopping or checkout. The cardholder selects the merchandise to be purchased and proceeds to the checkout. At the checkout the cardholder may complete the purchase and payment information in a variety of ways, including self-entered, electronic wallet, merchant one-click, or using other checkout capabilities.

After the purchase and payment information is entered, the cardholder selects the “buy” button. This activates the Merchant Server Plug-In (MPI) software application, which checks its local cache to determine if the Visa Issuer BIN participates in Verified by Visa. If the BIN is participating, the MPI will generate an inquiry to the Visa Directory Server to determine if the cardholder’s account is enrolled in Verified by Visa. The Visa Directory Server sends a Verify Enrollment Request message to the Issuer Access Control Server (ACS) to determine if authentication is available for the cardholder’s



### How it Works (continued)

account number. The Visa Directory Server sends the Issuer ACS response to the MPI. If authentication is not available, the merchant server receives an “authentication not available” message and returns the transaction to the merchant’s commerce server to proceed with a standard Authorization Request. If authentication is available, the message response provides the URL for the Issuer ACS where the cardholder can be authenticated. The MPI sends a message and script directing the cardholder’s browser to establish a pop-up session with the Issuer ACS

The browser directs the transaction to the URL specified for the Issuer ACS creating an SSL session. The Issuer ACS displays a pop-up window to the cardholder. The window includes Issuer-specific and Visa branding, transaction details-including merchant name and sale amount, and prompts the cardholder to enter their password. The cardholder is allowed a limited number of password attempts, typically 3 to 5, as defined by the Issuer ACS. If unable to correctly enter the password, the cardholder may access the password hint that was established during registration. If the password is entered correctly, the transaction continues. If the cardholder is not registered, the ACS briefly displays a processing window and the transaction continues as an attempted authentication. If the password is incorrectly entered more times than the Issuer limit, a failed Payer Authentication Response is returned to the merchant.

The Issuer ACS retrieves the authentication information and compares it against the data that was registered during the initial registration process. If the data matches, a success page is presented to the cardholder and the Issuer ACS sends a message through the browser to the merchant, thus providing evidence of cardholder authentication. Using the Issuer’s encryption keys and transaction data, the Issuer server calculates the Cardholder Authentication Verification Value (CAVV), which will be included with the Electronic Commerce Indicator (ECI), as provided at the time of authentication by the MPI, in the response to the merchant.

The Issuer ACS creates, digitally signs, and sends a Payer Authentication Response to the cardholder’s browser, and sends transaction information to the Visa Authentication History Server (AHS) for storage. All Payer Authentication Response messages – (successful, unable to authenticate, failed, and attempted authentications) – are transmitted and stored in the AHS. The browser routes the Payer Authentication Response back to the MPI. The MPI validates the digital signature in the response, verifying that it is from a valid participating Issuer. If the digital signature is verified and the Issuer has sent an approved Payer Authentication Response, the cardholder is deemed authenticated and the MPI returns the transaction to the storefront software. The merchant starts processing the order, determining whether it can be fulfilled, and calculating taxes and shipping for the total transaction amount.

**Note:** A merchant may not submit for authorization a purchase transaction that has failed authentication.

For a fully authenticated transaction, the merchant will send the CAVV with Transaction Type 5 to First Data.

If the Visa Authentication record is sent without the CAVV, the CAVV is not sent in Base 64 encoding, or is sent for a non e-Commerce transaction, Response Reason Code 245 (Missing or Invalid Secure Payment Data) will be returned.

### How it Works (continued)

First Data will pass the CAVV and Transaction Type to Visa with the authorization request. These fields are used during authorization processing to verify that authentication, or attempted authentication, was performed and to qualify for the e-Commerce Custom Payment Services.

The Issuer receives the authorization request and validates the CAVV and responds with a CAVV response code, as well as an approval or a decline of the authorization. If the CAVV does not match, the Issuer should decline the transaction.

Non-participating Verified by Visa Issuers: Participating Verified by Visa merchants that attempt to authenticate a cardholder and the Issuer is not participating in Verified by Visa will not receive a CAVV. Merchants must pass these transactions with Transaction Type 6.

### Merchant Requirements

The merchant must install a certified 3-D Secure Merchant Plug-in software application.

Verify that Merchant Plug-in will provide CAVV in Base 64 encoding. If not, merchant will have to convert data fields to Base 64 encoding before sending to First Data.

In the settlement of a Verified by Visa transaction, merchants are strongly encouraged to submit the Visa Authentication Extension Record. In the event that First Data has to perform a new authorization, the authentication data (CAVV) will be included in the new authorization. By doing so, the merchant will maintain the Verified by Visa chargeback liability shift as well as maintain best interchange rate.

Merchants must map the Visa Electronic Commerce Indicator (ECI) they receive via their MPI to the appropriate First Data Transaction Type:

Transaction Description	Visa ECI Returned in MPI	FDC Transaction Type
Fully Authenticated	5	5

Transaction Description	Visa ECI Returned in MPI	FDC Transaction Type
Attempted Authentication	6	6

**Merchant Guidelines**

Merchants are required to request authorization for all Verified by Visa Guidelines e-Commerce transactions. Merchants must supply the Cardholder Authentication Verification Value (CAVV) and Electronic Commerce Indicator (ECI) on all authorization attempts.

**Failed Authentications**

Merchants are prohibited from submitting transactions for authorization that have failed authentication

**Split Shipments**

When a participating merchant splits the shipment of an order, each authorization component may be submitted with the authentication data of the original purchase (ECI 5 or 6 and submission of the CAVV, when supported by the merchant). In the event of a dispute, the Acquirer must be able to establish that the authorization requests were related to a single customer authenticated purchase. Furthermore, if a Deposit record is sent for the subsequent shipment, the authorization will already have been tagged as “used” in our Previous Order Database (PODB) by the first deposit item, therefore, in order to receive the Verified by Visa chargeback protection, a merchant must send the authentication data (CAVV and ECI) with the subsequent deposit record so that when First Data reauthorizes, the CAVV and ECI can be sent as well.

Example of Verified by Visa – Split Shipment/Split Deposit within the Visa 7 day authorization window:

*On July 1 a consumer purchases two items from a participating Verified by Visa Merchant. The merchant sends in an authorization for \$100.00 to First Data, including the authentication data (CAVV and ECI). On July 2 the merchant sends a Deposit record for only one of the items, totaling \$75.00, along with the ECI sent with authorization. First Data will perform an authorization reversal (due to Visa Regulations) to change the dollar amount of the original authorization on July 1 to match the Deposit dollar amount of \$75.00. The merchant sends a Deposit record on July 5th, totaling \$25.00 for the second item. First Data will reauthorize the second item because the original authorization will have already been tagged as “used” in PODB by the first Deposit item. In order for the merchant to receive chargeback protection on the second item being deposited, they must send with the deposit record of the second item, the original authentication data (CAVV and the ECI) of the original authorization performed on July 1.*

***Late Fulfillment***

If the transaction date (shipment) exceeds the time limit from the authorization date for Custom Payment Service interchange qualification, the participating merchant is required to submit a new authorization request. The authentication data for the original purchase (ECI 5 or 6 and the CAVV), when supported by the merchant should be included in the new authorization request. In the event of a dispute, the Acquirer must be able to establish that the second authorization request was related to the same original transaction.

---

***Recurring Transactions***

When a participating Merchant offers services of an ongoing nature to a cardholder for which the cardholder pays on a recurring basis (for example, insurance premiums, subscriptions, Internet service provider fees, membership fees, tuition, or utility charges), the cardholder payments are considered recurring payments, as defined in the Visa U.S.A. Inc. Operating Regulations. If the first payment originated as an Electronic Commerce Transaction via the Internet, it must be submitted for authorization with the appropriate Electronic Commerce Indicator (ECI of 5 or 6) value, including Verified by Visa authentication data (CAVV), if applicable. If these transactions are disputed as not made or not authorized by the cardholder, the Issuer is not permitted to charge the transaction back for Reason Codes 23, 61, 75, or 83. All subsequent payments must be submitted for authorization using the Recurring Indicator (MOTTO/ECI value of 2). The Merchant must not store and submit the CAVV with any subsequent transaction. Because cardholders may dispute that they did not authorize the recurring payments charged to their account, subsequent recurring payments are subject to chargeback if disputed by the cardholder for the reason codes above.

---

***Online Auctions***

Participating merchants that offer online auctions may submit a valid CAVV and appropriate ECI for an authentication or attempted authentication transaction in the Authorization Request message, even though the purchase amount may have changed from the authentication request to the Authorization Request. A CAVV may not be reused for another transaction with the same cardholder (for example, on another auction).

---

***Chargeback Liability Shift Instructions***

There are certain exclusions from the chargeback provisions related to attempted authentications. They are:

1. All Visa Commercial Cards (Visa Business, Visa Purchasing and Visa Corporate Cards), anonymous Prepaid Cards (such as gift cards), and transactions from new channels (such as mobile devices) are excluded from chargeback protections for attempted authentications. If these cards are enrolled in Verified by Visa and the Issuer authenticates the

cardholder, the Issuer is not permitted to submit a chargeback for unauthorized usage disputes (reason codes 23, 61, 75, and 83). Either the Issuer ACS or Visa may designate excluded transactions; however, the Visa Directory Server will over-ride excluded responses from an Issuer ACS if the BINs are not also designated as excluded BINs in the Visa Directory. The designation of BINs as Commercial or anonymous prepaid Cards must be consistent with VisaNet.

2. Transactions conducted in new channels (such as mobile or wireless devices).
3. Merchants named in the Global Merchant Chargeback Monitoring Program are not eligible for chargeback protection for attempted authentications during the time that they are required to participate in the program and three months thereafter. Visa will work with Acquirers to ensure compliance with this requirement. There are no additional steps for Issuers regarding this provision.

---

**Supported Card  
Types/ Currencies**

Visa / All currencies Card Types/ Currencies

---

***Front End Edit / Reject  
Codes***

See Appendix A: Response Reason Code Description/Usage

---

**To Get Started**

Contact your First Data Representative.

---

## APPENDIX H1: AMERICAN EXPRESS SAFEKEY

### Introduction

#### Relates to: Extension Record - American Express Authentication

American Express SafeKey is a licensed implementation of Verified by Visa.

#### Added in Compass release 12.10c / Spec version 2.10

- It should be noted that at the time of publishing, SafeKey is only available in Singapore, but is expected to roll out globally in forthcoming releases.

Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

Amex SafeKey defines three domains for the authentication process:

- Issuer Domain – where the Issuer is responsible for determining whether authentication is available for the card account presented in a purchase.
- Acquirer Domain – where the Acquirer accepts Internet transaction data from the merchant and passes it to Amex.
- Interoperability/Visa Domain – operated by Visa, where transaction information is exchanged and stored using 3-D Secure as the common protocol.

### How it Works:

The cardholder shops at participating Internet merchants with no changes to the shopping or checkout. The cardholder selects the merchandise to be purchased and proceeds to the checkout. At the checkout the cardholder may complete the purchase and payment information in a variety of ways, including self-entered, electronic wallet, merchant one-click, or using other checkout capabilities.

After the purchase and payment information is entered, the cardholder selects the “buy” button. This activates the Merchant Server Plug-In (MPI) software application, which checks its local cache to determine if the Amex Issuer Card Range participates in Amex SafeKey. If the Card Range is

participating, the MPI will generate an inquiry to the Amex Directory Server to determine if the cardholder's account is enrolled in Amex SafeKey. The Amex Directory Server sends a Verify Enrollment Request message to the Issuer Access Control Server (ACS) to determine if authentication is available for the cardholder's account number. The Amex Directory Server sends the Issuer ACS response to the MPI. If authentication is not available, the merchant server receives an "authentication not available" message and returns the transaction to the merchant's commerce server to proceed with a standard Authorization Request. If authentication is available, the message response provides the URL for the Issuer ACS where the cardholder can be authenticated. The MPI sends a message and script directing the cardholder's browser to establish a pop-up session with the Issuer ACS

### How it Works (Continued)

The browser directs the transaction to the URL specified for the Issuer ACS creating an SSL session. The Issuer ACS displays a pop-up window to the cardholder. The window includes Issuer-specific and Visa branding, transaction details-including merchant name and sale amount, and prompts the cardholder to enter their password. The cardholder is allowed a limited number of password attempts, typically 3 to 5, as defined by the Issuer ACS. If unable to correctly enter the password, the cardholder may access the password hint that was established during registration. If the password is entered correctly, the transaction continues. If the cardholder is not registered, the ACS briefly displays a processing window and the transaction continues as an attempted authentication. If the password is incorrectly entered more times than the Issuer limit, a failed Payer Authentication Response is returned to the merchant.

The Issuer ACS retrieves the authentication information and compares it against the data that was registered during the initial registration process. If the data matches, a success page is presented to the cardholder and the Issuer ACS sends a message through the browser to the merchant, thus providing evidence of cardholder authentication. Using the Issuer's encryption keys and transaction data, the Issuer server calculates the Cardholder Authentication Verification Value (AEVV), which will be included with the Electronic Commerce Indicator (ECI), as provided at the time of authentication by the MPI, in the response to the merchant.

The Issuer ACS creates, digitally signs, and sends a Payer Authentication Response to the cardholder's browser, and sends transaction information to the Amex Authentication History Server (AHS) for storage. All Payer Authentication Response messages – successful, unable to authenticate, failed, and attempted authentications – are transmitted and stored in the AHS. The browser routes the Payer Authentication Response back to the MPI. The MPI validates the digital signature in the response, verifying that it is from a valid participating Issuer. If the digital signature is verified and the Issuer has sent an approved Payer Authentication Response, the cardholder is deemed authenticated and the MPI returns the transaction to the storefront software. The merchant starts processing the order, determining whether it can be fulfilled, and calculating taxes and shipping for the total transaction amount.

### How it Works (Continued)

**Note:** A merchant may not submit for authorization a purchase transaction that has failed authentication.

For a fully authenticated transaction, the merchant will send the AEVV with Transaction Type 5 to First Data.

If the American Express Authentication record is sent without the AEVV, the AEVV is not sent in Base 64 encoding, or is sent for a non e-Commerce transaction, Response Reason Code 245 (Missing or Invalid Secure Payment Data) will be returned.

First Data will pass the AEVV and Transaction Type to Amex with the authorization request. These fields are used during authorization processing to verify that authentication, or attempted authentication, was performed and to qualify for the e-Commerce Custom Payment Services.

The Issuer receives the authorization request and validates the AEVV and responds with a AEVV response code, as well as an approval or a decline of the authorization. If the AEVV does not match, the Issuer should decline the transaction.

Non-participating Amex SafeKey Issuers: Participating Amex SafeKey merchants that attempt to authenticate a cardholder and the Issuer is not participating in Amex SafeKey will not receive a AEVV. Merchants must pass these transactions with Transaction Type 6.

### Merchant Requirements

The merchant must install a certified 3-D Secure Merchant Plug-in software application.

Verify that Merchant Plug-in will provide AEVV in Base 64 encoding. If not, merchant will have to convert data fields to Base 64 encoding before sending to First Data.

In the settlement of a Amex SafeKey transaction, merchants are strongly encouraged to submit the Amex Authentication Extension Record. In the event that First Data has to perform a new authorization, the authentication data (AEVV) will be included in the new authorization. By doing so, the merchant will maintain the Amex SafeKey chargeback liability shift as well as maintain best interchange rate.

Merchants must map the Amex Electronic Commerce Indicator (ECI) they receive via their MPI to the appropriate First Data Transaction Type:



Transaction Description	Amex ECI Returned in MPI	FDC Transaction Type
Fully Authenticated	5	5
Attempted Authentication	6	6

**Merchant Guidelines**

Merchants are required to request authorization for all Amex SafeKey Guidelines e-Commerce transactions. Merchants must supply the Cardholder Authentication Verification Value (AEVV) and Electronic Commerce Indicator (ECI) on all authorization attempts.

**Failed Authentications**

Merchants are prohibited from submitting transactions for authorization that have failed authentication

**Split Shipments**

(not applicable to American Express SafeKey at this time)

**Late Fulfillment**

(not applicable to American Express SafeKey at this time)

**Recurring Transactions**

(not applicable to American Express SafeKey at this time) Auctions

**Online Auctions**

(not applicable to American Express SafeKey at this time)

**Chargeback Liability Shift Instructions**

(not applicable to American Express SafeKey at this time)

**Supported Card Types/ Currencies**

American Express / All currencies Card Types/ Currencies

**Front End Edit / Reject Codes**

See Appendix A: Response Reason Code Description/Usage

**To Get Started**

Contact your First Data Representative.

### APPENDIX I: MASTERCARD SECURECODE

#### ***Introduction***

MasterCard SecureCode is a solution designed to Authenticate cardholders when paying online. SecureCode offers a mechanism for securing the Internet channel by strongly authenticating the cardholder at the point of interaction by providing a unique transaction-specific token that provides evidence that the cardholder originated the transaction. SecureCode uses MasterCard's Universal Cardholder Authentication Field (UCAF) infrastructure to communicate the authentication information among the cardholder, Issuer, merchant and Acquirer.

MasterCard SecureCode supports the 3-D Secure Protocol (same as Verified by Visa). MasterCard Secure Code requires merchants to install a 3-D Secure v1.0.2 compliant Merchant Server Plug-In software.

---

#### ***How it Works***

The cardholder shops at a participating SecureCode Internet Merchant with no changes to the shopping or checkout. The cardholder selects the merchandise to be purchased and proceeds to the checkout. At the checkout, the cardholder may complete the purchase and payment information in a variety of ways, including self-entered, electronic wallet, merchant one-click, or using other checkout capabilities.

After the purchase and payment information is entered, the consumer hits the "buy" button and the Confirmation page goes back to the merchant.

The merchant plug-in (MPI) activates and checks its local cache and the MC Directory Server to determine if the customer card number is part of a participating MasterCard SecureCode BIN range. If so, a Verify Enrollment Request message will be sent from the MPI, to the MC Directory Server and forwarded to the Issuer Access Control Server (ACS) to determine if authentication is available for the cardholders account number. The MC Directory Server sends the Issuer ACS response to the MPI. If authentication is available, the message response provides the web address for the Issuer Access Control Server (ACS) where the cardholder authentication will begin. (If authentication is not available, the merchant server receives an "authentication not available" message and returns the transaction to the merchant's commerce server to proceed with a standard Authorization Request.)

The MPI sends a message and script directing the cardholder's browser to establish a pop-up session with the Issuer ACS. The pop-up window displays Issuer-specific and MC branding, transaction details – including merchant name and sale amount, and prompts the cardholder to enter their secure code (e.g. password). If the password is entered correctly, the transaction continues. The cardholder is allowed a limited number of password attempts,

typically 3 to 5, as defined by the Issuer ACS. If unable to correctly enter the password, the cardholder may access the password hint that was established during registration. If the password is incorrectly entered more times than the Issuer limit, a failed Payer Authentication Response is returned to the merchant.

### How it Works (Continued)

The Issuer ACS retrieves the authentication information and compares it against the data that was registered during the initial cardholder registration process. If the data matches, a success page is presented to the cardholder and the Issuer ACS sends a message through the browser to the merchant providing evidence of cardholder authentication, including a 28-byte AAV. This AAV is generated cryptographically using Issuer-specific secret keys that are synchronized with keys at the Issuer's authorization platform. For a fully authenticated transaction, the merchant will send the AAV with Transaction Type 5 to First Data.

If the MasterCard Authentication record is sent without the AAV, the AAV is not sent in Base 64 encoding, or is sent for a non e-Commerce transaction, Response Reason Code 245 (missing or Invalid Secure Payment Data) will be returned.

First Data will pass the AAV and Transaction Type to MasterCard with the authorization request. These fields are used during authorization processing to verify that authentication, or attempted authentication, was performed and to qualify for the e-Commerce Custom Payment Services.

**Non-participating MasterCard SecureCode Issuers:** Participating MasterCard SecureCode merchants that attempt to authenticate a cardholder and the Issuer is not participating in MasterCard SecureCode will not receive an AAV. Merchants must pass these transactions with Transaction Type 6.

**Activation During Shopping (ADS):** Cardholders that are not enrolled in SecureCode may be presented with an enrollment window while shopping at a SecureCode merchant's website. Unlike the traditional enrollment process, ADS does not require the consumer to visit an enrollment web site before shopping. This type of enrollment takes place during the shopping process. When an eligible consumer goes to checkout, the card-issuing bank will ask a series of questions – similar to the traditional enrollment process. Providing the correct answers will result in both a successful enrollment and a successful authentication response returned to the merchant. The merchant must send the AAV they receive to First Data, along with Transaction Type of 5. If the cardholder chooses to opt-out of enrollment during shopping, the Issuer will pass an AAV to the merchant. In this case, the merchant is not required to submit the AAV with the authorization, but must send Transaction Type of 6.

**Non-Participating SecureCode Issuer:** Participating SecureCode Merchants that attempt to authenticate a cardholder and the Issuer is not

participating in SecureCode will not receive an AAV. Merchants must pass these transactions with Transaction Type of 6.

### How it Works (Continued)

The merchant must install a certified 3-D Secure Merchant Plug-in software application.

The merchant must verify that Merchant Plug-in will provide AAV in Base 64 encoding. If not, the merchant will have to convert to Base 64 before sending to First Data.

In the settlement of a MasterCard SecureCode transaction, merchants are strongly encouraged to submit the MasterCard Authentication Extension Record. In the event that First Data has to perform a new authorization, the authentication data (AAV) will be included in the new authorization. By doing so, the merchant will maintain the MasterCard SecureCode chargeback liability shift for authenticated transactions.

Merchants must map the MasterCard Electronic Commerce Indicator (ECI) they receive via their MPI to the appropriate First Data Transaction Type:

Transaction Description	MasterCard ECI Returned in MPI	FDC Transaction Type
Fully Authenticated	02	5
Attempted Authentication	01	6
Authentication Failed or Not Available	Absent	7

Test and certify with First Data to become MasterCard SecureCode enabled.

### Merchant Guidelines

Merchants are required to request authorization for all SecureCode e-Commerce transactions.

- Merchants must supply the AAV on all authorization attempts.
- Initial SecureCode authorization requests with AAVs older than 30 calendar days may be declined by the Issuer.
- Subsequent authorization attempts must include the AAV.
- Recurring payments should include AAV data for the initial authorization request only. Merchants must not provide authentication data in recurring payment authorizations as these are not considered electronic commerce transactions by MasterCard and subsequently are not eligible for MasterCard SecureCode processing.

## APPENDIX I: MASTERCARD SECURECODE

---

**Supported Card  
Types/ Currencies**

MasterCard / All currencies Card Types/ Currencies

---

**Front End Edit / Reject  
Codes**

See Appendix A: Response Reason Code Description/Usage

---

**To Get Started**

Contact your First Data Representative.

---

### APPENDIX J: MERCHANT DESCRIPTOR “M” RECORD

#### **Introduction**

The Merchant Descriptor (“M”) Record is used as a substitute for the Soft Merchant records to define the merchant name/product description that will appear on the consumer’s statement. It allows the merchant greater flexibility in Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

the first “M” record the default information is used at the division level. If the Soft Merchant (SM) records are provided in addition to the “M” record, the data from these SM records will take precedence.

Subject to issuer discretion whether this descriptor will be displayed on the cardholder statement.

---

#### **Rules and Guidelines (Credit Card)**

The description in the merchant name field should be what is most recognizable to the cardholder. It should consist of the company name and/or trade name combined with some type of description of the product or service that was purchased.

First Data will Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

your First Data Representative for details on the use and regulations of the asterisk. If a Merchant wishes to roll up several names into one company for chargeback and deposit activity purposes, Visa requires that the company name must appear first and then be followed by an asterisk “\*”. The asterisk may only appear in positions 5, 9 or 14 of the “M” record. An additional

product description may then follow the asterisk using the remaining field positions. A sample worksheet may be found at the end of Appendix J.

**Notes:** If the merchant submits (“M” record or division level) a backslash (\) in the merchant descriptor, then it will be converted into a hyphen (-) on the cardholder statement.

If the merchant submits (“M” record or division level) a question mark (?) in the merchant descriptor then it will be converted into a space on the cardholder statement.

There are certain American Express card types/programs that ignore the descriptors sent using this record. The Optima card is one of these types. The merchant should contact their American Express representative for more details.

Subject to Issuer discretion whether this descriptor will be displayed on the cardholder statement. For Visa, MasterCard and MasterCard Diners – U.S. and Canada only.

**File Layout**

**Header record**

M record (descriptor – overrides what is initially setup on the account) This record gets duplicated after each S/A record until a blank “M” record or new “M” record is sent

**S record (Detail Record with credit card information)**

**Note:** If you want to default back to the original description identified at division set-up time, you must send an “M” in the first position of the record followed by spaces (Blank).

## Header record

M record (descriptor – overrides what is initially setup on the account) This record gets duplicated after each S/A record until a blank “M” record or new “M” record is sent

**S record (Detail Record with credit card information)**

**Note:** If you want to default back to the original description identified at division set-up time, you must send an “M” in the first position of the record followed by spaces (Blank).

If you plan on using the Asterisk to roll up several Merchant names for Visa regulations, please use this sample record layout (template) when constructing the information format.

[illegible]

**Template notes:**

## APPENDIX J: MERCHANT DESCRIPTOR “M” RECORD

---

- If no “\*” is used – can only have the company name (no product descriptor)
- Before “\*” – abbreviated corporate name
- After “\*” – catalog name / product type / installment information (i.e. 1 of 4)



### APPENDIX K: UK DOMESTIC MAESTRO SECURECODE

#### **Introduction**

UK Domestic Maestro SecureCode is a solution designed to authenticate accountholders when paying on-line. SecureCode offers a mechanism for securing the Internet channel by strongly authenticating the accountholder at the point of interaction by providing a unique transaction-specific token that provides evidence that the accountholder originated the transaction. SecureCode uses UK Domestic Maestro's Universal Accountholder Authentication Field (UCAF) infrastructure to communicate the authentication information among the accountholder, Issuer, merchant and Acquirer. UK Domestic Maestro SecureCode supports the 3-D Secure Protocol (same as Verified by Visa). UK Domestic Maestro SecureCode requires merchants to install a 3-D Secure v1.0.2 compliant Merchant Server Plug-In software application.

---

#### **How it Works**

The accountholder shops at a participating SecureCode Internet Merchant with no changes to the shopping or checkout. The accountholder selects the merchandise to be purchased and proceeds to the checkout. At the checkout, the accountholder may complete the purchase and payment information in a variety of ways, including self-entered, electronic wallet, merchant one-click, or using other checkout capabilities.

After the purchase and payment information is entered, the consumer hits the "buy" button and the Confirmation page goes back to the merchant.

The Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

The MPI sends a message and script directing the accountholder's browser to establish a pop-up session with the Issuer ACS. The pop-up window displays Issuer-specific and UK Domestic Maestro branding, transaction details – including merchant name and sale amount, and prompts the accountholder to enter their secure code (e.g. password). If the password is entered correctly, the transaction continues. The accountholder is allowed a limited number of password attempts, typically 3 to 5, as defined by the Issuer ACS. If unable to correctly enter the password, the accountholder may access the password hint that was established during registration. If the

## APPENDIX K: UK DOMESTIC MAESTRO SECURECODE

---

password is incorrectly entered more times than the Issuer limit, a failed Payer Authentication Response is returned to the merchant.

### How it Works (continued)

The Issuer ACS retrieves the authentication information and compares it against the data that was registered during the initial accountholder registration process. If the data matches, a success page is presented to the accountholder and the Issuer ACS sends a message through the browser to the merchant providing evidence of accountholder authentication, including a 28-byte AAV. This AAV is generated cryptographically using Issuer-specific secret keys that are synchronized with keys at the Issuer's authorization platform.

Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

First Data will pass the AAV and Transaction Type to UK Domestic Maestro with the authorization request. These fields are used during authorization processing to verify that authentication, or attempted authentication, was performed and to qualify for the e-Commerce Custom Payment Services.

Non-participating UK Domestic Maestro SecureCode Issuers: Participating UK Domestic Maestro SecureCode merchants that attempt to authenticate an accountholder and the Issuer is not participating in UK Domestic Maestro SecureCode will not receive an AAV. Merchants must pass these transactions with Transaction Type 6.

---

### Merchant Requirements

The merchant must install a certified 3-D Secure Merchant Plug-in software application.

The merchant must verify that Merchant Plug-in will provide AAV in Base 64 encoding. If not, the merchant will have to convert to Base 64 before sending to First Data.

In the settlement of a UK Domestic Maestro SecureCode transaction, merchants are strongly encouraged to submit the UK Domestic Maestro Authentication Extension Record. In the event that First Data has to perform a new authorization, the authentication data (AAV) will be included in the new

## APPENDIX K: UK DOMESTIC MAESTRO SECURECODE

authorization. By doing so, the merchant will maintain the UK Domestic Maestro SecureCode chargeback liability shift for authenticated transactions.

Merchants must map the UK Domestic Maestro Electronic Commerce Indicator (ECI) they receive via their MPI to the appropriate First Data Transaction Type:

Transaction Description	UK Domestic Maestro Returned in MPI	FDC Transaction Type
Fully Authenticated	02	5
Attempted Authentication	01	6
Authentication Failed or Not Available	No ECI Returned	7

Test and certify with First Data to become UK Domestic Maestro SecureCode enabled.

### **Merchant Guidelines**

- Stand-alone Refunds are not supported for more than 500 Currency Units. For refunds greater than 500 Currency Units, Refund must match prior deposit. (Stand-alone RF is a Refund without a prior Authorization Transaction, i.e. RF action code not tied to a specific prior sale.)
- Merchants are required to request authorization for all SecureCode e-Commerce transactions
- Merchants must supply the AAV on all authorization attempts
- Initial SecureCode authorization requests with AAVs older than 30 calendar days may be declined by the Issuer
- Subsequent authorization attempts must include the AAV
- Recurring payments should include AAV data for the initial authorization request only. Merchants must not provide authentication data in recurring payment authorizations as these are not considered electronic commerce transactions by UK Domestic Maestro and subsequently are not eligible for UK Domestic Maestro SecureCode processing.

### **Supported Card Types / Currencies**

UK Domestic Maestro / British Pounds

### **Response Reason Codes**

See Appendix A: Response Reason Code Description/Usage

**To Get Started**

Contact your First Data Representative

### APPENDIX L: DEBIT PROCESSING

#### ***Introduction***

Customers use their ATM/Debit cards to pay for goods or services rather than cash, check, or credit card.

Debit transactions are always authorized on a “real time” basis with the actual authorization resulting in the debit (credit if a return transaction) of the customer’s bank account. Merchants must submit a deposit file to First Data to support funding, reporting, and associated reconciliation.

First Data has connectivity to most of the major debit networks in the U.S.

**First Data is only supporting PINless Debit Processing for this specification.**

---

#### ***Authorizations and Deposits***

The purpose of PINless debit authorizations and deposits is to debit funds from the account of the cardholder.

Debit authorizations and deposits are reported in a separate section of the same reports as other debit transactions.

Debit authorizations and deposits have specific rules, edits and response reason codes, details of which are provided in the sections below.

#### ***How it Works:***

In order for a merchant to use the debit deposit functionality, the merchant must send a successful PA (Purchase Authorization) prior to sending in the deposit request.

---

#### ***Refunds***

The purpose of PINless debit refunds is to return funds to the account of the cardholder, which had been debited by the original debit transaction. This is done at the Issuer’s discretion.

Debit refunds are reported in a separate section of the same reports as other debit transactions. PINless debit refunds can be sent in real-time or in a batch submission.

Debit refunds have specific rules, edits and response reason codes, details of which are provided in sections below.

#### ***How it Works:***

In order for a merchant to use the debit refund functionality, the merchant must send a successful RA (Refund Authorization) prior to sending the refund request.

---

### **Reversals**

Merchant initiated PINless debit reversals are also referred to as merchant voids, cancellations and corrections. The purpose of PINless debit reversals to reverse a previous action (i.e. Purchase Authorization or Refund Authorization)

Debit reversals are reported in a separate section of the same reports as other debit transactions. PINless debit reversals can be sent in real-time or in a batch submission.

Merchant initiated debit reversals have specific rules, edits, and response reason codes, details of which are provided in the sections below.

### **How it Works:**

In order for a merchant to use the PINless debit reversal functionality:

1. A merchant must always reverse the full amount of the original debit transaction.
  2. The PINless debit reversal should be done in the same manner as the debit transaction, batch or Online.
  3. A merchant initiated PINless debit reversal must be submitted within 90 minutes of the original debit transaction.
  4. Any PINless debit reversal that fails and cannot be resubmitted within the time limit must be submitted as a debit adjustment.
- 

### **PINless Debit**

PINless Debit is more commonly known as Debit Bill Payment, a debit transaction where neither the magnetic stripe contents nor the PIN is part of the authorization message.

PINless Debit is currently only supported by the three largest debit networks: Star, NYCE, and Pulse.

PINless Debit Refunds are currently only supported by the NYCE and Pulse debit networks. The Star network does not currently support PINless Debit Refunds, but if the customer's issuing bank is affiliated with the NYCE and Pulse networks, refunds may be processed using those networks. A Star only transaction will be rejected.

Pulse requires a separate division when processing recurring transactions.

The debit network rules or PINless debit programs are strict and the networks that support these transactions must approve the merchant prior to their accepting PINless debit transactions. As a result, PINless debit processing is only available to merchants in select industries.

Please refer to the Debit Bill Payment User Manual for card association and debit network regulations.

### ***PINless Debit Transaction Types***

The following charts list the transaction types that can be sent in an Online or Batch transaction.

### **Transaction Types – Online**

<b>PINless Debit Transaction Types – Online</b>		
<b>Action Code</b>	<b>Method of Payment</b>	<b>Valid Transaction Types</b>
PA(Purchase Authorization)	DP (Generic PINless Debit MOP)	2 – Recurring 7 – Internet I – IVR
PR(Purchase Reversal)	Any PINless Debit MOP	2 – Recurring 7 – Internet I – IVR
RA(Refund Authorization)	DP (Generic PINless Debit MOP)	2 – Recurring 7 – Internet I – IVR
DR(Refund Authorization Reversal)	Any PINless Debit MOP	2 – Recurring 7 – Internet I – IVR

### **Transaction Types – Batch**

<b>PINless Debit Transaction Types – Batch</b>		
<b>Action Code</b>	<b>Method of Payment</b>	<b>Valid Transaction Types</b>
		All non-valid transaction types will reject with Response Reason Code 253 (Invalid Transaction Type)
DP(Deposit)	Specific MOP of Debit Network used for the authorization  Example:	2 – Recurring 7 – Internet I – IVR

PINless Debit Transaction Types – Batch		
Action Code	Method of Payment	Valid Transaction Types All non-valid transaction types will reject with Response Reason Code 253 (Invalid Transaction Type)
	NP – NYCE PINless PP – Pulse PINless SP – Star PINless	
DC(Conditional Deposit)	DP(Generic PINless Debit MOP)	2 – Recurring
RF(Refund)	Specific MOP of Debit Network used for the authorization  Example:  NP – NYCE PINless PP – Pulse PINless SP – Star PINless	2 – Recurring 7 – Internet I – IVR

***PINless Debit  
Transaction Matching  
Criteria***

The following charts list the prior order matching process. Both matching and validation must be successful for a transaction to deposit or refund.

**Prior Order Matching for Purchase Authorization (PA) and Refund Authorization (RA) using Account Number, Amount, Division Number and Order Number**

PINless Debit Prior Order Matching for Purchase Authorization (PA) and Refund Authorization (RA)		
Processing Mode	Matching Result	Action Take
Online	No Match Found	Transaction is sent to Debit Network for authorization.
Online	Match Found	Response Reason Code 109 (Previously Processed Transaction) is returned. Transaction is not reauthorized with Debit Network. Method of Payment from the original transaction is returned. Trace Number and/or Biller Reference Number are echoed back.



Prior Order Matching for Conditional Deposit (DC) using Account Number, Amount, Division Number, and Order Number

PINless Debit Prior Order Matching for Conditional Deposit (DC)		
Processing Mode	Matching Result	Action Take
Batch	Match found as already deposited in Duplicate Database (Stratus Duplicate File).	Response Reason Code 264 (Duplicate Deposit Transaction) is returned. Transaction is not processed.
Batch	No Match Found or Match Found in Debit Awaiting Deposit (DAD) Database as already deposited.	Transaction is sent to Debit Network for authorization. If approved, transaction is deposited
Batch	Match Found in Debit Awaiting Deposit (DAD) Database as not deposited.	Response Reason Code 109 (Previously Processed Transaction) is returned. Transaction is not re-authorized with Debit Network. Transaction is deposited.

PINless Debit  
Transaction Matching  
Criteria (continued)

Prior Order Matching for Deposit (DP), Refund (RF), and Refund Authorization Reversals (DR) using Trace Number, Account Number, and Division Number.

PINless Debit Prior Order Matching for Deposit (DP), Refund (RF), and Refund Authorization Reversals (DR)		
Processing Mode	Matching Result	Action Take
Batch	No Match Found	Response Reason Code 740 (Match Failed) is returned. Transaction is not deposited.
Batch	Match Found	Check for prior order validation.

Prior Order Validation for Deposit (DP), Refund (RF), and Refund Authorization Reversals (DR) using Amount, MOP returned from Authorization, and Complimentary Action Code (e.g. a deposit for a prior authorization).

PINless Debit Prior Order Validation for Deposit (DP), Refund (RF), and Refund Authorization Reversals (DR)		
Processing Mode	Matching Result	Action Take
Batch	No Match Found	Response Reason Code 741 (Validation Failed) is returned. Transaction is not deposited.

PINless Debit Prior Order <u>Validation</u> for Deposit (DP), Refund (RF), and Refund Authorization Reversals (DR)		
Processing Mode	Matching Result	Action Take
Batch	Match Found	Response Reason Code 100 (Approved) is returned. Transaction is deposited.

### ***Transaction Types and Requirements***

**Purchase Authorization** verifies customer's open-to-buy and if the funds are available, debits the customer's account. Refund Authorization returns funds to the customer for a previously approved debit purchase authorization.

### **Online**

#### **Request:**

- 1.) Online Processing Detail Record
  - a.) Action Code = RA
  - b.) MOP = Any generic Debit MOP
- 2.) Format Indicators
  - a.) Order Information 2 (O2) (PINless Debit only)

#### **Response:**

- 1.) Online Processing Return Format Record
- 2.) Reply Format Indicator
  - a.) Debit Reply Format Indicator (DB)
    - i.) Debit Trace Number

### **Batch**

**n/a**

**Purchase Authorization Reversal** reverses the previously attempted or approved purchase authorization.

### **Online:**

#### **Request:**

- 1.) Online Processing Detail Record
  - a.) Action Code = PR
  - b.) MOP = Any Debit MOP
  - c.) Amount = Original, authorized amount.
- 2.) Format Indicators
  - a.) Order Information 2 (O2) (PINless Debit only)

### Response:

- 1.) Online Processing Return Format Record
  - 2.) Reply Format Indicator
    - a.) Debit Reply Format Indicator (DB)
    - i.) Debit Trace Number
- 

**Deposit** funds the merchant for the previously approved purchase authorization.

### **Online:**

n/a

### **Batch**

#### Request:

- 1.) Detail Record
  - a.) Action code = DP
  - b.) MOP = Debit MOP returned at time of purchase authorization
- 2.) Product Record
  - a.) Debit (PDE001)
  - i.) Trace Number

### Response:

- 1.) "S" Record Output
- 

**Refund Authorization** returns funds to the customer for a previously approved debit purchase authorization.

### **Online**

#### Request:

- 1.) Online Processing Detail Record
  - a.) Action Code = RA
  - b.) MOP = Any generic Debit MOP
- 2.) Format Indicators

Transaction Types  
and Requirements  
(Continued)

a.) Order Information 2 (O2) (PINless Debit only)

**Response:**

- 1.) Online Processing Return Format Record
- 2.) Reply Format Indicator
  - a.) Debit Reply Format Indicator (DB)
  - i.) Debit Trace Number

**Batch**

n/a

---

**Refund Authorization Reversal** reverses the previously attempted or approved refund authorization.

**Online:****Request:**

- 1.) Online Processing Detail Record
  - a.) Action Code = DR
  - b.) MOP = Any Debit MOP
  - c.) Amount = Original, authorized amount.
- 2.) Format Indicators
  - a.) Order Information 2 (O2) (PINless Debit only)

**Response:**

- 1.) Online Processing Return Format Record
- 2.) Reply Format Indicator
  - a.) Debit Reply Format Indicator (DB)
  - i.) Debit Trace Number

---

**Refund** removes the funds from the merchant for the previously approved refund authorization.

**Online:**

n/a

**Batch**Transaction Types  
and Requirements  
(Continued)**Request:**

- 1.) Detail Record
  - a.) Action code = RF
  - b.) MOP = Debit MOP returned at time of purchase authorization
- 2.) Product Record
  - a.) Debit (PDE001)
    - i.) Trace Number

### Response:

- 1.) "S" Record Output

---

**Conditional Deposit** verifies customer's open-to-buy and if the funds are available, debits the customer's account and funds the merchant.

### Online:

n/a

### Batch

#### Request:

- 1.) Detail Record
  - a.) Action Code = DC
  - b.) MOP = Generic PINless Debit MOP
  - c.) Transaction Type = 2
- 2.) Product Record:
  - a.) Debit (PDE001)
    - i.) Biller Reference Number

#### Response:

- 1.) "S" Record Output
- 2.) Product Record
  - a.) Debit (PDE001)
    - i.) Trace Number

#### **Supported Card Types/ Currencies**

U. S. currency

#### **Authorization Response Codes**

See Appendix A: Response Reason Code/Auth Code Responses

#### **To Get Started**

Please contact your First Data Representative



### APPENDIX M: VALUE LINK CLOSED LOOP GIFT CARD

#### ***Introduction***

First Data's Gift Card program provides an electronic stored value payment instrument through the use of plastic cards encoded with a magnetic stripe or an electronic certificate cross-referenced to a Gift Card number. The card or electronic certificate is used by the merchant to issue spending credit to his customers, for popular uses including gift certificates, merchandise return cards, and prepaid cards.

---

#### ***How it Works***

The merchant's customer is given a magnetic stripe card or an electronic certificate in exchange for money received, merchandise returned, or other considerations. The card/certificate represents a dollar value that the merchant's customer can either use or give to another individual. The actual record of the balance on the account is maintained on First Data's Gift Card database.

The electronic certificate may reflect the actual Gift Card number, or may be an alias for a Gift Card number stored on the merchant's system.

The plastic card is designed to be swiped through a POS terminal or system. Since Gift Card is a multi-channel stored value program, the card number may also be key-entered into a merchant's payment page on their Web site, or it may be entered by a CSR at a merchant's call center.

In either scenario, the Gift Card number is transmitted with the appropriate action code. First Data will process the transaction, return a response to the merchant, update the Gift Card database, and provide transaction and card balance reporting to the merchant via the Resource On-line reporting application.

Depending on the merchant setup, a Gift Card may have a fixed balance, may allow value to be added, or may contain an added security feature known as CVD2 (Card Verification Data), which is similar to credit card security value.

By default, authorized amounts are reserved for 7 days. If not redeemed within 7 days, the reserved amount is added back to the available balance. Please contact your First Data Representative to alter the default setting.

The Gift Card server will decline the transaction if the amount sent causes the card balance to go negative.

## APPENDIX M: VALUE LINK CLOSED LOOP GIFT CARD

### **Transaction Types and Requirements**

The following ValueLink Actions require and return the following data elements.

#### **Notes:**

- Account number is required on all transactions except Virtual Card Activation
- Merchant Order number is recommended on all VLink Transactions
- EAN or SCV must be provided if present on a physical or Virtual card
- Virtual Cards with EAN or SCV are supported

The following nomenclature is used in the Action descriptions below:

- **ValueLink Additional Info**
  - ♦ Online – ValueLink Additional Detail Format Indicator
  - ♦ Batch – ValueLink Product Record
- **ValueLink Activation Info**
  - ♦ Online – ValueLink Activation Detail Format Indicator
  - ♦ Batch – ValueLink Product Record
- **Prior Auth Info**
  - ♦ Online – Prior Authorization Format Indicator
  - ♦ Batch – Detail Record
- **ValueLink Response Record**
  - ♦ Online – Gift Card Reply Format Indicator (FC)
  - ♦ Batch – Stored Value Product Record (SV)

### **Approved Transaction Response**

Whenever an Approved authorization response is received on a ValueLink authorization, the balances in the Online 'FC' Gift Card Reply Format Indicator (and Batch ValueLink Stored Value Product Record 'PVL001') must be interrogated to see if the Approval is for the full amount or a partial amount. If the **current balance** is zero, then the authorized amount is only the amount of the **previous balance**. See the Online 'FC' Gift Card Reply Format Indicator Response illustrations below:

#### **Card Issued for \$35.00**

T74V00012005ABC-123 100110819 7777047183035650 VL  
000000003500FC0000000035000000000000VD000000000000N272

#### **Balance Inquiry showing \$35.00**

T74V00012012ABC-123 100110819 7777047183035650 0125VL  
000000000000FC000000003500000000003500VLP8408



## Full Authorization Approval (35.00 – 5.00 = 30.00)

(Requested amount \$30.00, **current balance \$5.00**, previous balance 35.00)

T74V00012006ABC-123 100110819 1 7777047183035650 VL  
000000003000FC00000000050000000003500VLP8408

## Partial Authorization Approval (5.00 – 0 = 5.00)

(Requested amount \$300.00, **current balance \$0**, previous balance \$5.00)

T74V00012014ABC-123 100110819 4 7777047183035650 VL  
000000030000FC00000000000000000000500VLP8408

Transaction Types  
and Requirements  
(continued)

## Action - Assign Working Key (2010) (For EAN Merchants Only)

### Request:

- 1.) Detail Record:
  - a.) Action Code = GK
  - b.) Method of Payment = VL

### Response:

- 1.) Detail Response Record
  - a.) Response Code

## Action - Issuance / Activation (Virtual)

### Request:

- 1.) Detail Record:
  - a.) Action Code = SI
  - b.) Amount (Recommended)\*\*\*
- 2.) ValueLink Additional Info
  - a.) Card Type = V (EAN), C (SCV), or S (neither)\*\*
  - b.) Foreign Access Code (Optional)
- 3.) ValueLink Activation Info
  - a.) Card Cost
  - b.) Escheatable (Optional)
  - c.) Promo Code

### Response:

- 1.) Detail Response Record
  - a.) Account Number
  - b.) Amount
  - c.) Response Code
- 2.) ValueLink Additional Info
  - a.) Card Type = V (EAN), C (SCV), or S (neither)\*\*
  - b.) EAN or SCV, or neither\*\*

- c.) Other Values (Echoed)
- 3.) ValueLink Activation Info (Echoed)

*\*\*Card Type S should only be used by approved merchants. EAN or SCV should be used at all times unless prior approval has been granted. The Value returned to the merchant must be utilized on all subsequent transactions.*

**Note:**

- Compass now supports Virtual Cards. EAN and Card/Account number OR SCV and Card/Account number must be submitted with all corresponding transactions.

### **Action - Issuance / Activation (Physical)**

**Request:**

- 1.) Detail Record:
  - a.) Action Code = SI
  - b.) Amount (Recommended)\*\*\*
  - c.) Account Number
- 2.) ValueLink Additional Info (Optional)
  - a.) Card Type = F or P
  - b.) EAN or SCV
  - c.) Foreign Access Code
- 3.) ValueLink Activation Record
  - a.) Card Cost
  - b.) Escheatable (Optional)

**Response:**

- 1.) Detail Response Record
  - a.) Response Code
- 2.) ValueLink Activation Info (Echoed)

\*\*\*Non-denominated cards are activated using the value in the amount. Amounts can be included in the request for a denominated card, however they must match to the same value within the promo for that card otherwise the transaction is rejected.

### **Action - Void of Issuance / Activation (Physical)**

**Request:**

- 1.) Detail Record:
  - a.) Action Code = IR
  - b.) Amount
- 2.) ValueLink Additional Info (Optional)
  - a.) Card Type

- b.) EAN or SCV
  - c.) Foreign Access Code
- 3.) ValueLink Activation Record (Optional)
  - a.) Card Cost
  - b.) Escheatable

### Response:

- 1.) Detail Response Record
  - a.) Response Code
- 2.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance
  - b.) Previous Balance

### Action - Deactivation

#### Request:

- 1.) Detail Record:
  - a.) Action Code = SD
  - b.) Amount (Optional, Default Zero Fill)
- 2.) ValueLink Additional Info (Optional)
  - a.) Card Type
  - b.) EAN or SCV
  - c.) Foreign Access Code

#### Response:

- 1.) Detail Response Record
  - a.) Response Code
- 2.) ValueLink Additional Info (Echoed)

### Action - Balance Inquiry

#### Request:

- 1.) Detail Record:
  - a.) Action Code = BI
  - b.) Amount (should be \$0.00)
- 2.) ValueLink Additional Info
  - a.) Card Type
  - b.) EAN or SCV (Optional)
  - c.) Foreign Access Code (Optional)

#### Response:

- 1.) Detail Response Record
  - a.) Response Code
- 2.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance
  - b.) Previous Balance

### Action - Authorization

#### **Request:**

- 1.) Detail Record:
  - a.) Action Code = AU
  - b.) Amount
- 2.) ValueLink Additional Info
  - a.) Card Type
  - b.) EAN or SCV (Optional)
  - c.) Foreign Access Code (Optional)
- 3.) Partial Auth Record (Optional)
  - a.) Partial Auth Flag

#### **Response:**

- 1.) Detail Response Record
  - a.) Response Code
  - b.) Auth/Verification Code (Lock ID)
- 2.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance
  - b.) Previous Balance
- 3.) Partial Auth Record (Optional)
  - a.) Redemption Amount

### Action - Authorization Reversal

#### **Request:**

- 1.) Detail Record:
  - a.) Action Code = AR
  - b.) Amount (Must be the original amount approved in the AU request)
- 2.) Prior Auth Info
  - a.) Response Date
  - b.) Auth/Verification Code (Lock ID)
- 3.) ValueLink Additional Info (Optional)
  - a.) Card Type
  - b.) EAN or SCV
  - c.) Foreign Access Code

#### **Response:**

- 1.) Detail Response Record
  - a.) Response Code
  - b.) Auth/Verification Code (Lock ID)
- 2.) ValueLink Activation Info
  - a.) Card Cost (Optional)
- 3.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance

### b.) Previous Balance

### Action – Available Authorization/Deposit (Auth & Deposit available amount) Split Tender Capable Transaction

#### Request:

- 1.) Detail Record:
  - a.) Action Code = DA
  - b.) Amount
  - c.) Currency
- 2.) ValueLink Additional Info
  - a.) Card Type
  - b.) EAN or SCV (Optional)
  - c.) Foreign Access Code (Optional)

#### Response:

- 1.) Detail Response Record
  - a.) Response Code
  - b.) Auth/Verification Code (Lock ID)
- 2.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance
  - b.) Previous Balance

### Action - Deposit

#### Request:

- 1.) Detail Record:
  - a.) Action Code = DP
  - b.) Amount
  - c.) Currency
- 2.) Prior Authorization Info
  - a.) Response Code
  - b.) Auth/Verification Code (Lock ID)
- 3.) ValueLink Additional Info (Optional)
  - a.) Card Type
  - b.) EAN or SCV
  - c.) Foreign Access Code

#### Response:

- 1.) Detail Response Record
  - a.) Response Code
- 2.) ValueLink Activation Info
  - a.) Card Cost (Optional)
- 3.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance

### b.) Previous Balance

### Action - Redemption Reversal

#### Request:

- 1.) Detail Record:
  - a.) Action Code = CV
  - b.) Amount
  - c.) Currency
- 2.) Prior Authorization Info
  - a.) Response Code
  - b.) Auth/Verification Code (Lock ID)
- 3.) ValueLink Additional Info (Optional)
  - a.) Card Type
  - b.) EAN or SCV
  - c.) Foreign Access Code

#### Response:

- 1.) Detail Response Record
  - a.) Response Code
- 2.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance
  - b.) Previous Balance

### Action - Refund

#### Request:

- 1.) Detail Record:
  - a.) Action Code = RF
  - b.) Amount
  - c.) Currency
- 2.) ValueLink Additional Info
  - a.) Card Type
  - b.) EAN or SCV (Required)
  - c.) Foreign Access Code (Optional)

#### Response:

- 1.) Detail Response Record
  - a.) Response Code
- 2.) ValueLink Activation Info
  - a.) Card Cost (Optional)
- 3.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance
  - b.) Previous Balance

### Action - Void of Refund

#### **Request:**

- 1.) Detail Record:
  - a.) Action Code = RV
  - b.) Amount
- 2.) Prior Auth Info
  - a.) Currency
  - b.) Response Code
- 3.) ValueLink Additional Info
  - a.) Card Type
  - b.) EAN or SCV (Optional)
  - c.) Foreign Access Code (Optional)

#### **Response:**

- 1.) Detail Response Record
  - a.) Response Code
- 2.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance
  - b.) Previous Balance

### Action - Reload (Add Value)

#### **Request :**

- 1.) Detail Record:
  - a.) Action Code = SA
  - b.) Amount
  - c.) Currency
- 2.) ValueLink Additional Info (Optional)
  - a.) Card Type
  - b.) EAN or SCV
  - c.) Foreign Access Code

#### **Response:**

- 1.) Detail Response Record
  - a.) Amount
  - b.) Response Code
- 2.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance
  - b.) Previous Balance

### Action - Void of Reload

#### **Request:**

- 1.) Detail Record:
  - a.) Action Code = VR

- b.) Response Code
- 2.) ValueLink Additional Info (Optional)
  - a.) Card Type
  - b.) EAN or SCV
  - c.) Foreign Access Code

### Response:

- 1.) Detail Response Record
  - a.) Amount
  - b.) Response Code

### Action - Cashout

#### Request:

- 1.) Detail Record:
  - a.) Action Code = CO
- 2.) ValueLink Additional Info
  - a.) Card Type
  - b.) EAN or SCV (Optional)
  - c.) Foreign Access Code (Optional)

#### Response:

- 1.) Detail Response Record
  - a.) Response Code
- 2.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance
  - b.) Previous Balance

### Action - Void of Cashout

#### Request:

- 1.) Detail Record:
  - a.) Action Code = VC
  - b.) Response Code
- 2.) ValueLink Additional Info
  - a.) Card Type
  - b.) EAN or SCV (Optional)
  - c.) Foreign Access Code (Optional)

#### Response:

- 1.) Detail Response Record
  - a.) Response Code
- 2.) ValueLink Response Record (Online is FC Record, Batch is PVL001)
  - a.) Current Balance
  - b.) Previous Balance



## APPENDIX M: VALUE LINK CLOSED LOOP GIFT CARD

---

**Note:**

- As of 10/20/2009, the following Transaction Types and Requirements were subject to change. Please contact your First Data Representative for more information.
- 

***Supported Currencies***

Contact your First Data Representative for list of supported ValueLink Currencies

---

**Response Reason  
Codes**

See Appendix A: Response Reason Code Description/Usage

---

**To Get Started**

Contact your First Data Representative

## APPENDIX N: **TELE**CHECK® PROCESSING

### *Introduction*

[<return to Rev Hist>](#)

TeleCheck® Non Face-to-Face (NF2F) offers merchants the convenience of electronic check deposits. When a NF2F transaction is approved by TeleCheck®, the Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

separate application types (ICA, CBP, PPD respectively) and separate Merchant IDs, aka Subscriber IDs.

- **ICA:** Provides merchants with the capability to authorize and electronically settle checks presented by customers over the internet. ICA can be single entry or recurring. This is based on a consumer's authorization received over the Internet. (NACHA SEC Code: WEB)
- **CBP:** Authorizes and electronically settles checks presented over the phone through consumer interaction with a merchant call center representative. CBP services are single entry only, partial debits and recurring entries are not supported. This is based on consumer's authorization received over the phone. (NACHA SEC Code: TEL)
- **Remote Pay/PPD:** Prearranged Payments and Deposits may be used for either recurring or non-recurring debits to a consumer's account, when the merchant has provided the consumer with a written authorization, which the consumer has signed or similarly authenticated. The application type value must be set to PPD. PPD accounts must establish an end date to clearly defined terms between the customer and the merchant but do not have time period caps. (NACHA SEC Code: PPD)

This group of services is hereafter referred to as “**TeleCheck**” or “**TeleCheck NF2F**” in this document unless specified individually. These **TeleCheck** Services can improve operational efficiencies and can provide stronger fraud protection, quick funding and low-cost integration.

## APPENDIX N: ELECTRONIC TELECHECK PROCESSING

TeleCheck support for stand-alone RF must be configured at boarding time. Stand-alone RF is a Refund without a prior Authorization Transaction, i.e. RF action code not tied to a specific prior sale.

### *How it Works*

Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

and warranty solution.

With the warranty solution, TeleCheck NF2F manages the collections process to alleviate your operational challenges and to help streamline business operations.

### *Definitions:*

#### **Compound Settlements (defined)**

Compound Settlement allows a merchant to authorize a sale even if the merchandise is not in-stock and subsequently debit the consumer when the merchandise is shipped.

Example: Consumer buys four items for \$100 at \$25.00 for each item; the four items are not available at the time of purchase. The merchant can use compound settlement to charge the consumer for each \$25.00 item as it becomes available instead of charging the \$100 upfront.

#### **Notes:**

- Telecheck does not support compound settlement with Delayed Ship tool .

#### **Delay Ship (defined)**

Delay Ship is a tool that allows merchants to accept more transactions with only a slight increase in risk. With this process, transactions that TeleCheck® has identified as higher risk are given a provisional approval. The merchant holds-off on shipping the merchandise while TeleCheck® settles the transaction through the ACH network. Once enough time has passed for likely returns to be received (typically 5 banking days), TeleCheck® will instruct the merchant to ship the merchandise.

#### **Notes:**

- Use of this feature requires prior approval by TeleCheck®. It is not required for gateways.

## APPENDIX N: **ELECTRONIC TELECHECK** PROCESSING

---

- Telecheck does not support compound settlement with delayed ship.

### **Device Fingerprinting (defined)**

TeleCheck® employs a global online fraud service that stops web fraud and Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

identifiable information (PII) and gets actionable data in real-time to make better, faster decisions to identify and determine suspicious online behavior

### **Compass Requirements for TeleCheck NF2F**

TeleCheck NF2F transactions must meet the following requirements:

- TeleCheck Merchant ID - Required on all transactions. (Unique to each location)
- Data elements, legal verbiage, and check return fee.
- Only accounts held at a United States financial institution are eligible.
- Merchant's Order Number – Required for Adjustment and Sale transactions.
- Change (CH) and Void (VI) transactions are valid only within the original Sale processing window.
- Refunds are only allowed up to 90 days after the Sale.
- Address record(Name only) is mandatory for action code Auth and stand-alone RF only. If the action is AU or Stand-alone RF and the transaction type is ecom(i.e. 5 to 9) then IP, email and country in the address record is mandatory.
- TeleCheck Trace ID – Required for all adjustment transactions except Stand-Alone Refunds.
- A “stand-alone refund” is a refund (RF action code) not tied to a specific prior sale. It is an RF submitted without a TeleCheck Trace ID.

### **Transaction Types and Requirements: BATCH**

### **Batch**

In the **Action Code details** that follow for TeleCheck transactions, there are two options for sending bank ID and account number information:

### **Option 1:**

- 1.) Account Number in the detail (S) record
- 2.) Bank number in the RDFI/Bank ID field in the ETC001 record.
- 3.) Check number in the Check Number field in the ETC001 record

### Option 2:

- 1.) Full MICR (digits only, no separation characters) in the Extended Account Number field in the EXA001 record (includes Bank Number, Account Number and Check Number).
- 2.) Check number in the Check Number field in the ETC001 record (still required though present as part of Extended Account Number).
- 3.) Account Number in the detail (S) record **must** be space filled (blank)

### Auth Request (AU) requests an ACH approval

#### Request:

- 1.) Detail Record
  - a.) MOP = TC
  - b.) Action Code = AU (Auth)
- 2.) ETC001 Record (mandatory)
- 3.) ETC002 Record (optional)
- 4.) EXA001 Record (mandatory when the Detail (S) Record Account number is blank)
- 5.) PID001 Record (mandatory)
- 6.) PTF001 & PTF002 Records (optional)
- 7.) AM Address Record (optional)
- 8.) LN/LA (name is mandatory)
- 9.) Address records: AL, AI and LA(country) are mandatory for ICA (eComm) transactions, as well as stand-alone RF transactions.

#### Response:

- 1.) Detail Record Output
- 2.) ETC001 Response
- 3.) EXA001 Response (when EXA001 record is sent in the input file)

Transaction Types  
and Requirements  
BATCH (continued)

### Auth Reversal (AR) declines the ACH

#### Request:

- 1.) Detail Record
  - a.) MOP = TC
  - b.) Action Code = AR (Auth Reversal)
  - c.) Auth Code/Auth Date from AU response
- 2.) ETC001 Record (mandatory)

**3.) EXA001 Record** (mandatory when the Detail (S) Record Account number is blank)

**Response:**

**1.) Detail Record Output**

**2.) ETC001 Response**

**3.) EXA001 Response** (when EXA001 record is sent in the input file)

### **Deposit (DP) initiates the ACH**

**Request:**

**1.) Detail Record**

**a.) MOP = TC**

**b.) Action Code = DP (Deposit)**

**c.) Auth Code/Auth Date from AU response** (Required if amount differs from original auth, otherwise recommended)

**2.) ETC001 Record** (mandatory)

**3.) EXA001 Record** (mandatory when the Detail (S) Record Account number is blank)

**Response:**

**1.) Detail Record Output**

**2.) ETC001 Response**

**3.) EXA001 Response** (when EXA001 record is sent in the input file)

### **Refund Request (RF) requests an ACH adjustment.**

**Note:** Support for post-settlement (stand-alone) refunds require prior configuration with TeleCheck.

#### **Submitting Stand-alone vs. Non Stand-alone Refunds (RF) In BATCH**

For Stand-alone RF – Trace id should be blank(space filled) in ETC001 record.

For Non Stand-alone RF :- You must provide a valid Trace id (The TracelD is returned from prior auth) in ETC001 record.

**Request:**

**1.) Detail Record**

**a.) MOP = TC**

**b.) Action Code = RF (Refund)**

**2.) ETC001 Record** (mandatory)

**3.) ETC002 Record** (optional)

**4.) EXA001 Record** (mandatory when the Detail (S) Record Account number is blank)

- 5.) PID001 Record (Mandatory for stand-alone RF otherwise optional)
- 6.) PTF001 & PTF002 Records (optional)
- 7.) AM Address Record (optional)
- 8.) LN/LA address records (name is mandatory for stand-alone RF otherwise optional)
- 9.) Address records: AL, AI and LA(country) are mandatory for ICA (eComm) transactions, as well as stand-alone RF transactions.

### Response:

- 1.) Detail Record Output
- 2.) ETC001 Response
- 3.) EXA001 Response (when EXA001 record is sent in the input file)

### Void (VI) cancels an ACH request.

#### Request:

- 1.) Detail Record
  - a.) MOP = TC
  - b.) Action Code = VI (Void)
  - c.) Auth Code/Auth Date from AU response (Required if amount differs from original auth, otherwise recommended)
  - d.) ETC001 Request format (mandatory)
- 2.) EXA001 Record (mandatory when the Detail (S) Record Account number is blank)

#### Response:

- 1.) Detail Record Output
- 2.) ETC001 Response
- 3.) EXA001 Response (when EXA001 record is sent in the input file)

### Change (CH) adjusts the amount of an ACH request.

#### Request:

- 1.) Detail Record
  - a.) MOP = TC
  - b.) Action Code = CH (Change)
  - c.) Auth Code/Auth Date from AU response
- 2.) ETC001 Request format (mandatory)
- 3.) EXA001 Record (mandatory when the Detail (S) Record Account number is blank)

#### Response:

- 1.) Detail Record Output
- 2.) ETC001 Response
- 3.) EXA001 Response (when EXA001 record is sent in the input file)

## Transaction Types and Requirements: ONLINE

### Online

In the Action Code details that follow for TeleCheck transactions, there are 2 options for sending bank ID and account number information:

#### Option 1:

- 1.) Account number in the Account Number field in the detail (P74V) format.
- 2.) Bank number in the RDFI/Bank ID field in the TC format
- 3.) Check number in the Check Number field in the TC format

#### Option 2:

- 1.) Full MICR (digits only, no separation characters) in the Extended Account Number field in the XA format (includes Bank Number, Account Number and Check Number).
- 2.) Check number in the Check Number field in the TC format (still required though present as part of Extended Account Number).
- 3.) Account Number in the detail (S) record should be space filled (blank)

### Auth Request (AU) requests an ACH approval

#### Request:

- 1.) Detail Record
  - a.) MOP = TC
  - b.) Action Code = AU (Auth)
- 2.) TC Request format (mandatory)
- 3.) TD format (optional)
- 4.) ID Request format (mandatory)
- 5.) Second ID Request format (optional)
- 6.) CP Request Format (Optional)
- 7.) TR Request Format (Optional)
- 8.) AM Request Format (Optional)
- 9.) PO Request Format (Optional)
- 10.) XA Request Format (mandatory when the Detail (S) Record Account number is blank)
- 11.) LN/AB address records (Name is mandatory)
- 12.) Address records: AL, AI and AB(country) mandatory for ICA (eComm) transactions, as well as stand-alone RF transactions.

#### Response:



- 1.) Response Record Output
- 2.) TC Response format
- 3.) XA Response format (when XA format is sent in the request)

### Auth Reversal (AR) declines the ACH

#### **Request:**

- 1.) Detail Record
  - a.) MOP = TC
  - b.) Action Code = AR (Auth Reversal)
  - c.) Auth Code/Auth Date from AU response
- 2.) TC Request format (mandatory)
- 3.) XA Request Format (mandatory when the Detail (S) Record Account number is blank)

#### **Response:**

- 1.) Response Record Output
- 2.) TC Response format
- 3.) XA Response format (when XA format is sent in the request)

Transaction Types  
and Requirements  
ONLINE (continued)

### Deposit (DP) initiates the ACH

#### **Request:**

- 1.) Detail Record
  - a.) MOP = TC
  - b.) Action Code = DP (Deposit)
- 2.) Auth Code/Auth Date from AU response (Required if amount differs from original auth, otherwise recommended)
- 3.) TC Request format (mandatory)
- 4.) XA Request Format (mandatory when the Detail (S) Record Account number is blank)

#### **Response:**

- 1.) Response Record Output
- 2.) TC Response format
- 3.) XA Response format (when XA format is sent in the request)

### Refund Request (RF) requests an ACH adjustment.

**Note:** Support for post-settlement (stand-alone) refunds require prior configuration with TeleCheck.

#### **Submitting Stand-alone vs. Non Stand-alone Refunds (RF) in Online**

For Stand-alone RF – Trace id should be blank(space filled) in TC format indicator.

## APPENDIX N: ~~ELECTRONIC~~ TELECHECK PROCESSING

For Non Stand-alone RF :- We have to provide a valid Trace id(The TraceID is returned from prior auth) in TC format indicator.

### Request:

#### 1.) Detail Record

a.) MOP = TC

b.) Action Code = RF (Refund)

#### 2.) TC Request format (mandatory)

#### 3.) TD format (optional)

#### 4.) ID Request format (mandatory for stand-alone RF otherwise optional)

#### 5.) Second ID Request format (optional)

#### 6.) CP Request Format (Optional)

#### 7.) TR Request Format (Optional)

#### 8.) AM Request Format (Optional)

#### 9.) PO Request Format (Optional)

#### 10.) XA Request Format (mandatory when the Detail (S) Record Account number is blank)

#### 11.) LN/LA address records (Name is mandatory)

#### 12.) Address records: AL, AI and AB(country) mandatory for ICA (eComm) transactions, as well as stand-alone RF transactions.

### Response:

#### 1.) Response Record Output

#### 2.) TC Response format

#### 3.) XA Response format (when XA format is sent in the request)

Transaction Types  
and Requirements  
(continued)

### Void (VI) cancels an ACH request.

### Request:

#### 1.) Detail Record

a.) MOP = TC

b.) Action Code = VI (Void)

c.) Auth Code/Auth Date from AU response (Required if amount differs from original auth, otherwise recommended)

#### 2.) TC Request format (mandatory)

#### 3.) XA Request Format (mandatory when the Detail (S) Record Account number is blank)

### Response:

#### 1.) Response Record Output

#### 2.) TC Response format

#### 3.) XA Response format (when XA format is sent in the request)

**Change (CH) adjusts the amount of an ACH request.**

**Request:**

**1.) Detail Record**

**a.) MOP = TC**

**b.) Action Code = CH (change)**

**c.) Auth Code/Auth Date from AU response**

**2.) TC Request format (mandatory)**

**3.) XA Request Format (mandatory when the Detail (S) Record Account number is blank)**

**Response:**

**1.) Response Record Output**

**2.) TC Response format**

**3.) XA Response format (when XA format is sent in the request)**

---

**Response Reason  
Codes**

See Appendix A: Response Reason Code Description/Usage

---

**To Get Started**

Contact your First Data Representative.

## APPENDIX O: BILL ME LATER

### **Introduction**

Bill Me Later is an innovative and secure payment solution for card-not-present merchants. The Bill Me Later method of payment is a non-plastic issued credit vehicle that manages the consumer payment function by providing a transactional credit decision in lieu of the standard predetermined credit line and associated authorization process. Bill Me Later allows consumers to make online/mail order purchases without inputting credit card information

---

### **How it Works**

Using proprietary credit scoring and fraud detection capabilities, Bill Me Later screens each transaction in real time, instantly decisioning all BML requests made by customers

---

### **Merchant Requirements**

Merchant must contract with Bill Me Later.

Bill Me Later recommends that merchants send the following data elements on All Bill Me Later Web authorization transactions:

1. Bill Me Later Information
2. Order Information
3. Personal Information
4. Bill-to-Address
5. Ship-to Address
6. IP Address
7. Email Address

**Note:** For all fields noted as optional on these records the absence of this data will not result in an up-front edit reject of the transaction by First Data, but may result in a decline from Bill Me Later.

Please contact your Bill Me Later Integration Analyst during the requirements definition phase prior to development to determine required fields.

---

### **Supported Currencies**

US Only

---

### **Authorization Response Codes**

See Appendix A: Response Reason Code Description/Usage

**Transaction Types  
and Requirements****Authorization****On-line:****Request:**

- 1.) On-line Processing Detail Record
  - a.) Action Code = AU
  - b.) Method of Payment = BL
  - c.) Account Number = Customer Bill Me Later Account Number or merchants Bill Me Later BIN followed by ten zeros
- 2.) Format Indicators
  - a.) Bill-To Address (AB)
  - b.) IP Address (AI)
  - c.) Email Address (AL)
  - d.) Ship-To Address (AS)
  - e.) Bill Me Later or Bill Me Later Information (BL)
  - f.) Order Information (OI)
  - g.) Personal Information (PI)

**Response:**

- 1.) On-line Processing Detail Record
  - a.) Account Number = Customer's Bill Me Later AccountNumber (if approved)
- 2.) Reply Format Indicator Record
  - a.) Bill Me Later (BM) (Optional)

**Batch:****Request:**

- 1.) Detail Record
  - a.) Action Code = AU or DC
  - b.) Method of Payment = BL
  - c.) Account Number = Customer Bill Me Later Account Number or Merchants Bill Me Later BIN followed by ten zeros
- 2.) Extension Record
  - a.) Bill Me Later (EBL001)
- 3.) Information Records
  - a.) Order Information (IOI001)
  - b.) Personal Information (IPI001)
- 4.) Address Records
  - a.) Bill-To Address (AB or LN, LA, and LT)
  - b.) IP Address (AI)
  - c.) Email Address (AL)
  - d.) Ship-To Address (HA or AS)

**Response**

- 1.) "S" record Output
  - a.) Account Number = Customer's Bill Me Later Account Number (if approved)

### Deposit and Refund

#### Online:

n/a

#### Batch:

##### **Request:**

- 1.) Detail Record
  - a.) Action Code = DP or RF
  - b.) Method of Payment = BL
  - c.) Account Number = Customer Bill Me Later Account Number
  - d.) Response Code and Auth/Verification Code

##### **Response:**

- 1.) "S" record Output
  - a.) Account Number = Customer's Bill Me Later Account Number (if approved)

---

#### ***Card Types / Supported Currencies***

U.S. merchants and consumers only

---

#### **Response Reason Codes**

See Appendix A: Response Reason Code Description/Usage

---

#### **To Get Started**

Contact your First Data Representative

## APPENDIX Q: VERIFICATION ONLY

### **Introduction**

Verification Only (Action Code = VF) is a feature which allows merchants to validate that the credit card provided is valid and active. This feature is supported by Visa, MasterCard, Discover and Amex. If the appropriate information is provided, this action code will also perform the Address Verification Services on the consumer's address.

Transaction Types and Requirements

---

### **Transaction Types and Requirements**

To perform a VF transaction, a merchant must pass in the following fields:

### **VF - Verification Only**

#### **Request:**

- 1.) Detail Record
  - a.) Merchant Order Number
  - b.) Action Code = VF
  - c.) Method of Payment = (VI, MC, DI, AX\*\*)
  - d.) Account Number (Credit Card Number)
  - e.) Expiration Date
  - f.) Amount = \$0.00 (\*\* see Amex Exceptions below)
  - g.) Currency Code
- 2.) ++Address Records (Optional)
  - a.) Name
  - b.) Address
  - c.) City
  - d.) State
  - e.) Postal Code (Required for AMEX, highly recommended for all others)
  - f.) Country Code (Required if an Address Record is sent)
  - g.) Telephone
- 3.) Card Security Value (CSV/CID) (Optional)

**\*\*Note for Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?**

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

financial authorization (AU) request must be processed.

### Response:

#### 1.) Detail Record

- a.) Response Reason Code (100 if successful)
- b.) AVS/AAV Response Code (See Appendix B: Address Verification for list of valid response codes)

---

AVS data (ZIP/Postal Code) is required for Amex and is Highly Recommended for all other card types.

#### ++Please Note

++ First Data supports two types of batch address records. One is formatted the other is not formatted. The *Formatted address records* are recommended for best AVS results. See Appendix B: Address Verification for more information on Address Verification.



## APPENDIX T: SOFT MERCHANT INFORMATION

### Introduction

Soft Merchant Information is supported by First Data Compass Platform for American Express, Visa, MasterCard, JC, and Discover.

Certain merchants may have a need to include merchant identifying information with each transaction rather than using defaults that are stored in the First Data Compass system. These merchants may take advantage of First Data's Soft Merchant record specifications in order to submit such soft information as merchant name, street address, city, state, zip, URL, and email address. The soft data that is submitted will be passed to the Card Associations along with the transaction and posted on the cardholder's statement if applicable. A merchant must be configured prior to becoming certified for or submitting any soft merchant records. If a merchant has not obtained the appropriate approvals and attempts to submit transactions with any Soft Merchant records like the SM1, SM2 (Online and Batch) or the M Record (Batch only), the transactions will be rejected by First Data.

**If Soft Merchant Information (SM1, SM2) is sent with the transaction, it will over write what is sent with the Merchant Descriptor record (M-Record) and/or the division default settings.** Please refer to each section below and how they interact with other “soft” fields.

A flag at the division level must be set to enable a merchant to send Soft Merchant Information format indicators and/or records. If the flag is not set, the transaction will reject with Response Reason Code 258 (Not Authorized to Send Record).

If an MCC is blocked for a merchant, and the MCC is sent with the transaction, the transaction will reject with Response Reason Code 249 (Invalid Merchant Category Code).

If any field is populated with invalid characters, the transaction will reject with Response Reason Code 225 (Invalid Field Data).

Valid characters are comprised of the following:

a – z	A - Z	0 - 9	.	<	(
+	&	!	\$	*	)
;	-	'	%	_	>
?	:	#	@	~	=
“	{	}	space	^	\
”	{	}	[	]	'

If a Merchant needs different Merchant Descriptor Fields presented to the Cardholder, it is in the best interest of the Merchant to send in all SM1 / SM2 (and possibly the M Record) fields to have Merchant Specific data on a cardholder's statement that is not on their North Merchant Master (Compass Division) Record.

### **Introduction (continued)**

Compass will submit all data presented to it by the Merchant to each Card Association as allowed by the current rules for Authorization and Deposit. Merchants should be aware that Compass cannot guarantee what will be printed on the Cardholders Statement as the Card Issuer and the Card Associations ultimately control these values. Compass will make a "best effort" when submitting the Soft Merchant Data to the Card Association to insure that all allowable data presented by the Merchant is passed to each Card Association (and ultimately the Card Issuer).

NOTE: Merchants should review the SM1, SM2, and the Batch M Record to see a complete list of available Soft Merchant Descriptor Fields. These can be found in the Online and Batch Technical Specifications.

---

### **Supported Card Types**

American Express/Visa/Discover/MasterCard/JC

---

### **Authorizations & Deposits**

As of the November 2011, Compass now allows Merchants to send in the SM1, SM2 in the Online Message format. Batch will continue to support the SM1 and SM2 as well as the M Record. Batch will now send out the Soft Descriptor data in the Batch Authorization and outbound Verification messages.

The Compass platform will pass all Soft Merchant fields as allowed for each type of message. A Compass field may be longer than the industry standard field allowed by the Card Association and may be shortened to accommodate the proper formatting of outbound association messages.

Soft Merchant Data Hierarchy (Highest to Lowest):

- DBA / Description (SM001 record)
- Merchant Name and/or Item Description (M-Record)
- Transaction Division default value

If a SM record is sent, it will override all other records (M-Record and Division Default). If an M-Record is sent, it will have its values ignored if it is also sent with an SM Record. If the M-Record is sent (with no SM Record), it will override the Division Default. If no SM or M-Record is sent, the Division Default values will be sent.

## APPENDIX T: SOFT MERCHANT INFORMATION

### Authorizations

First Data Compass platform will pass the following fields in the Outbound Authorization messages to the Card Associations where applicable:

### Outbound Authorization Table

Outbound Authorization Table	
Authorization Field	Authorization Value From
Descriptor	1) SM/SM001 – DBA/Descriptor  Or else  2) M – Merchant Name/Item Descriptor (Batch Only)  Or Else  3) NMM Descriptor Name
Street	1) SM/SM002 – Street  Or else  2) NMM Affiliate Address 1
City	1) SM/SM002 – City  Or else  2) M – Merchant City/Customer Service Phone Number [batch only]  Or else  3) NMM Affiliate City
State	1) SM/SM002 – Region (State)  Or else  2) NMM Affiliate State
ZIP / Postal	1) SM/SM001 – Postal Code (Zip)  Or else  2) NMM M-Zip2 +NMM MM-MERCH-Zip4
Country	1) SM/SM001 – Country Code

Outbound Authorization Table	
Authorization Field	Authorization Value From
	Or else  2) NMM MM Country Code

**NOTE:** NMM = North Merchant Master. This is where the Boarding information for each merchant (Division in Compass) is stored.

### ***Deposit Clarifications***

If at the time of Deposit, the MCC field in the Order Information Record (IOI) is populated, and a valid authorization is found in the First Data Prior Order Database (PODB), the MCC value used at authorization time will be sent. If MCC is not sent with the deposit transaction, and if an authorization is not found in the First Data PODB, the division default value is sent to the Associations were appropriate. American Express does not support MCC.

**Note:** Please note the MCC precedence of this value populated, highest to lowest Apriority:

- MCC used at auth time (from PODB)
- MCC sent at deposit time
- MCC from the division default

**Note:** When passing Soft Information on a Visa deposit transaction, in order to obtain the best interchange, the following transaction types should contain either a URL or an Email Address in either the Merchant Contact Information field of the SM001, or the Merchant City/Customer Service Phone Number field of the 'M' Record:

- Transaction Type = 5, 6, or 7 with MCC = 4816
- Transaction Type = 2 and MCC = 4812, 4814, 4899, 4900, 5960, 5968, 6300, 7298, 7997, 8675, or 8699

### **Notes:**

Please review the SM1/SM001, SM2/SM002, and the 'M' Records for definition and usage of each of the soft merchant fields.

First Data Compass Platform will attempt to pass all fields to the Association to correctly post on the Cardholders Statement and online record. Compass will pass the data but does not control how each Association and Issuer populate cardholder statements. Compass will make a 'best effort' to insure that the data is populated as intended by the Merchant.

### **To Get Started**

For further details, please contact your First Data Sales Representative.

### APPENDIX U: TEST SYSTEM ENHANCEMENTS

#### ***First Data's Test Environment***

First Data's test system enables merchants, submitters, and software vendors to use any account number in the test environment to simulate all of First Data's response codes for approvals, declines, Address Verification Services (AVS), Card Security Value (CSV), and Authentication Value (Verified by Visa/MasterCard SecureCode) based on specific data sent in with the transactions.

Test card numbers do not need to be provided by First Data for merchants, submitters, and software vendors to test the full suite of responses that are possible for all transaction types.

---

#### ***Online Testing***

During On-Line testing the following items will be verified for adherence to the Technical Specifications:

- Order numbers are left justified and the first 8 bytes are unique
- Amount format matches currency code
- The correct transaction type is being sent
- AVS (minimum of Zip/Postal Code) should be included to qualify for the best interchange rate. AVS information should be sent in uppercase.

The following items will need to be sent On-Line to complete On-Line certification:

- Transactions for each credit card type (MOP)
  - Connectivity tests. The analyst will:
    - ◆ Ask you to disconnect from the socket and will verify the four-way hang-up using a packet monitor
    - ◆ Bring the socket down to simulate a timeout message
    - ◆ Simulate a connection refused error message
  - Various format indicators will need to be sent with the On-Line transactions depending on the First Data products that will be certified.
- 

#### ***Batch Testing***

During batch testing the following items will be verified for adherence to the Technical Specifications.

- The order number for the Deposit transaction must match what is sent in for the Authorization. The order number should be left justified and the first 8 bytes must be unique.
- Amount format matches currency code
- The correct transaction type is being sent

## APPENDIX U: TEST SYSTEM ENHANCEMENTS

---

- AVS (minimum of Zip/Postal Code) should be included to qualify for the best interchange rate. AVS information should be sent in uppercase.
- In addition the following fields will be checked for accuracy: Action Code, Response Reason Code, Response Date, Auth/Verification Code, M Records (Soft Descriptors), Card Security Presence, Encryption Flag, etc.
- Ability to send multiple divisions in a file

The following items will need to be sent in various batch files to complete certification:

- All action codes that will be transmitted in production (including refunds), currency codes, transaction types, etc.
- During testing various Extension Records will need to be sent for any First Data Products that require these records. (e.g. Switch, Bill Me Later, etc.)
- A file with 1000 lines of data (records) will need to be sent for your MCA to simulate communication failures. These tests are important to insure that your software can handle these types of errors if they occur in production and that you can recover from them easily. The software used to pick up a reply file must have the ability to send the RFR Record on demand.

**Note:** This test is not required for merchants sending files via FTP

---

### ***Response Reason Code***

The Response Reason Code is returned based on the whole dollar amount value, in conjunction with the Method of Payment (MOP) value, submitted on the transaction after the transaction passes First Data's front-end edit checks. Whole dollar amount value is defined as a value between and including \$100.00 and \$999.99 where only the three positions to the left of the decimal will be used for Response Reason Code determination.

For Debit and Gift Card, Response Reason Codes are returned based on the cents value in conjunction with the MOP value submitted on the transaction.

A matrix details the values that will generate Response Reason Codes on First Data's test system.

See Appendix A: Response Reason Code Description/Usage for product information.

---

### ***Address Verification Response Code***

The AVS Response Code is returned based on the zip/postal code value, in conjunction with the Method of Payment (MOP) value, submitted on the transaction after the transaction passes First Data's front-end edit checks.

For American Express Enhanced AVS, AVS Response Codes are returned based on specific name and address values submitted on the transaction after the transaction passes First Data's front-end edit checks.

A matrix details the value that will generate domestic and international AVS Response Codes on First Data's test system.

See Appendix B: Address Verification for product information.

---

### ***Card Security Value Response Code***

The Card Security Value (CSV) Response Code is returned based on the card security and presence indicator values, in conjunction with the Method of Payment (MOP) value, submitted on the transaction after the transaction passes First Data's front-end edit checks.

A matrix details the valid CSV values that will generate Card Security Value Response Codes on First Data's test system.

See Appendix E: Card Security Verification for product information.

---

### ***Cardholder Authentication***

The CAVV (Cardholder Authentication Verification Value) Response Code is returned based on the tenth (10th) character of the CAVV value submitted on the transaction after the transaction passes First Data's front-end edit checks.

A matrix details the value that will generate CAVV Response Codes on First Data's test system.

See Appendix H: Verified by Visa for product information.

### **MasterCard SecureCode**

There is no separate response code returned by the issuing bank based on the Accountholder Authentication Value (AAV) like there is for Verified by Visa. Instead, if the AAV is a non-match value, the issuing bank will decline the transaction.

To simulate a non-match of the AAV code, populate the whole dollar amount value with a decline code value.

See Appendix I: MasterCard SecureCode for product information.

**Cardholder  
Authentication  
(continued)**

**UK Domestic Maestro SecureCode**

There is no separate response code returned by the issuing bank based on the Accountholder Authentication Value (AAV) like there is for Verified by Visa. Instead, if the AAV is a non-match value, the issuing bank will decline the transaction.

To simulate a non-match of the AAV code, populate the whole dollar amount value with a decline code value.

See Appendix J: UK Domestic Maestro SecureCode for product information.

---

**Partial Authorizations**

Partial Authorizations can be tested for multiple Methods of Payment (MOP). Specific test account numbers must be used.

During testing, the Certification analyst will provide the appropriate test account numbers.

See Appendix G: Partial Authorization for product information.

---

**Bill Me Later**

BillMeLater, the company, is involved in all product testing. BillMeLater's Integration Analyst will provide a test script for certification.

PayPal Express Checkout testing validates transaction formats. The customer Redirect Process is validated during the production test with PayPal.

---

**PayPal and  
GoogleCheckout**

See Appendix P: PayPal and Appendix R: GoogleCheckout for product information.

---

**To Get Started**

Contact your First Data Representative to receive a copy of the test system simulation documents.



## APPENDIX V: PROCUREMENT CARDS

### **Introduction**

egimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur! . Id autem cetero vim, sit et laoreet definitionem! Eum

egimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur! . Id autem cetero vim, sit et laoreet definitionem! Eum voices. Merchants have the ability to collect their funds in conjunction with the settlement of their credit card transactions and still provide their customer with the necessary line item detail. Thus, providing a cleaner process for both the merchant and their customer.

Note: egimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur! . Id autem cetero vim, sit et laoreet definitionem! Eum Auth only), it is not necessary to send additional product records as additional costs will be incurred for processing of these records.

---

### **Edit Checks**

egimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur! . Id autem cetero vim, sit et laoreet definitionem! Eum necessary information is missing from a transaction with Level 2 data, the interchange rate for the transaction Level 3 data was missing. Data fields that are edited by First Data have been marked “required” in the record layout section of this document.

---

### **BIN Ranges**

The BIN range assigned egimus theophrastus ne mea, eum ut prima soleat regione. Id autem cetero vim, sit et laoreet definitionem! Eum insolens invenire ei, at has abhorreant dissentiunt complectitur! . Id autem cetero vim, sit et laoreet definitionem! Eum BINS can be downloaded. This listing is updated on or around the 15th of each month.

#### **Note:**

- BIN Ranges are subject to change at the discretion of the card associations.

### **Currency Restrictions**

A few foreign Issuers support Level 2 purchasing card transactions processed in international currencies.

### **Supported Currencies:**

Supported Currencies:				
LEVEL	Visa	MasterCard	MasterCard Diners	American Express
			U.S. and Canada	U.S. and Canada
			U.S. and Canada	U.S. and Canada

### **American Express Level 2/3**

American Express currently supports Level 2 and enhanced TAA processing with First Data.

**Note:** Prior to submitting American Express purchasing card transactions, please contact American Express and your First Data Representative to have your account set up.

### **Required Records for American Express Level 2/3**

Required Records for American Express Level 2/3			
Card Type	Required Records	Description	Comments
American Express	S	"S" Record Output	
		TAA Record for American Express	TAA1 and TAA2
		TAA Record for American Express	TAA3 and TAA4
	PPC	Product Record for Procurement	Can be sent without EAX records
	HA or AS	Ship-To Address	Should be sent with EAX or PPC records. If Ship-To address is not sent, First Data will send the Merchant's postal code to American Express.

**Visa / MasterCard /  
MasterCard Diners  
Level 2**

Level 2 is used for Corporate/Business Cards

Corporate/Business cards are issued to a corporation for travel, entertainment and other expenses. MasterCard previously used the term “business card” and now uses “corporate card”. Visa uses both “business card” and “corporate card” terms.

**Required Records for Visa/MC/MC Diners Level 2**

Required Records for Visa/MC/MC Diners Level 2			
Card Type	Required Records	Description	Comments
Visa/MasterCard/ MasterCard Diners	S	“S” Record Output	
	PPC	Product Record for Procurement	
	LA, HA, or A	Address Record(s)	Not required for Level 2 processing; however, required for best possible interchange rate (U.S. only).

**Visa / MasterCard /  
MasterCard Diners  
Level 3**

Level 3 is used for Purchasing Cards (also known as Business to Business)  
Consider this as a replacement for a Purchase Order.

In order to provide the necessary enhanced data, First Data requires additional records be submitted per transaction. These records are:

- Product Record: Procurement Level 2
- Product Record: Procurement Level 3 Order Level
- Product Record: Procurement Level 3 Record #1 Line Item Detail Record
- Product Record: Procurement Level 3 Record #2 Line Item Detail Record

**Note:** Address record not required for Level 2 or Level 3 processing; however, required for best possible interchange rate (U.S. only).

**Required Records for Visa/MC/MC Diners Level 3**

Required Records for Visa/MC/MC Diners Level 3			
Card Type	Required Records	Description	Comments

Required Records for Visa/MC/MC Diners Level 3			
Card Type	Required Records	Description	Comments
Visa/ MasterCard/ MasterCard Diners			
MasterCard/ MasterCard Diners			Optional for Visa
Visa/ MasterCard/ MasterCard Diners			Order level record. See spec for specific record for Visa, MasterCard, and MasterCard Diners
Visa/ MasterCard/ MasterCard Diners			Line item level data – one for each line item. See spec for specific record for Visa, MasterCard, and MasterCard Diners
Visa/ MasterCard/ MasterCard Diners	PP2	Product Record for Procurement Level 3	Line item level data – one for each line item. See spec for specific record for Visa, MasterCard, and MasterCard Diners
Visa/ MasterCard/ MasterCard Diners	LA, HA, or A	Address Record(s)	Not required for Level 2 processing; however, required for best possible interchange rate

**Record Sequence**

Transactions must be submitted using this record sequence. A record may have up to 99 line item detail records.

Note: Line item detail records #1 and #2 must both be present in sequential order increasing by one (1) to meet processing requirements.

## Record Sequence Example

Proper sequence for sending an order with 100 line items:

	Detail record with the total amount for the first 98 line items is generated
001	Level 2 order level with the sales tax amount for the first 98 line items
001	Level 3 order level with the freight amount for the first 98 line items
002	Level 3 record for line item #1 – First line item
002	Level 3 record for line item #1
003	Level 3 record for line item #2 – Second line item
003	Level 3 record for line item #2
...	...
099	Level 3 record for line item #98 – Ninety-eighth line item
2099	Level 3 record for line item #98

	Detail record with the total amount for lines 99-100
001	Level 2 order level with the sales tax amount for lines items 99-100
001	Level 3 order level with the freight amount for lines items 99-100
002	Level 3 record for line item #99
002	Level 3 record for line item #99
1003	Level 3 record for line item #100
003	Level 3 record for line item #100

	Detail record for the next order to be processed
--	--

**Note:** Address record not required for Level 2 or Level 3 processing; however, required for best possible interchange rate (U.S. only).

**Units of Measure**

The following abbreviations should be used in the Procurement Record “Unit of Measure” Field

Abbreviations to be used in the Procurement Record “Unit of Measure” Field			
Unit Name	Code	Unit Name	Code
Acre (4840 yd <sup>2</sup> )			INQ
Alcoholic strength by mass			MTQ
Alcoholic strength by volume			MQH
Ampere*			MQS
Ampere-hour (3,6 kC)*			MMQ
Are (100 m <sup>2</sup> )			YDQ
Bar*			CUR
Barrel (petroleum) (158,987 dm <sup>3</sup> )			DAY
Board foot			DEC
Becquerel*			DAA
Billion EUR			DLT
Billion US			DMT
Box			CEL
Brake horse power (245,7 watts)			FAH
British thermal unit (1,055 kilojoules)	BTU		
Bushel (35,2391 dm <sup>3</sup> )	BUA		
Bushel (36,36874 dm <sup>3</sup> )	BUI		
Candela*	CDL		
Carrying capacity in metric tons	CCT		
Case	CS		
Cental GB (45,359237 kg)	CNT		
Centigram*	CGM		
Centilitre*	CLT		
Centimetre*	CMT		
Centner, metric (100 kg) (syn.: decitonne)	DTN	Dry barrel (115,627 dm <sup>3</sup> )	BLD
Cord (3,63 m <sup>3</sup> )	WCD	Dry gallon (4,404884 dm <sup>3</sup> )	GLD
Coulomb*		Dry pint (0,55061 dm <sup>3</sup> )	PTD
Coulomb per kilogram*		Dry quart (1,101221 dm <sup>3</sup> )	QTD
Cubic decimetre*		Each	EA or EAC
Cubic foot	FTQ	Farad*	FAR
Fluid ounce (28,413 cm <sup>3</sup> )	OZI	Inch (25,4 mm)	INH

## APPENDIX V: PROCUREMENT CARDS

Abbreviations to be used in the Procurement Record “Unit of Measure” Field			
Unit Name	Code	Unit Name	Code
Fluid ounce (29,5735 cm3)	OZA	Item	ITM
Foot (0,3048 m)	FOT	Joule*	JOU
Gallon (4,546092 dm3)	GLI	Kelvin*	KEL
Gigabecquerel*			
Gigawatt-hour (1 million kW/h)*			
Gill (0,142065 dm3)			
Gill (11,8294 cm3)			
Grain GB, US (64,798910 mg)			
Gram*			
Gram of fissile isotopes	GFI	Kilogram of phosphonic anhydride	
Great gross (12 gross)	GGR	Kilogram of phosphorus pentoxide	
Gross	GRO	Kilogram of potassium hydroxide	
Gross (register) ton	GRT	Kilogram of potassium oxide	
Half year (six months)	SAN	Kilogram of substance 90 per cent dry	
Hectare	HAR	Kilogram of uranium	
Hectobar*	HBA	Kilogram per cubic meter*	
Hectogram*	HGM	Kilogram per second*	
Hectokilogram*	DTH	Kilohertz*	
Hectolitre*	HLT	Kilogoule*	
Hectolitre of pure alcohol	HPA	Kilometre*	
Hectometre*	HMT	Kilometre per hour*	
Hertz*	HTZ	Kilopascal*	
Hour*	HUR	Kilotonne*	
Hundred	CEN	Kilovar	
Hundred boxes	BHX	Kilovolt*	
Hundred international units	HIU	Kilovolt-ampere*	
Hundred leaves	CLF	Kilowatt*	
Hundred packs	CNP	Kilowatt-hour*	
Hundredweight US (45,3592 kg)	CWA	Knot (1 nautical mile per hour)	
Leaf	LEF	Month	
Liquid gallon (3,7854l dm3)	GLL	Nautical mile (1852 m)	
Liquid pint (0,473176 dm3)	PTL	Net (register) ton	
Liquid quart (0,946353 dm3)	QTL	Newton*	
Litre (1 dm3)*	LTR	Number	
Litre of pure alcohol	LPA	Number of articles	

## APPENDIX V: PROCUREMENT CARDS

Abbreviations to be used in the Procurement Record “Unit of Measure” Field			
Unit Name	Code	Unit Name	Code
Long ton GB, US (1,0160469 t)	LTN	Number of bobbins	
Lumen*	LUM	Number of cells*	
Lux	LUX	Number of international units	
Megahertz*	MHZ	Number of packs	
Megalitre*	MAL	Number of pairs	
Megametre*	MAM	Number of parcels	
Megapascal*	MPA	Number of parts	
Megavolt-ampere (1000 KVA)*	MVA	Number of rolls	
Megawatt*	MAW	Ohm*	
Megawatt-hour (100 kW/h)*	MWH	Ounce GB, US (28,349523 g)	
Metre*	MTR	Ounce GB, US (31,10348 g) (syn: Troy ounce)	
Metre per second*	MTS	Package	
Metre per second squared*	MSK	Pascal*	
Metric carat (200 mg = 2.10-4 kg)	CTM	Pennyweight GB, US (1,555174 g)	
Metric ton (1000 kg)		Piece	PCE, PCB, PSC
Millibar*		Pint (0,568262 dm3)	PTI
Millicurie		Pound GB, US (0,45359237 kg)	LBR
Milligram*		Proof gallon	PGL
Millilitre*		Pounds	LBS
Millimetre*		Quart (1,136523 dm3)	QTI
Million		Quarter (of a year)	QAN
Million cubic metres*		Quarter, GB (12,700586 kg)	QTR
Million international units		Revolution per minute*	RPM
Minute*		Revolution per second*	RPS
Score		Stone GB (6,350293 kg)	STI
Scruple GB, US (1,295982 g)		Technical atmosphere (98066,5 Pa)	ATT
Second*		Ten days	DAD
Set		Ten pairs	TPR
Shipping ton		Thousand	MIL
Short standard (7200 matches)		Thousand ampere-hour*	TAH
Siemens*		Thousand board feet (2,36 m3)	MBF
Square centimetre*		Thousand cubic metres per day*	TQD



Abbreviations to be used in the Procurement Record “Unit of Measure” Field			
Unit Name	Code	Unit Name	Code
Square decimetre*		Thousand standard brick equivalent	MBE
Square foot		Ton of steam per hour	TSH
Square inch		Tonne of substance 90 per cent dry	TSD
Square kilometre*		Trillion EUR	TRL
Square metre*		Troy ounce	APZ
Square mile		Unknown unit of Measure	ST
Square millimetre*		Volt*	VLT
Square yard		Watt*	WTT
Standard		Watt-hour*	WHR
Standard atmosphere (101325 Pa) (Statute) mile (1609,344 m)	ATM	Weber	WEB
(Statute) mile (1609,344 m)	SMI	Week	WEE

### Sample Input File: MasterCard and Visa

	1	2	3	4	5	6	7	8	9	10	11	12	
	12345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	
PID=	123456 XYZCO	SID=	123456 XYZCO	START	031202	3.0.0					PCARD	[ 1]	
S00001	23456NMMPUR900	365CPD	DPMC5412345678901234	1204000005000000	0840100	031130234567						[ 2]	
PPC001	3462265554KMG3650000000000000											[ 3]	
PF0001	0000050000	03079-1952USA	03106									[ 4]	
PF1002	CADILLAC COUPE DEVILLE		016625033	00001EA	00005000001000							[ 5]	
PF2002	2005000000	NLUX N										[ 6]	
AB03079												[ 7]	
S00001	23456NMFIPUR900	365CPD	DCVI4123456789012345	1204000005000000	0840							[ 8]	
PPC001	3462265554GTR3650000000000000											[ 9]	
PF0001	00000000050000	03079-1952USA	03106									[10]	
PF1002	CADILLAC COUPE DEVILLE	12345678901	2000000010000EA									[11]	
PF2002	000005000000000000000000AUTO		000500000000									[12]	
AB03079												[13]	
B RECS=	0000000013	ORDS=000000002	\$TOT=00000010000000	\$SALE=00000010000000	\$REFUND=00000000000000							[14]	
T RECS=	0000000014	ORDS=000000002	\$TOT=00000010000000	\$SALE=00000010000000	\$REFUND=00000000000000							[15]	
PID=	123456 XYZCO	SID=	123456 XYZCO	END	031202							[34]	
12345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901	2345678901		
	1	2	3	4	5	6	7	8	9	10	11	12	

## Procurement Card Input File Line Description

### Sample Input File: MasterCard and Visa

Line 1: Header Record

Line 2: Detail Record (MasterCard)

Line 3: Product Record: Procurement Level 2 (MasterCard)

Line 4: Product Record: Procurement Level 3 Order Level Record  
(MasterCard)

Line 5: Product Record: Procurement Level 3 Record #1 (MasterCard)

Line 6: Product Record: Procurement Level 3 Record #2 (MasterCard)

Line 7: Address Record: Bill-To Address (MasterCard)

Line 8: Detail Record (Visa)  
Line 9: Product Record: Procurement Level 2 (Visa)  
Line 10: Product Record: Procurement Level 3 Order Level Record (Visa)  
Line 11: Product Record: Procurement Level 3 Record #1 (Visa)  
Line 12: Product Record: Procurement Level 3 Record #2 (Visa)  
Line 13: Address Record: Bill-To Address (Visa)  
Line 14: Batch Totals Record  
Line 15: Totals Record  
Line 16: Trailer Record

## APPENDIX W: RESERVED FOR FUTURE USE

APPENDIX W: RESERVED FOR FUTURE USE

## APPENDIX Y: RESERVED FOR FUTURE USE

APPENDIX Y: RESERVED FOR FUTURE USE

## APPENDIX Z: RETAIL

### *Introduction*

First Data's Compass platform offers merchants the ability to process card present transactions. APPENDIX Z: RETAIL

---

### *How it Works*

All transactions are authorized via online processing. All transactions are settled via batch process.

---

### *Transaction Types and Requirements*

#### Credit Card Authorization with Swipe data

##### Online

##### **Request:**

- 1.) Online Processing Detail Record
  - a.) Action Code = AU
- 2.) Format Indicator
  - a.) Retail (R3)

##### **Response:**

- 1.) Online Processing Return Format Record

#### Credit Card Authorization without Swipe data

##### Online

##### **Request:**

- 1.) Online Processing Detail Record
  - a.) Action Code = AU
- 2.) Format Indicators
  - a.) Bill-To Address (AB) or Postal Code Only Address (AZ)
    - i.) Postal Code is the minimum requirement to obtain the lowest interchange rate for manually keyed transactions.
    - ii.) Should be the accountholder's postal code, otherwise some Issuers may Decline the transaction

##### **Response:**

- 1.) Online Processing Return Format Record

## Credit Card Deposit

### Batch

#### Request:

- 1.) Detail Record
  - a.) Action Code = DP
- 2.) Product Record
  - a.) Retail (PRR001) (Optional)

#### Response:

- 1.) "S" Record Output

## Refund

### Batch

#### Request:

- 1.) Detail Record
  - a.) Action Code = RF
- 2.) Product Record
  - a.) Retail (PRR001) (Optional)

#### Response:

- 1.) "S" Record Output

---

#### Additional References

Appendix G: Partial Authorizations

---

#### Card Types / Supported Currencies

All Credit Cards / U.S. and Canada currencies

---

#### Response Reason Codes

Appendix A: Response Reason Code Description/Usage

---

#### To Get Started

Contact your First Data Sales/Support Representative

---

## APPENDIX AA: FRAUD FLEXDETECT

### **Introduction**

First Data's Compass platform supports processing of multiple transactions types and card payment types. This document describes changes to the Compass message in order to support Fraud FlexDetectSM. Appendix AA – Fraud

Fraud FlexDetect is an advanced fraud detection tool that identifies suspicious transaction behavior through a scoring engine with your customized rules and Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

Participating merchants may request an authorization to be scored by setting the Scoring Requested flag to Y. A new transaction type, Fraud Score Only (SC), is also available to obtain a fraud score without authorization impact on the transaction details. The numerical score value and matching disposition (Accept, Reject, or Review) will be contained in the response message on authorizations or Fraud Score Only requests.

---

### **How it Works**

The Pro impetus singulis eu. Erroribus corrumpit ea est, cu primis referrentur vel. Vel ne sumo purto, rebum apeirian theophrastus an mei? Sed ea graece petentium mediocritatem. Pro ne sonet dictas, qui quas intellegam at? Eu salutatus percipitur has, sed id putent facilis patrioque?

Nostrum postulant ex usu, libris suavitate accusamus mei ne. Pri an quas delenit convenire, meis utinam copiosae ea vix? Pri commune persecuti ex! Labore pertinax vix ad, mea errem soluta vituperata ad, id brute abhorreant necessitatibus duo. Magna debet in vis, delenit expetenda splendide his ei. No labore singulis cum, in cibo maiorum sit, ad vivendum percipitur efficiantur mea.

the transaction request. Other additional, but optional, records/fields may be sent in to improve the accuracy of the Fraud FlexDetect score.

Transaction types AU, BI, DC, DO, SA, SC (NEW), SI, VF for all methods of payment for which they are valid will be intercepted by Compass after a

positive or soft decline Auth response is given by the Issuer/Association, and scored through Fraud FlexDetect before a response is provided to the merchant. There will be no delay in Auth response time due to scoring. **Where applicable**, authorizations associated with AU and DC transactions that are determined by the merchant's Fraud FlexDetect settings to be unsafe will be reversed.

---

**Auth Reversal  
Support**

Only Methods of Payments (MOPs) that support the Auth Reversal action (AR) can be reversed.

Methods of Payment Supporting AR
<ul style="list-style-type: none"><li>• Visa (VI)</li><li>• MasterCard (MC)</li><li>• Discover* (DI, DC, JC)</li><li>• American Express (AX)</li><li>• PayPal (PY)</li><li>• Google Checkout (GC)</li><li>• ValueLink (VL)</li></ul>
Note: transactions rejected by Fraud FlexDetect will not be posted when doing Validate & Post. Bill Me Later transactions rejected by Fraud FlexDetect do not require Auth Reversals.**

\* Includes non-US/USD JC, Diners Club (DC)

\*\* Please reference your Fraud FlexDetect User Guide for additional details on business procedures for handling Bill Me Later transactions rejected by Fraud FlexDetect.

---

**Minimum Field  
Requirements**

For both the Online and Batch requests, the following are the minimum field requirements to receive transaction scores.

**Requirements:**

- 1.) Merchant's Order Number
- 2.) Method of Payment (MOP)
- 3.) Account Number
- 4.) Division ID



- 5.) Amount
- 6.) Currency Code
- 7.) Transaction Type
- 8.) Action Code

The more fields that are sent, the more accurate of a Score will be returned.

---

## Compass Specification Changes for Fraud FlexDetect

**Online Specification****1.1 Online Request**

Online Detail Record				
Position	Length	Data Type	Field Name	Comments
82, 83	2	A	Action Code	Valid Value: <b>SC –Fraud Score Only</b>

Online 'FF' FlexDetect Fraud-Scoring format indicator (NEW)				
Length		Data Type	Field Name	Comments
2		A	Format Indicator	“FF” Constant – Fraud FlexDetect Request.  Required for Scoring in Fraud FlexDetect  Specifies this record as an additional processing format of the First Data Compass standard format.
1		A	Scoring Requested	Y or N (N is equivalent to not sending format)
2		A	Number of Attempts	Space, or 00 - 99

Online Customer Type Format Indicator (NEW)				
Length		Data Type	Field Name	Comments
2		A	Format Indicator	“CT” Constant –Customer Type.  Optional  Specifies this record as an additional processing format of the First Data Compass standard format.
1		A	Customer Type	M – Member G – Guest

Online Customer Information Format Indicator (NEW)			
Length	Data Type	Field Name	Comments
2	A	Format Indicator	"CI" Constant –Customer Information.  Optional  Specifies this record as an additional processing format of the First Data Compass standard format.
			Left justified/blank filled
			Date of customer registration/first order. (Optional) YYYYMMDD format

Online Loyalty Program Format Indicator (NEW)			
Length	Data Type	Field Name	Comments
2	A	Format Indicator	"LP" Constant –Loyalty Program.  Optional  Specifies this record as an additional processing format of the First Data Compass standard format.
			Left justified/blank filled
8	N	Loyalty Since Date	Date customer registered for loyalty program. (Optional) YYYYMMDD format

Online Various Text Format Indicator (NEW)			
Length	Data Type	Field Name	Comments
2	A	Format Indicator	"VT" Constant –Various Text information.  Optional Specifies this record as an additional processing format of the First Data Compass standard format.
2	N	Length Indicator	Number of positions submitted for the following field: Valid values: 01-90
			Text used to clarify the transaction.

Online Various Text Format Indicator (NEW)			
Length	Data Type	Field Name	Comments
			Left justified/blank filled, cannot be all blanks.

Online Data Packet Format Indicator* (NEW)			
Length	Data Type	Field Name	Comments
2	A	Format Indicator	“DP” Constant –Base64 Encrypted Data Packet. Optional Specifies this record as an additional processing format of the First Data Compass standard format.
2	A	Packet Type	Type of Data Packet Valid values: "DI" = Fraud FlexDetect Device ID
4	N	Packet Length	Number of Base64 characters following. 0001 (min) to 4095 (max)
Varies, 1 (min) to 4095 (max)		Data Packet	Base64 string including any required padding characters.

**\*Note:** For additional information about collecting this data packet, specific to Fraud FlexDetect, please contact your Compass implementation manager.

## 1.2 Online Response (FF)

Online FlexDetect Fraud-Scoring Format Indicator (NEW)			
Length	Data Type	Field Name	Comments
2	A	Format Indicator	“FF” Constant – FlexDetect Response.  Specifies this record as an additional processing format of the First Data Compass standard format.
20	A	Disposition	Scoring Disposition as provided (see note) Left aligned, space filled.  Expected values ACCEPT ERROR

Online FlexDetect Fraud-Scoring Format Indicator (NEW)			
Length	Data Type	Field Name	Comments
			REJECT REVIEW VENDOR TIMEOUT (Compass will wait up to 2 seconds for Accertify to provide a score) VENDOR UNAVAILABLE NOT CONFIGURED
11	A	Score	Score as provided.  Left aligned, space filled.  10 digit score preceded by plus or minus sign. Range - 2147483647 to +2147483647
1	A	Auth Reversal Attempted	Values Y or N  Indicates is Compass has initiated Auth Reversal on the Merchants behalf

**Notes:**

- Dispositions of "NOT CONFIGURED", "VENDOR TIME OUT" and "VENDOR UNAVAILABLE" are generated by Compass. All other values are generated by Accertify, the vendor hosting the Fraud FlexDetect scoring engine.
  - NOT CONFIGURED Required merchant configuration data has not been received by Compass.
  - VENDOR TIME OUT Compass did not receive a fraud score/disposition from vendor within a reasonable timeframe.
  - VENDOR UNAVAILABLE Compass has been unable to contact vendor.

**Batch Specification****Batch Submission**

Batch Detail "S" Record				
Position	Length	Data Type	Field Name	Comments
34, 35	2	A	Action Code	Valid Value: <b>SC –Fraud Score Only</b>

Batch PFF001 Product Record				
Position	Length	Data Type	Field Name	Comments

Batch PFF001 Product Record				
Position	Length	Data Type	Field Name	Comments
1	1	A	Extension Record Identifier	"P" Constant – Specifies this record as a product record of the First Data Compass standard format.
2,3	2	A	Extension Record MOP Type	"FF" Constant
4,6	3	N	Extension Record Sequence Number	"001" Constant
7	1	A	Scoring Requested	"Y" or "N" (N is equivalent to not sending record)
8,9	2	N	Number of Attempts	00 through 99
10,120	111	A	Reserved	Space filled

Batch "PCL001" Customer Information & Loyalty Program product record				
Position	Length	Data Type	Field Name	Comments
1	1	A	Extension Record Identifier	"P" Constant – Specifies this record as a product record of the First Data Compass standard format.
2,3	2	A	Extension Record MOP Type	"CL" Constant
4,6	3	N	Extension Record Sequence Number	"001" Constant
7	1	A	Customer Type	M – Member G – Guest
8, 27	20	A	Customer Id	Left justified/blank filled
28, 35	8	N	Customer Since Date	Date of customer registration/first order.  Optional  YYYYMMDD format
36, 54	20	A	Loyalty Id	Left justified/blank filled
56, 63	8	N	Loyalty Since Date	Date customer registered for loyalty program.  Optional

Batch "PCL001" Customer Information & Loyalty Program product record				
Position	Length	Data Type	Field Name	Comments
				YYYYMMDD format
64, 120	57	A	Reserved	Space filled

### Batch Submission (continued)

Batch "PVT001" Various Text product record				
Position	Length	Data Type	Field Name	Comments
1	1	A	Extension Record Identifier	"P" Constant – Specifies this record as a product record of the First Data Compass standard format.
2,3	2	A	Extension Record MOP Type	"VT" Constant
4,6	3	N	Extension Record Sequence Number	"001" Constant
7,96	90	A	Text Message	Text field  Left aligned, space filled
97, 120	24	A	Reserved	Space filled

### Batch Response

Batch Detail 'S' Record				
Position	Length	Data Type	Field Name	Comments
34, 35	2	A	Action Code	Valid Value: SC –Fraud Score Only

Batch "PFF001" Fraud FlexDetect Scoring Record				
Position	Length	Data Type	Field Name	Comments
1	1	A	Extension Record	"P" Constant – Specifies this record as a product record of the First Data Compass standard format.

Batch "PFF001" Fraud FlexDetect Scoring Record				
Position	Length	Data Type	Field Name	Comments
			Identifier	
2,3	2	A	Extension Record MOP Type	"FF" Constant
4,6	3	N	Extension Record Sequence Number	"001" Constant
7	1	A	Scoring Requested	'Y' or 'N'
8,9	1	N	Number of Attempts	00 through 99
10,30	20	A	Disposition	Scoring Disposition as provided (see note) Left aligned, space filled.  Expected values ACCEPT ERROR REJECT REVIEW VENDOR TIMEOUT (Compass will wait up to 2 seconds for Accertify to provide a score) VENDOR UNAVAILABLE NOT CONFIGURED
31,41	11	A	Score	Score as provided.  Left aligned, space filled.  10 digit score preceded by plus or minus sign. Range - 2147483647 to +2147483647
42	1	A	Auth Reversal Attempted	Values Y or N  Indicates is Compass has initiated Auth Reversal on the Merchants behalf
43,120	78	A	Reserved	Space Filled

**Notes:**

- Dispositions of "NOT CONFIGURED", "VENDOR TIME OUT" and "VENDOR UNAVAILABLE" are generated by Compass. All other values are generated by Accertify, the vendor hosting the Fraud FlexDetect scoring engine.
  - NOT CONFIGURED Required merchant configuration data has not been received by Compass.
  - VENDOR TIME OUT Compass did not receive a fraud score/disposition from vendor within a reasonable timeframe.



- ◆ VENDOR UNAVAILABLE Compass has been unable to contact vendor.

### **Card Types / Supported Currencies**

- All Payment Types EXCEPT UKDM (MOP SW) and European Direct Debit (ED) / All First Data Compass Supported Currencies

### **Response Reason Codes**

- Appendix A: Response Reason Code Description/Usage

### **To Get Started**

- Contact your First Data Sales/Support Representative

## APPENDIX AB – European (EU) Direct Debit

### ***Introduction***

A popular payment method in numerous countries, and especially prevalent in Europe, a direct debit is an instruction to the merchant's bank to debit an amount from the customer's bank account.

In the case of debit cards and credit cards, an authorization confirms that a card has a legitimate number, a valid address, a valid card holder's name, a card security code (e.g. CV2), etc. Because these checks are not possible on a bank account, it is not possible to "authorise" a customer's bank account.

### ***How it Works***

Instead, Compass has been designed to validate bank account details connected to direct debits. This validation serves as an authorisation/approval.

---

In Europe, each country currently operates its own direct debit network. Merchants wishing to accept direct debit throughout Europe would face the requirement to establish banking relationships and technical integration for each country in which they wish to market. First Data has created a single technical interface for direct debit processing for multiple countries. For validation and deposit transactions:

#### **Validation (Action Code = LO)**

- After the transaction passes front-end edits, the transaction is forwarded to the European Direct Debit vendor to validate the bank sort code as a valid bank sort code for the applicable country
- The vendor also performs an algorithmic check on the account number to determine if the account number conforms to the account numbering structure of the particular bank
- Validation does not include any checks for availability of funds, account status, etc.
- This action must be performed prior to the a Deposit Only (DO) transaction on an account. It is required that a validation be performed prior to every Deposit Only (DO).

#### **Deposit Only (Action Code = DO)**

- Validation should be completed before submitting any transactions for deposit
- The transaction will be submitted to the settlement country direct debit clearing system for collection

#### **Offsetting Refund (Action Code = OR)**

- The transaction will be submitted to the settlement country direct debit clearing system for remittance
- Stand alone refunds are not supported

### **Request Mandate (Action Code = RM)**

- File a United Kingdom Direct Debit mandate request, update, or cancel an existing one, for a bank account

---

### ***Processing Requirements***

EU Direct Debit is a term for bank funds transfer that can be performed within the EU region.

**Merchant must provide the correct Currency Code for the Country they are requesting to process the direct debit transaction.**

EU Direct Debit has no “Authorization” equivalent. The (ECP) ‘Validate Only’ must be performed prior to an (ECP) ‘Deposit Only’. For UK Transactions, an initial “Mandate Create” must be performed to obtain a “Mandate ID” that is required for all subsequent ‘Validate Only’ and Deposit Only’ transactions.

Merchants must contract with First Data for acceptance of European Direct Debit.

The Merchant Descriptor is defined on the vendor’s system. Sending the Merchant Descriptor record will not alter the descriptor on the accountholder’s statement.

The Currency Code and Country Code of the transaction must be the same, otherwise the transaction will reject. For example; Currency Code 826 is used with Country Code “GB”.

All Refunds (OR/RF) for MOP ED and SW to our Third Party Processor cannot be Stand-alone Refunds\*. For merchants that need to process refunds, there is a currently a 'maximum of 500 currency units' restriction on refunds. However, multiple refunds can be submitted. For example, if a refund request needs to be processed for 1,000 currency units, two 500 currency units can be sent and processed.

- *\*Stand-alone RF is a Refund without a prior Authorization Transaction, i.e. RF action code not tied to a specific prior sale*

---

### ***Transaction Types and Requirements***

#### **Validate Only**

Performs a number of validation checks on the bank account details provided. Validations will vary by country and may include, but are not limited to the validation of format and content, confirmation that the bank code is

valid, validation of the bank account number, and is the account eligible for direct debiting/crediting.

### **On-line**

#### **Request:**

- 1.) On-line Processing Detail Record
  - a.) Action Code = LO
  - b.) MOP = ED
  - c.) Amount= 000000000000
- 2.) Format Indicators
  - a.) European Direct Debit (ED)

#### **Response:**

- 1.) On-line Processing Return Format Record

### **Batch**

#### **Request:**

- 1.) Detail Record
  - a.) Action Code = LO
  - b.) MOP = ED
  - c.) Amount= 000000000000
- 2.) Extension Record:
  - a.) European Direct Debit (EED001)

#### **Response:**

- 1.) 'S' Record Output

### **Deposit this transaction**

### **Batch**

#### **Request:**

- 1.) Detail Record
  - a.) Action Code = DO
  - b.) MOP = ED
- 2.) Extension Record:
  - a.) European Direct Debit (EED001)

#### **Response:**

- 1.) 'S' Record Output

**Refund this transaction.**

**Batch**

**Request:**

- 1.) Detail Record
  - a.) Action Code = ER
  - b.) MOP = ED
- 2.) Extension Record:
  - a.) European Direct Debit (EED001)
- 3.) Address Record:
  - a.) Address Record: ECP and European Direct Debit (KA or AM)

**Response:**

- 1.) S" Record Output

**Supported Countries /  
Countries**

Countries and Currencies within the European Market. Please check with your First Data Representative for a current list.

---

**Response Reason  
Codes**

See Appendix A: Response Reason Code Description/Usage

---

**To Get Started**

Please contact your First Data Representative.

---

## PRIOR REVISION HISTORY

Version	Action	Description Of Change
V1.9	New	<i>New Release 2 – Baseline off R1 v1.9</i>
V2.0	Update	<b>Added</b> <ul style="list-style-type: none"> <li>• BML</li> <li>• GoogleCheckout and PayPal</li> <li>• eCheck</li> <li>• International Processing</li> <li>• Soft Descriptors</li> <li>• Partial Authorizations</li> <li>• Level II and Level III data</li> </ul>
V2.0	Update	<ul style="list-style-type: none"> <li>• Added note about Alt Pay Order Number</li> <li>• Added note about Duplicate Settlement Order Number</li> <li>• Added R2 Methods of Payment <ul style="list-style-type: none"> <li>✦ BL – Bill Me Later</li> <li>✦ GC – GoogleCheckout</li> <li>✦ PY – PayPal</li> <li>✦ EC - eCheck</li> </ul> </li> <li>• Added notes to Account Number field</li> <li>• Included new MOP's and the following Action Codes to the 'Action Code' field <ul style="list-style-type: none"> <li>✦ CH – Change</li> <li>✦ DO – Validate and Deposit</li> <li>✦ ER - Refund (eCheck)</li> <li>✦ RD - Refund (Alt Pay)</li> <li>✦ VI - Void (eCheck)</li> </ul> </li> <li>• Modified 'Amount' field to account for international processing and modified default ceilings</li> <li>• Added 'Transaction Type notes and Valid Values</li> <li>• Added notes to allow submission of the Response Code/Date on DC PayPal and GoogleCheckout Transactions</li> <li>• Updated document with notes/information on International Processing wherever applicable.</li> <li>• Added Electronic Check Processing Records 1 and 2</li> <li>• Added BML Extension Record,</li> <li>• Updated Partial Auth Format indicator to reflect the facts that <ul style="list-style-type: none"> <li>✦ The Partial Auth Redemption flag will override the default value for all MOPs</li> <li>✦ Compass will choose NOT to offer Cash-Back to merchants</li> </ul> </li> <li>• Added Soft Merchant Information Record</li> <li>• Added Level 2 and Level 3 data Product Records</li> <li>• Updated Address Records to account for required eCheck fields</li> <li>• Updated Totals Record to include 'DO – Validate and Deposit' amounts</li> <li>• Updated 'S' Record with appropriate R2 notes and information</li> <li>• Updated 'Format Usage' section notes and samples layouts</li> <li>• Updated Appendix A: Reason Response Codes</li> <li>• Added Appendix D: International Processing</li> </ul>

## PRIOR REVISION HISTORY

Version	Action	Description Of Change
		<ul style="list-style-type: none"> <li>● Added Appendix F: Authorization Reversals</li> <li>● Added Appendix G: Partial Authorizations</li> <li>● Appendix J: Merchant Descriptor Record</li> <li>● Added Appendix M: Gift Card</li> <li>● Appendix N: Electronic Check Processing</li> <li>● Added Appendix O: Bill Me Later</li> <li>● Added Appendix P: PayPal</li> <li>● Added Appendix R: GoogleCheckout</li> <li>● Added Appendix T: Soft Merchant Information</li> <li>● Added Appendix U: Test System</li> </ul>
V2.0	Update	<ul style="list-style-type: none"> <li>● Added the following ValueLink Records: <ul style="list-style-type: none"> <li>✦ ValueLink Product Record</li> <li>✦ Effective Date/Time Extension Record</li> </ul> </li> <li>● Add ValueLink Prefix and Length to Appendix C</li> <li>● Added 'Gift Card Application' Section to Appendix E</li> <li>● Updated Appendix A w/ ValueLink Response Codes</li> </ul>
V2.0	Update	<ul style="list-style-type: none"> <li>● Updated w/ Info on "Ship-To Name" ascertained during BML testing</li> <li>● Updated eCheck "BN or CK" field description</li> <li>● Added info on Soft Merchant Info <ul style="list-style-type: none"> <li>✦ Telephone Number must be a specific format (SM001)</li> <li>✦ Added Discover Support (same logic as Visa)</li> </ul> </li> </ul>
V2.1	Update	<ul style="list-style-type: none"> <li>● Changed Alt Pay (GoogleCheckout and PayPal) refund action code from RD to RF</li> <li>● Changed the description of the eCheck GlobalScan ID, BN or CK, and Delay Ship field</li> <li>● Modified the accepted ValueLink Action Codes (Removed DE and EE support)</li> <li>● Added notes and Appendix Q to detail support for Verification Only Transactions.</li> <li>● Amex does NOT support Zero Dollar Authorizations</li> </ul>
V2.2	Update	<ul style="list-style-type: none"> <li>● Added SV Product Record (VLink)</li> <li>● Added VC Action Code (VLink)</li> <li>● Updated ValueLink and Purchasing Cards Appendix</li> </ul>
V2.3	Update	<ul style="list-style-type: none"> <li>● Added note that GoogleCheckout only accepts USD</li> <li>● Added VLink response code 352 (expired lock)</li> <li>● Modified VLink Transaction Types and Supported Currencies</li> <li>● Removed 'Previous' and 'Current' Balance fields from V-Link Product Record</li> </ul>
V2.4	Update	<ul style="list-style-type: none"> <li>● Changed meaning of the "blue highlighted text" in document to indicate updates instead of changes from Release 1 to Release 2</li> <li>● Bill Me Later T&amp;C clarified</li> <li>● Line Feed Characters clarified in Introduction</li> <li>● Detail Record, Transaction Type default value changed to Mandatory</li> <li>● Bill-To Address Name Text formatting clarified</li> <li>● Formatted Address Record: Procurement Level 2, Sales Tax Amount changed to Conditional to stress its importance</li> <li>● Formatted Address Record, Name Text Note updated to better explain the need of a "space" when sending</li> <li>● Extension Record: Electronic Processing 1 Note updated to reflect the</li> </ul>

## PRIOR REVISION HISTORY

Version	Action	Description Of Change
		<p>need to send Customer email Address under certain eCheck instances</p> <ul style="list-style-type: none"> <li>● Address Record, Customer Email Address update to reflect the need to send this field under certain eCheck processing instances</li> <li>● Product Record: Procurement Level 3 – MasterCard and MasterCard Diners Record #1 – Line Item Level Data field positions correctly documented</li> <li>● Uzbekistan Currency name only was corrected. Should have been the Som, not the Vatu.</li> <li>● TransArmor Support Added: <ul style="list-style-type: none"> <li>✦ “S” Record Encryption Flag updated</li> <li>✦ Appendix A: Error 351 added</li> <li>✦ Appendix S: TransArmor added</li> </ul> </li> </ul>
<b>V2.5</b>	<b>Update</b>	<ul style="list-style-type: none"> <li>● Dated 01 April 2010</li> <li>● Appendix A: response 567 was correctly numbered. Was formally incorrectly numbered as 564. There were previously 2 564 s listed</li> <li>● Format Specifications updated to reflect new preferred connectivity preferences for RFR.</li> <li>● Request for Response Record removed</li> <li>● Merchant Order Number clarified to explain that First Data will only retain the first 12 positions of the field in the First Data System</li> <li>● Indian Rupee corrected to reflect 2 decimal positions, not zero</li> <li>● Action Code AR was changed to reflect all Credit Cards by name (except Amex)</li> <li>● Renamed “S” Record as – Detail Record (“S” Record)</li> <li>● Detail Record (S Record), removed second field 103, changed to 104 and shortened the position to 9 from 10</li> <li>● Personal Information Record page 2 inserted. Was missing completely.</li> <li>● Renamed Formatted Address Record to Product Record: Procurement Level 2</li> <li>● Updated Response 305 to include ValueLink (SV) as a valid MOP</li> <li>● Product Record Type “DT” – updated name fields to reflect field use and to make more uniform with other manuals. Updated field 19,120 to correctly reflect the number of spaces at 102, not 108</li> <li>● Added Third Party Processor ID (“TPP”) Record</li> <li>● Updated Copyright to 2010</li> </ul>
<b>V2.6</b>	<b>Update</b>	<ul style="list-style-type: none"> <li>● Dated 24 January 2011</li> <li>● Added Footer identifying this manual as the Compass Batch Specification with Version listed</li> <li>● Clarification of Visa UK AVS authorization in Appendix B</li> <li>● Appendix A, Response 835, removed PY and GC and changed to Credit Card (CC) only</li> <li>● Amex AVS Responses clarified with information about returning Amex Enhanced Responses</li> <li>● Added Amex Merchant initiated Reversal Support under the AR Action Code and in Appendix F Authorization Reversals</li> <li>● “Sample Input File 1” was updated to correct the B &amp; T RECS = 000000050 and \$TOT = 00000000045122</li> <li>● In Appendix A, added PayPal (PY) as a product type for Response 307</li> <li>● Russian Ruble (RUR) 810 was deleted from the Currency Table</li> </ul>



## PRIOR REVISION HISTORY

Version	Action	Description Of Change
		<ul style="list-style-type: none"> <li>Deposit (DP) was clarified to note that only "Soft" Declines will be Deposited, not "Hard" Declines</li> <li>"Encryption Flag" in Detail Record renamed "Account Number Descriptor"</li> <li>For PINless transactions, "1- MOTO (Telephone Order Only)" was removed as a valid transaction type in Appendix L: Debit Processing</li> <li>Appendix Q Verification Only was updated to include the processing of Amex and states that AVS data (ZIP/Postal Code) is required for AMEX and is Highly Recommended for all other card types</li> <li>Support of Retail (face-to-face) added for Credit Card transactional data. Updates to: Transaction Type, "Product Record: Retail" (PRR001) Added, "Appendix Z: Retail" Added</li> <li>"Extension Record: PayPal" added</li> <li>Appendix P: PayPal updated</li> <li>Updated Copyright to 2011</li> </ul>
V2.7	Update	<ul style="list-style-type: none"> <li>Dated 17 June 2011</li> <li>Added Compass to the Online Technical Specifications name</li> <li>Added new verbiage on Cover noting usage of Highlighted areas as new to specification</li> <li>Added support for TransArmor R-Tokens</li> <li>Added Action Code GT, Generate Token</li> <li>Added TransArmor Product Record (TA)</li> <li>Appendix S: TransArmor Tokenization Updated</li> <li>Appendix A Reason codes 353 &amp; 354 added in support of TransArmor</li> <li>Information Record was modified to include the additional fields of Shipping Code, Number of Shipments, and a Secondary Order Number</li> <li>Appendix N Unit of Measure Table values corrected. Values were off by one position and missing a value that was added</li> <li>Appendix A Response Code 202 changed from 'if' to 'Fix'</li> <li>Product Record: Effective Date/Time (PDT) no longer valid for ValueLink</li> <li>Added Reserved Field to the end of the Visa Authentication Field (88,120) and Product Record: Value Link Stored Value (31,120) that were missing</li> <li>Adding support for UK Domestic Maestro:</li> <li>MOP SW added</li> <li>Extension Record UK Domestic Maestro (ESW001) added</li> <li>Appendix A updated and Responses 251 (Invalid Start Date) and 252 (Invalid Issue Number) added</li> <li>Appendix K: UK Domestic Maestro SecureCode</li> <li>Appendix B AVS Responses values for *IB, A4, B8 were updated to reflect the correct response. Please review.</li> <li>New Amex Fraud Mitigation Record (PAF001)</li> <li>Added support for Dynamic Currency Conversion (DCC)</li> <li>Notated on Currency code in Detail Record that must match Deposit in Batch</li> <li>Added the DCC Product Record</li> <li>Added Appendix X</li> <li>Added Action Code IR – Void of Activation (ValueLink)</li> </ul>

## PRIOR REVISION HISTORY

Version	Action	Description Of Change
		<ul style="list-style-type: none"> <li>Removed PayPal EPY001 record as it is not valid</li> <li>Appendix AA: Fraud FlexDetect added with all Fraud FlexDetect specific records</li> <li>Appendix T: Soft Merchant Descriptor updated to express proper field values</li> </ul>
V2.8	Update	<ul style="list-style-type: none"> <li>Dated 01 April 2012</li> <li>Set previous CAT field as a 'Reserved for Future Use' by removing merchant capability of submitting a CAT value in EVI001, EMC001 and EMD001. CAT will continue to function as it has and will be supported on Compass as a platform. Will continue to utilize system edits and record interrogation to set correct outbound values to Associations.</li> <li>Appendix A Changes: <ul style="list-style-type: none"> <li>Added Response Code 258, 274</li> <li>Removed Response Codes 261, 704</li> <li>Added MOP ED to Response Code 227, 767</li> <li>Added 840, 841 for MOP ED</li> <li>Changed Response Code 201 from S (Successful) to R (Reject)</li> </ul> </li> <li>Updated Action Code DP to include PINless Debit</li> <li>Appendix M ValueLink: <ul style="list-style-type: none"> <li>Added an explanation on how the balances are returned and amount approved in the new ValueLink transactions</li> <li>Authorization Reversal Updated to reflect that actual Dollar amount needs to be sent, not \$0 and Response Date needs to be sent, not Response Code</li> </ul> </li> <li>Put a note on ValueLink Stored Value Product Record to review Appendix M for ValueLink transactions that are Approved Authorizations</li> <li>Appendix D: Estonia 223 currency changed to Euro 978</li> <li>Extension Record: Electronic Check Processing 1: Removed TeleCheck Delay Ship and TeleCheck Global Scan ID as they are no longer supported for TeleCheck through Compass</li> <li>Item Category in Bill Me Later (BML) Format Indicator (BL) is Required, not Optional</li> <li>Appendix AB Fraud FlexDetect was updated to state that UKDM (SW) and European Direct Debit (ED) not supported</li> <li>Extension Record: American Express 1 was modified and TAA fields were removed as they are currently unsupported</li> <li>Extension Record: American Express 2 was removed as it is currently unsupported</li> <li>Product Record: Procurement Level 2 Updated: <ul style="list-style-type: none"> <li>It is space filled (not Zero)</li> <li>If Tax Exempt, Zero fill</li> </ul> </li> <li>Stated that "Transactions may not be reauthorized if the Authorization code and AVS ZIP are not supplied on Authorization and Deposit" under Format Usage, Sending Pre-Approved Records</li> <li>Appendix K: Stand-alone Refunds not supported for UKDM</li> <li>Appendix K: UKDM Secure code transactions noted to state that Refund transactions would not be allowed over 500 currency units</li> <li>Updated Address Record format applicable for the following address types: B, E, G, N, S, 2, 3, 4, 5</li> <li>European Direct Debit added to manual with the following:</li> </ul>

## PRIOR REVISION HISTORY

Version	Action	Description Of Change
		<ul style="list-style-type: none"> <li>✱ MOP ED added</li> <li>✱ Action Code DO Updated</li> <li>✱ Action Codes LO (Validate Only), OR (Offsetting Refund), RM (Request Mandate Action) Added</li> <li>✱ Extension Record EED001 added</li> <li>✱ Appendix A additions/Changes to 101, 227, 521, 594, 599, 750, 751, 755, 767, 806, 840, 841</li> <li>✱ Appendix AB added</li> <li>● Appendix A, Response Code 806, added MOP SW</li> <li>● Changed NOTE under LN Formatted Address Record Bill-To Name to read: LN and LA records can be together or alone. However, if LN and LA records are both sent, LN should precede the LA record."</li> <li>● The Merchant Space in the Header Record is still optional, but Compass added that it is Recommended</li> <li>● Appendix T: Soft Merchant Descriptor was completely rewritten and replaced</li> <li>● Appendix D: Currencies and Decimal positions updated</li> <li>● UKDM ESW001 was updated to add the additional Field Accountholder Authentication Value (AAV) in positions 13,44</li> <li>● Added additional values to the Bill Payment Indicator in the Detail 'S' Record</li> <li>● In Appendix C: Error Screening, Discover and JC relationship clarified as well as countries and currencies for the relationship</li> </ul>
V2.9	Update	<ul style="list-style-type: none"> <li>● Dated 01 August 2012</li> <li>● When using ValueLink, PVL001 should be used, not PSV001. Appendix M updated to reflect this.</li> <li>● Added support for MasterCard Reversal Indicator for Fraud: <ul style="list-style-type: none"> <li>✱ In the Detail Record Response Reason Code</li> <li>✱ Appendix A, Response Code 200</li> </ul> </li> <li>● For Verification Only Transactions (Appendix Q), Card Security Value (CSV) is optional</li> <li>● American Express VF transactions are supported; Amex will not validate account standing, only that the account exists.</li> <li>● UKDM Maestro Extension Record (ESW001) will reject with 227 (not 225) if not sent with MOP SW</li> <li>● Electronic Check Processing Extension Record 2 (ESW002), was incorrectly documented. Delay Ship Expiration Date removed, Denial Record Number moved to fields 8,14.</li> <li>● Added Support for the New Address Change Request/Reply Service: <ul style="list-style-type: none"> <li>✱ Detail Record 'S' AVS/AAV Response Code renamed and values added</li> <li>✱ PAF001 Amex Fraud Mitigation Record renamed Advance Fraud Mitigation Record. Added Fields 12,14 Address Change Notification Indicator</li> </ul> </li> <li>● For European Direct Debit, two additional countries added: <ul style="list-style-type: none"> <li>✱ BE – Belgium</li> <li>✱ FR - France</li> </ul> </li> <li>● Added Support for ValueLink Enhanced Gift Card <ul style="list-style-type: none"> <li>✱ Action Code DA – Deposit Available</li> <li>✱ ValueLink Product Record, added Card Type C – Virtual with SCV/CSV, and Card Type S – Card Activation without EAN or SCV</li> </ul> </li> </ul>

## PRIOR REVISION HISTORY

Version	Action	Description Of Change
		<ul style="list-style-type: none"> <li>Appendix A, 842 BAD EAN/CSV added</li> <li>PFR002 Fraud 2 was added to support Card Security Values (CSV) up to 8 digits (vs. 4 digits for PFR001).</li> <li>Appendix N: Clarified which records to send with eCheck</li> <li>Terminal ID is Mandatory for Face to Face transactions</li> <li>Product Record: Debit (PDE001) added missing field Biller Reference Number</li> <li>Updated Action Code Offsetting Refund (OR) definition and Appendix K definition of Offsetting Refund limits</li> </ul>
V2.10	Update	<ul style="list-style-type: none"> <li>Pg 26: S Record Order Number changed from 12 to 22 bytes</li> <li>Pg 30: added Amex (AX) to Action code "VF" definition</li> <li>Pg 39-40: S record position 81,86 &amp; position 87,92 clarification of date requirement &amp; auth verification code for PayPal and Google Checkout</li> <li>Pg 69-70: American Express Safekey. New Extension Record EAX004: American Express Authentication added. It should be noted: American Express Safekey is a licensed implementation of Verified by Visa.</li> <li>Pg 90-91: Product Record: DCC field names &amp; comments clarified</li> <li>Pg 106-107 PB record, clarification of use for Partial Authorization</li> <li>Pgs 148,149,150,151: clarification of "Absolute Amounts" &amp; unsigned amounts</li> <li>Pg 155: S record output: Position 87,92 "authorization code responses" added a table of possible responses</li> <li>Pg 168 Appendix A, changes to Response reason code 352</li> <li>Pg 176 Appendix A, Added Response reason code 843</li> <li>Pg 176 Appendix A, removed table containing authorization verification code responses. Moved to page 157, pos 87,92 of the S output record</li> <li>Pg 192,193 Appendix D, New &amp; Changed Presentment Currencies</li> <li>Pg 203-205: Appendix G Partial Authorizations: Enhanced for clarification</li> <li>Pg 212-216: New Appendix H1 created for Amex Safekey</li> <li>Pg 256-257 Appendix P, Paypal; Batch deposit response date, auth verification code requirement info added</li> <li>Pg 259-260 Appendix Q; Clarification of VF for Amex</li> <li>Pg 261-262 Appendix R, Google checkout; Batch deposit response date, auth verification code requirement info added</li> <li>Pg 291-293 Appendix X: reworked verbiage for Dynamic Currency Conversion DCC functionality</li> <li>Pgs: all: verify all page footers contain version #.#</li> <li>TOC review &amp; corrections</li> </ul>



End of the Compass Batch Technical Specification

Version 2.11

15 February 2013

