Orbital over MPLS, VPN, and Cloud Connectivity

Developer Guide

January 2025

Version 3.2.2.1

What's new

The following changes have been made to the document since Version 3.2.2.0:

General Edits

- Updated the IP addresses for the Primary and Secondary base URLs in the Orbital Gateway Integration Testing System and Orbital Gateway Production System tables.

Table of contents

Overview

Merchant Services offers MPLS, VPN, and cloud connectivity, in addition to Internet access for processing transactions through the Orbital Gateway. This solution provides the highest level of availability and a dynamic solution to any latency or outages directly related to the Internet.

This guide documents the suggested failover configurations, endpoints, and required set up for merchants connecting over MPLS, VPN, or the cloud. Refer to the following guides for details regarding environments (production/test), encryption, properties file changes, message formatting, or password maintenance.

- Orbital Gateway XML Interface Specification

- Orbital Gateway Web Service Interface Specification

- Orbital Gateway JSON Interface Specification

Configuration

Use the following configuration for the best system availability:

- A primary connection established via MPLS, VPN, or cloud to the primary Orbital Gateway server IP

- A second connection established via MPLS, VPN, or cloud to the secondary Orbital Gateway server IP

The endpoints based on the recommended configuration are outlined below for each available Interface that supports MPLS/VPN connectivity. Recommended timeout intervals are also provided.

Note: MPLS, VPN, or cloud connectivity for Orbital Gateway can be used for online XML, web services, and JSON implementations.

Orbital Gateway JSON API

Orbital Gateway Integration Testing System

URL	IP addresses
Primary Base URL: https://orbitalvar1.chasepaymentech.com	146.143.198.38 146.143.134.38 146.143.70.38
Secondary Base URL: https://orbitalvar2.chasepaymentech.com	146.143.198.49 146.143.134.49 146.143.70.49

Orbital Gateway Production System

URL	IP addresses
Primary Base URL: https://orbital1.chasepaymentech.com	146.143.198.61 146.143.134.61 146.143.70.61
Secondary Base URL: https://orbital2.chasepaymentech.com	146.143.198.74 146.143.134.74 146.143.70.74

MIME-header requirements

MIME-header

MIME (Multipurpose Internet Mail Extensions) is a mechanism for specifying and describing the format of Internet message bodies. The Orbital Gateway supports both the `HTTP/1.0` and `HTTP/1.1` MIME-Header specifications for describing the message payload along with other information that allows it to process the incoming transaction request and the outgoing reply.

Request MIME-header definition

The table lists the elements within the MIME-Header for all Orbital Gateway JSON requests for Mark for Capture and Profile Management. The element names are not case-sensitive, however, the values associated to each element are case sensitive.

Required Column Values

- M = Mandatory

- C = Conditional

- O = Optional

Field Type Column Values

- A = Alpha

- AN = Alphanumeric

- N = Numeric

Element Name	Description	Mandatory?	Max Char	Field Type
MIME-Version	Always 1.0 or 1.1	O	X.X	N
Content-type	Always application/json	M	Varies	A
Interface-Version	Optional MIME-Header element that can be used by Chase Merchant Services in production support	O	Varies	AN
Accept	Always application/json	M	Varies	A
OrbitalConnectionUsername	Orbital Connection Username set up on Digital Wallet Service. • Between 8–32 characters (a-z, A-Z, 0-9) • Minimum 1 number • No leading, trailing or embedded spaces Not case-sensitive	M	32	AN

Element Name	Description	Mandatory?	Max Char	Field Type
OrbitalConnectionPassword	Orbital Connection Password used in conjunction with Connection Username. • Between 8–32 characters (a-z, A-Z, 0-9) • Minimum 1 number • No leading, trailing, or embedded spaces Case-sensitive	M	32	AN
MerchantID	BIN 000001: 6-digit Stratus Division Number BIN 000002: 12-digit PNS Merchant ID Can be used in a multi-merchant chain setup and is subject to validation checks on Orbital.	M	12	N

Request and response element information

Refer to the online **Orbital Gateway JSON Specification** for API resources and element definitions on the API Store.

Legacy formats

The below solutions are legacy formats. These sections will continue to reflect the latest feature updates to support merchants using these formats. New integrations should use the JSON format.

XML interface

This section provides the MPLS/VPN connection information for the XML interface.

Note: All new implementations should use the JSON API.

IP addresses/ports

Production Configuration

Connection	IP Address	Port	Note
Primary Connection	206.253.184.96/authorize	Port 443	N/A
Automated Failover	206.253.180.97/authorize	Port 443	Timeout 1200 ms

Test/VAR Configuration

Connection	IP Address	Port	Note
Primary Connection	206.253.180.98/authorize	Port 443	N/A
Automated Failover	206.253.184.98/authorize	Port 443	Timeout 1200 ms

MIME-header requirements

MIME-header

MIME (Multipurpose Internet Mail Extensions) is a mechanism for specifying and describing the format of Internet message bodies. The Orbital Gateway supports both the HTTP/1.0 and HTTP/1.1 MIME-Header specifications for describing the message payload along with other information that allows it to process the incoming transaction request and the outgoing reply.

Request MIME-header definition

This section provides a list of the elements within the MIME-Header for Orbital Gateway requests. The element names are not case sensitive. The values associated to each element are case sensitive.

MIME-header elements for requests

Required column values

- M = Mandatory

- C = Conditional

- O = Optional

Element	Description	Mandatory?
MIME-Version	Should always be `1.0` or `1.1`.	M
Content-type	Defines the XML version number. See below.	M
Content-length	This value defines the length of the Request XML Document.	M
Content-transfer-encoding	Defines the encoding of the associated XML document. Recommended encoding is `text`.	M
Request-number	Should always be `1`.	M
Document-type	Defines whether this is a Request or Response. This value should always be `Request`.	M
Trace-number	Retry Trace Number. See below.	C
Interface-Version	Optional MIME-Header element that can be used by Chase Merchant Services in production support. See below.	O

POST/AUTHORIZE HTTP/1.0 element

Although the request line is not part of the `MIME-Header` element, this value is static and always should be presented as `POST/AUTHORIZE HTTP/1.0`. The details are described as:

- **HTTP Post**: The Orbital Gateway will only provide responses to `HTTP POST` requests.

- **URI**: The Request URI for the Orbital Gateway will always be `Authorize`.

- **HTTP version number**: Provide the HTTP version number `1.0` or `1.1`.

Content-type element

The `MIME-Header` element is used by the client to identify which schema version is being used for the XML Payload.

1. The data format for this element is `application/<XSD Version>`.

    The XML Schemas version is found in Developer Center under Orbital APIs for Online XML API in `x.x.x.x` format. The first two numbers in **x.x**.x.x will correspond to the PTI**xx** XSD files in the zip file.

    For example, if the latest version of the XML Schema (zip file) in Developer Center is **8.0**.x.x, then the value to pass for this field is `application/PTI80`.

2. It is recommended to use the latest XSD version. See the Developer Center for the latest XSD.

    Caution: Versions PTI40 and above are not backwards compatible with XML documents created in DTD version PTI34 and earlier. All prior DTD versions are still supported, but require the `MIME-Header` to identify the version as PTI34 or lower. Any new functionality exposed after PTI34 requires coding to the new XSD specification.

Retry trace number

This `MIME-Header` element is used in combination with the Merchant ID as the key transaction identifiers as related to Retry Logic. The Retry Trace Number element rules are:

- Data Type=Numeric

- Minimum Length=1

- Maximum Length=16

- Valid Values are from 1–9999999999999999

- Submitting an invalid value will result in an XML Quick Response with a `procStatus` Code of `9714`.

Interface-version

This `MIME-Header` element is used by the client to identify information about their implementation to assist Merchant Services in providing production support. This information will be logged distinctly for research purposes.

To use this element:

- A Third-Party Software Provider logs their software name and version number.

- A merchant enters their development version and implementation language.

Work with your Technical Implementation Analyst to identify the values needed in this field.

Response MIME-header definition

The following elements are in the `MIME-Header` for Orbital Gateway responses. This is not the all-inclusive list of `MIME-Header` response elements—do not code your system to support only these elements. Further details for some of the elements are given in the sections below the table.

MIME-header elements for responses

Required Column Values

- M = Mandatory

- C = Conditional

- O = Optional

Element	Description	Mandatory?
HTTP	See below.	M
Date	Returns the Server Date and Time stamp. For example: `Fri, 27 Oct 2000 20:29:58 GMT`.	M
MIME-Version	Will always be `1.1`.	M
Content-type	Defines the XML version number. This will be an echo of what is submitted in the request.	M

Element	Description	Mandatory?
Content-length	This value defines the length of the Response XML Document.	M
Content-transfer-encoding	Defines the encoding of the associated XML document.	M
Request-number	Set to `1`.	M
Document-type	Defines whether this is a Request or Response. This value should always be `Response`.	M
Retry-Count	Identifies the number of times a response is returned. See below.	C
Last-Retry-Attempt	Identifies the last previous retry response sent. The format of the data is: `YYYYMMDDhh(24)mmss`	C

HTTP responses

When successfully interacting with the Orbital Gateway, the HTTP value returned will always be a 200 response, such as `HTTP/1.0 200 OK`. All other responses indicate some sort of connection problem.

A HTTP 200 response in and of itself does not constitute a good response—it simply means that the connection has successfully been established with the Orbital Gateway.

See the **RFC #2616** at www.w3.org/Protocols/rfc2616/rfc2616.txt for more information on the variety of HTTP responses that could be returned and their meaning.

Retry-count

The purpose of this `MIME-Header` response element is to expose how frequently the Gateway has returned a particular response to your system. The first time a transaction is submitted to our system, the `Retry-Count` will be `0`. The first time a transaction is retried, the `Retry-Count` will be `1`.

If a value greater than `1` is returned, the Gateway is returning the same result many times for the same transaction. This can be an indicator that a customer is unintentionally replaying the same transaction or having trouble reading the result.

Last-retry-attempt

This `MIME-Header` response element is returned if the Retry Count $\geq$ 2. In other words, it will be returned as soon as a second Retry Response is sent and all others thereafter. It identifies the date and time of the last time a Retry Response for the associated Retry Trace Number and Merchant ID was returned. This provides an additional mechanism to ensure that the Retry function is responding as expected.

SOAP interface

Note: All new implementations should use the JSON API.

Production configuration

Connection	IP Address	Port	Note
Primary Connection	206.253.184.161/PaymentechGateway	Port 443	N/A
Automated Failover	206.253.180.162/PaymentechGateway	Port 443	Timeout 1200 ms

Test/VAR configuration

Connection	IP Address	Port	Note
Primary Connection	206.253.184.163/PaymentechGateway	Port 443	N/A
Automated Failover	206.253.180.163/PaymentechGateway	Port 443	Timeout 1200 ms

Note: The configurations are applicable to all other authorizations and transactions.

Digital Wallet interface

Note: All new implementations should use the JSON API.

System Type	Primary URL	Secondary URL
Orbital Gateway Testing System	**Debundle Only Endpoints:** 206.253.180.98/cws/1/debundle/api **Authorization Endpoints:** 206.253.180.98/cws/1/auth **Auth-Capture Endpoints:** 206.253.180.98/cws/1/authcap	**Debundle Only Endpoints:** 206.253.184.98/cws/1/debundle/api **Authorization Endpoints:** 206.253.184.98/cws/1/auth **Auth-Capture Endpoints:** 206.253.184.98/cws/1/authcap
Orbital Gateway Production System	**Debundle Only Endpoints:** 206.253.184.96/cws/1/debundle/api **Authorization Endpoints:** 206.253.184.96/cws/1/auth **Auth-Capture Endpoints:** 206.253.184.96/cws/1/authcap	**Debundle Only Endpoints:** 206.253.180.97/cws/1/debundle/api **Authorization Endpoints:** 206.253.180.97/cws/1/auth **Auth-Capture Endpoints:** 206.253.180.97/cws/1/authcap

MIME-header requirements

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Request MIME-header definition

The table lists the elements within the MIME-Header for all Digital Wallet requests for Apple Pay and Google Pay. The element names are not case-sensitive, however, the values associated to each element are case sensitive.

Required Column Values

- M = Mandatory

- C = Conditional

- O = Optional

Field Type Column Values

- A = Alpha

- AN = Alphanumeric

- N = Numeric

Element Name	Description	Mandatory?	Max Char	Field Type
MIME-Version	Always 1.0 or 1.1	O	X.X	N
Content-type	Always application/json	M	Varies	A
Interface-Version	Optional MIME-Header element that can be used by Chase Merchant Services in production support	O	Varies	AN
Accept	Always application/json	M	Varies	A

Element Name	Description	Mandatory?	Max Char	Field Type
OrbitalConnectionUsername	Orbital Connection Username set up on Digital Wallet Service. • Between 8–32 characters (a-z, A-Z, 0-9) • Minimum 1 number • No leading, trailing or embedded spaces Not case-sensitive	M	32	AN
OrbitalConnectionPassword	Orbital Connection Password used in conjunction with Connection Username. • Between 8–32 characters (a-z, A-Z, 0-9) • Minimum 1 number • No leading, trailing, or embedded spaces • Case-sensitive	M	32	AN
MerchantID	BIN 000001: 6-digit Stratus Division Number BIN 000002: 12-digit PNS Merchant ID Can be used in a multi-merchant chain setup and is subject to validation checks on Orbital.	M	12	N

POST/AUTHORIZE HTTP/1.0 element

Although the request line is not part of the `MIME-Header` element, this value is static and always should be presented as `POST/AUTHORIZE HTTP/1.0`.

HTTP Post: The Digital Wallet Service will only provide responses to `HTTP POST` requests.

Request and response element information

Refer to **Orbital Gateway Digital Wallet API Developer Guide** for the following element information:

- Authorization and Authorization and Capture Message

- Debundle Only

Additional setup requirements

To process through the Orbital Gateway on a MPLS, VPN, or cloud connection, refer to the following guides on the Developer Center:

Note: XML, SOAP, and JSON transmissions require Connection Username/Password authentication.

- Orbital Gateway JSON API

- Orbital Gateway XML Interface Specification

- Orbital Gateway Web Service Interface Specification