

Express Level III Enhanced and Line Item Detail Processing Overview

Introduction

This document contains information on the processing of Visa and MasterCard Level III Enhanced and Line Item Detail.

⇒ Notes

- Level III Enhanced and Line Item Details should be submitted *in addition to* existing Level II Details. Recommended Level II Details may include: *SalesTaxAmount*, *CommercialCardCustomerCode*, *TicketNumber*, *BillingName*, and *ShippingZipcode*.
- Level III Enhanced and Line Item Details are supported in both card-present (Retail) and card-not-present (Direct Marketing/MOTO, Ecommerce) industry types.
- Level III Enhanced and Line Item Details are supported via the XML interface only (not available via SOAP interface).
- Level III Enhanced and Line Item Details are supported via TSYS, First Data, and Vantiv processing platforms only.
- When Level III Enhanced and Line Item Detail data is submitted, ALL Enhanced and Line Item Detail fields must be included in the request. Depending on the merchant setup, some processors may reject missing Enhanced data, while others may not, but per the *Express Interface Specification*, ALL Enhanced and Line Item Detail data should be submitted for ALL Level III transactions.
- Level III Enhanced and Line Item Details supported for Visa and MasterCard transactions only.
- Level III Enhanced and Line Item Details are limited to fifty (50) line items in a single transaction.
- Where necessary (and sometimes, but not always, based on the *CommercialCardResponseCode*), the *CreditCardAdjustment* method can be used to update original *CreditCardSale*, *CreditCardAuthorizationCompletion*, or *CreditCardForce* requests to include Level III Details (along with original Level II Details). When *CreditCardAdjustment* is used on original *CreditCardReturn* or *CreditCardCredit* offline transaction requests, the Level III Enhanced and Line Item Details may simply be ignored by *Express*.
- Note that the *CommercialCardResponseCode* is returned for both Visa and MasterCard commercial cards on the Vantiv and TSYS platforms, but only for Visa commercial cards on the First Data platform. Contact your account manager to enable MasterCard Level III capabilities with Vantiv.
- For Summary and Item Commodity Codes, we recommend visiting the following sites for more information.
 - <http://www.unspsc.org> (UNSPSC)
 - <https://www.census.gov/eos/www/naics/> (NAICS)
 - <https://www.census.gov/eos/www/napcs/> (NAPCS)
 - <http://www.foreign-trade.com/reference/hscodet.htm> (HS)
- To prevent transaction downgrades, Level III Line Item Details and Amounts should balance **((item UnitCost * item Quantity) + total SalesTaxAmount = total TransactionAmount)**. This must be the case for the totals of all line items.
 - $\text{LineItemTotalAmount} = (\text{UnitCost} * \text{Quantity}) + \text{SalesTaxAmount}$ for that line item only.
 - $\text{ExtendedItemAmount} = \text{UnitCost} * \text{Quantity}$ for that line item only.

Processing Flow

Sale Transactions (charge immediately)

1. The software application will submit a standard *CreditCardSale* request (without any Level III information). If the card processed is a commercial card, a response value called *CommercialCardResponseCode* will be returned indicating the card is a type of commercial card. This will identify the commercial card as a **Business Card, Corporate Card, or Purchasing Card**.
2. Where applicable and when Level III information is available, a *CreditCardAdjustment* request (containing Level III Enhanced and Line Item Details) will be submitted to adjust the original *CreditCardSale* to include Level III information for settlement. ***ALL Level III Enhanced and Line Item Details are required when including this Level III Data.***
3. Sale transaction batches out and settles automatically during the overnight hours.

Authorization and Authorization Completion Transactions (charge when shipped)

1. The software application will submit a standard *CreditCardAuthorization* request (without any Level III information). If the card processed is a commercial card, a response value called *CommercialCardResponseCode* will be returned indicating the card is a type of commercial card. This will identify the commercial card as a **Business Card, Corporate Card, or Purchasing Card**.
2. Where applicable and when Level III information is available, a *CreditCardAuthorizationCompletion* request (containing Level III Enhanced and Line Item Details) will be submitted to complete the original *CreditCardAuthorization* to include Level III information for settlement. ***ALL Level III Enhanced and Line Item Details are required when including this Level III Data.***
3. Completion transaction batches out and settles automatically during the overnight hours.

Force Transactions (charge immediately)


1. Upon receiving a voice authorization response, the software application will submit a standard *CreditCardForce* request (without any Level III information). Depending on the information known about the card, the software may choose to include Level III details by generating a *CreditCardAdjustment* request to include Level III details as a secondary step in the process. ***Whenever provided, ALL Level III details are required when including this Enhanced Data.***
2. Where applicable and when Level III information is available, a *CreditCardAdjustment* request (containing Level III Enhanced and Line Item Details) will be submitted to adjust the original *CreditCardForce* to include Level III information for settlement. ***ALL Level III Enhanced and Line Item Details are required when including this Level III Data.***
3. Force transaction batches out and settles automatically during the overnight hours.


Sample XML Format (using ExtendedParameters)



⇒ **Note** *EnhancedData* and *LineItemDetail* MUST be in the order shown below


```
<ExtendedParameters>
  <EnhancedData>
    <MerchantVATRegistrationNumber />
    <CustomerVATRegistrationNumber />
    <SummaryCommodityCode />
    <DiscountAmount />
    <FreightAmount />
    <DutyAmount />
    <DestinationZIPCode />
    <ShipFromZIPCode />
    <DestinationCountryCode />
    <UniqueVATInvoiceReferenceNumber />
    <OrderDate />
    <VATAmount />
    <VATRate />
    <LineItemCount />
    <AlternateTaxAmount />
    <NationalTaxAmount />
  <LineItemDetail>
    <LineItem>
      <ItemCommodityCode />
      <ItemDescription />
      <ProductCode />
      <Quantity />
      <UnitOfMeasure />
      <UnitCost />
      <LineItemVATAmount />
      <LineItemVATRate />
      <LineItemDiscountAmount />
      <LineItemTotalAmount />
      <AlternateTaxIdentifier />
      <VATType />
      <DiscountCode />
      <NetGrossCode />
      <ExtendedItemAmount />
      <DebitCreditCode />
      <ItemDiscountRate />
    </LineItem>
    <LineItem>
      ...
    </LineItem>
  </LineItemDetail>
</EnhancedData>
</ExtendedParameters>
```

EnhancedData Extended Parameter Field Reference













 = data type is string




 = data type is enumeration

Name	Max	Required	Description
Class: ExtendedParametersEnhancedData			
 MerchantVATRegistrationNumber	20	Optional	Government-assigned tax identification number of merchant. (tag must be present, but can be empty)
 CustomerVATRegistrationNumber	13	Optional	Tax registration number supplied by cardholder. (tag must be present, but can be empty)
 SummaryCommodityCode	4	Required	International description code of overall goods or services.
 DiscountAmount	12	Required	Discount amount applied to the line item total. This field should be 0.00 if the unit cost reflects a discount price or if no line item discount applies. DDDDDDDDDD.CC
 FreightAmount	12	Required	Freight or shipping portion of the total transaction amount. DDDDDDDDDD.CC
 DutyAmount	12	Required	Fee amount associated with the import of the goods. DDDDDDDDDD.CC
 DestinationZIPCode	10	Required	Postal/Zip Code of the address where purchased goods will be delivered. Can be the same as <i>ShipFromZIPCode</i> if customer is present and takes immediate possession of the goods.
 ShipFromZIPCode	10	Required	Postal/Zip Code of the address from where the purchased goods are being shipped.
 DestinationCountryCode	3	Required	Country code where goods are being shipped. U.S. is 840.
 UniqueVATInvoiceReferenceNumber	15	Optional	Invoice number associated with VAT invoice. Not applicable for US merchants. (tag must be present, but can be empty)
 OrderDate	8	Required	Purchase order date. YYYYMMDD
 VATAmount	12	Required	Amount of any sales or value added taxes associated with the purchased item. DDDDDDDDDD.CC
 VATRate	4	Required	Tax rate used to calculate VATAmount. Submitted as a percentage. Two-digit implied decimal. For example, if 10.42%, submit 1042
 LineItemCount	3	Required	Number of line items included in transaction. Visa (0 to 998), MasterCard (0 to 98)
 AlternateTaxAmount	12	Required	Second tax amount (used in countries where more than one tax can be applied). Not applicable for US merchants. DDDDDDDDDD.CC

Name	Max	Required	Description
 NationalTaxAmount	12	Required	National tax included in the transaction amount. Not applicable for US merchants. DDDDDDDD.CC

Class: ExtendedParametersLineItem

 ItemCommodityCode	12	Required	International description code of the individual good or service being supplied. Recommend using national or international list of standardized codes.
 ItemDescription	35	Required	Item description.
 ProductCode	12	Required	Merchant-defined description code of the item.
 Quantity	12	Required	Quantity of the item (up to four decimal places). NNNNNN.DDDD
 UnitOfMeasure	12	Required	Code for units of measurement used in international trade.
 UnitCost	10	Required	Unit cost of the item. DDDDDD.CC
 LineItemVATAmount	12	Required	Amount of any sales or value added taxes associated with the item. DDDDDDDD.CC
 LineItemVATRate	4	Required	Tax rate used to calculate <i>LineItemVATAmount</i> . Submitted as a percentage. Two-digit implied decimal. For example, if 10.42%, submit 1042
 LineItemDiscountAmount	12	Required	Discount amount applied to the line item. This field should be 0.00 if the unit cost reflects a discount price or if no line item discount applies. DDDDDDDD.CC
 LineItemTotalAmount	12	Required	Total full amount associated with the line item (including sales tax for that item). DDDDDDDD.CC
 AlternateTaxIdentifier	15	Optional	Tax identification number of the merchant reporting the alternate tax amount. Not applicable for US merchants. (tag must be present, but can be empty)
 VATType	4	Optional	Type of value added taxes being used. Not applicable for US merchants. (tag must be present, but can be empty)
 DiscountCode	2	Required	Indicates whether discount was applied to the purchase price of the item. 0 = Not supported 1 = Amount is discounted 2 = Amount is not discounted
 NetGrossCode	2	Required	Indicates whether extended item amount included the tax. 0 = Not supported

Name	Max	Required	Description
			1 = Item Amount includes tax amount 2 = Item Amount does not include tax amount
 ExtendedItemAmount	12	Required	Amount of the item (unit price multiplied by quantity only). DDDDDDDD.CC
 DebitCreditCode	2	Required	Indicates whether ExtendedItemAmount is a Credit (taking away from the total amount of the sale) or Debit (adding to the total amount of the sale). 0 = Not supported 1 = Extended Item Amount is Credit 2 = Extended Item Amount is Debit
 ItemDiscountRate	5	Required	Discount rate for the line item. Submitted as a percentage. Two-digit implied decimal. For example, if 10.42%, submit 1042