



One Connection to FutureProof™ your business

Activation Guide: PayPal Express Checkout Payments

July 11, 2016 Version 1.13.0

Acknowledgements

CardinalCommerce Corporation acknowledges with gratitude the contribution of its associates who developed the Cardinal Payment Authentication Platform.

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1. Introduction	5
2. What Has Changed	5
3. Overview	5
3.1 The PayPal Express Checkout Transaction Using Sentinel	5
3.1.1 PayPal Express Checkout Payment Transaction Steps	6
3.1.2 PayPal Express Checkout Payments Transaction Flow	6
4. Integration Notes	7
4.1 PayPal Express Checkout Notes	8
5. Thin Client	10
6. Thin Client Architecture	10
6.1 Request Object	10
6.2 Response Object	11
7. Thin Client Integration	11
7.1 Lookup Message Integration	12
7.1.1 cmpi_lookup Request Message	12
7.1.2 cmpi_lookup Response Message	19
7.2 Authenticate Message Integration	20
7.2.1 cmpi_authenticate Request Message	21
7.2.2 cmpi_authenticate Response Message	21
7.3 Order Message Integration	26
7.3.1 cmpi_order Request Message	26
7.3.2 cmpi_order Response Message	29
7.4 Authorize Message Integration	30
7.4.1 cmpi_authorize Request Message	30
7.4.2 cmpi_authorize Response Message	34
7.5 Capture Message Integration	35
7.5.1 cmpi_capture Request Message	35
7.5.2 cmpi_capture Response Message	37
7.6 Reauthorization Message Integration	38
7.6.1 cmpi_reauthorize Request Message	38
7.6.2 cmpi_reauthorize Response Message	39
7.7 Refund Message Integration	40
7.7.1 cmpi_refund Request Message	40
7.7.2 cmpi_refund Response Message	42
7.8 Sale Message Integration	43
7.8.1 cmpi_sale Request Message	43
7.8.2 cmpi_sale Response Message	46
7.9 Void Message Integration	48
7.9.1 cmpi_void Request Message	48
7.9.2 cmpi_void Response Message	49

- 7.10 Add Merchant Order Number Message Integration50**
 - 7.10.1 cmpi_add_order_number Request Message 50
 - 7.10.2 cmpi_add_order_number Response Message 51
- 7.11 Payment Status Message Integration51**
 - 7.11.1 cmpi_payment_status Request Message 52
 - 7.11.2 cmpi_add_payment Response Message 53
- 8. Integration Testing 56**
- 9. Moving To Production..... 56**
 - 9.1 Configuring PayPal for Production Transactions57**
- 10. Centinel MAPS Errors..... 57**

1. Introduction

This guide is intended for Merchants that are implementing processing using the Cardinal Centinel Thin Client. This guide outlines the integration and testing procedures for completing the Thin Client implementation within an eCommerce system.

2. What Has Changed

Date	Description	Version
July 11, 2016	<ul style="list-style-type: none"> Updated In-Context URL in section 4 	1.13.0
February 14, 2016	<ul style="list-style-type: none"> A new feature was added for PayPal to allow retries when timeouts occur. The Field Name MsgSubId was added to the authorize, capture, and refund request messages 	1.12.0
February 12, 2016	<ul style="list-style-type: none"> Field Name MsgSubId was added to the authorize, capture, and refund message 	1.11.0
December 10, 2015	<ul style="list-style-type: none"> Formatting and Centinel logo updated 	1.10.0
August 13, 2015	<ul style="list-style-type: none"> Removed Enabling In-Context Checkout steps Added UserSelectedFundingSource field in the Lookup request message to allow the FINANCE option Included note on Easy Payments feature in the Authenticate response message Added additional fields to the Authenticate response message that will be required for PayPal Easy Payments Added marketing fields EmailOptinEnabled to the Lookup request message and ProcessorMarketingEmail to the Authenticate response message 	1.9.0
July 30, 2015	<ul style="list-style-type: none"> Updated Customer redirect URL to https://www.paypal.com/checkoutnow/ Included the addition of the basic integration checkout JavaScript which is needed to enable In-Context checkout 	1.8.0
July 1, 2014	<ul style="list-style-type: none"> Updated cmpi_authorize message with retry details 	1.7.0
June 6, 2014	<ul style="list-style-type: none"> Updated JavaScript example for checkout page 	1.6.0
February 19, 2014	<ul style="list-style-type: none"> Added an integration notes section for existing Merchants. This section outlines the changes a current Merchant will need to make in order to begin accepting payments using the In-Context Checkout 	1.5.0

3. Overview

PayPal Payments allow Merchants to add a simple and secure payment option to their existing e-commerce website. Utilizing Centinel, all the complex web service calls and encryption processing is centralized providing the Merchant with a simple integrated solution.

Merchant Benefits:

- Simple and Easy Checkout Flow – Since your Customers simply log in to use information they've already entered with PayPal, they save time by completing transactions in fewer steps.
- Complete sales on your website, and get more upsell opportunities. – Buyers finish their orders on your website. This gives you more advertising opportunities.
- Help Customers feel safer, so they buy more. – Buyers prefer to pay with PayPal because their Customer information is kept safe. When they're confident about the security of their information, they purchase more.

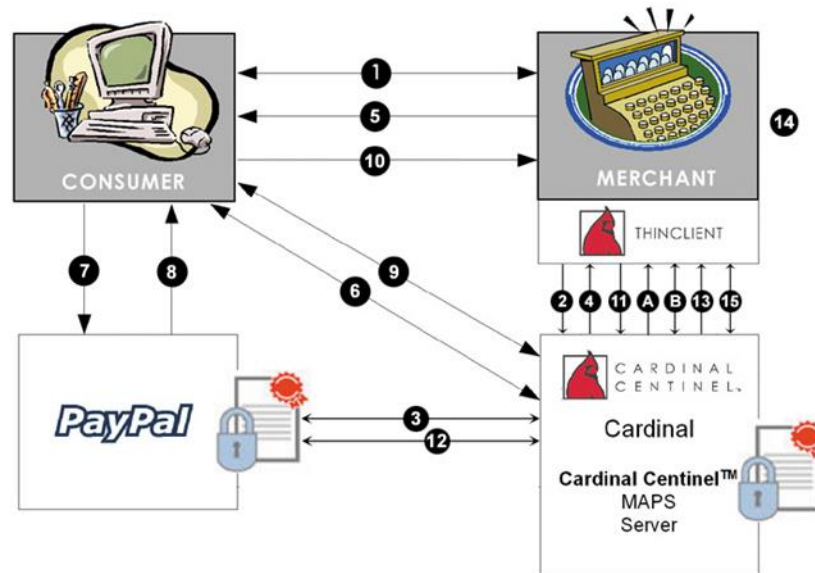
3.1 The PayPal Express Checkout Transaction Using Centinel

Express Checkout allows Customers the option to pay quickly through PayPal and gives your business more benefits. Below is a graphic representation of the PayPal Express Checkout payment message flow specific to Cardinal Centinel. A detailed description of each of the steps within the diagram follows the graphic.

3.1.1 PayPal Express Checkout Payment Transaction Steps

1. Consumer shops online at Merchant website. At checkout, the Consumer selects the PayPal Express Checkout payment type to complete the purchase.
2. Based on the payment information, the Merchant, via the Thin Client, passes a Lookup message to the Centinel Merchant Authentication Processing System (MAPS) identified as a PayPal Express Checkout transaction request.
3. Centinel processes the API call into PayPal to initiate the Express Checkout transaction.
4. Centinel interprets the PayPal API response, stores transaction details then formats and send the Lookup response back to the Merchant.
5. The Merchant interprets the Lookup response and redirects the Consumer with a HTTP Form POST to allow the Consumer to select their method of payment. The redirect URL represents a Centinel website that will construct the proper PayPal payment form to redirect the Consumer to the PayPal site.
6. Centinel constructs the PayPal Express Checkout redirect form and transfers the Consumer to the PayPal website.
7. Consumer logs into their PayPal account and selects the method of payment to complete the purchase.
8. Once completed, the Consumer is redirected back to Centinel.
9. Centinel receives the Consumer redirect and transfers the Consumer back to the Merchant website.
10. The Merchant website receives the redirect of the Consumer.
11. The Merchant formats and sends an Authenticate request message to Centinel MAPS to determine the result of the Express Checkout transaction.
12. Centinel processes the API call into PayPal to determine the outcome of the Express Checkout request and retrieve the necessary Consumer details for the response message back to the Merchant.
13. Centinel returns the status of the Express Checkout transaction. In the event that the Consumer selected a method of payments, the Consumer's shipping information will be returned on the response message for display on the confirmation page.
14. Based on Authenticate response values the Merchant displays the confirmation to the Consumer to complete the purchase.
15. Based on how the Merchant processes orders, an Authorization or Sale message can be sent into Centinel for processing. Centinel supports Authorization/Capture processing as well as combining both steps into the single Sale transaction.
 - A. Centinel monitors payment activity. In the event that the status of a Payment changes, Centinel will notify the Merchant through a Notification Post. The Notification Post will also be sent to the Merchant in the event that a payment was successfully made, but the Merchant did not process the Authenticate message to retrieve the payment status.
 - B. The Notification Post will trigger the Merchant to process the `cmpi_paypal_status` message and retrieve the current PayPal transaction status. This allows Merchants to monitor and accurately track order activity.

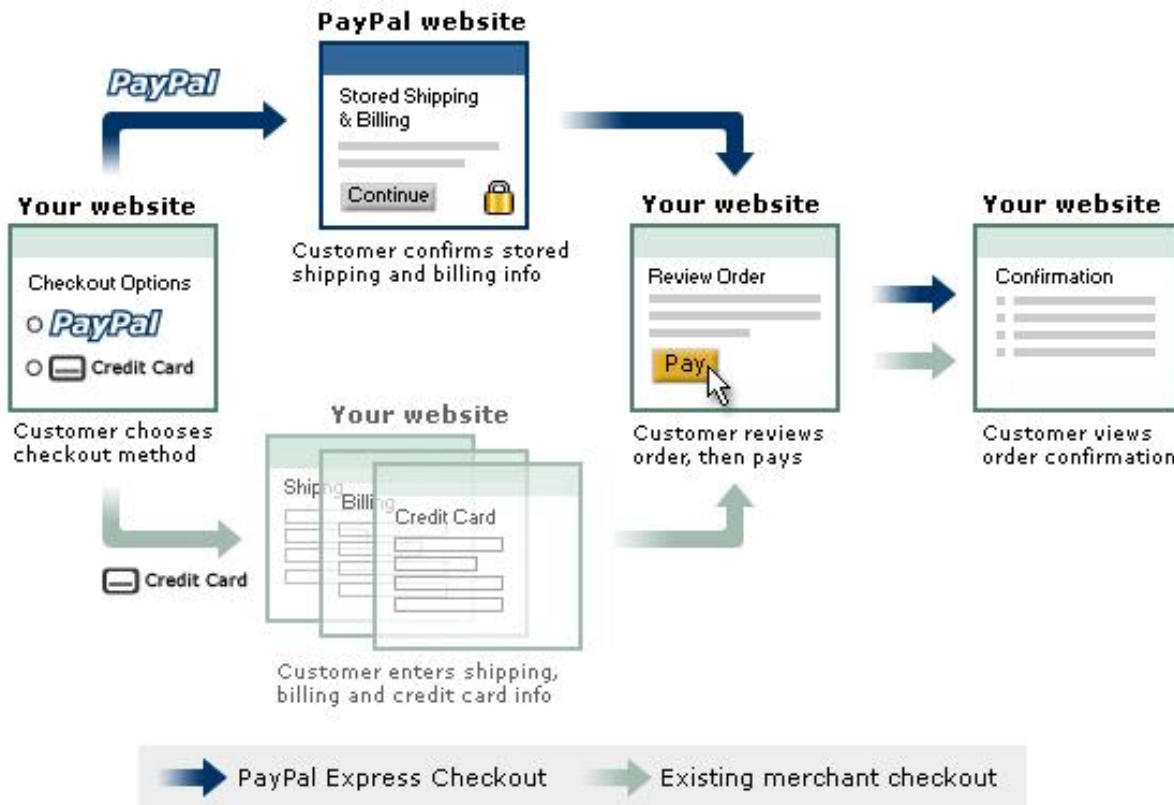
3.1.2 PayPal Express Checkout Payments Transaction Flow



4. Integration Notes

Express Checkout combined with the Authorization and Capture capabilities of the PayPal platform allow the Merchant to handle PayPal payments in ways similar to traditional credit card processing. From the checkout page of the website, Consumers are redirected to PayPal to login and select their method of payment. Once completed, the Consumer is returned to the Merchant’s website for final order confirmation.

Once the order is confirmed, the Merchant executes the transaction authorization as they would with a typical credit card transaction. The process also enable the Consumer to use their billing and shipping information stored at PayPal to checkout, therefore not requiring the data to be re-entered on the Merchant’s website.



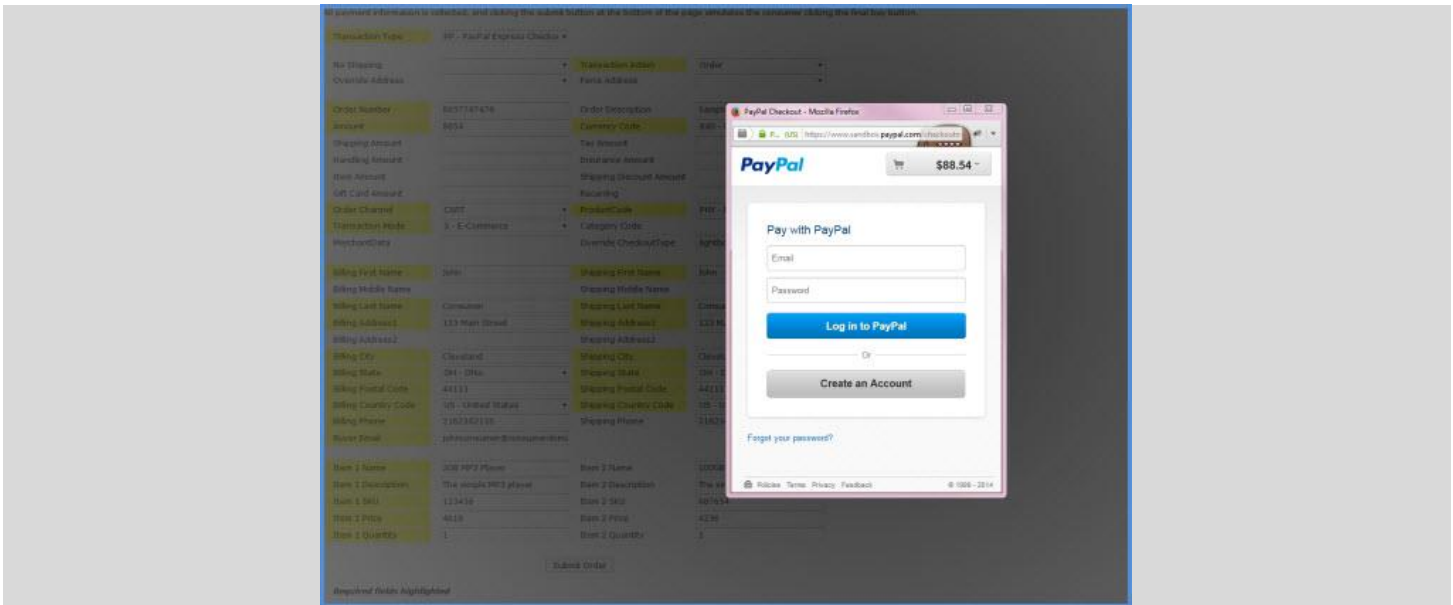
The implementation of Express Checkout requires the integration of the various Centinel message type to perform the various transactions required to redirect the Consumer and execute the payment transactions.

4.1 PayPal Express Checkout Notes

Express Checkout has a new checkout flow referred to as the In-Context Checkout (also known as the mini-browser). This enhanced checkout flow provides a simplified checkout experience, that replaces the classic full-page Express Checkout redirection flow.

NOTE: If you are currently using PayPal Express Checkout you will need to contact your CardinalCommerce Activation Manager to configure your Merchant Account to enable the In-Context Checkout approach.

The In-Context Checkout uses a standards-based HTML solution that enables the PayPal login and transaction screens to be presented in a mini-browser that overlays the Merchant website. The following illustration displays the PayPal Authorization screen commanding full focus while the Merchant website remains in the transparent background.



The In-Context Checkout allows a Customer to complete a checkout with as little as one or two clicks. The Merchant also has the ability to specify that certain checkout fields auto-populate. In addition to these features, the checkout experience is consistent across PCs, mobile devices and tablets. The In-Context Checkout feature results in greater Customer satisfaction, higher conversion rates and fewer cart abandonments.

NOTE: In some cases (such as with mobile devices), the PayPal screens are presented using the full screen of the device, and not in the mini-browser that overlays.

NOTE: You will also need to include the basic integration checkout. Please reference the following address:
<https://developer.paypal.com/docs/classic/express-checkout/in-context/integration/>

NOTE: To use the In-Context Checkout flows update the redirect URL to the following:

In-Context Checkout Sandbox redirect URL

<https://www.sandbox.paypal.com/checkoutnow?token=<token>>

In-Context Checkout Live environment redirect URL

<https://www.paypal.com/checkoutnow/>

After making these modifications to your existing Express Checkout integration, you're ready to accept payments using the In-Context Checkout.

NOTE: Browser Support

The In-Context Checkout functionality does not always work smoothly on Internet Explorer because of issues with the Compatibility View and Quirks Mode of Internet Explorer.

Internet Explorer turns on Quirks Mode if the page doesn't have a valid DOCTYPE declaration. In addition, Compatibility View is enabled when the user turns it on or when the page is present on Microsoft's list of sites that need to be rendered using the Compatibility View. Each of these modes can cause the In-Context Checkout pages to be rendered using Internet Explorer 7's rendering engine, which leads to incorrectly-displayed pages.

To avoid problems with Internet Explorer consider the following:

- Quirk Mode can be disabled by including a proper DOCTYPE declaration on your HTML pages. For example, include the following declaration on your HTML pages: `<!DOCTYPEhtml>`

- Compatibility View can be disabled by adding the following the <head> section of your HTML pages: `<meta content="IE=edge" http-equiv="X-UA-Compatible"/>`

Additionally, cross domain rules apply in Internet Explorer. Cross-Site domain rules means in order for the close button to work, the page where the checkout starts (e.g., where the EC button lives), the return page and the cancel page must all be on the same host, port and protocol – i.e. everything up until the third slash in the URL must match.

5. Thin Client

The Thin Client technology, by nature, minimizes any custom development required by the merchant. The Thin Client integration enables merchants to quickly communicate with the CardinalCommerce Application Service Provider (ASP) platform. This communication allows all the changing business rules and configuration information to be managed centrally within the ASP platform. As business rules or payment initiative programs evolve, these modifications are made centrally and do not affect the Merchant's eCommerce website directly. The hosted service minimizes any ongoing maintenance, further allowing Merchants to focus on their business objectives instead of software maintenance.

Thin Client Versions

Please note the Cardinal **Thin Client** version number does not correspond to the Cardinal **Centinel** version number. The Thin Client version is specific to the respective Thin Client. The most recent version of all Thin Clients are available by contacting CardinalCommerce support.

The following Centinel Thin Clients are currently available:

ASP
Cold Fusion
Java
Perl
PHP
.NET

Integration samples are included with each Thin Client Technology. These samples can be used as templates for integration and also provide code samples for processing the API messages with the hosted service. The code samples also include comments which highlight error handling and general usage examples.

NOTE: If any of the Thin Clients available does not meet your system needs a direct XML integration solution is available. A XML guide is available at the Merchant's request.

6. Thin Client Architecture

The Thin Client has a common API for message handling. Each Thin Client exposes methods for request message creation, the sending and receiving of transaction data, and response message interpretation.

NOTE: Detailed API information is available for each Thin Client in the Thin Client installation guides.

6.1 Request Object

Method	Description
Add	<p>Adds name / value pairs used to construct the XML Messages.</p> <p>Usage: void Add(String name, String value)</p> <p>Parameters: name – name of the parameter value – value of the parameter</p>

	<p>Returns: void</p>
SendHTTP	<p>Sends the request message to the Centinel MAPS. MAPS returns a response message. The response message is deserialized into name / value pairs and returned from the method in the form of a Thin Client response object.</p> <p>Usage: ResponseObject SendHTTP(String transactionURL)</p> <p>Parameters: transactionURL – fully qualified transaction URL</p> <p>Returns: ResponseObject</p> <p>NOTE: The various platform versions of the Thin Client may overload this method and follow you to specify optional timeout parameters for the MAPS message communication.</p>

6.2 Response Object

Method	Description
GetValue	<p>Returns the value for a named element returned on the response message.</p> <p>Usage: String GetValue(String name)</p> <p>Parameters: name – name of the parameter</p> <p>Returns: String value of the name parameter</p>
GetUnparsedResponse	<p>Returns the entire raw XML response message. Useful for debugging purposes.</p> <p>Usage: String GetUnparsedResponse()</p> <p>Parameters: none</p> <p>Returns: String value of the SML response</p>

7. Thin Client Integration

The Thin Client provides a communication shell that accepts name / value pairs. The name / value pairs are serialized to an XML message and communicated to the Centinel MAPS. The Centinel MAPS communicates the response message to the Thin Client which makes the message elements available to the Merchant as name / value pairs.

Centinel supports transaction messages for payment processing and post payment management.

Message Name	Description
cmpi_lookup	This message is used to initiate a PayPal payment.
cmpi_authenticate	This message determines the PayPal payment status.

cmpi_order	Create an order that can be fulfilled at a later time.
cmpi_authorize	Authorize an order that can be fulfilled at a later time.
cmpi_capture	Settle an order or previously authorized transaction and obtain payment for either the full or partial amount of the previous transaction.
Cmpi_reauthorize	Reauthorize a previously authorized transaction.
cmpi_refund	This message performs a transaction refund. The message supports Full and Partial refund transactions. PayPal payments support multiple partial refunds.
cmpi_sale	The Sale transaction performs an Authorization and Capture in a single step. This type of transaction is typically used when the Merchant delivers the product at the time of the sale.
cmpi_void	Transaction voids an authorization.
cmpi_add_order_number	This message updates the Merchants front end order number with their backend order number in the Centinel system.
cmpi_payment_status	This message provides post payment status updates to the Merchant.

7.1 Lookup Message Integration

The Lookup Message (cmpi_lookup) is responsible for initiating the Order. The Lookup Message is constructed and sent to the Centinel platform for processing. The Lookup Message requires transaction specific data elements to be formatted on the request message. The following table displays the complete list of message elements.

The response message is returned from the Centinel platform, and the Merchant integration utilizes the Thin Client to reference the response values. In the event that the Enrolled value is Y the Cardinal **ACSUrl** will contain a fully qualified URL that the consumer must be redirected to in order to complete the transaction.

An important aspect of the Lookup message for Express Checkout payments is the TransactionAction field. This field defines how the Merchant will eventually request payment for the transaction. The possible field values are as follows:

- **Authorization** – Indicates that the payment will be authorized and captured via separate transactions. This is typically for those Merchants that use a delayed order fulfilment process. Merchants have the flexibility to adjust the original authorization amount up to 115 percent at time of capture.

Due to honor period restrictions, this field value should only be specified on the Lookup request if the capture transaction will be processed within 3 days of authorization. PayPal will guarantee funds availability within the 3 day honor period.

- **Order** – An order establishes a 29 day period when the Merchant can request an authorization to ensure the availability of funds. Once the authorization is processed against the order, the 3 day honor period begins.
- **Sale** – The request for payment will immediately charge the Consumer and credit the Merchant's account. The authorization and capture transactions are combined into a single transaction request. This field value should be used by those Merchants who are immediately offering the goods or services to the Consumer.

The Lookup response message is returned from the Centinel MAPS, and the Merchant invokes the Thin Client API to reference the response values. In the event that the Enrolled value is Y the ACSUrl element will contain a fully qualified URL that the consumer should be redirected to initiate the PayPal Express Checkout payment.

7.1.1 cmpi_lookup Request Message

Field Name	Description	Required	Field Definition
AllowNote	If set to Y, PayPal will allow the Customer to enter a note associated with the order. If Customer enters a note, the value will be returned in the ProcessorConsumerMessage field on the cmpi_authenticate response.	N	AN(1)

Field Name	Description	Required	Field Definition
	Possible Values: Y – PayPal will allow Customer to enter a note. N – PayPal will not provide the Customer the option to enter a note.		
Amount	Unformatted total transaction amount without any decimalization. Example: \$100.00= 10000 , \$123.67= 12367 , \$.99= 99	Y	N(20)
BillingAddress1	Consumer's billing address information.	N	AN(50)
BillingAddress2	Consumer's billing address information.	N	AN(50)
BillingCity	Consumer's city of their billing address.	N	AN(50)
BillingCountryCode	Consumer's alpha ISO 3166 country code of the billing address. Example: US - United States	N	AN(2)
BillingFirstName	Consumer's first name.	N	AN(50)
BillingLastName	Consumer's last name.	N	AN(50)
BillingPhone	Consumer's phone number for billing address. This should be unformatted without hyphens. Example: 555-555-5555= 5555555555	N	N(20)
BillingPostalCode	Consumer's postal code of their billing address.	N	AN(10)
BillingState	Consumer's state or province of their billing address. Example: Ohio= OH Texas= TX	N	AN(50)
BorderColor	The color is used on the payment page during the Updated PayPal Checkout experience. The value must be passed as a six-character HTML hexadecimal color code in ASCII.	N	AN(6)
CategoryCode	The value represents a term that best describes the type of goods or services being purchased by the Consumer.	N	AN(5)
CurrencyCode	3 digit numeric, ISO 4217 currency code for the amount. Example: 840- US	Y	N(3)
Email	Consumer's email address.	N	AN(255)
EmailOptinEnabled	Used for marketing emails. Possible Values: Y – Prompt Consumer to allow marketing materials to be sent N – Consumer will not be prompted	N	A(2)
ForceAddress	Indicates that you require the Consumer's shipping address on file with PayPal to be a confirmed address. Possible Values: Y – Require a Confirmed Address N – Not Require a Confirmed Address	N	AN(1)

Field Name	Description	Required	Field Definition
HandlingAmount	Unformatted handling amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
HeaderBackColor	The color of the header background that is displayed on the payment page. The value must be passed as a six-character HRML hexadecimal color code in ASCII.	N	AN(6)
HeaderBorderColor	The color of the border that is displayed around the header image on the payment page. The value must be passed as a six-character HTML hexadecimal color code in ASCII.	N	AN(6)
HeaderImage	The URL for the Merchant logo that will be displayed on the payment page. The maximum size is 750 pixels wide by 90 pixels high. It is recommended that the image is stored on a secure (https) server.	N	AN(127)
InsuranceAmount	Unformatted total amount of insurance for the order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
IPAddress	The IP Address of the Consumer NOTE: IPv4 and IPv6 are supported.	N	AN(50)
Item_Description_X	Brief description of item.	Y	AN(256)
Item_Name_X	Name of item purchased.	Y	AN(128)
Item_Price_X	Unformatted price of item X transaction amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	Y	N(20)
Item_Quantity_X	Number of items purchased.	Y	N(20)
Item_SKU_X	Item SKU number.	Y	AN(20)
ItemAmount	Unformatted total amount of items in order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
LandingPage	The type of PayPal page to display to the Consumer upon landing on the PayPal site. Possible Values: Billing – Non-PayPal account Login – PayPal account login	N	AN(7)
LocaleCode	Locale of pages displayed by PayPal during Express Checkout. Any two-character country code.	N	AN(2)
LogoURL	The URL for the Merchant logo that will be displayed on the payment page during the Updated PayPal Checkout experience. The maximum size is 190 pixels wide by 60 pixels high. It is recommended that the image is stored on a secure (https) server.	N	AN(127)
MerchantConsumerMessage	A message that is displayed to the Consumer on the payment page during the Updated PayPal Checkout experience.	N	AN(255)

Field Name	Description	Required	Field Definition
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MerchantProcessorAlias	This field contains the alias that will be used when processing transactions through multiple PayPal accounts. The value passed in the field must match a value that has been configured on the Merchant account within Centinel.	N	AN(50)
MsgType	cmpi_lookup	Y	AN(50)
NoShipping	Field controls how PayPal should handle the Consumer's shipping address. Possible Values: Y – Consumer will NOT be prompted for a shipping address. N – Consumer will be prompted to provide a shipping address.	N	AN(1)
OrderChannel	Specifies the order channel where the transaction was initiated. Possible Values: MARK - Transaction initiated from the payment page. CART - Transaction initiated from the cart page. CALLCENTER - Transaction initiated from the call center. WIDGET - Transaction initiated from the widget. PRODUCT - Transaction initiated from the product.	N	AN(16)
OrderDescription	Brief description of items purchased.	Y	AN(125)
OrderNumber	Order Number or transaction identifier from the Merchant website.	Y	AN(50)
OverrideAddress	Requests PayPal to display the shipping address information specified on the Lookup transaction. The address on file with PayPal will NOT be displayed. Possible Values: Y – Display the shipping address passed on the transaction. N – Allow PayPal to display the address on file. NOTE: Address override can make a transaction ineligible for PayPal's Seller Protection Policy.	N	AN(1)
OverrideCallbackTimeout	Overrides the callback timeout setting (in seconds) that is configured on your Centinel profile. The value must be between 1 and 6.	N	N(1)
OverrideCallbackURL	Overrides the callback URL setting that is configured on your Centinel profile.	N	AN(1024)
OverrideCheckoutType	Overrides the checkout type configured on your Centinel profile. Possible Values: Default – Full page redirect URL returned Mini Browser – Mini browser URL returned	N	AN(16)
OverrideShippingXML	Overrides the default shipping xml that is configured on your Centinel profile.	N	AN(7000)
PageStyle	Sets the Custom Payment Page Style for the page that will be displayed to the Consumer at PayPal. The value passed must be configured within the PayPal Merchant account prior to passing.	N	AN(30)

Field Name	Description	Required	Field Definition
PayflowColor	The color of the background used to display the payment page. The value must be passed as a six-character HRML hexadecimal color code in ASCII.	N	AN(6)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
ProductCode	Specifies the product code for the transaction. Possible Values: PHY - Physical Delivery CNC - Cash and Carry DIG - Digital Good SVC - Service TBD - Other	N	AN(3)
Recurring	Flag to specify if the Merchant and Consumer have agreed to recurring payments Possible Values: Y – Allow recurring payments N– No recurring payments	N	AN(1)
ShippingAddress1	Consumer’s shipping address information.	N	AN(50)
ShippingAddress2	Consumer’s shipping address information.	N	AN(50)
ShippingAmount	Unformatted shipping amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
ShippingCity	Consumer’s city of their shipping address.	N	AN(50)
ShippingCountryCode	Consumer's alpha ISO 3166 country code of the shipping address. Example: US - United States	N	AN(2)
ShippingDiscountAmount	Unformatted negative amount of the shipping discount associated with the order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
ShippingFirstName	Consumer’s first name.	N	AN(50)
ShippingLastName	Consumer’s last name.	N	AN(50)
ShippingPhone	Consumer’s phone number for shipping address. Unformatted phone without hyphens. Example: 555-555-5555= 5555555555	N	N(20)
ShippingPostalCode	Consumer’s postal code of their shipping address. Limit 10 characters.	N	AN(10)
ShippingState	Consumer’s state or province of their shipping address. Example: Ohio= OH	N	AN(50)

Field Name	Description	Required	Field Definition
	Texas= TX		
SolutionType	The type of checkout flow uses for express checkout transactions. Possible Values: Sole – Express Checkout for auctions Mark – Normal Express Checkout	N	AN(4)
TaxAmount	Unformatted tax amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
TotalType	Determines whether the label for the amount on the payment page will display as a total or an estimate. Possible Values: Estimated Total – Estimate label will display with the amount Total – Total label will display with the amount	N	AN(20)
TransactionAction	Transaction action identifier. The value identifies how the Express Checkout transaction will be processed. Default is Authorization. [Sale, Authorization, Order] Possible Values: Sale – Indicates a final sales transaction, and payment will be immediately requested. Authorization – Does not indicate a final sales, payment will be captured at a later time. Order – Allows for future authorization and capture processing.	Y	AN(20)
TransactionMode	Transaction mode identifier. Identifies the channel the transaction originates from. Possible Values: M – MOTO (Mail Order Telephone Order) R – Retail S – eCommerce P – Mobile Device T – Tablet	N	A(1)
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	Identifies the Transaction Type used for processing. Example: PP= PayPal Express Checkout	Y	AN(2)
UserAction	Specifies the flow the Customer will go through at PayPal during checkout. Possible Values: Commit – Customer will be displayed the total amount that they will be charged. Continue – Customer will not be displayed an amount. They will be displayed their total when they return back to the Merchant.	N	AN(8)

Field Name	Description	Required	Field Definition
UserSelectedFundingSource	Field used to notify PayPal that the Consumer selected PayPal Credit as their funding source. Example: FINANCE	N	AN(7)
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Lookup Request Message

```

<CardinalMPI>
  <Amount>11133</Amount>
  <BillingAddress1>123 Main Street</BillingAddress1>
  <BillingAddress2></BillingAddress2>
  <BillingCity>Cleveland</BillingCity>
  <BillingCountryCode>US</BillingCountryCode>
  <BillingFirstName>John</BillingFirstName>
  <BillingLastName>Consumer</BillingLastName>
  <BillingPostalCode>44111</BillingPostalCode>
  <BillingState>OH</BillingState>
  <CurrencyCode>840</CurrencyCode>
  <Email>johnconsumer@consumerdomain.com</EMail>
  <ForceAddress>Y</ForceAddress>
  <IPAddress> fe80:0:0:9d44:2007:c4ee:35f4</IPAddress>
  <Item_Desc_1>The simple MP3 player</Item_Name_1>
  <Item_Desc_2>The New 100GB Hard Drive</Item_Name_2>
  <Item_Name_1>2GB MP3 Player</Item_Name_1>
  <Item_Name_2>100GB Hard Drive</Item_Name_2>
  <Item_Price_1>1000</Item_Price_1>
  <Item_Price_2>500</Item_Price_2>
  <Item_Quantity_1>1</Item_Quantity_1>
  <Item_Quantity_2>1</Item_Quantity_2>
  <Item_SKU_1>112233</Item_SKU_1>
  <Item_SKU_2>444555666</Item_SKU_2>
  <MerchantId>713a</MerchantId>
  <MsgType>cmpi_lookup</MsgType>
  <OrderDescription>Sample Order...</OrderDescription>
  <OrderNumber>7417124386</OrderNumber>
  <ProcessorId>713</ProcessorId>
  <ShippingAddress1>123 Main Street</ShippingAddress1>
  <ShippingAddress2></ShippingAddress2>
  <ShippingCity>Cleveland</ShippingCity>
  <ShippingCountryCode>US</ShippingCountryCode>
  <ShippingFirstName>John</ShippingFirstName>
  <ShippingLastName>Consumer</ShippingLastName>
  <ShippingPostalCode>44111</ShippingPostalCode>
  <ShippingState>OH</ShippingState>
  <TransactionAction>Order</TransactionAction>
  <TransactionPwd>12345678</TransactionPwd>
  <Version>1.7</Version>
</CardinalMPI>

```

7.1.2 cmpi_lookup Response Message

Field Name	Description	Required	Field Definition
ACUrl	The fully qualified URL to redirect the consumer to complete the Consumer Authentication transaction. NOTE: Available if Enrolled= Y	N	AN(2083)
Enrolled	Status of Authentication eligibility. NOTE: If the Enrolled value is NOT Y, then the consumer is NOT eligible for Authentication. Possible Values: Y – Yes E – Error X – Cancelled	Y	AN(1)
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)
ErrorNo	Application error number(s). A non-zero value represents the error encountered while attempting to process the message request. NOTE: Multiple error numbers are separated by a comma	Y	AN(500)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
Payload	The encoded payment request information. NOTE: Available if Enrolled= Y	N	AN(7000)
ReasonCode	Reason Code(s) obtained from the processing network. In the event of a transaction failure or error, the field will provide the exact reason codes from the processing network. Example: 10002, 10004	N	AN(50)
ReasonDesc	Reason description obtained from the processing network. In the event of a transaction failure or error, the field will provide the reason description from the processing network.	N	AN(256)
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)

Sample Lookup Response Message

```
<CardinalMPI>
  <ACUrl><ACUrl>
  <Enrolled>Y</Enrolled>
  <ErrorDesc></ErrorDesc>
  <ErrorNo>0</ErrorNo>
  <OrderId>8740981481274966</OrderId>
  <Payload>713|713a|fYWjnDs77gpe9mI53S90</Payload>
  <TransactionId>fYWjnDs77gpe9mI53S90</TransactionId>
```

</CardinalMPI>

Processing the Response Message

Verify that the payment can be processed by evaluating the Enrolled element on the `cmpi_lookup` response message. In the event that the Enrolled element contains a Y value, the authentication or payment is available and the Consumer should be redirected to complete the transaction. The `ACSUrl` element contains the URL that the Consumer should be redirected to in order to initiate the next step of the transaction.

HTTP Post

Redirect the Consumer to the `ACSUrl` via a HTTP Form POST. Construct the following from populated with the values returned on the `cmpi_lookup` response message.

NOTE: The form field names are case sensitive

```
<HTML>
<BODY onload="document.frmLaunch.submit();">
  <FORM name="frmLaunch" method="POST" action="ACSUrl Value">
    <input type="hidden" name="PaReq" value="Payload Value">
    <input type="hidden" name="TermUrl" value="Fully Qualified URL">
    <input type="hidden" name="MD" value="Session Tracking Value">
  </FORM>
</BODY>
</HTML>
```

Form Field Descriptions

Field Name	Description
ACSUrl	The fully qualified URL to redirect the Consumer to complete authentication for PayPal payment. Value should be retrieved from the <code>ACSUrl</code> field of the <code>cmpi_lookup</code> response message and inserted into the form.
PaReq	The encoded payment request generated by the Centinel platform. Value should be retrieved from the <code>Payload</code> field of the <code>cmpi_lookup</code> response message and inserted into the form.
TermUrl	The fully qualified URL of the Merchant webpage configured to receive the Consumer returning from completing the PayPal transaction. This URL will represent the webpage that will process the <code>cmpi_authenticate</code> message.
MD	Merchant session tracking identifier. The value will be returned to the <code>TermUrl</code> when the Consumer is returned after completing authentication or PayPal payment. The field is available if necessary. If not needed, simply pass an empty value on the form. The field is limited to 255 characters.

7.2 Authenticate Message Integration

The Centinel platform will redirect the consumer back to the `TermUrl` representing a webpage on the Merchant's website. The Merchant will process the Authenticate message to retrieve the status of the transaction. This message will return a status of **pending** after the consumer has been successfully redirected back to Cardinal.

In the event the **ErrorNo** element is 0 (zero) then the **PAResStatus** value will define how the transaction should be processed. Based on the transaction outcome the Merchant's order management system should be updated and the appropriate message should be displayed to the consumer. If a non-zero **ErrorNo** value is returned, the consumer should be prompted for an alternate form of payment.

7.2.1 cmpi_authenticate Request Message

Field Name	Description	Required	Field Definition
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MsgType	cmpi_authenticate	Y	AN(50)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	Y	N(16)
PAResPayload	PARes generated by the external system that processed the PayPal transaction with the consumer.	Y	AN(10000)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	Identifies the Transaction Type used for processing. Example: PP = PayPal Express Checkout	Y	AN(2)
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Authenticate Request Message

```

<CardinalMPI>
  <MerchantId>713a</MerchantId>
  <MsgType>cmpi_authenticate</MsgType>
  <OrderId>8740981481274966</OrderId>
  <PAResPayload>713|713a|fYWjnDs77gpe9ml53S90</PAResPayload>
  <ProcessorId>713</ProcessorId>
  <TransactionPwd>12345678</TransactionPwd>
  <TransactionType>PP</TransactionType>
  <Version>1.7</Version>
</CardinalMPI>

```

7.2.2 cmpi_authenticate Response Message

Field Name	Description	Required	Field Definition
CartChangeTolerance	If “None”, then the cart may not be modified by the buyer. If “Flexible”, the cart value may change. “Flexible” will always be returned for U.S. and U.K. Merchants.	N	AN(20)
CurrencyCode	3 digit numeric, ISO 4217 currency code for the amount. Example: 840- US NOTE: This field is applicable when using PayPal callbacks.	N	N(3)
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)

Field Name	Description	Required	Field Definition
ErrorNo	Application error number(s). A non-zero value represents the error encountered while attempting to process the message request. NOTE: Multiple error numbers are separated by a comma.	Y	AN(500)
FinancingFeeAmount	This will be set to the financing fee amount which is the same as the estimated cost of credit or the amount of interest fees the buyer must pay during the lifetime of the loan. This field will only be included in Easy Payments credit orders. In the case of other offers, this will be set to "0". NOTE: Easy Payments functionality is a promotional financing product available via a second PayPal Credit button placed on your checkout or payment page. This feature can be leveraged from the standard Express Checkout experience. To enable Easy Payments please contact your PayPal account representative for permission to use this product.	N	N(50)
FinancingMonthlyPayment	This is the estimated amount per month that the Customer will need to pay including fees and interest.	N	N(50)
FinancingTerm	This indicates the payment term. Example: 6, 12, 18, or 24 months	N	N(3)
FinancingTotalCost	This is the estimated total payment amount including interest and fees the user will pay during the lifetime of the loan.	N	N(50)
HandlingAmount	Unformatted handling amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99 NOTE: This field is applicable when using PayPal callbacks	N	AN(10)
InsuranceAmount	Unformatted insurance amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99 NOTE: This field is applicable when using PayPal callbacks	N	AN(10)
InsuranceSelected	Provides information as to whether insurance was selected by the Customer at PayPal. Possible Values: Y – Insurance was selected by the Customer at PayPal N- Insurance was not selected by the Customer at PayPal NOTE: This field is applicable when using PayPal callbacks	N	AN(1)
IsFinancing	This will be set to "TRUE" if the buyer ultimately was approved for and chose to make a payment using a Merchant-funded credit option.	N	AN(20)
ItemAmount	Unformatted item amount without any decimalization.	N	AN(10)

Field Name	Description	Required	Field Definition
	<p>Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99</p> <p>NOTE: This field is applicable when using PayPal callbacks</p>		
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	Y	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
OrderTotal	Unformatted total order amount without any decimalization.	N	AN(10)
	<p>Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99</p>		
PResStatus	<p>Transaction status result identifier.</p> <p>Possible Values: Y - Transaction Successful P - Transaction Pending N - Transaction was Declined X - Transaction was Canceled U - Payment Brand is unavailable E - Transaction resulted in Error</p>	Y	AN(2)
Processor ShippingAddress1	Address information.	N	AN(200)
Processor ShippingAddress2	Address information.	N	AN(200)
ProcessorBillingAddress1	Address information.	N	AN(100)
ProcessorBillingAddress2	Address information.	N	AN(100)
ProcessorBillingAddressStatus	<p>PayPal Consumer Billing Address Status [None, Confirmed, Unconfirmed]</p> <p>Possible Values: Confirmed – Customer provided a billing address that has been confirmed by PayPal. Unconfirmed – Customer provided an unconfirmed address. None – No status.</p>	N	AN(50)
ProcessorBillingCity	Consumer's city of the billing address.	N	AN(50)
ProcessorBillingCountryCode	<p>Consumer's country code of the billing address. Alpha ISO 3166</p> <p>Example: US - United States</p>	N	AN(3)
ProcessorBillingFullName	Name associated with the billing address.	N	AN(128)
ProcessorBillingPhone	Billing phone number linked to Consumer's PayPal account.	N	AN(20)
ProcessorBillingPostalCode	Address postal code.	N	AN(20)
ProcessorBillingState	Consumer's state or province of the billing address.	N	AN(50)
ProcessorConsumerMessage	Contains message from Customer that is being returned from the payment processor.	N	AN(255)

Field Name	Description	Required	Field Definition
ProcessorMarketingEmail	This field will contact the email address the Consumer selected when opting in to receive marketing communication from the Merchant.	N	AN(50)
ProcessorMerchantCallbackSuccess	Provides information as to whether the callback was used to determine the amounts at PayPal. Possible Values: True – Callback was used to determine amounts at PayPal. False – Default information was used to determine amounts at PayPal. NOTE: This field is applicable when using PayPal callbacks	N	AN(5)
ProcessorShippingAddressStatus	PayPal Consumer Shipping Address Status [None, Confirmed, Unconfirmed] Possible Values: Confirmed – Customer provided a shipping address that matches a billing address on record with PayPal and that billing address has been verified by AVS. Unconfirmed – Customer provided an unconfirmed address. None – No status.	N	AN(50)
ProcessorShippingCity	Consumer's city of the shipping address.	N	AN(50)
ProcessorShippingCountryCode	Consumer's country code of the shipping address. Alpha ISO 3166. Example: US - United States	N	AN(3)
ProcessorShippingFullName	Name associated with the shipping address.	N	AN(128)
ProcessorShippingPhone	Phone number provided by Consumer at PayPal.	N	NA(50)
ProcessorShippingPostalCode	Address postal code.	N	AN(20)
ProcessorShippingState	Consumer's state or province of the shipping address.	N	AN(50)
ProcessorUserEmail	Email address of the Consumer used at PayPal.	N	AN(255)
ProcessorUserFirstName	First name of the person associated with the PayPal account.	N	AN(64)
ProcessorUserId	Payer Id assigned to the Consumer by PayPal.	N	AN(130)
ProcessorUserLastName	Last name of the person associated with the PayPal account.	N	AN(64)
ProcessorUserStatus	PayPal Consumer Status Verified, Unverified Possible Values: Verified – Consumer has been verified by PayPal Unverified – Consumer has not been verified by PayPal	N	AN(20)
ReasonCode	Reason Code(s) obtained from the processing network. In the event of a transaction failure or error, the field will provide the exact reason codes from the processing network. Example: 10002, 10004	N	AN(50)

Field Name	Description	Required	Field Definition
ReasonDesc	Reason description obtained from the processing network. In the event of a transaction failure or error, the field will provide the reason description from the processing network.	N	AN(256)
ShippingAmount	Unformatted shipping amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99 NOTE: This field is applicable when using PayPal callbacks	N	AN(10)
ShippingMethod	Name of the shipping method that was selected by the Customer at PayPal. NOTE: This field is applicable when using PayPal callbacks	N	AN(50)
ShippingPromotionAmount	Unformatted shipping promotion amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99. NOTE: This field is applicable when using PayPal callbacks	N	AN(10)
SignatureVerification	Transaction Signature status identifier. Possible Values: Y - Indicates that the signature of the data returned was verified and can be trusted. N – Indicates that the signature of the data returned could not be verified and cannot be trusted.	Y	AN(2)
TaxAmount	Unformatted tax amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99 NOTE: This field is applicable when using PayPal callbacks	N	AN(10)
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)

Sample Authenticate Response Message

<CardinalMPI>

<ErrorDesc></ErrorDesc>

<ErrorNo>0</ErrorNo>

<OrderId>8740981481274966</OrderId>

<PResStatus>Y</PResStatus>

<ProcessorShippingAddress1></ProcessorShippingAddress1>

<ProcessorShippingAddress2></ProcessorShippingAddress2>

<ProcessorShippingAddressStatus>Unconfirmed</ProcessorShippingAddressStatus>

<ProcessorShippingCity></ProcessorShippingCity>

<ProcessorShippingCountryCode></ProcessorShippingCountryCode>

<ProcessorShippingFullName></ProcessorShippingFullName>

<ProcessorShippingPostalCode></ProcessorShippingPostalCode>

<ProcessorShippingState></ProcessorShippingState>

```
<ProcessorUserStatus>Verified</ProcessorUserStatus>
<SignatureVerification>Y</SignatureVerification>
</CardinalMPI>
```

7.3 Order Message Integration

The Order message (cmpi_order) is responsible for creating an Express Checkout order when TransactionAction=Order. Once completed, the order amount can be authorized and then captured at a later point in time. The 29 day order period will begin once the Order message is processed.

NOTE: The successful completion of the Order message does not hold funds on the Consumer's PayPal account. Funds are not held until an Authorization is later performed on the order.

Once the merchant is ready to perform the actual authorization of funds, an Authorization message should be processed referencing the original order **OrderId**. This authorization request checks the availability of the Consumer's funds to obtain an honor period for capture/settlement. Every successful authorization includes an honor period of 3 days. PayPal honors the complete authorization amount for settlement within the 3 day period.

7.3.1 cmpi_order Request Message

Field Name	Description	Required	Field Definition
Amount	Unformatted total transaction amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	Y	N(20)
BillingAddress1	Consumer's billing address information	N	AN(50)
BillingAddress2	Consumer's billing address information	N	AN(50)
BillingCity	Consumer's city of the billing address.	N	AN(50)
BillingCountryCode	Consumer's alpha ISO 3166 country code of the billing address. Example: US - United States	N	AN(3)
BillingFirstName	Consumer's first name.	N	AN(50)
BillingLastName	Consumer's last name.	N	AN(50)
BillingMiddleName	Consumer's middle name.	N	AN(50)
BillingPhone	Consumer's phone number for billing address. This should be unformatted without hyphens. Example: 555-555-5555= 5555555555	N	N(20)
BillingPostalCode	Address postal code.	N	AN(10)
BillingState	Consumer's state or province of their billing address.	N	AN(50)
CurrencyCode	3 digit numeric, ISO 4217 currency code for the amount. Example: 840- US	Y	N(3)
Email	Consumer's Email address.	N	AN(255)
HandlingAmount	Unformatted handling amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)

Field Name	Description	Required	Field Definition
InsuranceAmount	Unformatted total amount of insurance for the order without decimalization. Example: \$100.00 = 10000, \$123.67 = 12367, \$.99 = 99	N	N(20)
IPAddress	The IP Address of the consumer. NOTE: IPv4 and IPv6 are supported	N	AN(50)
Item_Desc_X	Brief description of item.	N	AN(256)
Item_Name_X	Name of item purchased.	N	AN(128)
Item_Price_X	Unformatted price of item X transaction amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
Item_Quantity_X	Number of items purchased.	N	N(20)
Item_SKU_X	Item SKU number.	N	AN(20)
ItemAmount	Unformatted total amount of items in order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MsgType	cmpi_order	Y	AN(50)
OrderDescription	Brief description of item.	Y	AN(125)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	Y	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	Y	AN(50)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
ShippingAddress1	Consumer's shipping address information	N	AN(50)
ShippingAddress2	Consumer's shipping address information	N	AN(50)
ShippingAmount	Unformatted shipping amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
ShippingCity	Consumer's city of the shipping address.	N	AN(50)
ShippingCountryCode	Consumer's alpha ISO 3166 country code of the shipping address. Example: US - United States	N	AN(3)
ShippingDiscountAmount	Unformatted negative amount of the shipping discount associated with the order without any decimalization.	N	N(20)

Field Name	Description	Required	Field Definition
	Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99		
ShippingFirstName	Consumer's first name.	N	AN(50)
ShippingLastName	Consumer's last name.	N	AN(50)
ShippingMiddleName	Consumer's middle name.	N	AN(50)
ShippingPhone	Consumer's phone number for shipping address. This should be unformatted without hyphens. Example: 555-555-5555= 5555555555	N	N(20)
ShippingPostalCode	Address postal code.	N	AN(10)
ShippingState	Consumer's state or province of their shipping address.	N	AN(50)
TaxAmount	Unformatted tax amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	Identifies the Transaction Type used for processing. Example: PP= PayPal Express Checkout	Y	AN(2)
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Order Request Message

<CardinalMPI>

```

<Amount>11133</Amount>
<BillingAddress1>123 Main Street</BillingAddress1>
<BillingAddress2></BillingAddress2>
<BillingCity>Cleveland</BillingCity>
<BillingCountryCode>US</BillingCountryCode>
<BillingFirstName>John</BillingFirstName>
<BillingLastName>Consumer</BillingLastName>
<BillingPostalCode>44111</BillingPostalCode>
<BillingState>OH</BillingState>
<CurrencyCode>840</CurrencyCode>
<EMail>johnconsumer@consumerdomain.com</EMail>
<IPAddress>fe80:0:0:0:9d44:2007:c4ee:35f4</IPAddress>
<Item_Desc_1>The simple MP3 player</Item_Desc_1>
<Item_Desc_2>The New 100GB Hard Drive</Item_Desc_2>
<Item_Name_1>2GB MP3 Player</Item_Name_1>
<Item_Name_2>100GB Hard Drive</Item_Name_2>
<Item_Price_1>1000</Item_Price_1>
<Item_Price_2>500</Item_Price_2>
<Item_Quantity_1>1</Item_Quantity_1>
<Item_Quantity_2>1</Item_Quantity_2>
<Item_SKU_1>112233</Item_SKU_1>

```

```

<Item_SKU_2>444555666</Item_SKU_2>
<MerchantId>713a</MerchantId>
<MsgType>cmpi_order</MsgType>
<OrderDescription>Sample Order...</OrderDescription>
<OrderId>8740981481274966</OrderId>
<OrderNumber>8740981481274966</OrderNumber>
<ProcessorId>713</ProcessorId>
<ShippingAddress1>123 Main Street</ShippingAddress1>
<ShippingAddress2></ShippingAddress2>
<ShippingCity>Cleveland</ShippingCity>
<ShippingCountryCode>US</ShippingCountryCode>
<ShippingFirstName>John</ShippingFirstName>
<ShippingLastName>Consumer</ShippingLastName>
<ShippingPostalCode>44111</ShippingPostalCode>
<ShippingState>OH</ShippingState>
<TransactionPwd>12345678</TransactionPwd>
<TransactionType>PP</TransactionType>
<Version>1.7</Version>
</CardinalMPI>

```

7.3.2 cmpi_order Response Message

Field Name	Description	Required	Field Definition
EligibleForProtection	<p>The type of protection assigned to the transaction by PayPal.</p> <p>Possible Values: True – Seller is protected by PayPal’s Seller Protection Policy for Unauthorized Payments and Item not Received. Conditional – Seller is protected by PayPal’s Seller Protection Policy for Item not Received. False – Sell not protected under PayPal’s Seller Protection Policy</p>	N	AN(20)
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)
ErrorNo	<p>Application error number(s). A non-zero value represents the error encountered while attempting to process the message request.</p> <p>NOTE: Multiple error numbers are separated by a comma.</p>	Y	AN(500)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
ProcessorOrderNumber	Contains the transaction identifier returned from the processing network.	N	AN(20)
ProcessorTransactionId	Transaction identifier returned from the Payment Processor.	N	AN(50)
ReasonCode	<p>Reason Code(s) obtained from the processing network. In the event of a transaction failure or error, the field will provide the exact reason codes from the processing network.</p> <p>Example: 10002, 10004</p>	N	AN(50)

Field Name	Description	Required	Field Definition
ReasonDesc	Reason description obtained from the processing network. In the event of a transaction failure or error, the field will provide the reason description from the processing network.	N	AN(256)
StatusCode	Displays status of transaction. Possible Values: Y – Completed P – Pending X – Canceled N – Declined E – Error	Y	AN(4)
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)

Sample Order Response Message

```
<CardinalMPI>
  <ErrorDesc></ErrorDesc>
  <ErrorNo>0</ErrorNo>
  <OrderId>8740981481274966</OrderId>
  <ReasonCode></ReasonCode>
  <ReasonDesc></ReasonDesc>
  <StatusCode>Y</StatusCode>
  <TransactionId>ai846jdRRxkDUU03IYq0</TransactionId>
</CardinalMPI>
```

7.4 Authorize Message Integration

The Authorize message (cmpi_authorize) can be used to retrieve the status of the transaction for order management systems that require authorization/capture models for processing orders. The Authorize request must reference a transaction already processed by the system identified by the **OrderId** field. This message will return a success if the payment has been successfully processed. The message will return an error if the transaction has not been successfully completed.

7.4.1 cmpi_authorize Request Message

Field Name	Description	Required	Field Definition
Amount	Unformatted total transaction amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	Y	N(20)
BillingAddress1	Consumer's billing address information	N	AN(50)
BillingAddress2	Consumer's billing address information	N	AN(50)
BillingCity	Consumer's city of the billing address.	N	AN(50)
BillingCountryCode	Consumer's alpha ISO 3166 country code of the billing address. Example: US - United States	N	AN(3)
BillingFirstName	Consumer's first name.	N	AN(50)
BillingLastName	Consumer's last name.	N	AN(50)

Field Name	Description	Required	Field Definition
BillingMiddleName	Consumer's middle name.	N	AN(50)
BillingPhone	Consumer's phone number for billing address. This should be unformatted without hyphens. Example: 555-555-5555= 5555555555	N	N(20)
BillingPostalCode	Address postal code.	N	AN(10)
BillingState	Consumer's state or province of their billing address. Example: Ohio= OH Texas= TX	N	AN(50)
CurrencyCode	3 digit numeric, ISO 4217 currency code for the amount. Example: 840- US	Y	N(3)
Email	Consumer's Email address.	N	AN(255)
HandlingAmount	Unformatted handling amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
InsuranceAmount	Unformatted total amount of insurance for the order without decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
IPAddress	The IP Address of the Consumer. NOTE: IPv4 and IPv6 are supported	N	AN(50)
Item_Desc_X	Brief description of item.	N	AN(256)
Item_Name_X	Name of item purchased.	N	AN(128)
Item_Price_X	Unformatted price of item X transaction amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
Item_Quantity_X	Number of items purchased.	N	N(20)
Item_SKU_X	Item SKU number.	N	AN(20)
ItemAmount	Unformatted total amount of items in order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)

Field Name	Description	Required	Field Definition
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MsgSubId	<p>A unique request identifier that is used during timeout retry processing. When a timeout occurs, the request can be submitted again using the same MsgSubId value from the original request.</p> <p>If the transaction has already completed successfully, then PayPal will echo back the original response.</p> <p>If the transaction was not successful, PayPal will attempt to process it again.</p> <p>NOTE: The following ReasonCode values should be handled when using retry logic: 11607- Duplicate request for specified Message Submission ID 11604- Request for Message Submission ID already in progress</p>	N	AN(50)
MsgType	cmpi_authorize	Y	AN(50)
OrderDescription	Brief description of item.	Y	AN(125)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	Y	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	Y	AN(50)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
ShippingAddress1	Consumer's shipping address information	N	AN(50)
ShippingAddress2	Consumer's shipping address information	N	AN(50)
ShippingAmount	<p>Unformatted shipping amount of order without any decimalization.</p> <p>Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99</p>	N	N(20)
ShippingCity	Consumer's city of the shipping address.	N	AN(50)
ShippingCountryCode	<p>Consumer's alpha ISO 3166 country code of the shipping address.</p> <p>Example: US - United States</p>	N	AN(3)
ShippingDiscountAmount	<p>Unformatted negative amount of the shipping discount associated with the order without any decimalization.</p> <p>Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99</p>	N	N(20)
ShippingFirstName	Consumer's first name.	N	AN(50)
ShippingLastName	Consumer's last name.	N	AN(50)
ShippingMiddleName	Consumer's middle name.	N	AN(50)

Field Name	Description	Required	Field Definition
ShippingPhone	Consumer's phone number for shipping address. This should be unformatted without hyphens. Example: 555-555-5555= 5555555555	N	N(20)
ShippingPostalCode	Address postal code.	N	AN(10)
ShippingState	Consumer's state or province of their shipping address.	N	AN(50)
TaxAmount	Unformatted tax amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	Identifies the Transaction Type used for processing. Example: PP= PayPal Express Checkout	Y	AN(2)
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Authorize Request Message

<CardinalMPI>

```

<Amount>11133</Amount>
<BillingAddress1>123 Main Street</BillingAddress1>
<BillingAddress2></BillingAddress2>
<BillingCity>Cleveland</BillingCity>
<BillingCountryCode>US</BillingCountryCode>
<BillingFirstName>John</BillingFirstName>
<BillingLastName>Consumer</BillingLastName>
<BillingPostalCode>44111</BillingPostalCode>
<BillingState>OH</BillingState>
<CurrencyCode>840</CurrencyCode>
<EMail>johnconsumer@consumerdomain.com</EMail>
<IPAddress>fe80:0:0:9d44:2007:c4ee:35f4</IPAddress>
<Item_Desc_1>The simple MP3 player</Item_Desc_1>
<Item_Desc_2>The New 100GB Hard Drive</Item_Desc_2>
<Item_Name_1>2GB MP3 Player</Item_Name_1>
<Item_Name_2>100GB Hard Drive</Item_Name_2>
<Item_Price_1>1000</Item_Price_1>
<Item_Price_2>500</Item_Price_2>
<Item_Quantity_1>1</Item_Quantity_1>
<Item_Quantity_2>1</Item_Quantity_2>
<Item_SKU_1>112233</Item_SKU_1>
<Item_SKU_2>444555666</Item_SKU_2>
<MerchantId>713a</MerchantId>
<MsgType>cmpi_authorize</MsgType>
<OrderDescription>Order #182397541265</OrderDescription>
<OrderId>8740981481274966</OrderId>

```

```

<OrderNumber>7417124386</OrderNumber>
<ProcessorId>713</ProcessorId>
<ShippingAddress1>123 Main Street</ShippingAddress1>
<ShippingAddress2></ShippingAddress2>
<ShippingCity>Cleveland</ShippingCity>
<ShippingCountryCode>US</ShippingCountryCode>
<ShippingFirstName>John</ShippingFirstName>
<ShippingLastName>Consumer</ShippingLastName>
<ShippingPostalCode>44111</ShippingPostalCode>
<ShippingState>OH</ShippingState>
<TransactionPwd>12345678</TransactionPwd>
<TransactionType>PP</TransactionType>
<Version>1.7</Version>
</CardinalMPI>

```

7.4.2 cmpi_authorize Response Message

Field Name	Description	Required	Field Definition
ACSUrl	The fully qualified URL to redirect the consumer to complete the Consumer Authentication transaction. NOTE: Available if Enrolled= Y	N	AN(2083)
AuthorizationCode	Authorization identifier returned from the processing network.	N	AN(6)
EligibleForProtection	The type of protection assigned to the transaction by PayPal. Possible Values: True – Seller is protected by PayPal’s Seller Protection Policy for Unauthorized Payments and Item not Received. Conditional – Seller is protected by PayPal’s Seller Protection Policy for Item not Received. False – Sell not protected under PayPal’s Seller Protection Policy	N	AN(20)
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)
ErrorNo	Application error number(s). A non-zero value represents the error encountered while attempting to process the message request. NOTE: Multiple error numbers are separated by a comma.	Y	AN(500)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
Payload	The encoded payment request information. NOTE: Available if Enrolled= y. NOTE: This field will be conditionally returned in the response if the ReasonCode= 10486 or 10422	N	AN(7000)
ProcessorOrderNumber	Contains the transaction identifier returned from the processing network.	N	AN(20)
ProcessorTransactionId	Transaction identifier returned from the Payment Processor.	N	AN(50)

Field Name	Description	Required	Field Definition
ReasonCode	Reason Code(s) obtained from the processing network. In the event of a transaction failure or error, the field will provide the exact reason codes from the processing network. Example: 10002, 10004	N	AN(50)
ReasonDesc	Reason description obtained from the processing network. In the event of a transaction failure or error, the field will provide the reason description from the processing network.	N	AN(256)
StatusCode	Displays status of transaction. Possible Values: Y – Completed P – Pending X – Canceled N – Declined E – Error	Y	AN(4)
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)

Sample Authorize Response Message

```

<CardinalMPI>
  <AuthorizationCode>AE12FJ</AuthorizationCode>
  <ErrorDesc></ErrorDesc>
  <ErrorNo>0</ErrorNo>
  <OrderId>8902810382204711</OrderId>
  <ReasonCode>10002,10004</ReasonCode>
  <ReasonDesc></ReasonDesc>
  <StatusCode>Y</StatusCode>
  <TransactionId>LpVA1U7PHIHP7dasV1Qq</TransactionId>
</CardinalMPI>

```

7.5 Capture Message Integration

The Capture message is used to retrieve the status of the transaction for Order Management systems that require an authorization/capture model for processing orders. The Capture request must reference a transaction already processed by the system identified by the **OrderId** field.

7.5.1 cmpi_capture Request Message

Field Name	Description	Required	Field Definition
Amount	Unformatted total transaction amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	Y	N(20)
AuthorizationCode	Authorization identifier returned from the processing network.	N	AN(6)
Capture Type	Capture type identifier. Possible Values: Complete – Indicates that the order will be completely settled by the specified amount. Identifies this transaction as the last	N	AN(12)

Field Name	Description	Required	Field Definition
	capture against the order. No further authorizations or captures can be performed against the order. NotComplete – Indicates that this transaction and additional capture transactions will be executed against the order. Partial capture enables split-shipment orders. Default is NotComplete.		
CurrencyCode	3 digit numeric, ISO 4217 currency code for the amount. Example: 840- US	Y	N(3)
Description	Brief description of item.	N	AN(125)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MsgType	cmpi_capture	Y	AN(50)
MsgSubId	A unique request identifier that is used during timeout retry processing. When a timeout occurs, the request can be submitted again using the same MsgSubId value from the original request. If the transaction has already completed successfully, then PayPal will echo back the original response. If the transaction was not successful, PayPal will attempt to process it again. NOTE: The following ReasonCode values should be handled when using retry logic: 11607- Duplicate request for specified Message Submission ID 11604- Request for Message Submission ID already in progress	N	AN(50)
OrderId	Centinel generated order identifier. The value should correspond to the OrderId value returned on cmpi_lookup response transaction.	Y	N(16)
OrderNumber	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	AN(50)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	Identifies the Transaction Type used for processing. Example: PP= PayPal Express Checkout	Y	AN(2)
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Capture Request Message

```

<CardinalMPI>
  <Amount>11133</Amount>
  <AuthorizationCode>71Q4K7</AuthorizationCode>
  <CurrencyCode>840</CurrencyCode>
  <Description>Goods Shipped to Consumer</Description>
  <MerchantId>713a</MerchantId>
  <MsgType>cmpi_capture</MsgType>
  <OrderId>8740981481274966</OrderId>
  <ProcessorId>713</ProcessorId>
  <TransactionPwd>12345678</TransactionPwd>
  <TransactionType>PP</TransactionType>
  <Version>1.7</Version>
</CardinalMPI>

```

7.5.2 cmpi_capture Response Message

Field Name	Description	Required	Field Definition
EligibleForProtection	The type of protection assigned to the transaction by PayPal. Possible Values: True – Seller is protected by PayPal’s Seller Protection Policy for Unauthorized Payments and Item not Received. Conditional – Seller is protected by PayPal’s Seller Protection Policy for Item not Received. False – Sell not protected under PayPal’s Seller Protection Policy	N	AN(20)
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)
ErrorNo	Application error number(s). A non-zero value represents the error encountered while attempting to process the message request. NOTE: Multiple error numbers are separated by a comma	Y	AN(500)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
ProcessorOrderNumber	Contains the transaction identifier returned from the processing network.	N	AN(20)
ProcessorTransactionId	Transaction identifier returned from the Payment Processor.	N	AN(50)
ReasonCode	Reason Code(s) obtained from the processing network. In the event of a transaction failure or error, the field will provide the exact reason codes from the processing network. Example: 10002, 10004	N	AN(50)
ReasonDesc	Reason description obtained from the processing network. In the event of a transaction failure or error, the field will provide the reason description from the processing network.	N	AN(256)
StatusCode	Displays status of transaction. Possible Values:	Y	AN(1)

Field Name	Description	Required	Field Definition
	Y – Completed P – Pending X – Canceled N – Declined E – Error		
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)

Sample Capture Response Message

```
<CardinalMPI>
  <ErrorDesc></ErrorDesc>
  <ErrorNo>0</ErrorNo>
  <OrderId>8740981481274966</OrderId>
  <ReasonCode></ReasonCode>
  <ReasonDesc></ReasonDesc>
  <StatusCode>Y</StatusCode>
  <TransactionId>aasu8ba48mZMA4uixYL0</TransactionId>
</CardinalMPI>
```

7.6 Reauthorization Message Integration

The Reauthorization message (cmpi_reauthorize) is responsible for re-establishing a 3 day honor period for settling funds. To process the reauthorization request, the merchant is required to have previously executed an authorization, and the original 29 day authorization period must not have expired.

Each authorization is eligible for a single reauthorization. Reauthorized transactions can be authorized for a higher amount, up to 115 percent of the original transaction, however not to exceed an increase of 75.00 USD.

7.6.1 cmpi_reauthorize Request Message

Field Name	Description	Required	Field Definition
Amount	Unformatted total transaction amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	Y	N(20)
AuthorizationCode	Authorization identifier returned from the processing network.	N	AN(6)
CurrencyCode	3 digit numeric, ISO 4217 currency code for the amount. Example: 840- US	Y	N(3)
Description	Brief description of item.	N	AN(125)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MsgType	cmpi_reauthorize	Y	AN(50)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	Y	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)

Field Name	Description	Required	Field Definition
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	Identifies the Transaction Type used for processing. Example: PP= PayPal Express Checkout	Y	AN(2)
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Reauthorize Request Message

<CardinalMPI>

<Amount>11133</Amount>

<CurrencyCode>840</CurrencyCode>

<MerchantId>713a</MerchantId>

<MsgType>cmpi_reauthorize</MsgType>

<OrderId>8740981481274966</OrderId>

<ProcessorId>713</ProcessorId>

<TransactionPwd>12345678</TransactionPwd>

<TransactionType>PP</TransactionType>

<Version>1.7</Version>

</CardinalMPI>

7.6.2 cmpi_reauthorize Response Message

Field Name	Description	Required	Field Definition
AuthorizationCode	Authorization identifier returned from the processing network.	N	AN(6)
EligibleForProtection	The type of protection assigned to the transaction by PayPal. Possible Values: True – Seller is protected by PayPal’s Seller Protection Policy for Unauthorized Payments and Item not Received. Conditional – Seller is protected by PayPal’s Seller Protection Policy for Item not Received. False – Sell not protected under PayPal’s Seller Protection Policy	N	AN(20)
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)
ErrorNo	Application error number(s). A non-zero value represents the error encountered while attempting to process the message request. NOTE: Multiple error numbers are separated by a comma	Y	AN(500)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
ProcessorOrderNumber	Contains the transaction identifier returned from the processing network.	N	AN(20)

Field Name	Description	Required	Field Definition
ProcessorTransactionId	Transaction identifier returned from the Payment Processor.	N	AN(50)
ReasonCode	Reason Code(s) obtained from the processing network. In the event of a transaction failure or error, the field will provide the exact reason codes from the processing network. Example: 10002, 10004	N	AN(50)
ReasonDesc	Reason description obtained from the processing network. In the event of a transaction failure or error, the field will provide the reason description from the processing network.	N	AN(256)
StatusCode	Displays status of transaction. Possible Values: Y – Completed P – Pending X – Canceled N – Declined E – Error	Y	AN(4)
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)

Sample Reauthorize Response Message

```

<CardinalMPI>
  <AuthorizationCode>71Q4K7</AuthorizationCode>
  <ErrorDesc></ErrorDesc>
  <ErrorNo>0</ErrorNo>
  <OrderId>8740981481274966</OrderId>
  <ReasonCode></ReasonCode>
  <ReasonDesc></ReasonDesc>
  <StatusCode>Y</StatusCode>
  <TransactionId>ai846jdRRxkDUU03IYq0</TransactionId>
</CardinalMPI>

```

7.7 Refund Message Integration

The Refund message is responsible for crediting the consumer some or all of the original payment amount from the corresponding transaction. Multiple refunds can be processed against the original transaction. The **OrderId** field returned in the Lookup response must be passed in the **OrderId** field of the Refund request in order for the transaction to process successfully.

7.7.1 cmpi_refund Request Message

Field Name	Description	Required	Field Definition
Amount	Unformatted total transaction amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	Y	N(20)
CurrencyCode	3 digit numeric, ISO 4217 currency code for the sale amount. Example: 840 - US	Y	N(3)
Description	Brief description of item.	N	AN(125)

Field Name	Description	Required	Field Definition
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MsgSubId	<p>A unique request identifier that is used during timeout retry processing. When a timeout occurs, the request can be submitted again using the same MsgSubId value from the original request.</p> <p>If the transaction has already completed successfully, then PayPal will echo back the original response.</p> <p>If the transaction was not successful, PayPal will attempt to process it again.</p> <p>NOTE: The following ReasonCode values should be handled when using retry logic: 11607- Duplicate request for specified Message Submission ID 11604- Request for Message Submission ID already in progress</p>	N	AN(50)
MsgType	cmpi_refund	Y	AN(50)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	Y	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
Reason	<p>Brief reason of cancel.</p> <p>Possible Values: Other - Default NoInventory CustomerReturn GeneralAdjustment CouldNotShip DifferentItem Abandoned CustomerCancel PriceError ProductOutOfStock CustomerAddressIncorrect Exchange RiskAssessmentInformationNotValid CarrierCoverageFailure TransactionRecord</p>	N	AN(125)
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	<p>Identifies the Transaction Type used for processing.</p> <p>Example: PP= PayPal Express Checkout</p>	Y	AN(2)

Field Name	Description	Required	Field Definition
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Refund Request Message

```

<CardinalMPI>
  <Amount>11133</Amount>
  <CurrencyCode>840</CurrencyCode>
  <Description>Refund Description</Description>
  <MerchantId>713a</MerchantId>
  <MsgType>cmpi_refund</MsgType>
  <OrderId>8740579536571426</OrderId>
  <ProcessorId>713</ProcessorId>
  <TransactionPwd>12345678</TransactionPwd>
  <TransactionType>PP</TransactionType>
  <Version>1.7</Version>
</CardinalMPI>

```

7.7.2 cmpi_refund Response Message

Field Name	Description	Required	Field Definition
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)
ErrorNo	Application error number(s). A non-zero value represents the error encountered while attempting to process the message request. NOTE: Multiple error numbers are separated by a comma	Y	AN(500)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
OrderId	Centinel generated order identifier.	N	N(16)
OrderNumber	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	AN(50)
ProcessorOrderNumber	Contains the transaction identifier returned from the processing network.	N	AN(20)
ProcessorTransactionId	Transaction identifier returned from the Payment Processor.	N	AN(50)
ReasonCode	Reason Code(s) obtained from the processing network. In the event of a transaction failure or error, the field will provide the exact reason codes from the processing network. Example: 10002, 10004	N	AN(50)
ReasonDesc	Reason description obtained from the processing network. In the event of a transaction failure or error, the field will provide the reason description from the processing network.	N	AN(256)
StatusCode	Displays status of transaction. Possible Values: Y – Completed P – Pending X – Canceled N – Declined	Y	AN(1)

Field Name	Description	Required	Field Definition
	E – Error		
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)

Sample Refund Response Message

```

<CardinalMPI>
  <ErrorDesc></ErrorDesc>
  <ErrorNo>0</ErrorNo>
  <OrderId>8740579536571426</OrderId>
  <ReasonCode></ReasonCode>
  <ReasonDesc></ReasonDesc>
  <ProcessorOrderNumber>q0P5F04752v1e2D7</ProcessorOrderNumber>
  <ProcessorStatusCode></ProcessorStatusCode>
  <ProcessorTransactionId>3391</ProcessorTransactionId>
  <StatusCode>Y</StatusCode>
  <TransactionId>0XGeoyzTIIH6wC1u6XM0</TransactionId>
</CardinalMPI>

```

7.8 Sale Message Integration

The Sale message (cmpi_sale) is responsible for authorizing and settling funds within the same transaction. This type of transaction is typically used when the merchant delivers the product at the time of the sale.

The transaction expects the OrderId value to correspond to the Express Checkout Lookup/Authenticate message pair.

7.8.1 cmpi_sale Request Message

Field Name	Description	Required	Field Definition
Amount	Unformatted Total transaction amount without any decimalization. Example: \$100.00= 1000, \$123.67= 12367, \$.99= 99	Y	N(20)
BillingAddress1	Consumer's billing address information	N	AN(50)
BillingAddress2	Consumer's billing address information	N	AN(50)
BillingCity	Consumer's city of the billing address.	N	AN(50)
BillingCountryCode	Consumer's alpha ISO 3166 country code of the billing address. Example: US - United States	N	AN(3)
BillingFirstName	Consumer's first name.	N	AN(50)
BillingLastName	Consumer's last name.	N	AN(50)
BillingMiddleName	Consumer's middle name.	N	AN(50)
BillingPhone	Consumer's phone number for billing address. This should be unformatted without hyphens. Example: 555-555-5555= 5555555555	N	N(20)
BillingPostalCode	Address postal code.	N	AN(10)
BillingState	Consumer's state or province of their billing address.	N	AN(50)
CurrencyCode	3 digit numeric, ISO 4217 currency code for the amount.	Y	N(3)

Field Name	Description	Required	Field Definition
	Example: 840- US		
Email	Email address.	N	AN(255)
HandlingAmount	Unformatted handling amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
InsuranceAmount	Unformatted total amount of insurance for the order without decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
IPAddress	The IP address of the Consumer. NOTE: IPv4 and IPv6 are supported	N	AN(50)
Item_Desc_X	Brief description of item.	N	AN(256)
Item_Name_X	Name of item purchased.	N	AN(128)
Item_Price_X	Unformatted price of item X transaction amount without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
Item_Quantity_X	Number of items purchased.	N	N(20)
Item_SKU_X	Item SKU number.	N	AN(20)
ItemAmount	Unformatted total amount of items in order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MsgType	cmpi_sale	Y	AN(50)
OrderDescription	Brief description of item.	Y	AN(125)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	Y	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	Y	AN(50)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
ShippingAddress1	Consumer's shipping address information	N	AN(50)
ShippingAddress2	Consumer's shipping address information	N	AN(50)
ShippingAmount	Unformatted shipping amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)

Field Name	Description	Required	Field Definition
ShippingCity	Consumer's city of the shipping address.	N	AN(50)
ShippingCountryCode	Consumer's alpha ISO 3166 country code of the shipping address. Example: US - United States	N	AN(3)
ShippingDiscountAmount	Unformatted negative amount of the shipping discount associated with the order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
ShippingFirstName	Consumer's first name.	N	AN(50)
ShippingLastName	Consumer's last name.	N	AN(50)
ShippingMiddleName	Consumer's middle name.	N	AN(50)
ShippingPhone	Consumer's phone number for shipping address. This should be unformatted without hyphens. Example: 555-555-5555= 5555555555	N	N(20)
ShippingPostalCode	Address postal code.	N	AN(10)
ShippingState	Consumer's state of their shipping address Example: Ohio – OH Texas – TX	N	AN(50)
TaxAmount	Unformatted tax amount of order without any decimalization. Example: \$100.00= 10000, \$123.67= 12367, \$.99= 99	N	N(20)
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	Identifies the Transaction Type used for processing. Example: PP= PayPal Express Checkout	Y	AN(2)
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Sale Request Message

<CardinalMPI>

```

<Amount>11133</Amount>
<BillingAddress1>123 Main Street</BillingAddress1>
<BillingAddress2></BillingAddress2>
<BillingCity>Cleveland</BillingCity>
<BillingCountryCode>US</BillingCountryCode>
<BillingFirstName>John</BillingFirstName>
<BillingLastName>Consumer</BillingLastName>
<BillingPostalCode>44111</BillingPostalCode>
<BillingState>OH</BillingState>

```

```

<CurrencyCode>840</CurrencyCode>
<EMail>johnconsumer@consumerdomain.com</EMail>
<IPAddress>fe80:0:0:0:9d44:2007:c4ee:35f4</IPAddress>
<Item_Desc_1>The simple MP3 player</Item_Desc_1>
<Item_Desc_2>The New 100GB Hard Drive</Item_Desc_2>
<Item_Name_1>2GB MP3 Player</Item_Name_1>
<Item_Name_2>100GB Hard Drive</Item_Name_2>
<Item_Price_1>1000</Item_Price_1>
<Item_Price_2>500</Item_Price_2>
<Item_Quantity_1>1</Item_Quantity_1>
<Item_Quantity_2>1</Item_Quantity_2>
<Item_SKU_1>112233</Item_SKU_1>
<Item_SKU_2>444555666</Item_SKU_2>
<MerchantId>713a</MerchantId>
<MsgType>cmpi_sale</MsgType>
<OrderDescription>Sample Order...</OrderDescription>
<OrderId>8740981481274966</OrderId>
<OrderNumber>7417124386</OrderNumber>
<ProcessorId>713</ProcessorId>
<ShippingAddress1>123 Main Street</ShippingAddress1>
<ShippingAddress2></ShippingAddress2>
<ShippingCity>Cleveland</ShippingCity>
<ShippingCountryCode>US</ShippingCountryCode>
<ShippingFirstName>John</ShippingFirstName>
<ShippingLastName>Consumer</ShippingLastName>
<ShippingPostalCode>44111</ShippingPostalCode>
<ShippingState>OH</ShippingState>
<TransactionPwd>12345678</TransactionPwd>
<TransactionType>PP</TransactionType>
<Version>1.7</Version>
</CardinalMPI>

```

7.8.2 cmpi_sale Response Message

Field Name	Description	Required	Field Definition
ACUrl	<p>The fully qualified URL to redirect the consumer to complete the Consumer Authentication transaction.</p> <p>NOTE: Available if Enrolled= Y</p> <p>NOTE: This field will be conditionally returned in the response if the ReasonCode= 10486 or 10422</p>	N	AN(2083)
AuthorizationCode	Authorization identifier returned from the processing network.	N	AN(6)
EligibleForProtection	<p>The type of protection assigned to the transaction by PayPal.</p> <p>Possible Values:</p> <p>True – Seller is protected by PayPal’s Seller Protection Policy for Unauthorized Payments and Item not Received.</p> <p>Conditional – Seller is protected by PayPal’s Seller Protection Policy for Item not Received.</p> <p>False – Sell not protected under PayPal’s Seller Protection Policy</p>	N	AN(20)
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)

Field Name	Description	Required	Field Definition
ErrorNo	Application error number(s). A non-zero value represents the error encountered while attempting to process the message request. NOTE: Multiple error numbers are separated by a comma	Y	AN(500)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
Payload	The encoded payment request information. NOTE: Available if Enrolled= Y NOTE: This field will be conditionally returned in the response if the ReasonCode= 10486 or 10422	N	AN(7000)
ProcessorStatusCode	Status code returned from the Payment Processor.	N	AN(20)
ProcessorTransactionId	Transaction identifier returned from the Payment Processor.	Y	AN(50)
ReasonCode	Reason Code(s) obtained from the processing network. In the event of a transaction failure or error, the field will provide the exact reason codes from the processing network. Example: 10002, 10004	N	AN(50)
ReasonDesc	Reason description obtained from the processing network. In the event of a transaction failure or error, the field will provide the reason description from the processing network.	N	AN(256)
StatusCode	Displays status of transaction. Possible Values: Y – Completed P – Pending X – Canceled N – Declined E – Error	Y	AN(4)
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)

Sample Sale Response Message

```

<CardinalMPI>
  <AuthorizationCode>71Q4K7</AuthorizationCode>
  <AVSResult>IN</AVSResult>
  <CardCodeResult>Y</CardCodeResult>
  <ErrorDesc></ErrorDesc>
  <ErrorNo>0</ErrorNo>
  <OrderId>8740981481274966</OrderId>
  <ReasonCode></ReasonCode>
  <ReasonDesc></ReasonDesc>
  <StatusCode>Y</StatusCode>

```

<TransactionId>ai846jdRRxkDUU03IYq0</TransactionId>
</CardinalMPI>

7.9 Void Message Integration

The Void message (cmpi_void) is responsible for cancelling an order or authorization transaction. Any hold of funds within the Consumer's PayPal account will be removed.

Only those transactions identified with a TransactionAction value of 'Authorization' or 'Order' on the Lookup message are eligible to be voided. If the TransactionAction is 'Order' and the AuthorizationCode is passed, the void will be processed against the specific Authorization that corresponds to the AuthorizationCode. If the TransactionAction is 'Order' and no AuthorizationCode is passed, the void will be processed against the Order and no further Authorizations or Captures can be performed against the Order.

NOTE: The OrderId value references the value that was returned on the cmpi_lookup response

7.9.1 cmpi_void Request Message

Field Name	Description	Required	Field Definition
AuthorizationCode	Authorization identifier returned from the processing network.	N	AN(6)
Description	Brief description of item.	N	AN(125)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MsgType	cmpi_void	Y	AN(50)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	Y	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	Y	AN(50)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
Reason	Brief reason of cancel. Possible Values: Other - Default NoInventory CustomerReturn GeneralAdjustment CouldNotShip DifferentItem Abandoned CustomerCancel PriceError ProductOutOfStock CustomerAddressIncorrect Exchange RiskAssessmentInformationNotValid CarrierCoverageFailure TransactionRecord	N	AN(125)

Field Name	Description	Required	Field Definition
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	Identifies the Transaction Type used for processing. Example: PP= PayPal Express Checkout	Y	AN(2)
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Void Request Message

<CardinalMPI>

<AuthorizationCode>71Q4K7</AuthorizationCode>

<Description>Agreement Cancelled</Description>

<MerchantId>713a</MerchantId>

<MsgType>cmpi_void</MsgType>

<OrderId>8740981481274966</OrderId>

<ProcessorId>713</ProcessorId>

<TransactionPwd>12345678</TransactionPwd>

<TransactionType>PP</TransactionType>

<Version>1.7</Version>

</CardinalMPI>

7.9.2 cmpi_void Response Message

Field Name	Description	Required	Field Definition
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)
ErrorNo	Application error number(s). A non-zero value represents the error encountered while attempting to process the message request. NOTE: Multiple error numbers are separated by a comma	Y	AN(500)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
ProcessorStatusCode	Status code returned from the Payment Processor.	N	AN(20)
ProcessorTransactionId	Transaction identifier returned from the Payment Processor.	Y	AN(50)
ReasonCode	Reason Code(s) obtained from the processing network. In the event of a transaction failure or error, the field will provide the exact reason codes from the processing network. Example, 10002, 10004	N	AN(50)
ReasonDesc	Reason description obtained from the processing network. In the event of a transaction failure or error, the field will provide the reason description from the processing network.	N	AN(256)
StatusCode	Displays status of transaction.	Y	AN(4)

Field Name	Description	Required	Field Definition
	Possible Values: Y – Completed P – Pending X – Canceled N – Declined E – Error		
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)

Sample Void Response Message

```

<CardinalMPI>
  <ErrorDesc></ErrorDesc>
  <ErrorNo>0</ErrorNo>
  <OrderId>8740579536571426</OrderId>
  <ReasonCode></ReasonCode>
  <ReasonDesc></ReasonDesc>
  <StatusCode>Y</StatusCode>
  <TransactionId>0XGeoyzTIIH6wC1u6XM0</TransactionId>
</CardinalMPI>

```

7.10 Add Merchant Order Number Message Integration

The Add Merchant Order Number message is used to assign a Merchant generated order number with an existing order in Centinel.

NOTE: This message does not impact the order's fulfillment state

7.10.1 cmpi_add_order_number Request Message

Field Name	Description	Required	Field Definition
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MsgType	cmpi_add_order_number	Y	AN(50)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	AN(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(255)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	Identifies the Transaction Type used for processing. Example: PP= PayPal Express Checkout	Y	AN(2)
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Add Order Number Request Message

```

<CardinalMPI>
  <MerchantId>713a</MerchantId>
  <MsgType>cmpi_add_order_number</MsgType>
  <OrderId>8740579536571426</OrderId>
  <OrderNumber>12014</OrderNumber>
  <ProcessorId>713</ProcessorId>
  <TransactionPwd>12345678</TransactionPwd>
  <TransactionType>PP</TransactionType>
  <Version>1.7</Version>
</CardinalMPI>

```

7.10.2 cmpi_add_order_number Response Message

Field Name	Description	Required	Field Definition
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)
ErrorNo	Application error number(s). A non-zero value represents the error encountered while attempting to process the message request. NOTE: Multiple error numbers are separated by a comma	Y	AN(500)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(255)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	N	N(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
StatusCode	Displays status of transaction. Possible Values: Y – Completed P – Pending X – Canceled N – Declined E – Error	Y	AN(4)
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)

Sample Add Order Number Response Message

```

<CardinalMPI>
  <ErrorDesc></ErrorDesc>
  <ErrorNo>0</ErrorNo>
  <OrderId>8740579536571426</OrderId>
  <StatusCode>Y</StatusCode>
  <TransactionId>a56JUxppTdQKMJR0Z880</TransactionId>
</CardinalMPI>

```

7.11 Payment Status Message Integration

Centinel monitors each Merchant's activity to ensure that the Merchant's system is in sync with the order and payment activity within the platform. In the event that one of the following events are encountered, the Centinel platform will send a notification to the Merchant.

OrderStateChangeNotification**AuthorizationNotification****ChargeNotification****RefundNotification**

The Merchant should receive a notification in the event that a payment has been completed. When a Notification of one of the mentioned scenarios is encountered, a POST similar to the following will be sent to the Notification URL configured in the Merchant's profile.

Example:

NotificationId = CCCDGFDCCHEKGFJKJ1Q0VAWO08QC1K

MerchantId = 713a

ProcessorId = 713

Once the Merchant website receives the Notification POST, the Merchant should invoke the Status message (cmpi_payment_status) using the **NotificationId** in the request message to retrieve the transaction details from the Centinel Platform.

NOTE: Additional information regarding the processing of the Notification POST is available within the Thin Client integration samples. The samples include all the code necessary to process the Notification POSTs and the status messages.

7.11.1 cmpi_payment_status Request Message

Field Name	Description	Required	Field Definition
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
MsgType	cmpi_payment_status	Y	AN(50)
NotificationId	This value is required to be passed on the cmpi_payment_status message to identify the corresponding Moneybookers transaction. This value is provided through the HTTP POST Notification sent to the Merchant.	U	AN(100)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
TransactionPwd	A password to secure and verify the transaction originated from Merchant represented by the transaction details. The password value is configured through the Merchant profile.	Y	AN(50)
TransactionType	Identifies the Transaction Type used for processing. Example: PP= PayPal Express Checkout	Y	AN(50)
Version	Application message version identifier. Current Version – 1.7	Y	AN(3)

Sample Add Payment Request Message

```
<CardinalMPI>
  <MerchantId>713a</MerchantId>
  <MsgType>cmpi_payment_status</MsgType>
  <NotificationId>CCCDGFDCCHEKGFJKJ1Q0VAWO08QC1K</NotificationId>
  <ProcessorId>713</ProcessorId>
  <TransactionPwd>12345678</TransactionPwd>
  <TransactionType>PP</TransactionType>
  <Version>1.7</Version>
</CardinalMPI>
```

7.11.2 cmpi_add_payment Response Message

Field Name	Description	Required	Field Definition
Amount	Value represents the transaction amount without decimalization. Example: \$123.67= 1236, \$1,500.00= 150000	Y	N(20)
CurrencyCode	3 digit numeric, ISO 4217 currency code for the amount. Example: 840- US	Y	N(3)
ErrorDesc	Application error description for the associated error number(s).	Y	AN(500)
ErrorNo	Application error number(s). A non-zero value represents the error encountered while attempting to process the message request. NOTE: Multiple error numbers are separated by a comma	Y	AN(500)
MerchantData	Merchant specified data that will be returned on the response.	N	AN(125)
MerchantId	Merchant identification code. This value is assigned to the Merchant.	Y	AN(50)
NotificationType	Identifies the type of notification. Possible Values: OrderStateChangeNotification AuthorizationNotification ChargeNotification RefundNotification	Y	AN(50)
OrderDescription	Brief description of items purchased.	N	AN(125)
OrderId	Centinel generated order identifier. Used to link multiple actions (authorize, capture, refund, etc) on a single order to a single identifier. Mod-10 compliant and unique BIN range to CardinalCommerce services.	Y	AN(16)
OrderNumber	Order Number or transaction identifier from the Merchant website.	N	AN(50)
PaymentType	Identifies the payment type used for processing. Example: PP= PayPal Express Checkout	N	AN(3)
ProcessorId	Merchant processor identification code. This value is assigned to the Merchant.	Y	AN(20)
ProcessorOrderNumber	Contains the transaction identifier returned from the processing network.	Y	AN(20)
ReasonCode	Reason Code(s) obtained from the processing network. In the event of a transaction failure or error, the field will provide the exact reason codes from the processing network. Example: 10002, 10004	N	AN(50)
ReasonDesc	Reason description obtained from the processing network. In the event of a transaction failure or error, the field will provide the reason description from the processing network.	N	AN(256)
StatusCode	Displays status of transaction.	N	AN(4)

Field Name	Description	Required	Field Definition
	Possible Values: Y – Transaction approved N – Transaction declined P - Pending E – Transaction resulted in error U – Unavailable X – Cancelled		
StatusDescription	Description of transaction status. Possible Values: AUTHORIZED CANCELED CHARGED DECLINED ERROR PENDING REFUNDED REVERSED TEMPORARY_DECLINE	N	AN(20)
TransactionId	Centinel transaction identifier. This value identifies the transaction within the Centinel system.	Y	AN(20)
TransactionType	Identifies the transaction type used for processing. NOTE: In the case of the Charge Notification response this value will display the number 570.	N	AN(3)
The Following will only be present on: OrderStateChangeNotification and AuthorizationNotification			
BillingAddress1	Consumer's billing address information	N	AN(50)
BillingAddress2	Consumer's billing address information	N	AN(50)
BillingCity	Consumer's city of the billing address.	N	AN(50)
BillingCountryCode	Consumer's alpha ISO 3166 country code of the billing address. Example: US - United States	N	AN(3)
BillingFirstName	Consumer's first name.	N	AN(50)
BillingLastName	Consumer's last name.	N	AN(50)
BillingMiddleName	Consumer's middle name.	N	AN(50)
BillingPhone	Consumer's phone number for billing address. This should be unformatted without hyphens. Example: 555-555-5555= 5555555555	N	N(20)
BillingPostalCode	Address postal code.	N	AN(10)
BillingState	Consumer's state or province of their billing address.	N	AN(50)
Email	Consumer's Email address.	N	AN(255)
ProcessorBillingAddress1	Address information.	N	AN(100)
ProcessorBillingAddress2	Address information.	N	AN(100)
ProcessorBillingCity	Consumer's city of the billing address.	N	AN(50)

Field Name	Description	Required	Field Definition
ProcessorBillingCountryCode	Consumer's alpha ISO 3166 country code of the billing address. Example: US - United States	N	AN(3)
ProcessorBillingFullName	Name associated with the billing address.	N	AN(128)
ProcessorBillingPhone	Billing phone number linked to Consumer's PayPal account. This should be unformatted without hyphens. Example: 555-555-5555= 5555555555	N	AN(20)
ProcessorBillingPostalCode	Address postal code.	N	AN(20)
ProcessorBillingState	Consumer's state or province of the billing address.	N	AN(50)
ProcessorEMail	Email Address.	N	AN(255)
ProcessorShippingAddress1	Address information.	N	AN(200)
ProcessorShippingAddress2	Address information.	N	AN(200)
ProcessorShippingCity	Consumer's city of the shipping address.	N	AN(50)
ProcessorShippingCountryCode	Consumer's alpha ISO 3166 country code of the billing address. Example: US - United States	N	AN(3)
ProcessorShippingFullName	Name associated with the shipping address.	N	AN(128)
ProcessorShippingPhone	Phone number provided by Consumer at PayPal.	N	AN(50)
ProcessorShippingPostalCode	Address postal code.	N	AN(20)
ProcessorShippingState	Consumer's state or province of the shipping address.	N	AN(50)
ShippingAddress1	Consumer's shipping address information	N	AN(50)
ShippingAddress2	Consumer's shipping address information	N	AN(50)
ShippingCity	Consumer's city of the shipping address.	N	AN(50)
ShippingCountryCode	Consumer's alpha ISO 3166 country code of the shipping address. Example: US - United States	N	AN(3)
ShippingFirstName	Consumer's first name.	N	AN(50)
ShippingLastName	Consumer's last name.	N	AN(50)
ShippingMiddleName	Consumer's middle name.	N	AN(50)
ShippingPhone	Consumer's phone number for shipping address. This should be unformatted without hyphens. Example: 555-555-5555= 5555555555	N	N(20)
ShippingPostalCode	Address postal code. Limit 10 characters.	N	AN(10)
ShippingState	Consumer's state of their shipping address Example: Ohio – OH Texas – TX	N	AN(50)

Sample Add Payment Response Message

```

<CardinalMPI>
  <Amount>11133</Amount>
  <BillingAddress1>123 Main Street</BillingAddress1>
  <BillingAddress2></BillingAddress2>
  <BillingCity>Cleveland</BillingCity>
  <BillingCountryCode>US</BillingCountryCode>
  <BillingFirstName>John</BillingFirstName>
  <BillingLastName>Consumer</BillingLastName>
  <BillingPostalCode>44111</BillingPostalCode>
  <BillingState>OH</BillingState>
  <CurrencyCode>840</CurrencyCode>
  <EMail>johnconsumer@consumerdomain.com</EMail>
  <ErrorDesc></ErrorDesc>
  <ErrorNo>0</ErrorNo>
  <NotificationType>OrderStateChangeNotification</NotificationType>
  <OrderDescription>182397541265</OrderDescription>
  <OrderId>8740981481274966</OrderId>
  <OrderNumber>7417124386</OrderNumber>
  <PaymentType>PP</PaymentType>
  <ProcessorOrderNumber>12345678901234567890</ProcessorOrderNumber>
  <ReasonCode></ReasonCode>
  <ReasonDesc></ReasonDesc>
  <ShippingAddress1>123 Main Street</ShippingAddress1>
  <ShippingAddress2></ShippingAddress2>
  <ShippingCity>Cleveland</ShippingCity>
  <ShippingCountryCode>US</ShippingCountryCode>
  <ShippingFirstName>John</ShippingFirstName>
  <ShippingLastName>Consumer</ShippingLastName>
  <ShippingPostalCode>44111</ShippingPostalCode>
  <ShippingState>OH</ShippingState>
  <StatusCode>Y</StatusCode>
  <StatusDescription>Completed</StatusDescription>
  <TransactionId>fYWjnDs77gpe9mI53S90</TransactionId>
  <TransactionType>245</TransactionType>
</CardinalMPI>

```

8. Integration Testing

To support integration testing the Centinel Test system (<https://centineltest.cardinalcommerce.com>) is available along with the PayPal Developer Sandbox (<https://developer.paypal.com>). The Centinel Test system is a standard Centinel application configured to transact exclusively with the PayPal Developer Sandbox. This allows merchants to integrate and maintain test systems separate from their production deployments.

To test the Centinel transaction processing specific configuration parameters must be defined within the PayPal Developer Sandbox and Centinel Test systems. The PayPal Developer Sandbox (<https://developer.paypal.com>) is available for testing PayPal payments. To support the Centinel transaction processing, specific parameters must be defined within the Merchant's PayPal profile within the PayPal Developer Sandbox. Contact your CardinalCommerce Activation Manager in order to complete this process.

9. Moving To Production

Once the integration testing is complete and you are ready to go live with PayPal payments the same configurations defined within the Centinel Test system and the PayPal Sandbox must be established within the production environments of both systems.

9.1 Configuring PayPal for Production Transactions

Production PayPal Configurations	
1.	Verify and Confirm your PayPal account. (Required)
2.	Enable Instant Payment Notification (IPN). (Required)
3.	Grant the Centinel API access to your PayPal Merchant profile. (Required) Centinel Production API Account: paypal_api2.cardinalcommerce.com Enable API Access to RefundTransaction, GetTransactionDetails, TransactionSearch, BillUser, MassPay, BillAgreementUpdate, Encrypted Website Payments, SetExpressCheckout, Get ExpressCheckoutDetails, DoExpressCheckoutPayment, DoCapture, DoReauthorization, DoVoid, DoAuthorization

10. Centinel MAPS Errors

For a complete list of Centinel Error Codes, please reference the Error Codes Report in the Reporting Section of your Centinel Merchant account at <https://centineltest.cardinalcommerce.com/>.