

Gemini and Gemini Exit API Specification Document

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Abbreviation List

Ref	Field	Description
1	API	Application Programming Interface
2	BA	Business Associate
3	BR	Business Requirement
4	CA	Certificate Authority
5	DNO	Distribution Network Operator
6	EFT	Electronic file transfer
7	GSE	Gemini System Enhancements
8	HTML	Hypertext Mark-up Language
9	HTTP	Hypertext Transfer Protocol
10	HTTPS	Hypertext Transfer Protocol Secure
11	IX	Internet Exchange
12	IXN	IX Network
13	JSON	JavaScript Object Notation
14	JSSE	Java Secure Socket extension
15	JWT	JSON Web Token
16	NTS	National Transmission System
17	PDF	Portable Document Format
19	REST	Representational state transfer
20	SFTP	Secure File Transfer Protocol
21	SLA	Service Level Agreement
22	SSL	Secure Sockets Layer
23	TLS	Transport Layer Security
24	UNC	Uniform Network Code
25	URI	Uniform Resource Identifier
26	XML	Extensible Mark-up Language

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1. Introduction

An API based data transfer mechanism is provided with Gemini and Gemini Exit. Business Associates (BAs) of Correla will use these APIs to access specific features of Gemini and Gemini Exit.

This document provides specifications of APIs that are currently available in Gemini and Gemini Exit along with a brief description of each API, the input and output parameters required. API specific error codes are also listed.

Any changes to the APIs deployed in Gemini will be reflected in this document as part of the change process for Gemini, therefore the latest version of this document, which is published on the Xoserve website for easy access, is the only controlled version of this document and the only version that should be used.

API's can be accessed using any API client that supports the XML or JSON structure of the available APIs. To access APIs provided by NG, BAs must develop their own API client programs (henceforth shortened to API clients). This document also provides guidelines for developing API clients.

2. IX API and Web API Overview

2.1.1 API Overview

BAs must develop API clients to use the APIs provided by Gemini and Gemini Exit. Guidelines for developing API clients are provided in section 3, “API Client Guidelines” of this document.

As shown in the diagram, customers connecting using the IX private network route have to connect using a XML based query while customers connecting using the Internet based route can use JSON based queries – the response received to the query will correspond to either XML or JSON depending on the original request type.

API clients will specify a URI to access an API (these URIs will be different from those of screens). API clients must issue an HTTPS request that contains user credentials and the API input parameters in XML/JSON format. After processing this request, Gemini will return an HTTPS response with the output parameters in the body (the output will also be in XML/JSON format).

Each API therefore is a request/response pair.

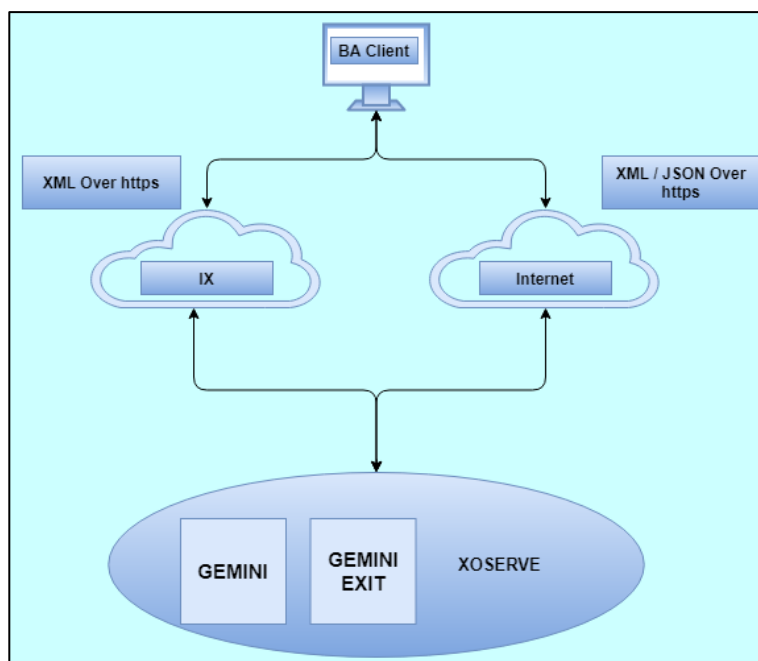


Figure 2.1: API flow Diagram

The choice of connectivity between BAs and Gemini for API data transfer will be either IX or Internet.

To develop API clients, any of the SSL toolkits such as OpenSSL, JSSE (provided by Oracle), etc., that support TLS version 1.2 or 1.3 may be used, older TLS versions are not supported. Apart from this, any other off the shelf API client which supports session-based and token based access can also be used.

The internet based access route is a recent addition to the Gemini solution and uses Restful API calls in a XML\JSON format. This connectivity option is provided as a addition to the IX XML based connectivity route. Both approaches use the same business layer used and therefore

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JSON Schema structure will remain same as the XML schema. It can also be used as an alternative to existing file-based interfaces to Shippers, thereby reducing the dependency on IX and EFT network.

Both Internet and IX based connectivity can be used in parallel to query the data. While IX based access only supports XML, internet based access supports XML and JSON document format, either can be used for requesting the data and the system will generate the response based on the type of document format received in the request. The User Community can choose to use either of the services. However, as best practise it is suggested for a customer not to try to post the same data via two different routes at the same time, which might cause a partial data update or data lock issue.

2.2 IX API Sequence of flow

APIs are accessed using the HTTPS protocol for the secure transfer of data. Gemini web servers will have certificates from a valid CA. API clients must validate and retain the Gemini Web server certificates. TLS v1.2 is needed for accessing via both IX and the Internet

API Clients must replicate the standards for handling cookies that are implemented by all web browsers; namely, all cookies provided by Gemini web servers must be returned on subsequent calls to the APIs.

The following diagram illustrates a typical sequence of actions during API XML invocations made via the IX network

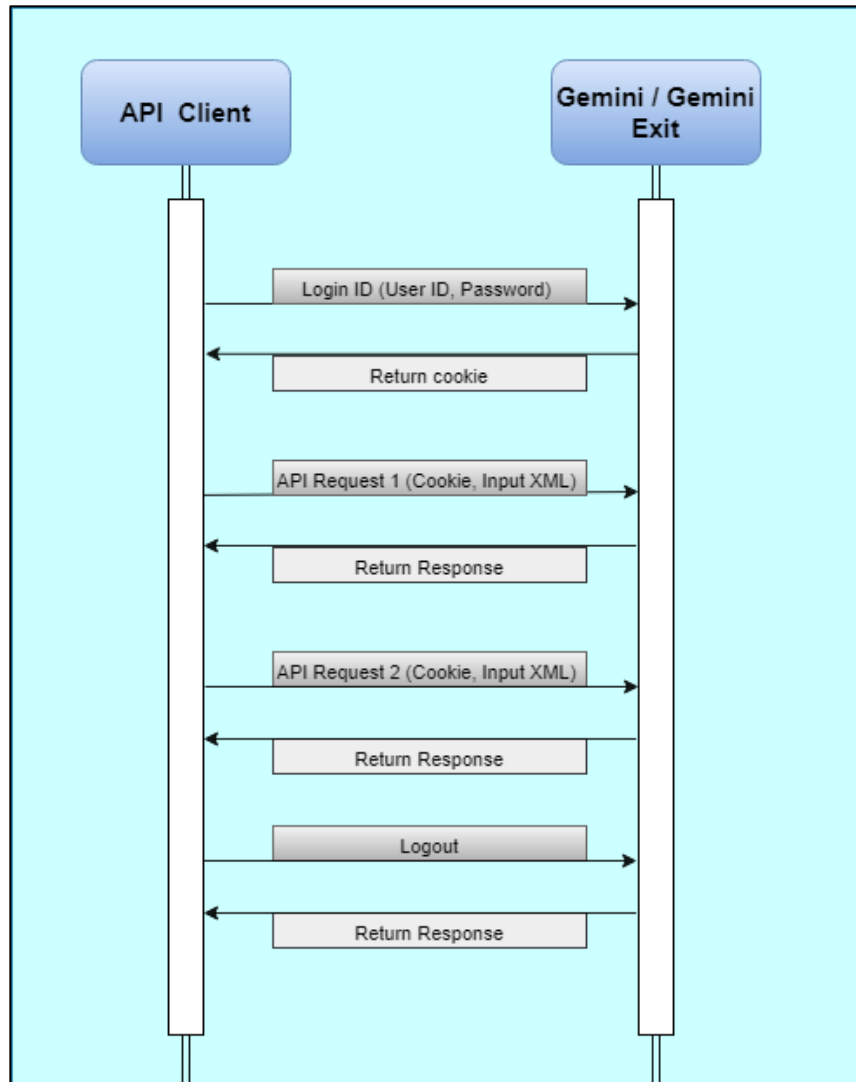


Figure 2.2: API Sequence flow

The following is the sequence of actions during an API invocation

- 2.2.1. API clients will be authenticated using login credentials (ID and password) – these credentials are managed by Xoserve and are specific for API based access only. The API client invokes the login URI and provides an ID and associated password. These will be passed through HTTPS headers.
- 2.2.2. Gemini authenticates the API client and returns a session cookie as a response. A session cookie will be sent to the API client along with each HTTPS response. API clients must send the latest received cookies with every subsequent request for an API invocation.
- 2.2.3. The API client constructs an XML/JSON document containing the input parameters based on the request type. The XML/JSON document must conform to the corresponding schema definition of the API being invoked. All API schemas will be located on the Correla server.
- 2.2.4. The API client passes the XML/JSON document, along with the latest cookies, to the URI specified for the API.
- 2.2.5. Gemini receives the request, parses the XML/JSON, and services the request. The response is sent in the form of an XML/JSON document embedded in the HTTPS

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message based on the request type.

- 2.2.6. The API client examines the HTTPS response to check if the request was successful.
- 2.2.7. If the request was successful, the API client extracts the XML/JSON and interprets the XML/JSON document as per the schema definition of the API.
- 2.2.8. If the request was not successful, the API client must handle the reported error condition(s).
- 2.2.9. One or more calls can be made in time sequence. The response (whether successful or an error) to an API call must be received before submitting another API call within the same session.
- 2.2.10. If the timeout period (Defined in the Debugging Section of this document) is exceeded between successive API calls, then the session is timed out and the login steps must be repeated to establish a new session before recommencing API calls.
- 2.2.11. The API client invokes the logout URI to terminate the session when all desired requests/responses have been processed.
- 2.2.12. Cookies must remain "within session", i.e., cookies sent by a Gemini in one session must not be returned to Gemini in another session.

NB: National Grid / Correla will not deliver or support API clients.

2.3 Internet API Sequence of flow

Internet APIs are RESTful APIs and can be accessed using the HTTPS protocol for the secure transfer of data.

Any API client which supports REST API call and can handle token based authentication, can be used for accessing Web APIs

The following diagram illustrates a typical sequence of actions during XMLJSON API invocations made via the internet:

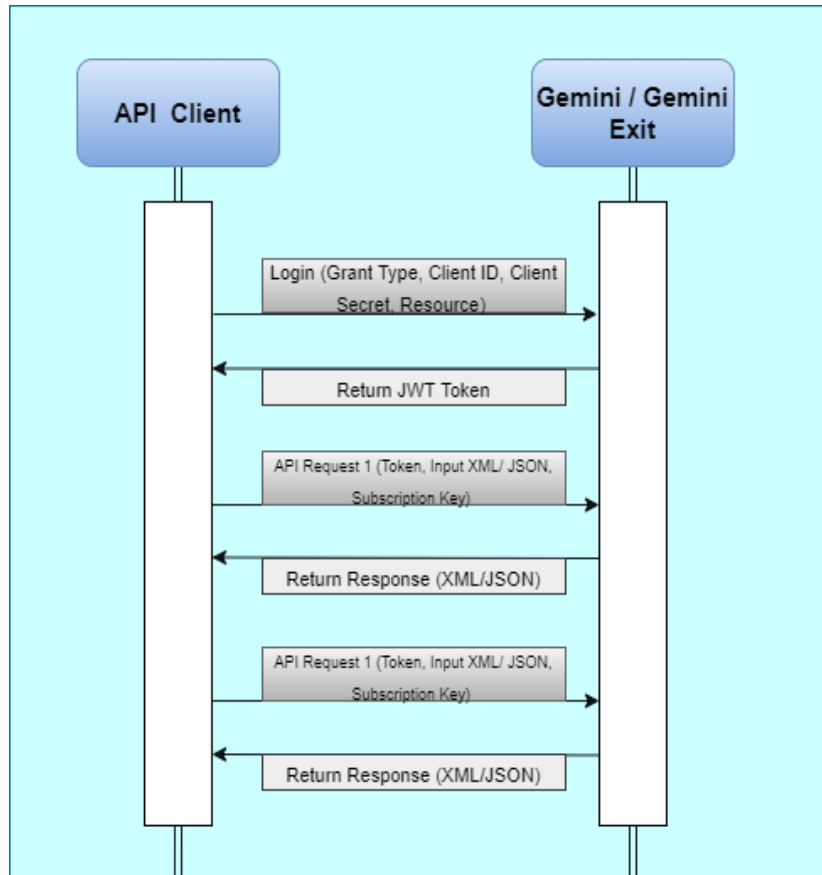


Figure 2.2: Web API Sequence flow

The following is the sequence of actions during an API invocation

- 2.2.1. API clients will be authenticated using login credentials (Grant type, Client ID and Client Secret and Resource). API client needs to invoke the login URL with the login credentials. These will be passed through HTTPS body.
- 2.2.2. Gemini authenticates the API client and returns a JWT token as a response. Default expiry time set for the token is 3599 seconds.
- 2.2.3. The API client constructs an XML/JSON document containing the input parameters based on the request type. The XML/JSON document must conform to the corresponding schema definition of the API being invoked. All API schemas will be located on the Correla server.
- 2.2.4. The API client passes the XML/JSON document as body, along with the latest JWT token, the API subscription key and the content type (for XML or JSON), to the URI specified for the API. Subscription key can be obtained at the time of onboarding

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- process.
- 2.2.5. Gemini receives the request, parses the XML/JSON, and services the request. The response is sent in the form of an XML/JSON document embedded in the HTTPS message based on the request type.
 - 2.2.6. The API client examines the HTTPS response to check if the request was successful.
 - 2.2.7. If the request was successful, the API client extracts the XML/JSON and interprets the XML/JSON document as per the schema definition of the API.
 - 2.2.8. If the request was not successful, the API client must handle the reported error condition(s)
 - 2.2.9. If the JWT is expired, then a new token needs to be requested before calling any API.

NB: National Grid / Correla will not deliver or support API clients.

2.4 List of APIs

Category	API Name Guidelines Document	Accessible by	Existing/ New/Modified API	HTTP Verb (for Web API only)
Gemini Entry Capacity APIs	All Active Bids	Shipper	Existing	POST
	Bid Information Shipper View – Normal Pricing Strategy	Shipper	Existing	POST
	Capacity Trade Details	Shipper	Existing	POST
	Capacity Trade Registration	Shipper	Existing	POST
	Daily Auctions Summary Report – Bids / Shippers	Shipper	Existing	POST
	Daily Auctions Summary Report – Max / Min Price Information	Shipper	Existing	POST
	Daily Auctions Summary Report – Sold / Unsold	Shipper	Existing	POST
	Daily Auctions Summary Report – WAP	Shipper	Existing	POST
	Revised Entitlements	Shipper	Existing	POST
	IP Entry Entitlement API	Shipper	Existing	POST
	View Bid Information for IP Locations	Shipper	New	POST
	Bid Capture	Shipper	New	POST
	Gemini Energy Balancing APIs	Add / Update Nominations	Shipper	Existing
Trades (Update)		Shipper	Existing	POST
Daily Cashout Tolerance Breakdown		Shipper	Existing	POST
Gas Trades Breakdown		Shipper / Market Operator	Existing	POST
Maintain OCM Renominations (View)		Shipper	Existing	POST
Maintain Physical Renominations (Update)		Shipper	Existing	POST
Meter to Zone Relationship		Shipper / Claims Validation Agents	Existing	POST
Price Information History		Shipper / Market Operator	Existing	POST
Register Physical/ Locational Trades		Market Operator	Existing	POST
Register Title Swaps		Market Operator	Existing	POST
Shipper EOD Noms (Hour Bar)		Shipper	Existing	POST

Category	API Name Guidelines Document	Accessible by	Existing/ New/Modified API	HTTP Verb (for Web API only)
	Shipper Preliminary Balance	Shipper / Market Operator	Existing	POST
	Shipper Total Energy Forecast	Shipper	Existing	POST
	System Nomination Balance	Shipper	Existing	POST
	System Status History	Shipper	Existing	POST
	System Status Information	Shipper	Existing	GET
	Update INS Nominations	Shipper	Existing	POST
	Update Renominations	Shipper	Existing	POST
	View INS Nominations	Shipper	Existing	POST
	View Renomination Details	Shipper	Modified	POST
	View Renominations	Shipper	Existing	POST
	View Shipper Trade Details	Shipper	Existing	POST
	View Storage Output Claims	Claims Validation Agents	Existing	POST
	View WCF/SF Values	Shipper	Existing	POST
	Add Update IP Nomination	Shipper	Existing	POST
	View IP Nomination	Shipper	Existing	POST
	View Shipper UIG Values	Shipper	Existing	POST
	Shipper Imbalance	Shipper	New	POST
	View Shipper Allocation UIG Share	Shipper	New	POST
	View Allocation Details by LDZ and Meter Type	Shipper	New	POST
	Shipper Preliminary Balance across Date Range	Shipper	New	POST
	View Shipper Input Claims	Claims Validation Agent	New	POST
	Update Shipper Input Claims	Claims Validation Agent	New	POST
	Update Storage Output Claims	Claims Validation Agent	New	POST
Gemini Exit Capacity APIs	All Active Requests	Shipper / DNO	Existing	POST
	Auction Request Information	Shipper / DNO	Existing	POST

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Category	API Name Guidelines Document	Accessible by	Existing/ New/Modified API	HTTP Verb (for Web API only)
	Max / Min Price Information – Daily Auction	Shipper / DNO	Existing	POST
	Sold / Unsold – Daily Auction	Shipper / DNO	Existing	POST
	Entitlement Report	Shipper / DNO / Allocation Agent	Existing	POST
	IP Exit Entitlement	Shipper	Existing	POST
	Auction Request Information for IP Locations	Shipper	New	POST
	Capture Request	Shipper / DNO	New	POST
	Transfer Registration	Shipper	New	POST
	View Transfer Registration	Shipper	New	POST

Note: List of APIs is same for both IX APIs and Internet APIs

3. API Client Guidelines

3.1 IX API Network Requirements

1. You must use port 4445 to submit requests to the Gemini API service. Therefore, if you connect to the IX network via a firewall you must have this port open.
2. You must resolve the FQDN prod-ix.geminints.com to the IP address 194.129.160.242 on your network. Correla does not provide a DNS service for access via the IXN.
3. Requests to 194.129.160.242 should be routed to Correla Data Centres via the IXN.

3.2 IX API Service Connectivity Confirmation

1. Open an internet browser on your desktop to test connectivity.
2. Enter the URL: prod-ix.geminints.com:4445/gemini/controllers/APILogin
3. If you are correctly connected to the IX network and the correct firewall ports are open then the following dialogue should appear. If it does then you've successfully confirmed API connectivity

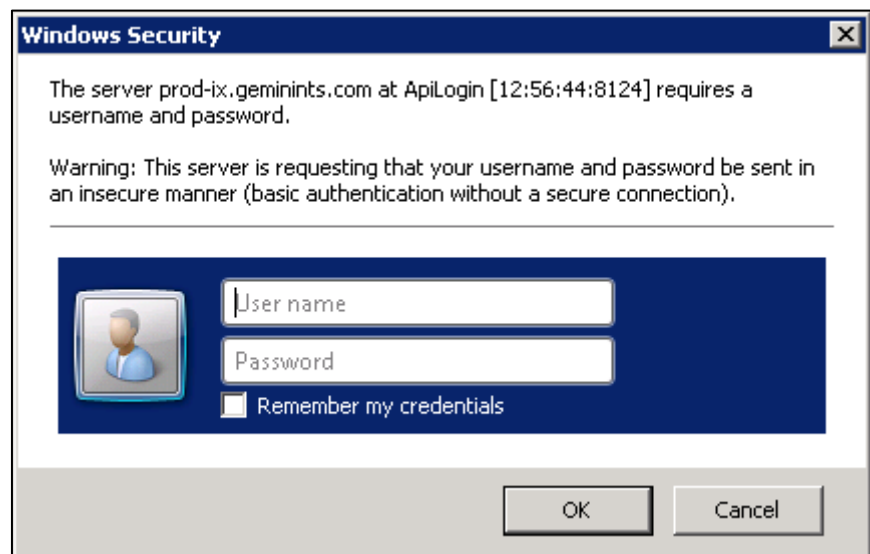


Figure 5.2.1 - API connectivity testing screen

4. Once the above login page appears, the actual API login can be initiated from the API client from your desktop.

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3.3 IX API Session Management

This section contains specifications for the session management APIs. These are the following APIs:

1. Login
2. Logout
3. Change Password

These are generic APIs that manage the sessions necessary to invoke any of the functional APIs. The functional APIs are the APIs that invoke Gemini / Gemini Exit business logic. Refer Section 4 Functional API Specifications for further detail on functional APIs.

Code Samples

Along with the specifications we provide code samples to illustrate the core session management activities. These code samples are written using the Java programming language.

National Grid does not mandate the use of Java to write API clients. API clients must honour the mandated behaviour described in this document and the functional API specifications. The mandated behaviour is defined in terms of HTTP interaction and associated XML/JSON message exchange. Provided your API client conforms to this mandated behaviour, it can be constructed using any development technology.

Java has been used for illustrative code samples because:

1. It is in common use.
2. It does not abstract the underlying HTTP interaction so much as to mask the concepts that we are seeking to illustrate.

To access the API, the SOAP UI or POSTMAN client can be used for both XML and JSON requests.

Note: Sample code is provided for guidance only. It does not constitute code licensed or supported. It is not covered by any warranty. National Grid / Correla does not provide or support API clients. It does support the API interface and its conformance to specification.

3.3.1 API Login

The Login API is used solely to establish an authenticated Gemini / Gemini Exit API session prior to invoking functional APIs. The Login API is simply a “dummy” protected URI which, when accessed, prompts the security infrastructure to authenticate and authorize the user. If authentication is successful, then a session is established.

If preferred, it is also possible to establish a session by calling one of the functional APIs. These URIs are also protected. If a request to any one of them does not contain a session cookie, then user credentials are checked and, if valid, a session will be established, and the functionality of the API invoked in a single step.

The Login API simply allows the separation of these two steps, establishing a session and invoking API functionality.

However, when choose to establish a session, it is recommended that one should continue to use open sessions where possible, rather than creating new sessions, as this places an unnecessary burden on Gemini / Gemini Exit to the detriment of all users.

Note: Gemini / Gemini Exit user ids authorized for Gemini screen access will not generally be authorized for Gemini API access and vice versa. You must be sure to request a user ID that is authorised to access APIs for use by API clients.

3.3.1.1 URI to Access the API

API clients must invoke the following URI to access this API’s functionality:

</gemini/controllers/ApiLogin/>

Note: The trailing slash in this API URI. It is important that this is included.

3.3.1.2 Https Request Headers

API clients can invoke the Login URL for authentication. They must provide login credentials as a user id and password passed through HTTP headers.

Ref	Request Header Key	Value
1	.Cookie	SMCHALLENGE=YES
2	.Authorization	<p>Http basic authentication is adopted for authenticating the BA.</p> <p>The ID and the password must be concatenated with a delimiter (:). The combined string must be encoded using Base64 encoding.</p> <p>The Base64 encoded value must be passed with this header.</p>

Sample Code

```

/* Connect to Gemini */

URI = new URI("https://<server>:<port>/<LoginURI>");
URLConnection=(HttpsURLConnection)URI.openConnection();
URLConnection.setRequestMethod("POST");

/* Request Headers with ID and password sent to Gemini */

URLConnection.setRequestProperty("Cookie","SMCHALLENGE=YE\S"); String
encodedLogin = base64Encode("userID", "password");
URLConnection.setRequestProperty("Authorization", encodedLogin);

```

3.3.1.3 Https Response Headers

Case 1: Successful Authentication

On successful authentication, the following response will be sent to the API client

Ref	Response Header Key	Value
1	.Set-Cookie	GEMINIAPIAUTHENTICATION=2001
2	.Set-Cookie	GEMINIAPIAUTHORIZATION=2002
3	.Set-Cookie	SMSESSION Cookie containing encrypted session ID. API clients must send the latest received cookies with every subsequent API invocation request.

Successful authentication/authorization via the Login API will return an HTTP response 404 (file not found), because it is a 'dummy' URL (see Section 3.2.1 Login API) with no response page to be served. API clients should trap this response to ensure that it is not handled as an error.

By contrast, successful invocation of functional APIs (whether including user login or not) will return a HTTP response 200 (OK) as functional APIs do correspond to an underlying, functional URL that serves a response page.

We have included some information on expected HTTP response codes in this guide for your information. It is recommended, however, that HTTP response codes are not used to infer the success or failure of API calls. Rather, API clients must be able to trap HTTP 400 and 500 series responses and handle them carefully, since they may not indicate an error.

To diagnose errors you should instead rely on a combination of the following:

- a) GEMINIAPIAUTHENTICATION/GEMINIAPIAUTHORIZATION to determine the authentication/ authorization success or failure status.
- b) SMAUTHREASON (see below) to assist in determining the course of action necessary in the event of authentication/ authorization failures.
- c) XML success or error responses (see 4 Error Handling) to detect and diagnose functionality errors.

Case: 2 Authentication/Authorization Failed

In the case of authentication/authorization failure, the following response will be returned to the API client

Ref	Response Header Key	Variable value
1	.Set-Cookie	GEMINIAPIAUTHENTICATION=4001
2	.Set-Cookie	GEMINIAPIAUTHORIZATION=4002
3	.LOCATION	SMAUTHREASON=<value> The following are possible values :User must change password :Invalid Session :Revoked Session :Expired Session :Unknown User :User Disabled :Invalid Session ID :Password Expiry Warning :Password Expired :Immediate Password Change Required 24 :Max Failed Login Attempts Exceeded Note: In the event of any other value returned please contact Correla Service Desk

In order to obtain supplementary information about the cause of failure, the API client must check for the LOCATION Response Header Key. The 'SMAUTHREASON' name/value pair contains the supplementary information.

In the event of an authentication/authorization failure, a redirect instruction is often returned in response to the client. Under the HTTP protocol, such a redirection instruction is conveyed in the LOCATION header field.

Typically, the redirect will be to the password maintenance service for user action. If Gemini / Gemini Exit screens are being used, then the web browser will follow this redirect instruction so that the user can take the necessary action (For example: change of password).

It is not appropriate for an API client to follow the redirect to a screen based service. However, the redirect instruction contains important information as to the cause of the authentication/authorization failure. This is encapsulated as a name/value pair parameter in the redirect URL. The parameter name is SMAUTHREASON.

Session related authorization/authentication failures (invalid session, revoked session, expired session and invalid session identifier) and the invalid user credentials scenarios do not trigger a redirect instruction in response to the client. In these situations, a password maintenance action is not appropriate. Furthermore, since APIs use basic and not forms-based authentication, there is no login form to redirect to for the purposes of re-establishing a session or correcting invalid user credentials.

In order to obtain supplementary information about the cause of failure, the API client must check for the LOCATION Response Header Key. The "SMAUTHREASON" name/value pair may contain supplementary information.

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Sample Code

```

/* Response Header from Gemini */

boolean failureFlag = false; int count = 0;
while(URLConnection.getHeaderFieldKey(count++) != null)
{
    String sKey = URURLConnection.getHeaderFieldKey(count);
    String sValue = URURLConnection.getHeaderField(count);
    if(sKey.equals("Set-Cookie"))
    {
        if(sValue.indexOf("GEMINIAPIAUTHENTICATION=2001")!=-1)
        {
            System.out.println("Successful authentication");
        }
        if(sValue.indexOf("GEMINIAPIAUTHORIZATION=2002")!=-1)
            System.out.println("Successful authorisation");
        }
        if(sValue.indexOf("GEMINIAPIAUTHENTICATION=4001")!=-1)
        {
            System.out.println("Authentication failed");
failureFlag = true;
        }
        if(sValue.indexOf("GEMINIAPIAUTHORIZATION=4002")!=-1)
        {
            System.out.println("Authorisation failed");
failureFlag = true;
        }
        /*In case of successful authentication/authorisation store
the session cookie */
        if(!failureFlag && sValue.indexOf("SMSESSION")!=-1)
        {
            setLatestSessionCookie(sValue);
        }
    }
}

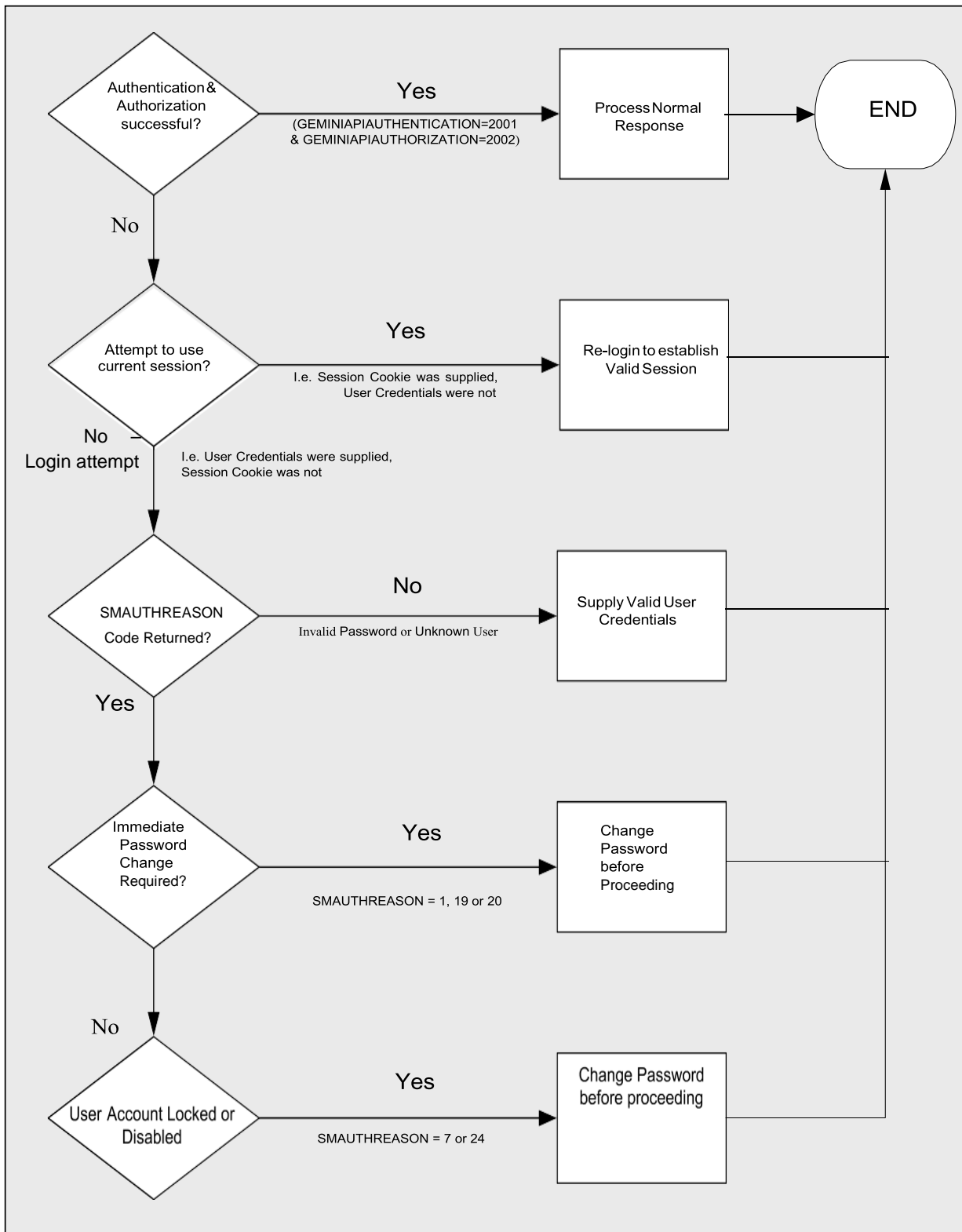
/* LOCATION header key needs to be checked only in case of
authentication/authorisation failure to obtain supplementary information */

if(failureFlag && sKey.equalsIgnoreCase("LOCATION"))
{
    if(sValue.indexOf("SMAUTHREASON=1")!=-1)
    {
        System.out.println("User must change password");
    }
}
}

```

3.3.1.4 Https Response Body

The https response body returned by the login API will be null.



3.3.1.5 HTTP Redirection

HTTP redirection is characterized by one of the 3xx series of HTTP status codes. An explanation of redirection of 3xx status codes, which includes a brief description of HTTP redirection, can be found at the W3C web site. The specific redirection status code that will be encountered in interactions with Gemini / Gemini Exit is the 302 Found status code.

To accurately diagnose the causes of authentication/authorization failure in your API clients, you must understand HTTP redirection. Furthermore, you must use a technology that allows you to trap and interpret the “intermediate” (see below) response in an HTTP redirection.

In a web client/server interaction that does not involve a redirection of 3xx status code, there is one request/ response pair. The web client issues an HTTP request and receives an HTTP response and at that point the interaction ends.

This is illustrated in the following diagram:

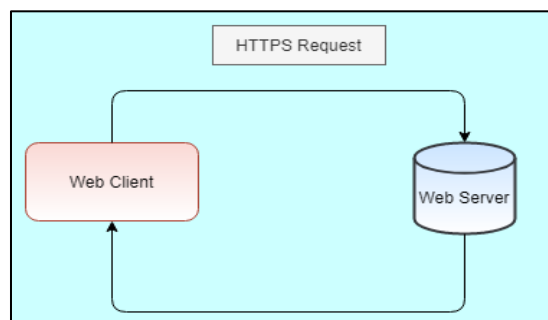


Figure 5.1.1.5A: Interaction between Web Client and Web Server

In a web client/server interaction that does involve a redirection of 3xx status code, there are (at least) two request/response pairs. The web client issues an initial HTTP request and receives a “follow me” redirect HTTP response. This redirect response instructs the web client to issue a redirected HTTP request to a location that it specifies. When the web client follows this instruction via a redirected HTTP request, the web server issues the final HTTP response and the interaction ends.

This is illustrated in the following diagram:

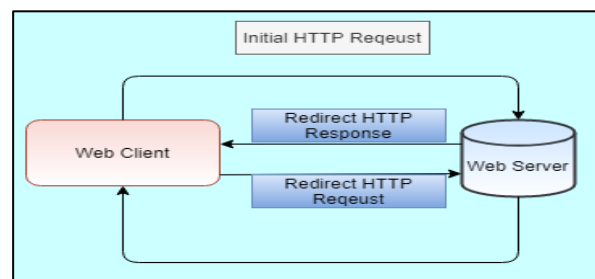


Figure 5.1.1.5B: Interaction between Web Client and Web Server involving a redirection of 3xx status code

It should be noted that the behaviour described is mandated for web clients/servers that implement the HTTP protocol as specified. In this respect the behaviour expected of your API client is no different to the behaviour

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expected, and honoured, by any web browser. Web browsers and API clients are merely sub-classes of web clients expected to conform to the HTTP standards expectations of a web client.

The redirect HTTP response is characterized by having a 302 status code. It also contains the (Uniform Resource Indicator) URI that the web client is instructed to go to via a redirected HTTP request. This URI is specified in the LOCATION header field of the redirect HTTP response.

An explanation of the LOCATION header field can again be found at the W3C web site. Again, none of this is specific to Gemini / Gemini Exit.

API Client Considerations

Most objects simulating web client behaviour will, by default, automatically handle redirect requests and only return the final response. Therefore, if the contents of a redirect HTTP response need to be trapped, then this must be facilitated by the choice of development tools for API clients. To illustrate this, we discuss two real life examples.

1) Use of the HttpURLConnection Object in Java

Similarly, the HttpURLConnection object in Java will, by default, follow redirects to the final response and deny the Java code sight of the redirect response and redirected request.

This behaviour can be changed using the setInstanceFollowRedirects method, as follows:

```
HttpsURLConnection httpsConn = (HttpsURLConnection)
url.openConnection ();
httpsConn.setInstanceFollowRedirects (false);
```

Where URL is of the URL object type.

Gemini / Gemini Exit Redirection Scenarios

NB: This section is deliberately not called Gemini / Gemini Exit API Redirection Scenarios, as these redirections are not specific to APIs. They are encountered when accessing the screens but are also silently handled by your web browser without your knowledge.

Firstly, in all of these redirection scenarios there will only be a single redirection before the final response is reached. The HTTP protocol allows for multiple redirections.

The scenarios in which you can expect to receive a redirection are as follows:

1. Any authentication/authorization failure scenario that provides further information via an SMAUTHREASON code.
2. The password expiry warning response. In this instance, there has not been an authentication/ authorization failure but a warning that password expiry is imminent is notified via an SMAUTHREASON code in the LOCATION header field.
3. The Logout API issues a redirect request when used to terminate a session

The complete behaviour in these scenarios is detailed in the following table.

	HTTP Response			
	Redirect			Final
	HTTP Status	SMAUTHREASON	GEMINIAPIAUTHENTICATION	GEMINIAPIAUTHORIZATION
Authentication / Authorization Failure				
Maximum Failed Number of Login Attempts Exceeded	302	24 ³	4001	None
User Disabled (by Administrator)		7		
User Disabled (Due to Inactivity)		25		
Change Password Forced		1		
Password Expired		19		
Immediate Password Change Required		20		
Password Expiry Warning ⁴		18		
Logout API		0	No	

³ This will appear on the third consecutive login attempt with an incorrect password. One further attempt is then allowed every half hour. This too will return SMAUTHREASON=24 if the password is again incorrect

⁴ Although it is detailed in this table, this is not actually an authentication/loss of session/authorization failure scenario. A password expiry warning informs the client that the password is due to expire shortly. However, authentication has been successful.

Notes:

1. GEMINIAPIAUTHENTICATION header field is not present in the final response following a redirection.
2. Any SMAUTHREASON value returned present in the LOCATION header of the redirect response will then appear in the URL query string of the final response. This is as a direct consequence of following the redirect.
3. In the case of a Password Expiry warning, if you automatically follow the redirect to the final URL then no session cookies will be returned. As a consequence, you will not be able to call functional APIs. If you wish to ignore the password expiry warning and change your password at a later time, then you must intercept the redirect response in order to use the session cookies provided.

For completeness, the results of the authentication/authorization failure scenarios that do not involve redirection are included in the following table.

	HTTP Response		
	HTTP Status	GEMINIAPIAUTHENTICATION	GEMINIAPIAUTHORIZATION
Authentication / Authorization			
Unknown User	401	4001	None
Incorrect Password		None	
User not Authorized			
Session			
Invalid Session	401	4001	4002
Revoked Session			
Expired Session			
Invalid Session ID			

Note that loss of session failures would not be expected to occur when accessing the Login API, since the sole purpose for accessing the Login API is to establish a session. In this instance, no session cookies associated with an existing session would be supplied. Session loss would normally be associated with functional API calls within the session. However, the full list of response codes has been presented together, including the Login API specification.

An illustration of how logic might be constructed to determine the cause of authentication/loss of session/authorization failures is given below. Remember, this diagram is provided to illustrate a possible (but not mandated or recommended) approach.

3.3.2 API Invocation

3.3.2.1 Https Request Headers

The session cookies that were last received by the API client must be passed through https headers. API clients must use the POST method to submit their requests.

Below table shows Request Header for XML request

	Request Header Key	Value
1	Content-Type	text/xml
2	Cookie	All the latest received cookies provided by Gemini Web servers must be returned with every subsequent API invocation request.

Sample Code

```

/* Connect to Gemini */

URI = new URI("https://<server>:<port>/<API-URI>");
URLConnection=(HttpsURLConnection)URI.openConnection();
URLConnection.setRequestMethod("POST");
URLConnection.setRequestProperty("Content-Type", "text/xml");
int count = 0;
while(URLConnection.getHeaderFieldKey(count++) != null)
{
    String sKey = URURLConnection.getHeaderFieldKey(count);
    String sValue = URURLConnection.getHeaderField(count);

    if(sKey.equals("Set-Cookie"))
    {
        URURLConnection.setRequestProperty("Cookie", sValue);
    }
}

```

3.3.2.2 Https Request Body

The API client passes the XML document containing the input parameters as the https request body. For an API request, only one name value pair can be sent.

	Name	Value
1	INPUT	Valid XML input document, which contains input Parameters sent to the server for processing as part of the request.

Sample Code

```

/* Request body sent to Gemini */

String strXMLParams = "INPUT="+xmlDocument.toString();
outputStream.write(strXMLParams.getBytes());
outputStream.flush();

```

3.3.2.3 Https Response Header

	Response Header Key	Value
1	Set-Cookie	SMSESSION and other values. (All latest received cookies provided by Gemini web servers must be returned with every subsequent API invocation request)

Sample Code

```

/* Response header from Gemini */

int count = 0; while(URLConnection.getHeaderFieldKey(count++) != null)
{
    String sKey = URURLConnection.getHeaderFieldKey(count);
    String sValue = URURLConnection.getHeaderField(count);

    if(sKey.equals("Set-Cookie"))
    {
        /*Retrieve All the Cookies send as response.
        These cookies must be returned with every subsequent API
        invocation request. */
    }
}

```

3.3.2.4 Https Response Body

A valid XML document will be sent as the response body. This XML document will confirm to the output schema definition of the corresponding API.

3.3.3 API Logout

The Logout API is a 'session killer'. If it is invoked with a valid session cookie, then that session is logged out. It is a good practice that when you have finished using a session you invoke the Logout API. Inactive sessions will eventually be time expired but using the Logout API helps to manage the number of open sessions.

API clients must invoke this URL to access this API's functionality:

</home/common/jsp/smlogout.jsp>

3.3.3.1 Https Request Headers

	Request Header Key	Value
1	Cookie	All latest received cookies provided by Gemini web servers will be returned with the invocation of API Logout.

When successful (that is session has been logged out), the logout API returns a 302 HTTP response code.

3.3.4 Change Password

This API permits the Gemini / Gemini Exit application password changes. User Id, Old Password and New Password are required as input parameters of the HTTP POST request. On execution of this API, the API Client will receive an HTTP response with either the confirmation of the password change, or an error message. The implementation of this API differs from the other Gemini / Gemini Exit functional APIs (presented in this document) as it invokes SiteMinder DMS APIs for the password change.

URL to Access the API

API clients must invoke this URL to access this API's functionality:

</gemini/controllers/ChangePasswordControllerAPI/>

3.3.4.1 Http Request Headers

No headers identified.

3.3.4.2 Http Request Body

The API client passes the following input parameters as the HTTP request body

Change Password API Request Parameters

Name	Value
USER_ID	String containing User Id
OLD_PASSWORD	String containing old password
NEW_PASSWORD	String containing new password
CONFIRM_NEW_PASSWORD	String containing new password

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Sample Request coded in Java:

```

/* Connect to Gemini Exit */
url = new
URL("https://<server>:<port>/gemini/controllers/ChangePasswordControllerAPI");
urlConnection = (HttpsURLConnection) url.openConnection();
urlConnection.setRequestMethod("POST");

/* Declare and set the string variables USER_ID, OLD_PASSWORD, NEW_PASSWORD
and CONFIRM_NEW_PASSWORD with the appropriate values */

/* Request body sent to Gemini Exit */

OutputStream outputStream = urlConnection.getOutputStream();
outputStream.write(("USER_ID=" + USER_ID + "&").getBytes());
outputStream.write(("OLD_PASSWORD=" + OLD_PASSWORD + "&").getBytes());
outputStream.write(("NEW_PASSWORD=" + NEW_PASSWORD + "&").getBytes());
outputStream.write(("CONFIRM_NEW_PASSWORD=" + CONFIRM_NEW_PASSWORD).getBytes());
outputStream.flush();

```

3.3.4.3 Http Response Body

The following response codes will be returned as part of the HTTP response body.

Response Code	Message
GEM_API_SEC_1000	Your new password has been set. Use this new password the next time you log into your account.
GEM_API_SEC_ERR_1001	Your password change was not accepted. Please try again.
GEM_API_SEC_ERR_1002	Please match your new password and confirmation.
GEM_API_SEC_ERR_1003	Access is restricted to authorized users only.
GEM_API_SEC_ERR_1004	System encountered an error. Please try again after some time.
GEM_API_SEC_ERR_1005	You cannot access your account because you have exceeded the limit of login attempts. Please contact your Security Administrator or Help Desk

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Sample Response Code

```
/* Process response code in API Client program */
/* It is assumed the URL has been requested. Please refer to the earlier code
snippet */
InputStream is = urlConnection.getInputStream();
InputStreamReader ins = new InputStreamReader(is);
BufferedReader br = new BufferedReader(ins);
/* To read the response code */
String CODE = br.readLine();
/* To read the message */
String MESSAGE = br.readLine();
If (CODE.equals(GEM_API_SEC_1000))
{
    System.out.println("Password Changed successfully");
    ...
    ...
    ...
}
br.close();
ins.close();
is.close();
urlConnection.disconnect();
```

3.4 Web API Token Management

3.4.1 API Login

Below steps can be followed to complete the login process

1. Below URI needs to be invoked to complete the login process

<https://prod.api.geminiwebservices.com/login>

2. A JWT token is needed to call the APIs. To generate the JWT token, below information needs to be passed as body or payload along with API login URI

	Key	Value
1	grant_type	client_credentials
2	clinet_id	This needs to be obtained from Correla during the onboarding process
3	client_secret	This needs to be obtained from Correla during the onboarding process
4	resource	This needs to be obtained from Correla during the onboarding process

3. On successful login, Gemini will return a JSON payload with JWT token

	Key	Value
1	token_type	Bearer
2	expires_in	3599
3	ext_expires_in	3599
4	expires_on	Time at which the token will expire
5	not_before	The time before which the JWT MUST NOT be accepted for processing
6	resource	The resource for which the token is valid
7	access_token	JWT token

3.4.2 API invocation

Below is the root URL for the Web APIs

<https://prod.api.geminiwebservices.com>

Below steps need to be followed to access the Web APIs

1. Swagger metadata definition is available for each API and can be obtained by raising a ticket with Correla service desk. Swagger file contains following information
 - a. Authentication details
 - b. Request parameters
 - c. Respoense parameters
 - d. Error parameters
2. Swagger files can be imported and used for accessing APIs
3. To access each web API, endpoint needs to be invoked. API endpoint details can be obtained from functional specification section of respective APIs in this document
4. Correct HTTP method as stated in functional specification section of this document,

needs to be set with each API end point

- Below details need to be passed as header of the API request

	Key	Value
1	Authorization	Bearer <<JWT Token obtained during the login process>>
2	Ocp-Apim-Subscription-Key	API Subscription key obtained during the onboarding process
3	Content-Type	Application/JSON

3.5 Error Handling

It is useful to consider error handling by Gemini / Gemini Exit APIs in terms of hierarchy, with the most severe errors at the top and the least severe at the bottom. This is illustrated in the following diagram

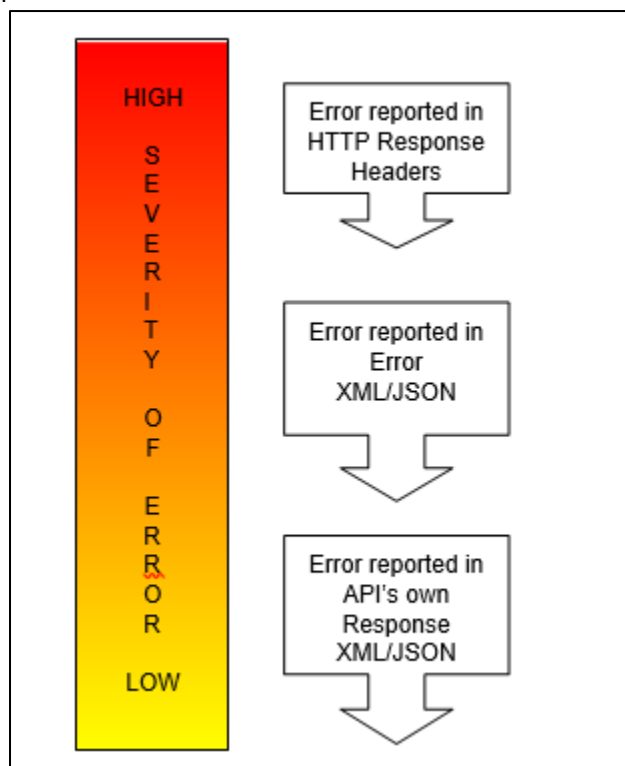


Figure 5.3 Error Handling by Severity of Error

Errors reported via the HTTP response headers will generally relate to authentication/authorization failures.

Assuming that an error of this severity has not occurred, any errors will be reported via XML/JSON. API clients can check the HTTPS response header “content-type” for the value “text/xml” and “application/json” to determine if the response from the API contains an XML/JSON document. If the response does not contain an XML/JSON document, then this header value will be set to something other than “text/xml” and “application/json”.

Note that errors reported via XML/JSON are not relevant to the session management APIs (see Section 3.3 Session Management) as these APIs do not exchange XML/JSON with the API client.

The rest of this Error Handling section concerns errors reported via XML.

3.5.1 Error Reported via XML and JSON

Generally, when the processing of a request from an API Client fails, an XML/JSON response is returned containing the error message in an Error XML structure. This Error XML structure is defined in the following sections. There is however an exception to this rule for APIs that add or modify Gemini / Gemini Exit data.

Update APIs process one record at a time, and a success or failure message can be returned for each record in the specific API’s own response XML/JSON. This is explained further through the scenarios detailed below.

3.5.1.1 Query APIs

For APIs that query data from Gemini / Gemini Exit, API Clients can expect one of the following three scenarios:

Scenario	Response XML/Response JSON	Error XML/JSON
a) Successful Query – A successful transaction that returns the query results in the API’s response XML as defined in the relevant API specification under “API Response” for that API.	Yes	No
b) Generic Error – A generic or system error (example Invalid XML) that prevents the transaction from executing successfully. No query results are returned. An Error XML containing the appropriate error code is generated and returned to the API Client.	No	Yes, Error Codes in Section 5
c) API Specific Error – An API specific error (example Invalid Meter Id for the BA) that prevents the transaction from executing successfully. No query results are returned. An Error XML/JSON containing the appropriate error code is generated and returned to the API Client.	No	Yes, Error Codes in Individual API Specifications

3.5.1.2 Update APIs

Note: Update APIs are available only in respect to Gemini, and not Gemini Exit.

For APIs that add or modify Gemini data, one of the following scenarios can occur:

Scenario	Response XML/Response JSON	Error XML/JSON
a) Fully Successful Update – A transaction in which all input records were successfully added or updated. The API Client receives a response XML/JSON as defined in the relevant API specification under “API Response” for that API. Against each input record, this XML/JSON contains Message Code (MSG_CD) and Message Description (MSG_DESC) indicating that the record was updated successfully. Response codes for these messages are of the format GEM_API_MSG_nnnn .	Yes, Response Codes in Individual API Specifications	No

Scenario	Response XML/Response JSON	Error XML/JSON
b) <u>Partially Successful Update</u> – A transaction in which some input records were successfully added or updated, while others were erroneous. The API Client receives a response XML/JSON as defined in the relevant API specification under “API Response” for that API. Against each input record, the status for that record is provided through the Message Code (MSG_CD) and Message Description (MSG_DESC) elements. Records that were updated successfully have response codes of the format GEM_API_MSG_nnnn , while records that were not updated contain error codes of the format GEM_API_ERROR_nnnn , along with a message describing the error.	Yes, Response Codes in Individual API Specifications	No
c) <u>Unsuccessful Update</u> – A transaction in which none of the input records were successfully added or updated. The API has processed each input record, but none of the records were successful. The API Client receives a response XML/JSON as defined in the relevant API specification under “API Response” for that API. Against each input record, the error for that record is indicated through the Message Code (MSG_CD) and Message Description (MSG_DESC) elements. Error codes are of the format GEM_API_ERROR_nnnn .	Yes, Response Codes in Individual API Specifications	No
d) <u>Generic Error</u> – A generic or system error (example Invalid XML/JSON) which prevents the transaction from executing successfully. The API has not processed any input records. No records are updated. An Error XML/JSON containing the appropriate error code is generated and returned to the API Client.	No	Yes, Error Codes in Section 5

3.5.2 Error Response XML specification

The following table describes the specifications of Error XML.

Hierarchy	Data Element	Description	Data Type
0	errors	Top level hierarchy for errors	
1	errInfo	Top level hierarchy for error elements. One or many errors can be returned. Attribute “ID” of this element, shows the sequence identifier of the error.	
2	errCode	Error Code	String
2	errDesc	Error Description	String

3.5.3 Error Codes and Description

BAs can use the XML schema definitions published by NG to validate input and output XML documents. Below is a list of possible error codes that can be returned by an API call.

Error code	Error Message
GEM_API_ERROR_0000	System error
GEM_API_ERROR_0001	XML document is not valid
GEM_API_ERROR_0002	No record(s) found
GEM_API_ERROR_0003	The record could not be saved
GEM_API_ERROR_0004	The sub transaction start date cannot be less than the sub transaction end date
GEM_API_ERROR_0005	The transaction start date cannot be less than the transaction end date
GEM_API_ERROR_0006	Period From cannot be less than Period To

3.5.4 Error Schema Definition

URL of file (Gemini): </gemini/api/schema/geminiapierror.xsd>

(Gemini Exit): </exit/api/schema/exapierror.xsd>

```
<?xml version="1.0"?>
<xs:schema
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:element name="errors">
    <xs:complexType>
      <xs:sequence>
        <xs:element name="errInfo" maxOccurs="unbounded">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="errCode" type="xs:string"/>
              <xs:element name="errDesc" type="xs:string"/>
            </xs:sequence>
            <xs:attribute name="ID" type="xs:int" use="optional"/>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

Note: metadata information for JSON error is same as XML and it is available under the swagger definition. JSON error is applicable only for the Web API.

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4. Functional Specification

The following sections provide a standard XML\JSON schema definition table for each of the APIs. XML standards for data types should be followed (e.g. XS:DATE = data and time in a **YYYY-MM-DDThh:mm:ss** format)

4.1 Gemini Entry Capacity APIs

4.1.1 All Active Bids API

4.1.1.1 Overview

This API will retrieve all the bids that are competing for the next allocation process.

This specification contains interface details (relevant URIs, request and response XML/JSON message formats, and specific error messages) for this API. For more general guidance on

For API function and usage, see the API Usage Guidelines document.

4.1.1.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.1.1.2.1 URI to access the Web API

[/AllActiveBidsReport/v1](#)

4.1.1.2.2 URI to Access the IX API

API clients must invoke this URI to access this IX API's functionality:

[/gemini/controllers/AllActiveBidsReportControllerAPI/](#)

4.1.1.3 XML Specifications

4.1.1.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	ALL_ACTV_BIDS_QRY	Top level hierarchy for query elements							
1	MOS	Method of sale name	xs:string	{"type": "string"}	8	1	1	Yes	A valid MoS ID
1	SUBTX_STRT_DT	Sub transaction start date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	SUBTX_END_DT	Sub transaction end date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	LCTNS	Top level hierarchy for location element							
2	LCTN	Location at which the bid information is considered. One or more locations can be input. To query for all locations, 'ALL' should be given as the value for this element.	xs:string	{"type": "string"}	10	1	∞	Yes	A valid location
1	TX_STRT_DT	Transaction Start Date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction End Date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	SUBTNR_ID	Sub Tender ID	xs:string	{"type": "string"}	20	0	1	No	A valid ID

4.1.1.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	ALL_ACTV_BIDS_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Timestamp of API access.	xs:dateTime	{"type": "string"}	19	1	1
1	ALL_ACTV_BIDS_QRY	Top level hierarchy for meta information elements For child element details please refer to the request specification					
2	MOS	Method of sale name	xs:string	{"type": "string"}	8	1	1
2	SUBTX_STRT_DT	Sub transaction start date	xs:date	{"type": "string"}	10	1	1
2	SUBTX_END_DT	Sub transaction end date	xs:date	{"type": "string"}	10	1	1
2	LCTNS	Top level hierarchy for location element					
3	LCTN	Location at which the bid information is considered. One or more locations can be input. To query for all locations, 'ALL' should be given as the value for this element.	xs:string	{"type": "string"}	10	1	∞
2	TX_STRT_DT	Transaction Start Date	xs:date	{"type": "string"}	10	1	1
2	TX_END_DT	Transaction End Date	xs:date	{"type": "string"}	10	1	1
2	SUBTNDR_ID	Sub Tender ID	xs:string	{"type": "string"}	20	0	1
1	HEADER	Top level hierarchy for header elements					
2	PRDT	Product	xs:long	{"type": "number"}	8	1	1
2	SUBTX_STRT_DT	Sub transaction start date	xs:date	{"type": "string"}	10	1	1
2	SUBTX_END_DT	Sub transaction end date	xs:date	{"type": "string"}	10	1	1
2	TX_STRT_DT	Transaction start date	xs:date	{"type": "string"}	10	1	1
2	TX_END_DT	Transaction end date	xs:date	{"type": "string"}	10	1	1
2	SUBTNDR_ID	Sub Tender ID for a period of buy in transaction period	xs:string	{"type": "string"}	20	1	1
1	DETAIL	Top level hierarchy for record fields Attribute "RECORD_NMBR" of this element, shows the sequence identifier of the record.				1	∞
2	BID_CPCTY	It is the total capacity of the bid that is being considered	xs:long	{"type": "number"}	13	1	1
2	BID_PRC	It is the price at which the bid is placed.	xs:float	{"type": "number"}	6,4	1	1
2	BID_TMSTMP	It is the date and time at which the last action was taken on the bid	xs:dateTime	{"type": "string"}	19	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
2	LCTN	Location description at which the bid information is considered.	xs:string	{"type": "string"}	10	1	1
2	BID_VAL	It is computed as the product of bid capacity and bid price.	xs:float	{"type": "number"}	15,2	1	1
2	OPTN_BID	This flag shows whether the bid is option type or not.	xs:string	{"type": "string"}	1	1	1
2	EXER_PRC	Exercise price	xs:float	{"type": "number"}	6,4	1	1
2	PRM_PRC	Premium price	xs:float	{"type": "number"}	6,4	1	1

4.1.1.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.1.4 Error Handling

4.1.1.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0004	The sub transaction end date cannot be less than the sub transaction start date
GEM_API_ERROR_0005	The transaction end date cannot be less than the transaction start date
GEM_API_ERROR_0006	Period To cannot be less than Period From

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4.1.2 Bid Information Shipper View – Normal Pricing Strategy API

4.1.2.1 Overview

This API will provide the BA with information on the status of their bids for the Normal Pricing strategy.

This specification contains interface details (relevant URIs, request and response XML/JSON message formats, and specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.1.2.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.1.2.2.1 URI to access the Web API

[/BidInformationReport/v1](#)

4.1.2.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/BidInformationReportControllerAPI/](#)

4.1.2.3 XML Specifications

4.1.2.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	BID_INFO_NRML_PRCNG_QRY	Top level hierarchy for query elements							
1	MOS	Method of sale	xs:string	{"type": "string"}	8	1	1	Yes	A valid MoS Name
1	LCTNS	Top level hierarchy for location element							
2	LCTN	Location input could be one or many. To query for all locations, 'ALL' should be given as the value for this element.	xs:string	{"type": "string"}	10	1	∞	Yes	A valid ASEP location
1	SUBTX_STRT_DT	Sub transaction start date For auctions of daily capacity all gas days between the sub-transaction start and end dates will be returned. For other auction types only one sub-transaction period can be returned and it must be exactly matched by the specified sub-transaction start and end dates.	xs:date	{"type": "string"}	10	0	1	No	Format: YYYY-MM-DD Example: 2020-09-04
1	SUBTX_END_DT	Sub transaction end	xs:date	{"type": "string"}	10	0	1	No	Format: YYYY-MM-DD

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		date See SUBTX_STRT_DT for further information.		"string"}					Example: 2020-09-04
1	BID_STS	Bid Status	xs:string	{"type": "string"}	3	0	1	No	Allocated – A Exercised - E Invoiced - I New - N Pending - P Recalled -R Rejected - X Terminated – T Withdrawn – W Blank – for ALL
1	TX_STRT_DT	Transaction start date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction end date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	BIDWND_STRT_DT	Bid Window Period Start Date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	BIDWND_END_DT	Bid Window Period Start Date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TRNCH_NMBR	Tranche Number	xs:long	{"type": "number "}	10	1	1	Yes	A valid number
1	SUBTNDR_ID	Sub Tender ID for a period of buy in transaction period	xs:string	{"type": "string"}	20	0	1	No	A valid ID

4.1.2.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	BID_INFO_NRML_PRCNG_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	BID_INFO_NRML_PRCNG_QRY	Top level hierarchy for meta information elements For child element details please refer to request specification.					
2	MOS	Method of sale	xs:string	{"type": "string"}	8	1	1
2	LCTNS	Top level hierarchy for location element					
3	LCTN	Location input could be one or many. To query for all locations, 'ALL' should be given as the value for this element.	xs:string	{"type": "string"}	10	1	∞
2	SUBTX_STRT_DT	Sub transaction start date For auctions of daily capacity all gas days between the sub- transaction start and end dates will be returned. For other auction types only one sub- transaction period can be returned and it must be exactly matched by the specified sub-transaction start and end dates.	xs:date	{"type": "string"}	10	0	1
2	SUBTX_END_DT	Sub transaction end date See SUBTX_STRT_DT for further information.	xs:date	{"type": "string"}	10	0	1
2	BID_STS	Bid Status	xs:string	{"type": "string"}	3	0	1
2	TX_STRT_DT	Transaction start date	xs:date	{"type": "string"}	10	1	1
2	TX_END_DT	Transaction end date	xs:date	{"type": "string"}	10	1	1
2	BIDWND_STRT_DT	Bid Window Period Start Date	xs:date	{"type": "string"}	10	1	1
2	BIDWND_END_DT	Bid Window Period Start Date	xs:date	{"type": "string"}	10	1	1
2	TRNCH_NMBR	Tranche Number	xs:long	{"type": "number"}	10	1	1
2	SUBTNRD_ID	Sub Tender ID	xs:string	{"type": "string"}	20	0	1
1	DETAIL	Top level hierarchy for record fields Attribute "RECORD_NMBR" of this element, shows the sequence identifier of the record.					
2	TRNCH_NMBR	Tranche Number	xs:long	{"type": "number"}	10	1	1
2	SUBTX_PRD_FRM	Sub Transaction Period Start Date	xs:date	{"type": "string"}	10	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
2	SUBTX_PRD_TO	Sub Transaction Period End Date	xs:date	{"type": "string"}	10	1	1
2	LCTN	Location at which the bid information is considered	xs:string	{"type": "string"}	10	1	1
2	BID_ID	Unique identifier for every bid that is placed for an auction.	xs:string	{"type": "string"}	20	1	1
2	BID_CPCTY	It is the total capacity of the bid that is being considered	xs:long	{"type": "number"}	13	1	1
2	FLOW_STRT_TM	Time at which the gas flow starts for the bid.	xs:dateTime	{"type": "string"}	19	1	1
2	ENTLMNT	It is the total allocated quantity if the bid is allocated after processing.	xs:long	{"type": "number"}	13	1	1
2	ENTLMNT_PRC	It is the allocated price if the bid is allocated after processing.	xs:float	{"type": "number"}	6,4	1	1
2	BID_PRC	It is the price at which the bid is placed	xs:float	{"type": "number"}	6,4	1	1
2	BID_STS	It is the status of the bid being considered.	xs:string	{"type": "string"}	3	1	1
2	RSN_FOR_RJCTN	It is the reason for rejection of a bid if the bid being considered is rejected.	xs:string	{"type": "string"}	5	1	1
2	SUBTNDR_ID	System Generated Id for a period of buy in transaction period	xs:string	{"type": "string"}	20	1	1
2	BID_TMSTMP	Time stamp at which the bid is placed.	xs:dateTime	{"type": "string"}	19	1	1

4.1.2.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.2.4 Error Handling

4.1.2.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0004	The sub transaction end date cannot be less than the sub transaction start date
GEM_API_ERROR_0005	The transaction end date cannot be less than the transaction start date
GEM_API_ERROR_0006	Period To cannot be less than Period From

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.1.3 Capacity Trade Details API

4.1.3.1 Overview

This API will retrieve the trades that are registered by the BA.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document

4.1.3.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.1.3.2.1 URI to access the Web API

[/TradeDetailsAPI/v1](#)

4.1.3.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/TradeDetailsAPIController/](#)

4.1.3.3 XML Specifications

4.1.3.3.1 API Request Parameters

Capacity Trade details can be queried by either one of the query criteria as given below.

QRY_CRTR_1 – By providing Product Type, Product Category, Service Type, Contract Type, Period and Location.

QRY_CRTR_2 – By providing Trade Reference Number.

QRY_CRTR_3 – By providing Bid Id.

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	CPCTY_TRD_DTL_QRY	Top level hierarchy for query elements This element contains a 'TO_PROCESS' attribute that would contain one of the below values. QRY_CRTR_1 QRY_CRTR_2 QRY_CRTR_3							
1	QRY_CRTR_1	Query condition with below element set							
2	PRDT_TYP	All tradable product types	xs:string	{"type": "string"}	20	1	1	Yes	Entry Capacity / Exit Capacity
2	PRDT_CTGRY	Category of the Product	xs:string	{"type": "string"}	1	1	1	Yes	Capacity / Contract Allowable Format: Capacity: C Contract: O
2	SRVC_TYP	Type of Service	xs:string	{"type": "string"}	20	1	1	Yes	Firm or Interruptible
2	CNTRCT_TYP	Type of Contract	xs:string	{"type": "string"}	1	1	1	Yes	Option: O Forward: F,
2	PRD_FRM	Time period From for query	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
2	PRD_TO	Time period To for query	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
2	TRD_STS	Status of the trade	xs:string	{"type": "string"}	1	0	1	No	Registered – R Timed Out- T Withdrawn – W

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
									Confirmed – C Rejected – D Cancelled – X
2	LCTNS	Top level hierarchy for location element							
3	LCTN	Location for which trades have been done. One or more locations can be input. To query for all locations, 'ALL' should be given as the value for this element.	xs:string	{"type": "string"}	10	1	∞	Yes	A valid location
1	QRY_CRTR_2	Query condition with below element set							
2	TRD_REF_NMBR	Trade Reference - Unique Identifier for a trade	xs:string	{"type": "string"}	15	1	1	Yes	A valid number
1	QRY_CRTR_3	Query condition with below element set							
2	BID_ID	Bid Id	xs:string	{"type": "string"}	20	1	1	Yes	A valid ID

4.1.3.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	CPCTY_TRD_DTL_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	CPCTY_TRD_DTL_QRY	Top level hierarchy for meta information elements For child element details please refer to request specification.					
1	DETAIL	Top level hierarchy for header fields Attribute "RECORD_NMBR" of this element, shows the sequence identifier of the record.				1	∞
2	SELL_BA	Business Associate short code of the Business Associate who sells the trade	xs:string	{"type": "string"}	3	1	1
2	BUY_BA	Business Associate short code of the Business Associate who buys the trade	xs:string	{"type": "string"}	3	1	1
2	TRD_REF_NMBR	Trade Reference	xs:string	{"type": "string"}	15	1	1
2	TRD_TM	Time of Registration of Trade	xs:dateTime	{"type": "string"}	19	1	1
2	LCTN	Location	xs:string	{"type": "string"}	10	1	1
2	TRD_QTY	The quantity of capacity being traded. (kWh)	xs:long	{"type": "number"}	13	1	1
2	TRD_PRC	Unit price for the trade being done between Business Associates. (p/kWh)	xs:float	{"type": "number"}	6,4	1	1
2	PRD_FRM	Trade start Date	xs:date	{"type": "string"}	10	1	1
2	PRD_TO	Trade end Date	xs:date	{"type": "string"}	10	1	1
2	TRD_STS	Trade Status	xs:string	{"type": "string"}	1	1	1
2	BID_ID	Bid Id	xs:string	{"type": "string"}	20	1	1
2	EXER_PRC	Exercise price for the trade. This field will be displayed if the Bid Id is present.	xs:float	{"type": "number"}	6,4	1	1
2	RMNG_EXRCSBL_DAYS	Remaining no of Exercisable Days. This field will be displayed if the Bid Id is present.	xs:long	{"type": "number"}	10	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
2	LTST_EXRCSBL_DAY	Latest Exercisable Days. This field will be displayed if the Bid Id is present.	xs:long	{"type": "number"}	10	1	1
2	LTST_EXRCSBL_TM	Latest Exercisable Time. This field will be displayed if the Bid Id is present.	xs:dateTime	{"type": "string"}	19	1	1
2	ERLST_EXRCSBL_DAY	Earliest Exercisable Days. This field will be displayed if the Bid Id is present.	xs:long	{"type": "number"}	10	1	1
2	ERLST_EXRCSBL_TM	Earliest Exercisable Time. This field will be displayed if the Bid Id is present.	xs:dateTime	{"type": "string"}	19	1	1
2	PRM_PRC	Premium price. This field will be displayed if the Bid Id is present.	xs:float	{"type": "number"}	6,4	1	1
2	BID_TYP	Bid Type. This field will be displayed if the Bid Id is present.	xs:string	{"type": "string"}	1	1	1
2	MIN_QTY	Minimum Quantity. This field will be displayed if the Bid Id is present.	xs:long	{"type": "number"}	13	1	1
2	MAX_QTY	Maximum Quantity. This field will be displayed if the Bid Id is present.	xs:long	{"type": "number"}	13	1	1

4.1.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.3.4 Error Handling

4.1.3.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0006	Period To cannot be less than Period From

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.1.4 Capacity Trade Registration API

4.1.4.1 Overview

BAs register new Trades using this API. The API will update the associated information in Gemini.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.1.4.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.1.4.2.1 URI to access the Web API

[/TradeRegistrationAPI/v1](#)

4.1.4.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/TradeRegistrationAPIController/](#)

4.1.4.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.1.4.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	CPCTY_TRD_REG N_INP	Top level hierarchy for field elements							
1	BUY_BA	Business Associate short code of the Business Associate who buys the trade	xs:string	{"type": "string"}	3	1	1	Yes	A valid BA
1	PRDT_TYP	Type of Product E.g. Entry Capacity, Exit Capacity.	xs:string	{"type": "string"}	20	1	1	Yes	Entry Capacity / Exit Capacity
1	PRDT_CTGRY	Category of the Product	xs:string	{"type": "string"}	1	1	1	Yes	Contract / Capacity C - Capacity , O - Contract
1	SRVC_TYP	Service Type	xs:string	{"type": "string"}	20	0	1	No	Firm or Interruptible
1	CNTRCT_TYP	Type of Contract	xs:string	{"type": "string"}	1	0	1	No	Option: O Forward: F
1	LCTN	Location for which trades needs to be done.	xs:string	{"type": "string"}	10	1	1	Yes	A valid Location
1	PRD_FRM	Trade start date.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PRD_TO	Trade end date.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TRD_QTY	Trade Quantity	xs:long	{"type": "number"}	13	1	1	Yes	A valid Quantity
1	TRD_PRC	Trade Price	xs:float	{"type": "number"}	6,4	0	1	No	A valid Price

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
1	TRD_REF_NMBR	Trade Reference Number	xs:string	{"type": "string"}	15	0	1	No	A valid number
1	BID_ID	Bid ID	xs:string	{"type": "string"}	20	0	1	No	A valid ID

4.1.4.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	CPCTY_TRD_REGN_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	CPCTY_TRD_REGN_INP	Top level hierarchy for meta information elements For child element details please refer to request specification.					
1	DETAIL	Top level hierarchy for header fields					
2	TRD_REF_NMBR	The trade reference number generated by the system when the trade is registered	xs:string	{"type": "string"}	15	1	1

4.1.4.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.4.4 Error Handling

4.1.4.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0006	Period To cannot be less than Period From

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.1.5 Daily Auctions Summary Report – Bids / Shippers API

4.1.5.1 Overview

This API provides summary information for number of bids and Shippers for every location and STP of a daily auction. This information is displayed in the Bids / Shippers view screen in Gemini. However, while the screen provides information for all auctions, this API is restricted to Bids / Shippers information for daily auctions (i.e.DADSEC, WDDSEC, DISEC and DBSEC).

4.1.5.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.1.5.2.1 URI to access the Web API

[/BidShipDailyAuctionSummaryReport/v1](#)

4.1.5.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/BidShipDailyAuctionSummaryReportControllerAPI/](#)

4.1.5.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.1.5.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	DLY_AUCT_SUM_RPT_BIDS_SHPRS_QUERY	Top-level hierarchy for query elements.							
1	MOS	Method of Sale. Only MoS for daily auctions are valid Method of Sale	xs:string	{"type": "string"}	8	1	1	Yes	A valid MoS ID
1	LCTNS	Top-level hierarchy for Location element.							
2*	LCTN	Location Code may be input for one or multiple locations. Multiple locations may be selected by repeating this element, once for each Location Code. To query for all locations, this element value should be set to 'ALL'.	xs:string	{"type": "string"}	10	1	∞	Yes	A valid location
1	PRD_FRM	Period From Information will be retrieved for all Sub-Transaction periods within PRD_FRM to PRD_TO	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PRD_TO	Period To	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		Information will be retrieved for all Sub-Transaction periods within PRD_FRM to PRD_TO.		"string"}					Example: 2020-09-04
1	TX_STRT_DT	Transaction Start Date. Information may be requested for only one Transaction Period.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction End Date Information may be requested for only one Transaction Period.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	BIDWND_STRT_DT	Bid Window Period Start Date, which must be expressed relative to D. Information may be requested for only one Bid Window Period	xs:string	{"type": "string"}	14	1	1	Yes	Allowable formats are: D-i HH:MM:SS and D-i HH:MM (where 'i' is an integer that can take values from 0 to 999).
1	BIDWND_END_DT	Bid Window Period Start Date, which must be expressed relative to D. Information may be requested for only one Bid Window Period.	xs:string	{"type": "string"}	14	1	1	Yes	Allowable formats are: D-i HH:MM:SS and D-i HH:MM (where 'i' is an integer that can take values from 0 to 999).

4.1.5.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	DLY_AUCT_SUM_RPT_BIDS_SHPRS_OUT	Top-level hierarchy for output elements.					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	DLY_AUCT_SUM_RPT_BIDS_SHPRS_QRY	Top-level hierarchy for query elements.					
2	PRDT	Product for which bids are queried.	xs:long	{"type": "number"}	10	1	1
2	MOS	Method of Sale for daily auctions.	xs:string	{"type": "string"}	8	1	1
2	LCTNS	Top-level hierarchy for Location element.					
3*	LCTN	Location Code	xs:string	{"type": "string"}	10	1	∞
2	PRD_FRM	Gas Day Period From	xs:date	{"type": "string"}	10	1	1
2	PRD_TO	Gas Day Period To	xs:date	{"type": "string"}	10	1	1
2	TX_STRT_DT	Transaction Start Date	xs:date	{"type": "string"}	10	1	1
2	TX_END_DT	Transaction End Date	xs:date	{"type": "string"}	10	1	1
2	BIDWND_STRT_DT	Bid Window Period Start Date	xs:string	{"type": "string"}	14	1	1
2	BIDWND_END_DT	Bid Window Period End Date	xs:string	{"type": "string"}	14	1	1
1*	DTL	Top-level hierarchy for details.				1	∞
2	GAS_DAY	Sub Transaction Period – for a daily auction, this is always a single day.	xs:date	{"type": "string"}	10	1	1
2	LCTN	Location Code	xs:string	{"type": "string"}	10	1	1
2	NO_BID_SHPRS	Number of bidding shippers for the selected MoS Instance / Location / STP. This field will be populated only when it is set to publish during the MOS setup.	xs:int	{"type": "number"}	5	0	1
2	NO_SUCS_SHPRS	Number of Successful shippers for the selected MoS Instance / Location / STP. This field will be populated only when it is set to publish during the MOS setup No. of Successful Shippers	xs:int	{"type": "number"}	5	0	1
2	NO_ACPTD_BIDS	Number of Accepted Bids for the selected MoS Instance / Location / STP. This field will be populated only when it is	xs:int	{"type": "number"}	5	0	1

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Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		set to publish during the MOS setup No. of Successful Shippers					

**Note: For Web API response swagger metadata, replace DLY_AUCT_SUM_RPT_BIDS_SHPRS_QRY with DLY_AUCT_SUM_RPT_BIDS_SHPRS_QRY_OUT*

4.1.5.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.5.4 Error Handling

4.1.5.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0200	Transaction Start Date cannot be greater than Transaction End Date.
GEM_API_ERROR_0202	Bid Window Start Date cannot be greater than Bid Window End Date.
GEM_API_ERROR_0205	Gas Day Period To Date should be greater than or equal to the Period From Date.
GEM_API_ERROR_0206	Period From and Period To dates should be within Transaction

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.1.6 Daily Auctions Summary Report – Max / Min Price Information API

4.1.6.1 Overview

This API provides the Maximum and Minimum accepted Price among allocated bids for every location and STP of a daily auction. It also provides the volume sold at the prices and corresponding timestamps. This information is displayed in the Max / Min Price Info view screen in Gemini. However, while the screen provides information for all auctions, this API is restricted to Max / Min Price Information for daily auctions (i.e. DADSEC, WDDSEC, DISEC and DBSEC).

4.1.6.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.1.6.2.1 URI to access the Web API

[/MaxMinDailyAuctionSummaryReport/v1](#)

4.1.6.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/MaxMinDailyAuctionSummaryReportControllerAPI/](#)

4.1.6.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.1.6.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	DLY_AUCT_SUM_RPT_MAX_MIN_PRICE_QRY	Top-level hierarchy for query elements.							
1	MOS	Method of Sale. Only MoS for daily auctions are valid Method of Sale	xs:string	{"type": "string"}	8	1	1	Yes	A valid MoS ID
1	LCTNS	Top-level hierarchy for Location element.							
2*	LCTN	Location Code may be input for one or multiple locations. Multiple locations may be selected by repeating this element, once for each Location Code. To query for all locations, this element value should be set to 'ALL'.	xs:string	{"type": "string"}	10	1	∞	Yes	A valid location
1	PRD_FRM	Information will be retrieved for all Sub-Transaction periods within PRD_FRM to PRD_TO. This date should be within Transaction Period, and of the format YYYY-MM- DD.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
1	PRD_TO	Information will be retrieved for all Sub-Transaction periods within PRD_FRM to PRD_TO. This date should be greater than or equal to the 'Period From' date, within the Transaction Period.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_STRT_DT	Transaction Start Date. Information may be requested for only one Transaction Period.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction End Date Information may be requested for only one Transaction Period.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	BIDWND_STRT_DT	Bid Window Period Start Date, which must be expressed relative to D. Information may be requested for only one Bid Window Period.	xs:string	{"type": "string"}	14	1	1	Yes	Allowable formats are: D-i HH:MM:SS and D-i HH:MM (where 'i' is an integer that can take values from 0 to 999).
1	BIDWND_END_DT	Bid Window Period Start Date, which must be expressed relative to D. Information may be requested for only one Bid Window Period.	xs:string	{"type": "string"}	14	1	1	Yes	Allowable formats are: D-i HH:MM:SS and D-i HH:MM (where 'i' is an integer that can take values from 0 to 999).

4.1.6.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	DLY_AUCT_SUM_RPT_MAX_MIN_PRC_OUT	Top-level hierarchy for output elements.					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	DLY_AUCT_SUM_RPT_MAX_MIN_PRC_QRY	Top-level hierarchy for query elements.					
2	PRDT	Product for which bids are queried.	xs:long	{"type": "number"}	10	1	1
2	MOS	Method of Sale for daily auctions.	xs:string	{"type": "string"}	8	1	1
2	LCTNS	Top-level hierarchy for Location element.					
3*	LCTN	Location Code	xs:string	{"type": "string"}	10	1	∞
2	PRD_FRM	Gas Day Period From	xs:date	{"type": "string"}	10	1	1
2	PRD_TO	Gas Day Period To	xs:date	{"type": "string"}	10	1	1
2	TX_STRT_DT	Transaction Start Date	xs:date	{"type": "string"}	10	1	1
2	TX_END_DT	Transaction End Date	xs:date	{"type": "string"}	10	1	1
2	BIDWND_STRT_DT	Bid Window Period Start Date	xs:string	{"type": "string"}	14	1	1
2	BIDWND_END_DT	Bid Window Period End Date	xs:string	{"type": "string"}	14	1	1
1*	DTL	Top-level hierarchy for details.				1	∞
2	GAS_DAY	Sub Transaction Period – for a daily auction, this is always a single day.	xs:date	{"type": "string"}	10	1	1
2	LCTN	Location Code	xs:string	{"type": "string"}	10	1	1
2	MAX_ACPTD_PRC	Maximum accepted price for the selected MoS Instance / Location / STP in p/kWh. This field will be populated only when it is set to publish during the MOS setup.	xs:float	{"type": "number"}	6,4	0	1
2	MIN_ACPTD_PRC	Minimum accepted price for the selected MoS Instance / Location / STP in p/kWh. This field will be populated only when it is set to publish during the MOS setup.	xs:float	{"type": "number"}	6,4	0	1
2	VOL_SLD_MAX_PRC	Volume of capacity sold at maximum price for the selected MoS Instance / Location / STP in kWh. This field will be populated only when the auction type is 'SELL' and set to publish	xs:long	{"type": "number"}	19	0	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		during the MOS setup.					
2	VOL_BGT_MAX_PRC	Volume of capacity bought at maximum price for the selected MoS Instance / Location / STP in kWh. This field will be populated only when the auction type is 'BUY' and set to publish during the MOS setup.	xs:long	{"type": "number"}	19	0	1
2	VOL_REQ_MAX_PRC	Volume of capacity requested at maximum price for the selected MoS Instance / Location / STP in kWh. This field will be populated only if the auction has not been processed and set to publish during the MOS setup.	xs:long	{"type": "number"}	19	0	1
2	VOL_SLD_MIN_PRC	Volume of capacity sold at minimum price for the selected MoS Instance / Location / STP in kWh. This field will be populated only when the auction type is 'SELL' and set to publish during the MOS setup.	xs:long	{"type": "number"}	19	0	1
2	VOL_BGT_MIN_PRC	Volume of capacity bought at minimum price for the selected MoS Instance / Location / STP in kWh. This field will be populated only when the auction type is 'BUY' and set to publish during the MOS setup.	xs:long	{"type": "number"}	19	0	1
2	VOL_REQ_MIN_PRC	Volume of capacity requested at minimum price for the selected MoS Instance / Location / STP in kWh. This field will be populated only if the auction has not been processed and set to publish during the MOS setup.	xs:long	{"type": "number"}	19	0	1
2	TMSTMP_MAX_PRC	Timestamp of allocation of the bid with the Max accepted price for the selected MoS Instance / Location / STP. This field will be populated only when it is	xs:dateTime	{"type": "string"}	19	0	1

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Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		set to publish during the MOS setup.					
2	TMSTMP_MIN_PRC	Timestamp of allocation of the bid with the Min accepted price for the selected MoS Instance / Location / STP. This field will be populated only when it is set to publish during the MOS setup.	xs:dateTime	{"type": "string"}	19	0	1

**Note: For Web API response swagger metadata, replace DLY_AUCT_SUM_RPT_MAX_MIN_PRC_QRY with DLY_AUCT_SUM_RPT_MAX_MIN_PRC_QRY_OUT*

4.1.6.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.6.4 Error Handling

4.1.6.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0200	Transaction Start Date cannot be greater than Transaction End Date.
GEM_API_ERROR_0202	Bid Window Start Date cannot be greater than Bid Window End Date.
GEM_API_ERROR_0205	Gas Day Period To Date should be greater than or equal to the Period From Date.
GEM_API_ERROR_0206	Period From and Period To dates should be within Transaction Period.
GEM_API_ERROR_0207	Only Daily Auctions are valid.
GEM_API_ERROR_0208	Bid Window Start Date Time Format Invalid
GEM_API_ERROR_0209	Bid Window End Date Time Format Invalid

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.1.7 Daily Auctions Summary Report – Sold / Unsold API

4.1.7.1 Overview

This API provides the capacity sold and unsold, along with revenue, at every location and STP of a daily auction. This information is displayed in the Sold / Unsold view screen in Gemini. However, while the screen provides information for all auctions, this API is restricted to Sold / Unsold information for daily auctions (i.e. DADSEC, WDDSEC, DISEC and DBSEC).

4.1.7.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.1.7.2.1 URI to access the Web API

[/DailyAuctionSummarySoldUnsoldReport/v1](#)

4.1.7.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/DailyAuctionSummarySoldUnsoldReportController
API/](#)

4.1.7.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.1.7.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	DLY_AUCT_SUM_RPT_SLD_UNSLD_QRY	Top-level hierarchy for query elements.							
1	MOS	Method of Sale. Only MoS for daily auctions are valid Method of Sale	xs:string	{"type": "string"}	10	1	1	Yes	A valid MoS ID
1	LCTNS								
2*	LCTN	Location Code may be input for one or multiple locations. Multiple locations may be selected by repeating this element, once for each Location Code. To query for all locations, this element value should be set to 'ALL'.	xs:string	{"type": "string"}	10	1	∞	Yes	A valid location
1	PRD_FRM	Information will be retrieved for all Sub-Transaction periods within PRD_FRM to PRD_TO.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PRD_TO	Information will be retrieved for all Sub-Transaction periods	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		within PRD_FRM to PRD_TO.							
1	TX_STRT_DT	Transaction Start Date. Information may be requested for only one Transaction Period.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction End Date Information may be requested for only one Transaction Period.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	BIDWND_STRT_DT	Bid Window Period Start Date, which must be expressed relative to D. Information may be requested for only one Bid Window Period.	xs:string	{"type": "string"}	14	1	1	Yes	Allowable formats are: D-i HH:MM:SS and D-i HH:MM (where 'i' is an integer that can take values from 0 to 999).
1	BIDWND_END_DT	Bid Window Period Start Date, which must be expressed relative to D. Information may be requested for only one Bid Window Period.	xs:string	{"type": "string"}	14	1	1	Yes	Allowable formats are: D-i HH:MM:SS and D-i HH:MM (where 'i' is an integer that can take values from 0 to 999).

4.1.7.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	DLY_AUCT_SUM_RPT_SLD_UNSLD_OUT	Top-level hierarchy for output elements.					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	DLY_AUCT_SUM_RPT_SLD_UNSLD_QRY	Top-level hierarchy for query elements.					
2	PRDT	Product for which bids are queried.	xs:long	{"type": "number"}	10	1	1
2	MOS	Method of Sale for daily auctions.	xs:string	{"type": "string"}	8	1	1
2	LCTNS	Top-level hierarchy for Location element.					
3*	LCTN	Location Code	xs:string	{"type": "string"}	10	1	∞
2	PRD_FRM	Gas Day Period From	xs:date	{"type": "string"}	10	1	1
2	PRD_TO	Gas Day Period To	xs:date	{"type": "string"}	10	1	1
2	TX_STRT_DT	Transaction Start Date	xs:date	{"type": "string"}	10	1	1
2	TX_END_DT	Transaction End Date	xs:date	{"type": "string"}	10	1	1
2	BIDWND_STRT_DT	Bid Window Period Start Date	xs:string	{"type": "string"}	14	1	1
2	BIDWND_END_DT	Bid Window Period End Date	xs:string	{"type": "string"}	14	1	1
1*	DTL	Top-level hierarchy for details.				1	∞
2	GAS_DAY	Sub Transaction Period – for a daily auction, this is always a single day.	xs:date	{"type": "string"}	10	1	1
2	LCTN	Location Code	xs:string	{"type": "string"}	10	1	1
2	QTY_SLD	Capacity sold for the selected MoS Instance / Location / STP in kWh. This field will be populated only when the auction type is 'SELL' and set to publish during the MOS setup.	xs:long	{"type": "number"}	13	0	1
2	QTY_BGT	Capacity bought back for the selected MoS Instance / Location / STP in kWh. This field will be populated only when the auction type is 'BUY' and set to publish during the MOS setup.	xs:long	{"type": "number"}	13	0	1
2	RVNU	Revenue generated for the selected MoS	xs:double	{"type": "number"}	-	0	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		instance / Location / STP in £. This field will be populated only when the auction type is 'SELL' and set to publish during the MOS setup.					
2	CST	Cost generated for the selected MoS instance / Location / STP in £. This field will be populated only when the auction type is 'BUY' and set to publish during the MOS setup.	xs:double	{"type": "number"}	-	0	1
2	AMT_SALE	Amount of capacity offered for sale for the selected MoS Instance / Location / STP in kWh. This field will be populated only when the auction type is 'SELL' and set to publish during the MOS setup.	xs:long	{"type": "number"}	13	0	1
2	AMT_BGT	Amount of capacity requested to be bought for the selected MoS Instance / Location / STP in kWh. This field will be populated only when the auction type is 'BUY' and set to publish during the MOS setup.	xs:long	{"type": "number"}	13	0	1
2	QTY_UNSLD	Unsold capacity for the selected MoS Instance / Location / STP in kWh. This field will be populated only when the auction type is 'SELL' and set to publish during the MOS setup.	xs:long	{"type": "number"}	13	0	1
2	QTY_NOT_BGT	Capacity that was not bought back for the selected MoS Instance / Location / STP in kWh. This field will be populated only when the auction type is 'BUY' and set to publish during the MOS setup.	xs:long	{"type": "number"}	13	0	1

**Note: For Web API response swagger metadata, replace DLY_AUCT_SUM_RPT_SLD_UNSLD_QRY with DLY_AUCT_SUM_RPT_SLD_UNSLD_QRY_OUT*

4.1.7.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.7.4 Error Handling

4.1.7.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0200	Transaction Start Date cannot be greater than Transaction End Date.
GEM_API_ERROR_0202	Bid Window Start Date cannot be greater than Bid Window End Date.
GEM_API_ERROR_0205	Gas Day Period To Date should be greater than or equal to the Period From Date.
GEM_API_ERROR_0206	Period From and Period To dates should be within Transaction Period.
GEM_API_ERROR_0208	Bid Window Start Date Time Format Invalid
GEM_API_ERROR_0209	Bid Window End Date Time Format Invalid

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4.1.8 Daily Auctions Summary Report – WAP API

4.1.8.1 Overview

This API provides the Weighted Average Price of allocated bids for every location and STP of a daily auction. This information is displayed in the WAP view screen in Gemini. However, while the screen provides information for all auctions, this API is restricted to WAP for daily auctions (i.e. DADSEC, WDDSEC, DISEC and DBSEC).

4.1.8.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.1.8.2.1 URI to access the Web API

[/DailyAuctionSummaryWAPReport/v1](#)

4.1.8.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/DailyAuctionSummaryWAPReportControllerAPI/](#)

4.1.8.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.1.8.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	DLY_AUCT_SUM_RPT_WAP_QRY	Top-level hierarchy for query elements.							
1	MOS	Method of Sale. Only MoS for daily auctions are valid Method of Sale	xs:string	{"type": "string"}	8	1	1	Yes	A valid MoS ID
1	LCTNS	Top-level hierarchy for Location element.							
2*	LCTN	Location Code may be input for one or multiple locations. Multiple locations may be selected by repeating this element, once for each Location Code. To query for all locations, this element value should be set to 'ALL'.	xs:string	{"type": "string"}	10	1	∞	Yes	A valid location
1	PRD_FRM	Information will be retrieved for all Sub-Transaction periods within PRD_FRM to PRD_TO. This date should be within Transaction Period, and of the format YYYY-MM- DD.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
1	PRD_TO	Information will be retrieved for all Sub-Transaction periods within PRD_FRM to PRD_TO. This date should be greater than or equal to the 'Period From' date, within the Transaction Period.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_STRT_DT	Transaction Start Date. Information may be requested for only one Transaction Period.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction End Date Information may be requested for only one Transaction Period.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	BIDWND_STRT_DT	Bid Window Period Start Date, which must be expressed relative to D. Information may be requested for only one Bid Window Period.	xs:string	{"type": "string"}	14	1	1	Yes	Allowable formats are: D-i HH:MM:SS and D-i HH:MM (where 'i' is an integer that can take values from 0 to 999).
1	BIDWND_END_DT	Bid Window Period Start Date, which must be expressed relative to D. Information may be requested for only one Bid Window Period.	xs:string	{"type": "string"}	14	1	1	Yes	Allowable formats are: D-i HH:MM:SS and D-i HH:MM (where 'i' is an integer that can take values from 0 to 999).

4.1.8.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	DLY_AUCT_SUM_RPT_WAP_OUT	Top-level hierarchy for output elements.					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	DLY_AUCT_SUM_RPT_WAP_QRY	Top-level hierarchy for query elements.					
2	PRDT	Product for which bids are queried.	xs:long	{"type": "number"}	10	1	1
2	MOS	Method of Sale for daily auctions.	xs:string	{"type": "string"}	8	1	1
2	LCTNS	Top-level hierarchy for Location element.					
3*	LCTN	Location Code	xs:string	{"type": "string"}	10	1	∞
2	PRD_FRM	Gas Day Period From	xs:date	{"type": "string"}	10	1	1
2	PRD_TO	Gas Day Period To	xs:date	{"type": "string"}	10	1	1
2	TX_STRT_DT	Transaction Start Date	xs:date	{"type": "string"}	10	1	1
2	TX_END_DT	Transaction End Date	xs:date	{"type": "string"}	10	1	1
2	BIDWND_STRT_DT	Bid Window Period Start Date	xs:string	{"type": "string"}	14	1	1
2	BIDWND_END_DT	Bid Window Period End Date	xs:string	{"type": "string"}	14	1	1
1*	DTL	Top-level hierarchy for details.				1	∞
2	GAS_DAY	Sub Transaction Period – for a daily auction, this is always a single day.	xs:date	{"type": "string"}	10	N/A	N/A
2	LCTN	Location Code	xs:string	{"type": "string"}	10	N/A	N/A
2	WAP	Calculated Weighted Average Price for the selected MoS Instance / Location / STP in p/kWh. This field will be populated only when it is set to publish during Weighted Average Price	xs:double	{"type": "number"}	6,4	0	1
2	WAP_TOP50_ALOC_QTY	Calculated WAP of top 50% of Allocated Quantity for the selected MoS Instance / Location / STP in p/kWh. This field will be populated only when it is set to publish during the MOS setup.	xs:double	{"type": "number"}	6,4	0	1
2	CLRNG_PRC	Clearing Price of the auction for the selected MoS Instance / Location / STP in p/kWh.	xs:double	{"type": "number"}	6,4	0	1

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**Note: For Web API response swagger metadata, replace DLY_AUCT_SUM_RPT_WAP_QRY with DLY_AUCT_SUM_RPT_WAP_QRY_OUT*

4.1.8.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.8.4 Error Handling

4.1.8.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0200	Transaction Start Date cannot be greater than Transaction End Date.
GEM_API_ERROR_0202	Bid Window Start Date cannot be greater than Bid Window End Date.
GEM_API_ERROR_0205	Gas Day Period To Date should be greater than or equal to the Period From Date.
GEM_API_ERROR_0206	Period From and Period To dates should be within Transaction Period.
GEM_API_ERROR_0207	Only Daily Auctions are valid.
GEM_API_ERROR_0208	Bid Window Start Date Time Format Invalid
GEM_API_ERROR_0209	Bid Window End Date Time Format Invalid

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4.1.9 Revised Entitlements API

4.1.9.1 Overview

This API retrieves the daily entitlement for a location, for a Method of Sale, and for the period mentioned. The API retrieves details for all the capacity days within the input period.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.1.9.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.1.9.2.1 URI to access the Web API

[/EntitlementsReport/v1](#)

4.1.9.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/EntitlementsReportControllerAPI](#)

4.1.9.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.1.9.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	ENTLMNTS_QRY	Top-level hierarchy for output elements.							
1	LCTN	Location Code may be input for one or multiple locations. Multiple locations may be selected by repeating this element, once for each Location Code. To query for all locations, this element value should be set to 'ALL'.	xs:string	{"type": "string"}	10	1	1	Yes	A valid location
1	PRDT_TYP	Product for which the entitlements are required.	xs:string	{"type": "string"}	20	1	1	Yes	Firm or Interruptible
1	PRD_FRM	Start Date of the Capacity Period range for which the entitlements are required. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PRD_TO	End Date of the Capacity Period range for which the entitlements are required. This date should be greater than or equal to the 'Period From' and of the format YYYY-MM-DD.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

4.1.9.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	ENTLMNTS_OUT	Top-level hierarchy for output elements.						
1	METADATA	Top-level hierarchy for meta information elements.						
2	TMSTMP	Timestamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	ENTLMNTS_QRY	Top-level hierarchy for query elements.						
2	PRDT_TYP	Product for which the entitlements are required.	xs:string	{"type": "string"}	20	1	1	
2	PRD_FRM	Gas Day Period From	xs:date	{"type": "string"}	10	1	1	
2	PRD_TO	Gas Day Period To	xs:date	{"type": "string"}	10	1	1	
2	LCTN	Location Code	xs:string	{"type": "string"}	10	1	1	
1*	DETAIL	Top level hierarchy for header fields Attribute "RECORD_NMBR" of this element, shows the sequence identifier of the record.				1		∞
2	CPCTY_DAY	Capacity Day	xs:date	{"type": "string"}	10	1	1	
2	NET_CPCTY	The net capacity on a particular capacity day in kWh	xs:long	{"type": "number"}	20	1	1	
2	NET_FRM_CPCTY	The net firm capacity on a particular capacity day in kWh	xs:long	{"type": "number"}	20	1	1	
2	NET_INTR_CPCTY	The net interruptible capacity on a particular capacity day in kWh	xs:long	{"type": "number"}	20	1	1	
2	NET_SCLD_INTR_CPCTY	The net Scaled interruptible capacity on a particular capacity day in kWh	xs:long	{"type": "number"}	20	1	1	
2	LCTN	Location Code for entitlement	xs:string	{"type": "string"}	10	1	1	

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.1.9.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.9.4 Error Handling

4.1.9.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0006	Period To cannot be less than Period From

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API Specification	Date :22-Jun-2023

4.1.10 IP Entry Entitlement API

4.1.10.1 Overview

This specification contains the interface details (e.g. relevant URIs, request and response XML message formats, specific error messages) for the Entry IP Entitlement Report API. Shippers can send this API to Gemini to query or view entry entitlements. This API will be sent by Shippers on an ad-hoc basis. For more general guidance on API function and usage, refer to the Gemini API Usage Guidelines.

The Entry IP Entitlement Report API provides the entry capacity entitlement data at Gemini Interconnector Points and Sub Transaction Period.

The Entry IP Entitlement Report API can be accessed by Shippers.

4.1.10.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.1.10.2.1 URI to access the Web API

[/GemIPEntitlementsReport/v1](#)

4.1.10.2.2 URI to Access the API

API clients must invoke the following URI to access this API's functionality

[/gemini/controllers/GemIPEntitlementsReportControllerAPI/](#)

4.1.10.3 XML Specifications

4.1.10.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	IPEntryEntitlementReportQry	Top-level hierarchy for query elements.							
1	PRODUCT_TYPE	Product type for which bids are queried. Allowed value - Entry Capacity	xs:string	{"type": "string"}	20	1	1	Yes	Entry Capacity
1	LCTN	Interconnector ASEP associated with the method of sale. Location Code may be input for one or all locations. 'ALL' needs to be input for all locations	xs:string	{"type": "string"}	10	1	1	Yes	A valid location
1	PERIOD_FROM	The start date from which the details will be queried. Date should be in the format YYYY-MM-DD	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_TO	The end date until which the details will be queried. Date should be in the format YYYY-MM-DD	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TYPE_ENTLMNT	This field represents whether the API request is to query for bundled and/or un bundled entitlements	xs:string	{"type": "string"}	9	1	1	Yes	Bundled – To query for bundled entitlements only Unbundled – To query for unbundled entitlements only Aggregate – To query for aggregate of bundled and unbundled

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
									entitlements Both – To query for both bundled and unbundled entitlements separately

4.1.10.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	IPEntryEntitlementReportRes	Top-level hierarchy for output elements.					
1	METADATA	Top-level hierarchy for meta information elements.					
1	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	IPEntryEntitlementReportQry	Top-level hierarchy for query elements.					
1	PRODUCT_TYPE	Product type for which bids are queried. Allowed value - Entry Capacity	xs:string	{"type": "string"}	20	1	1
1	LCTN	Interconnector ASEP associated with the method of sale. Location Code may be input for one or all locations. 'ALL' needs to be input for all locations	xs:string	{"type": "string"}	10	1	1
1	PERIOD_FROM	The start date from which the details will be queried. Date should be in the format YYYY-MM-DD	xs:string	{"type": "string"}	10	1	1
1	PERIOD_TO	The end date until which the details will be queried. Date should be in the format YYYY-MM-DD	xs:string	{"type": "string"}	10	1	1
1	TYPE_ENTLMNT	This field represents whether the API request is to query for bundled and/or unbundled entitlements Possible values: Bundled – To query for bundled entitlements only	xs:string	{"type": "string"}	9	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		Unbundled – To query for unbundled entitlements only Aggregate – To query for aggregate of bundled and unbundled entitlements Both – To query for both bundled and unbundled entitlements separately					
1	DETAIL	Top level hierarchy for record fields.				1	∞
2	LCTN	The Interconnector ASEP for which the data is requested.	xs:string	{"type": "string"}	10	1	1
2	TYPE_ENTLMNT	This field represents the type of entitlement which was queried. This field will be blank if the Gas Day queried is prior to 01-Oct- 2015	xs:string	{"type": "string"}	9	1	1
2	GAS_DAY	Information will be retrieved for the Gas Day provided as part of this field This date should be within Transaction Period, and be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1
2	BA_CODE	The BA Code for an External User, as registered in the system, for which the Entitlements are queried	xs:string	{"type": "string"}	3	1	1
2	NET_CAPACITY	The sum of Net Firm and Net Scaled Interruptible Entitlements for the queried Interconnector ASEP for a particular User and Gas Day	xs:long	{"type": "number"}	13	1	1
2	NET_FIRM	The Net Firm Entitlements for the queried Interconnector ASEP for a particular User and Gas Day	xs:long	{"type": "number"}	13	1	1
2	NET_INTERR	The Net Interruptible Entitlements for the queried Interconnector ASEP for a particular User and Gas Day	xs:long	{"type": "number"}	13	1	1
2	NET_SCALED_INTERR	The Net Interruptible Entitlements, after any Constraints or Restorations	xs:long	{"type": "number"}	13	1	1

4.1.10.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.10.4 Error Handling

4.1.10.4.1 API Specific Business Errors

Error Code	Error Message
GEM_API_ERROR_0006	Period To cannot be less than Period From
GEM_API_ERROR_0400	Product Type is incorrect
GEM_API_ERROR_0401	Invalid type of Entitlement
GEM_API_ERROR_0402	Location not an Interconnector Point
GEM_API_ERROR_0403	Incorrect date format of Period From/ Period To

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4.1.11 View Bid Information for IP Locations API

4.1.11.1 Overview

The View Bid Information for IP Locations API will provide Business Associates with facility to view the information related to Bids placed at IP Locations.

4.1.11.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.1.11.2.1 URI to access the Web API

[/ViewBidInfomrationIPloc/v1](#)

4.1.11.2.2 URI to Access the API

API clients must invoke the following URI to access this API's functionality

[/gemini/controllers/GmIPBidInformationReportControllerAPI/](#)

4.1.11.3 XML Specifications

4.1.11.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	BID_INFO_QRY	Top Level hierarchy for query element							
1	PRDT	Product for which bids are queried	xs:string	{"type": "string"}	40	1	1	Yes	ENTRY CAPACITY FIRM PRIMARY, ENTRY CAPACITY INTERRUPTIBLE PRIMARY
1	MOS	Method of Sale name	xs:string	{"type": "string"}	8	1	1	Yes	IPDADSEC IPWDDSEC IPAYSEC IPAQSEC IPRMSEC IPDISEC
1	TX_STRT_DT	Transaction Period Start Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction Period End Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	LCTNS	Top level Hierarchy for location elements							
2	LCTN	Interconnector ASEP associated with the method of sale	xs:string	{"type": "string"}	10	1	∞	Yes	A valid IP ASEP location Example - BI

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
1	SUBTX_PRD_FRM	Sub transaction period from Date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	SUBTX_PRD_TO	Sub transaction period to Date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	BID_STS	Top Level Hierarchy for bid status elements							
2	STATUS	Bid Status	xs:string	{"type": "string"}	3	0	∞	No	Allocated – ALL, Exercised – EXE, Invoiced – INV, New – NEW, Pending – PEN, Recalled -REC, Rejected – REJ, Terminated – TER, Withdrawn –WTH, Blank – for ALL status

4.1.11.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	BID_INFO_RES	Top Level hierarchy for response element.					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	BID_INFO_QRY	Top Level hierarchy for query element					
2	PRDT	Product for which bids are queried	xs:string	{"type": "string"}	40	1	1
2	MOS	Method of Sale name. Only MoS for	xs:string	{"type": "string"}	8	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		Daily Auctions are valid					
2	TX_STRT_DT	Transaction Period Start Date.Date should be in the format YYYY-MM-DD.	xs:date	{"type": "string"}	10	1	1
2	TX_END_DT	Transaction Period End Date Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1
2	LCTNS	Top level Hierarchy for location elements					
3	LCTN	Interconnector ASEP associated with the method of sale	xs:string	{"type": "string"}	10	1	∞
2	SUBTX_PRD_FRM	Sub transaction period from Date	xs:date	{"type": "string"}	10	1	1
2	SUBTX_PRD_TO	Sub transaction period from	xs:date	{"type": "string"}	10	1	1
2	BID_STS	Top Level Hierarchy for bid status elements					
3	STATUS	The Status of Request	xs:string	{"type": "string"}	3	0	∞
1	DTL	Top level hierarchy for record fields					
2	BID_INFO_DTL	Top level hierarchy for bid information details					
3	LCTN	A valid IP ASEP Location Code	xs:string	{"type": "string"}	10	1	1
3	SUBTX_PRD_FRM	Sub Transaction Period Start Date	xs:date	{"type": "string"}	10	1	1
3	SUBTX_PRD_TO	Sub Transaction Period End Date	xs:date	{"type": "string"}	10	1	1
3	BID_CPCTY	It is the total capacity of the bid that is being considered	xs:long	{"type": "number"}	13	1	1
3	MIN_QTY	Minimum Quantity that is registered while placing the bid	xs:long	{"type": "number"}	13	1	1
3	ENTLMNT	It is the allocated price if the bid is allocated after processing.	xs:long	{"type": "number"}	13	1	1
3	BID_PRC	It is the price at which the bid is registered	xs:float	{"type": "number"}	14,8	1	1
3	CLRNG_PRC	Clearing Price as received from PRISMA	xs:float	{"type": "number"}	14,8	1	1
3	FLOW_ST_TIME	The time from which the actual flow starts for an allocated request	xs:time	{"type": "string"}	8	1	1
3	BUN_UNBDLD	To display whether capacity is bundled or unbundled	xs:string	{"type": "string"}	10	1	1
3	STATUS	Bid Status	xs:string	{"type": "string"}	3	1	1
3	REASON	The 'Reason text' for the bid	xs:string	{"type": "string"}	100	0	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
3	ADJ_TSO	Adjacent TSO for bid details	xs:string	{"type": "string"}	40	0	1
3	PRSM_DEAL_ID	Prisma Deal ID	xs:string	{"type": "string"}	255	1	1
3	BID_ID	Identifier for a Bid	xs:string	{"type": "string"}	20	1	1

4.1.11.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.11.4 Error Handling

4.1.11.4.1 API Specific Business Errors

Error Code	Error Message
GEM_API_ERROR_0005	The transaction end Date cannot be less than the transaction start Date
GEM_API_ERROR_0004	The sub transaction end Date cannot be less than the sub transaction start Date
GEM_API_ERROR_0402	Location not an Interconnector Point
GEM_API_ERROR_0403	Incorrect Date format of Period From or Period To
GEM_API_ERROR_0113	Invalid MOS Type for given Product Type
GEM_API_ERROR_0088	Invalid Bid Status
GEM_API_ERROR_0400	Product Type is incorrect
GEM_API_ERROR_0112	Invalid MOS Name

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API Specification	Date :22-Jun-2023

4.1.12 Bid Capture API

4.1.12.1 Overview

The Bid Capture API will provide Business Associates with facility to Add Update Bid in the Gemini System.

Apart from the API specification given below in section 4.1.12.3, for each MOS type there are different sets of mandatory input fields required, which is mentioned in section 4.1.12.5.

4.1.12.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.1.12.2.1 URI to access the Web API

[/BidCapture/v1](#)

4.1.12.2.2 URI to Access the API

API clients must invoke the following URI to access this API's functionality

[/gemini/controllers/GmBidCaptureControllerAPI/](#)

4.1.12.3 XML Specifications

4.1.12.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	BID_CAPTURE_AD D_UPDT_BID_REQ	Top Level hierarchy for query element							
1	PRDT	Product for which bids are queried	xs:string	{"type": "string"}	40	1	1	Yes	1. ENTRY CAPACITY FIRM PRIMARY 2. ENTRY CAPACITY FIRM DERIVED 3. ENTRY CAPACITY INTERRUPTI BLE PRIMARY
1	MOS	Method of Sale name. Only MoS Auctions are valid	xs:string	{"type": "string"}	8	1	1	Yes	1. MSEC 2. QSEC 3. WDDSEC 4. DADSEC 5. DISEC 6. RMTNTSEC 7. RMTISSEC 8. DBSEC 9. ECBB 10. BBSEC 11. RMTTSEC 12. BSBB 13. CCBB 14. WSEC

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
1	TX_STRT_DT	Transaction Period Start Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction Period End Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	LCTN	Interconnector ASEP associated with the method of sale	xs:string	{"type": "string"}	10	1	1	Yes	A valid ASEP location
1	SUB_TRANS_DET	Top Level hierarchy for Sub Trans Detail element				1	1		
2	SUBTX_PRD_FRM	Sub Transaction Period Start Date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
2	SUBTX_PRD_TO	Sub Transaction Period End Date	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TRANCHE_NO	Tranche No	xs:long	{"type": "number"}	10	0	1	No	A valid number
1	CONTRACT_TYP	Contract Type	xs:string	{"type": "string"}	1	0	1	No	A valid buyback contract type, example: F-Forwards or O-Options
1	SUB_TENDER_ID	Sub Tender ID	xs:string	{"type": "string"}	20	0	1	No	A valid ID
1	ADD_MOD_WITH	A flag to indicate the operation	xs:string	{"type": "string"}	1	1	1	Yes	A-Add

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
				"string"}					M-Modify W - Withdraw
1	DTL	Top level hierarchy for record fields							
2	BID_ID	Bid id	xs:string	{"type": "string"}	20	0	1	No	Blank – when adding a new bid A valid bid id – when modifying or withdrawing an existing bid
2	BID_TYPE	E - Evergreen and R - Reducing	xs:string	{"type": "string"}	1	0	1	No	E - Evergreen and R - Reducing
2	PRC	The price at which the capacity was sold/purchased (p/KWh)	xs:decimal	{"type": "number"}	6,4	0	1	No	A valid number Format: XX.XXXX
2	EXR_PRC	Exercise Price	xs:decimal	{"type": "number"}	6,4	0	1	No	A valid number Format: XX.XXXX
2	PRM_PRC	Premium Price	xs:decimal	{"type": "number"}	6,4	0	1	No	A valid number Format: XX.XXXX
2	PRC_LVL	The Price Level for QSEC Auction	xs:string	{"type": "string"}	3	0	1	No	A valid price level e.g. P0, P1, P2 etc
2	MIN_QTY	Minimum Quantity Requested by user	xs:long	{"type": "number"}	13	1	1	Yes	A valid number
2	MAX_QTY	Maximum Quantity Requested by user	xs:long	{"type": "number"}	13	1	1	Yes	A valid number
2	ERLST_EXR_DT	Earliest Exercise Date	xs:string	{"type": "string"}	9	0	1	No	Format: D- Number:HH:MM Eg: D-1:01:00
2	LATEST_EXR_DT	Latest Exercise Date	xs:string	{"type": "string"}	9	0	1	No	Format: D- Number:HH:MM

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
									Eg: D-1:01:00
2	NO_EXR_DAYS	No of Exercise days	xs:string	{"type": "string"}	10	0	1	No	A valid number
2	BID_TRANSFER	Flag Y or N for Bid Transfer – Blank for No	xs:string	{"type": "string"}	1	0	1	No	Y=yes N-No Blank- considers 'No' as default for DADSEC and 'NULL' for all other MOS types

4.1.12.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	BID_CAPTURE_ADD_UPDT_BID_RES	Top Level hierarchy for response element					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	BID_CAPTURE_ADD_UPDT_BID_REQ_OUT	Top Level hierarchy for query element					
2	PRDT	Product for which bids are queried	xs:string	{"type": "string"}	40	1	1
2	MOS	Method of Sale name	xs:string	{"type": "string"}	8	1	1
2	TX_STRT_DT	Transaction start Date	xs:date	{"type": "string"}	10	1	1
2	TX_END_DT	Transaction end Date	xs:date	{"type": "string"}	10	1	1
2	LCTN	LOCATION	xs:string	{"type": "string"}	10	1	1
2	SUB_TRANS_DET	Top Level hierarchy for Sub Trans Detail element					
3	SUBTX_PRD_FRM	Sub Transaction Period Start Date	xs:date	{"type": "string"}	10	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
3	SUBTX_PRD_TO	Sub Transaction Period End Date	xs:date	{"type": "string"}	10	1	1
2	TRANCHE_NO	Tranche No	xs:long	{"type": "number"}	10	0	1
2	CONTRACT_TYP	Contract Type	xs:string	{"type": "string"}	1	0	1
2	SUB_TENDER_ID	Sub Tender ID	xs:string	{"type": "string"}	20	0	1
2	ADD_MOD_WITH	A flag to indicate the operation	xs:string	{"type": "string"}	1	1	1
2	DTL_OUT	Top level hierarchy for record fields					
3	BID_ID	Bid id	xs:string	{"type": "string"}	20	0	1
3	BID_TYPE	E - Evergreen and R - Reducing	xs:string	{"type": "string"}	1	0	1
3	PRC	Price	xs:decimal	{"type": "number"}	6,4	0	1
3	EXR_PRC	Exercise Price	xs:decimal	{"type": "number"}	6,4	0	1
3	PRM_PRC	Premium Price	xs:decimal	{"type": "number"}	6,4	0	1
3	PRC_LVL	Price Level	xs:string	{"type": "string"}	3	0	1
3	MIN_QTY	Minimum Quantity Requested by user	xs:long	{"type": "number"}	13	1	1
3	MAX_QTY	Maximum Quantity Requested by user	xs:long	{"type": "number"}	13	1	1
3	ERLST_EXR_DT	Earliest Exercise Date	xs:string	{"type": "string"}	9	0	1
3	LATEST_EXR_DT	Latest Exercise Date	xs:string	{"type": "string"}	9	0	1
3	NO_EXR_DAYS	No of Exercise days	xs:string	{"type": "string"}	10	0	1
3	BID_TRANSFER	Bid Transfer	xs:string	{"type": "string"}	1	0	1
3	STS	S - Success	xs:string	{"type": "string"}	1	1	1
3	MSG_CD	This field gives the message code- shows "OK" message code for successful bid add/ modify/ withdraw	xs:string	{"type": "string"}	18	1	1
3	MSG_DESC	This field gives message description-	xs:string	{"type": "string"}	400	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		"SUCCESSFULLY CREATED" for successful addition of bid "SUCCESSFULLY MODIFIED" for successful modification of bid "SUCCESSFULLY WITHDRAWN" for successful withdrawal of bid					

4.1.12.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.1.12.4 Error Handling

4.1.12.4.1 API Specific Business Errors

Error Code	Error Message
GEM_API_ERROR_0200	Transaction Start Date cannot be greater than Transaction End Date
GEM_API_ERROR_0004	The sub transaction end date cannot be less than sub transaction start date
GEM_API_ERROR_0400	Product Type is incorrect
GEM_API_ERROR_0101	Please enter a valid number of price in format 99.9999
GEM_API_ERROR_0102	Invalid Contract Type
GEM_API_ERROR_0103	Invalid Sub Tender ID for given Contract Type
GEM_API_ERROR_0104	Bid Window is not opened for given MOS and Transaction Period Combination
GEM_API_ERROR_0107	Please enter valid Bid ID.
GEM_API_ERROR_0108	Enter a valid Quantity value
GEM_API_ERROR_0114	Bid price should be less than or equal to Gemini defined ceiling price.
GEM_API_ERROR_0115	Credit Sanction applied on the Business Associate. The Bid could be rejected during processing
GEM_API_ERROR_0116	Earliest exercise Date and time should be less than Latest exercise Date and time.
GEM_API_ERROR_0117	Maximum Number of Bids limit is already reached for sub trans period dd-Mon-YYYY to dd-Mon-YYYY.
GEM_API_ERROR_0118	Minimum Bid Quantity should be greater than or equal to the Minimum Quantity set by National Grid Gas.
GEM_API_ERROR_0119	Maximum Quantity should be greater than or equal to the Minimum Quantity entered
GEM_API_ERROR_0120	Location is not applicable for given MOS Type and Transaction Period
GEM_API_ERROR_0121	MOS Type provided is not available for given Transaction Period
GEM_API_ERROR_0122	Invalid MOS Type for given Product Type
GEM_API_ERROR_0123	Invalid Tranche number
GEM_API_ERROR_0124	BID_ID does not exist.
GEM_API_ERROR_0125	Invalid Price Level
GEM_API_ERROR_0127	Maximum Bid Quantity should be less than or equal to the Offered Capacity.
GEM_API_ERROR_0128	Bid Price is Fixed.
GEM_API_ERROR_0129	Bid Price should be greater than or equal to the National Grid Gas defined Minimum Price.
GEM_API_ERROR_0130	Premium Price should be greater than the Premium Price set by National Grid Gas.
GEM_API_ERROR_0131	Premium Price should be lesser than the Premium Price set by National Grid Gas.
GEM_API_ERROR_0132	Exercise Price should be greater than the Exercise Price set by National Grid Gas.
GEM_API_ERROR_0133	Exercise Price should be lesser than the Exercise Price set by National Grid Gas.
GEM_API_ERROR_0134	Bid cannot be modified as the first hour bar has been crossed.

Error Code	Error Message
GEM_API_ERROR_0136	Bid Type cannot be changed from Evergreen to Reducing after the hour bar is crossed.
GEM_API_ERROR_0137	Bid Type cannot be modified.
GEM_API_ERROR_0138	Quantity cannot be modified.
GEM_API_ERROR_0139	Quantity of a Reducing Bid cannot be modified.
GEM_API_ERROR_0140	Price cannot be modified downwards.
GEM_API_ERROR_0141	Premium Price cannot be modified downwards
GEM_API_ERROR_0142	Exercise Price cannot be modified downwards
GEM_API_ERROR_0143	Price cannot be modified upwards.
GEM_API_ERROR_0144	Premium Price cannot be modified upwards
GEM_API_ERROR_0145	Exercise Price cannot be modified upwards
GEM_API_ERROR_0146	Bid Price cannot be modified
GEM_API_ERROR_0147	Bids cannot be modified since they are associated Linked Bids.
GEM_API_ERROR_0148	Bid Restriction has been applied.
GEM_API_ERROR_0149	Maximum Bid Quantity should be lesser than or equal to the Maximum Quantity set by National Grid Gas.
GEM_API_ERROR_0150	Maximum Bid Quantity should be in multiples of the Divisible Quantity set by National Grid Gas.
GEM_API_ERROR_0151	Minimum Bid Quantity should be in multiples of the Divisible Quantity set by National Grid Gas.
GEM_API_ERROR_0152	Latest Exercise Date and Time has not been defined.
GEM_API_ERROR_0153	Latest Exercise Date and Time should be greater than the Latest Exercise Date and Time set by National Grid Gas.
GEM_API_ERROR_0154	Latest Exercise Date and Time should be lesser than the Latest Exercise Date and Time set by National Grid Gas.
GEM_API_ERROR_0155	Latest Exercise Date and Time is not applicable.
GEM_API_ERROR_0156	Earliest Exercise Date and Time has not been defined.
GEM_API_ERROR_0157	Earliest Exercise Date and Time should be greater than the Earliest Exercise Date and Time set by National Grid Gas.
GEM_API_ERROR_0158	Earliest Exercise Date and Time should be lesser than the Earliest Exercise Date and Time set by National Grid Gas.
GEM_API_ERROR_0159	Earliest Exercise Date and Time is not applicable.
GEM_API_ERROR_0160	No. of Exercisable Days is not applicable.
GEM_API_ERROR_0161	No. of Exercisable Days should be less than number of days present in the National Grid Gas-defined Sub Transaction Period.
GEM_API_ERROR_0162	No. of Exercisable Days should be less than number of days present in the Shipper-defined Sub Transaction Period.
GEM_API_ERROR_0163	No of Exercisable Days should be greater than the No of Exercisable Days set by National Grid Gas.
GEM_API_ERROR_0164	No of Exercisable Days should be lesser than the No of Exercisable Days set by National Grid Gas.
GEM_API_ERROR_0165	No. of Exercisable Days should be greater than 0.
GEM_API_ERROR_0166	Bids at a lower/higher price level cannot be added until the bids already Pending at a lower higher price level are suitably modified.
GEM_API_ERROR_0167	Bid Quantity should be greater than or equal to Bid Quantity at a higher price.

Error Code	Error Message
GEM_API_ERROR_0168	Bid Quantity should be lesser than or equal to Bid Quantity at a lower price.
GEM_API_ERROR_0169	No Bids at lower price for the same Location and Sub Transaction periods. Bids posted may be rejected.
GEM_API_ERROR_0170	Modification of Bid(s) may result in the bids being rejected unless further modification(s) are carried out.
GEM_API_ERROR_0171	A bid has already been posted for this Location, Sub Transaction Period and Price Level.
GEM_API_ERROR_0172	Bid Window is not Open to Query/Add/Modify/Withdraw Bids.
GEM_API_ERROR_0173	Maximum Quantity exceeds the shipper-defined upper capacity limit.
GEM_API_ERROR_0174	Maximum Quantity is lesser than the shipper-defined lower capacity limit.
GEM_API_ERROR_0175	Bid Price(s) exceed(s) the shipper-defined upper price limit.
GEM_API_ERROR_0176	Bid Price(s) lower than the shipper-defined lower price limit.
GEM_API_ERROR_0177	Bid value exceeds the shipper-defined upper bid value limit.
GEM_API_ERROR_0178	Bid value is lower than the shipper-defined lower bid value limit.
GEM_API_ERROR_0179	End of Sub Transaction Period is beyond the shipper-defined Forward Bid Limit.
GEM_API_ERROR_0180	Premium Price should not exceed the shipper-defined limit.
GEM_API_ERROR_0181	Premium Price should not be lesser than the shipper-defined limit.
GEM_API_ERROR_0182	Exercise Price should not exceed the shipper-defined limit.
GEM_API_ERROR_0183	Exercise Price should not be lesser than the shipper-defined limit.
GEM_API_ERROR_0184	Shipper is not Active.
GEM_API_ERROR_0185	Business Associate has been terminated.
GEM_API_ERROR_0186	Product is not Active.
GEM_API_ERROR_0187	The selected Location is not Active.
GEM_API_ERROR_0189	Shipper is not an Eligible Shipper.
GEM_API_ERROR_0191	Shipper with credit sanctions cannot Add/Modify/Withdraw bids.
GEM_API_ERROR_0192	Bids cannot be withdrawn since they are associated in a Linked Bid Group. To withdraw the selected bids, remove the bids from the Link Bid Group association.
GEM_API_ERROR_0193	Bids associated in an Alternate Bid Group cannot be withdrawn. To withdraw, remove the bids from the Alternate Bid Group association.
GEM_API_ERROR_0194	Allocated bids cannot be withdrawn.
GEM_API_ERROR_0195	Bid cannot be withdrawn after the first hour bar is crossed.
GEM_API_ERROR_0196	Bids cannot be modified since they are associated in a bid group.
GEM_API_ERROR_0197	Lower priced bids are being withdrawn. This may result in higher priced bids being rejected.
GEM_API_ERROR_0198	Interim Bid Window is not open to Add/Modify/Withdraw for Sub Transaction Period.
GEM_API_ERROR_0203	Please enter valid Earliest Exercise Date and Time.
GEM_API_ERROR_0214	Please enter valid Latest Exercise Date and Time.
GEM_API_ERROR_0215	Please enter valid No. of Exercisable Days.
GEM_API_ERROR_0216	Bid(s) cannot be modified since they are locked.

Error Code	Error Message
GEM_API_ERROR_0217	Earliest exercise date and time should be lesser than Latest exercise date and time
GEM_API_ERROR_0219	No of exercise days should be within No of exercise days set by National Grid Gas
GEM_API_ERROR_0220	Premium Price should be within the Premium Price range set by National Grid Gas
GEM_API_ERROR_0211	Exercise Price should be within the Exercise Price range set by National Grid Gas
GEM_API_ERROR_0221	Bid cannot be withdrawn as it is locked.
GEM_API_ERROR_0223	Price/Capacity is not defined for some of the Sub Transaction Period(s).
GEM_API_ERROR_0224	Capacity is not defined for some selected Sub Transaction Period(s).
GEM_API_ERROR_0225	Price is not defined for some selected Sub Transaction Period(s).
GEM_API_ERROR_0227	Bids for this auction cannot be captured until validation for Price and Capacity Upper Limits have been set. To set Price and Capacity validation go to Home > Deal > Capture > Setup Shipper Preferences

4.1.12.5 Input Matrix

4.1.12.5.1 DBSEC

Mandatory: M Not Applicable: NA	DBSEC			Mandatory/ Not Applicable
	Add	Modify	Withdraw	
Product	M	M	M	Mandatory
Method of Sale	M	M	M	Mandatory
Transaction Start Date	M	M	M	Mandatory
Transaction End date	M	M	M	Mandatory
Location	M	M	M	Mandatory
Sub Transaction Det	M	M	M	Mandatory
Tranche No	NA	NA	NA	Not Applicable
Contract Type	NA	NA	NA	Not Applicable
Sub_Tender_Id	NA	NA	NA	Not Applicable
Add_Mod_With	M	M	M	Mandatory
Bid Id	NA	M	M	Add: NA Modify / Withdraw: M
Bid Type	M	M	M	Mandatory
Price	M	M	NA	Add/Modify: M Withdraw: NA
Exercise Price	NA	NA	NA	Not Applicable
Premium Price	NA	NA	NA	Not Applicable
Price Level	NA	NA	NA	Not Applicable
Min Qty	M	M	M	Mandatory
Max Qty	M	M	M	Mandatory
Earliest Exercise Date	NA	NA	NA	Not Applicable
Latest Exercise Date	NA	NA	NA	Not Applicable

No Exercise Days	NA	NA	NA	Not Applicable
Bid Transfer	NA	NA	NA	Not Applicable

4.1.12.5.2 BBSEC and DADSEC

Mandatory: M Not Applicable: NA	BBSEC			DADSEC			Mandatory/ Not Applicable
	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method of Sale	M	M	M	M	M	M	Mandatory
Transaction Start Date	M	M	M	M	M	M	Mandatory
Transaction End date	M	M	M	M	M	M	Mandatory
Location	M	M	M	M	M	M	Mandatory
Sub Transaction Det	M	M	M	M	M	M	Mandatory
Tranche No	NA	NA	NA	NA	NA	NA	Not Applicable
Contract Type	NA	NA	NA	NA	NA	NA	Not Applicable
Sub_Tender_Id	NA	NA	NA	NA	NA	NA	Not Applicable
Add_Mod_With	M	M	M	M	M	M	Mandatory
Bid Id	NA	M	M	NA	M	M	BBSEC/ DADSEC: Add: NA Modify/ Withdraw: M
Bid Type	NA	NA	NA	M	M	M	BBSEC: NA DADSEC: M
Price	M	M	NA	M	M	NA	BBSEC/DADSEC: Add/Modify: M Withdraw: NA
Exercise Price	NA	NA	NA	NA	NA	NA	Not Applicable
Premium Price	NA	NA	NA	NA	NA	NA	Not Applicable
Price Level	NA	NA	NA	NA	NA	NA	Not Applicable
Min Qty	M	M	M	M	M	M	Mandatory
Max Qty	M	M	M	M	M	M	Mandatory
Earliest Exercise Date	NA	NA	NA	NA	NA	NA	Not Applicable
Latest Exercise Date	NA	NA	NA	NA	NA	NA	Not Applicable
No Exercise Days	NA	NA	NA	NA	NA	NA	Not Applicable
Bid Transfer	NA	NA	NA	M	NA	NA	BBSEC: NA DADSEC: Add: M Modify/ Withdraw: NA

4.1.12.5.3 MSEC and QSEC

	MSEC	QSEC	Mandatory/Not Applicable
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Mandatory: M Not Applicable: NA	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method of Sale	M	M	M	M	M	M	Mandatory
Transaction Start Date	M	M	M	M	M	M	Mandatory
Transaction End date	M	M	M	M	M	M	Mandatory
Location	M	M	M	M	M	M	Mandatory
Sub Transaction Det	M	M	M	M	M	M	Mandatory
Tranche No	M	M	M	NA	NA	NA	MSEC: M QSEC: NA
Contract Type	NA	NA	NA	NA	NA	NA	Not Applicable
Sub_Tender_Id	NA	NA	NA	NA	NA	NA	Not Applicable
Add_Mod_With	M	M	M	M	M	M	Mandatory
Bid Id	NA	M	M	NA	M	M	MSEC/ QSEC: Add: NA Modify/ Withdraw: M
Bid Type	NA	NA	NA	NA	NA	NA	Not Applicable
Price	M	M	NA	NA	NA	NA	MSEC: Add/Modify: M Withdraw: NA QSEC: NA
Exercise Price	NA	NA	NA	NA	NA	NA	Not Applicable
Premium Price	NA	NA	NA	NA	NA	NA	Not Applicable
Price Level	NA	NA	NA	M	M	NA	MSEC: NA QSEC: Add/Modify: M Withdraw: NA
Min Qty	M	M	M	M	M	M	Mandatory
Max Qty	M	M	M	M	M	M	Mandatory
Earliest Exercise Date	NA	NA	NA	NA	NA	NA	Not Applicable
Latest Exercise Date	NA	NA	NA	NA	NA	NA	Not Applicable
No Exercise Days	NA	NA	NA	NA	NA	NA	Not Applicable
Bid Transfer	NA	NA	NA	NA	NA	NA	Not Applicable

4.1.12.5.4 RMTTSEC

Mandatory: M Not Applicable: NA	RMTTSEC			Mandatory/Not Applicable
	Add	Modify	Withdraw	
Product	M	M	M	Mandatory
Method of Sale	M	M	M	Mandatory
Transaction Start Date	M	M	M	Mandatory
Transaction End date	M	M	M	Mandatory
Location	M	M	M	Mandatory
Sub Transaction Det	M	M	M	Mandatory

Tranche No	NA	NA	NA	Not Applicable
Contract Type	NA	NA	NA	Not Applicable
Sub_Tender_Id	NA	NA	NA	Not Applicable
Add_Mod_With	M	M	M	Mandatory
Bid Id	NA	M	M	Add: NA Modify/ Withdraw: M
Bid Type	NA	NA	NA	Not Applicable
Price	M	M	NA	Add/Modify: M Withdraw: NA
Exercise Price	NA	NA	NA	Not Applicable
Premium Price	NA	NA	NA	Not Applicable
Price Level	NA	NA	NA	Not Applicable
Min Qty	M	M	M	Mandatory
Max Qty	M	M	M	Mandatory
Earliest Exercise Date	NA	NA	NA	Not Applicable
Latest Exercise Date	NA	NA	NA	Not Applicable
No Exercise Days	NA	NA	NA	Not Applicable
Bid Transfer	NA	NA	NA	Not Applicable

4.1.12.5.5 RMTISSEC and RMTNTSEC

Mandatory: M Not Applicable: NA	RMTISSEC			RMTNTSEC			Mandatory/ Not Applicable
	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method of Sale	M	M	M	M	M	M	Mandatory
Transaction Start Date	M	M	M	M	M	M	Mandatory
Transaction End date	M	M	M	M	M	M	Mandatory
Location	M	M	M	M	M	M	Mandatory
Sub Transaction Det	M	M	M	M	M	M	Mandatory
Tranche No	NA	NA	NA	NA	NA	NA	Not Applicable
Contract Type	NA	NA	NA	NA	NA	NA	Not Applicable
Sub_Tender_Id	NA	NA	NA	NA	NA	NA	Not Applicable
Add_Mod_With	M	M	M	M	M	M	Mandatory
Bid Id	NA	M	M	NA	M	M	RMTISSEC/ RMTNTSEC: Add: NA Modify/ Withdraw: M
Bid Type	NA	NA	NA	NA	NA	NA	Not Applicable
Price	M	M	NA	M	M	NA	RMTISSEC/ RMTNTSEC: Add/Modify: M Withdraw: NA
Exercise Price	NA	NA	NA	NA	NA	NA	Not Applicable
Premium Price	NA	NA	NA	NA	NA	NA	Not Applicable
Price Level	NA	NA	NA	NA	NA	NA	Not Applicable

Min Qty	M	M	M	M	M	M	Mandatory
Max Qty	M	M	M	M	M	M	Mandatory
Earliest Exercise Date	NA	NA	NA	NA	NA	NA	Not Applicable
Latest Exercise Date	NA	NA	NA	NA	NA	NA	Not Applicable
No Exercise Days	NA	NA	NA	NA	NA	NA	Not Applicable
Bid Transfer	NA	NA	NA	NA	NA	NA	Not Applicable

4.1.12.5.6 WDDSEC and DISEC

Mandatory: M Not Applicable: NA	WDDSEC			DISEC			Mandatory/ Not Applicable
	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method of Sale	M	M	M	M	M	M	Mandatory
Transaction Start Date	M	M	M	M	M	M	Mandatory
Transaction End date	M	M	M	M	M	M	Mandatory
Location	M	M	M	M	M	M	Mandatory
Sub Transaction Det	M	M	M	M	M	M	Mandatory
Tranche No	NA	NA	NA	NA	NA	NA	Not Applicable
Contract Type	NA	NA	NA	NA	NA	NA	Not Applicable
Sub_Tender_Id	NA	NA	NA	NA	NA	NA	Not Applicable
Add_Mod_With	M	M	M	M	M	M	Mandatory
Bid Id	NA	M	M	NA	M	M	WDDSEC/ DISEC: Add: NA Modify/ Withdraw: M
Bid Type	M	M	M	M	M	M	Mandatory
Price	M	M	NA	M	M	NA	WDDSEC/ DISEC: Add/Modify: M Withdraw: NA
Exercise Price	NA	NA	NA	NA	NA	NA	Not Applicable
Premium Price	NA	NA	NA	NA	NA	NA	Not Applicable
Price Level	NA	NA	NA	NA	NA	NA	Not Applicable
Min Qty	M	M	M	M	M	M	Mandatory
Max Qty	M	M	M	M	M	M	Mandatory
Earliest Exercise Date	NA	NA	NA	NA	NA	NA	Not Applicable
Latest Exercise Date	NA	NA	NA	NA	NA	NA	Not Applicable
No Exercise Days	NA	NA	NA	NA	NA	NA	Not Applicable
Bid Transfer	NA	NA	NA	NA	NA	NA	Not Applicable

4.1.12.5.7 BSBB and CCBB

Mandatory: M Not Applicable: NA	BSBB			CCBB			Mandatory/Not Applicable
	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method of Sale	M	M	M	M	M	M	Mandatory
Transaction Start Date	M	M	M	M	M	M	Mandatory
Transaction End date	M	M	M	M	M	M	Mandatory
Location	M	M	M	M	M	M	Mandatory
Sub Transaction Det	M	M	M	M	M	M	Mandatory
Tranche No	NA	NA	NA	NA	NA	NA	Not Applicable
Contract Type	M	M	M	M	M	M	Mandatory
Sub_Tender_Id	M	M	M	M	M	M	Mandatory
Add_Mod_With	M	M	M	M	M	M	Mandatory
Bid Id	NA	M	M	NA	M	M	BSBB/ CCBB: Add: NA Modify/ Withdraw: M
Bid Type	NA	NA	NA	NA	NA	NA	BSBB : NA CCBB : NA
Price	M	M	NA	M	M	NA	BSBB/CCBB: Add/Modify: M Withdraw: NA
Exercise Price	NA	NA	NA	NA	NA	NA	Not Applicable
Premium Price	NA	NA	NA	NA	NA	NA	Not Applicable
Price Level	NA	NA	NA	NA	NA	NA	Not Applicable
Min Qty	M	M	M	M	M	M	Mandatory
Max Qty	M	M	M	M	M	M	Mandatory
Earliest Exercise Date	NA	NA	NA	NA	NA	NA	Not Applicable
Latest Exercise Date	NA	NA	NA	NA	NA	NA	Not Applicable
No Exercise Days	NA	NA	NA	NA	NA	NA	Not Applicable
Bid Transfer	NA	NA	NA	NA	NA	NA	Not Applicable

4.1.12.5.8 ECBB (Contract Type: Optional) and ECBB (Contract Type: Forward)

Mandatory: M Not Applicable: NA	ECBB (Contract type: Optional)			ECBB(Contract Type: Forward)			Mandatory/ Not Applicable
	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method of Sale	M	M	M	M	M	M	Mandatory
Transaction Start Date	M	M	M	M	M	M	Mandatory
Transaction End date	M	M	M	M	M	M	Mandatory
Location	M	M	M	M	M	M	Mandatory
Sub Transaction Det	M	M	M	M	M	M	Mandatory

Tranche No	NA	NA	NA	NA	NA	NA	Not Applicable
Contract Type	M	M	M	M	M	M	Mandatory
Sub_Tender_Id	M	M	M	M	M	M	Mandatory
Add_Mod_With	M	M	M	M	M	M	Mandatory
Bid Id	NA	M	M	NA	M	M	ECBB(O)/ ECBB(F): Add: NA Modify/ Withdraw: M
Bid Type	M	M	M	NA	NA	NA	ECBB(O) : M ECBB(F) : NA
Price	NA	NA	NA	M	M	NA	ECBB(O): NA ECBB(F): Add/Modify: M Withdraw: NA
Exercise Price	M	M	NA	NA	NA	NA	ECBB(O): Add/Modify: M Withdraw: NA ECBB(F): NA
Premium Price	M	M	NA	NA	NA	NA	ECBB(O): Add/Modify: M Withdraw: NA ECBB(F): NA
Price Level	NA	NA	NA	NA	NA	NA	Not Applicable
Min Qty	M	M	M	M	M	M	Mandatory
Max Qty	M	M	M	M	M	M	Mandatory
Earliest Exercise Date	NA	NA	NA	NA	NA	NA	ECBB(O): NA ECBB(F): NA
Latest Exercise Date	M	M	NA	NA	NA	NA	ECBB(O): Add/Modify: M Withdraw: NA ECBB(F): NA
No Exercise Days	M	M	NA	NA	NA	NA	ECBB(O): Add/Modify: M Withdraw: NA ECBB(F): NA
Bid Transfer	NA	NA	NA	NA	NA	NA	Not Applicable

4.1.12.5.9 WSEC

Mandatory: M Not Applicable: NA	WSEC			Mandatory/Not Applicable
	Add	Modify	Withdraw	
Product	M	M	M	Mandatory
Method of Sale	M	M	M	Mandatory
Transaction Start Date	M	M	M	Mandatory
Transaction End date	M	M	M	Mandatory
Location	M	M	M	Mandatory

Sub Transaction Det	M	M	M	Mandatory
Tranche No	NA	NA	NA	Not Applicable
Contract Type	NA	NA	NA	Not Applicable
Sub_Tender_Id	NA	NA	NA	Not Applicable
Add_Mod_With	M	M	M	Mandatory
Bid Id	NA	M	M	Add: NA Modify/ Withdraw: M
Bid Type	M	M	M	Mandatory
Price	M	M	NA	Add/Modify: M Withdraw: NA
Exercise Price	NA	NA	NA	Not Applicable
Premium Price	NA	NA	NA	Not Applicable
Price Level	NA	NA	NA	Not Applicable
Min Qty	M	M	M	Mandatory
Max Qty	M	M	M	Mandatory
Earliest Exercise Date	NA	NA	NA	Not Applicable
Latest Exercise Date	NA	NA	NA	Not Applicable
No Exercise Days	NA	NA	NA	Not Applicable
Bid Transfer	NA	NA	NA	Not Applicable

4.2 Gemini Energy Balancing APIs

4.2.1 Add / Update Nominations API

4.2.1.1 Overview

This API is used to create or update nominations for Entry and Exit Meters. Unlike Gemini screens where Nominations may be entered for a range of Gas Days, this API will permit Nominations only for a single Gas Day at a time for a given Service Id. (Input / Output Nominations are differentiated by Service Id.)

4.2.1.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.1.2.1 URI to access the Web API

[/UpdateNominations/v1](#)

4.2.1.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/UpdateNominationsControllerAPI/](#)

4.2.1.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.1.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	UPDT_NM	Top-level hierarchy for Update Nominations.							
1	GAS_DAY	The Gas Day for which nominations are to be created / updated. The date should be in YYYY-MM-DD format.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	SERV_ID	Unique ID associated to a BA's service.	xs:string	{"type": "string"}	15	1	1	Yes	A valid ID
1*	UPDT_NM_IN_DTL	Top-level hierarchy for Update Nominations for Gas Day.				0	∞		
2	ACTVTY_NBR	Unique number within a Service that defines the flow of gas through a meter.	xs:nonNegativeInteger	{"type": "number"}	6	1	1	Yes	A valid number
2	REQ_NRG	Quantity of energy requested for the Gas Day for the Service / Activity in kWh.	xs:unsignedLong	{"type": "number"}	13	1	1	Yes	A valid number
2	IGNR_TLRNCE	Flag to indicate whether the tolerance check must be carried out for the record. Permissible values are: Y- Ignore tolerance check N- Perform tolerance check	xs:string	{"type": "string"}	1	1	1	Yes	Y- Ignore tolerance check N- Perform tolerance check

4.2.1.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	UPDT_NM_OUT	Top-level hierarchy for output elements.					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	DTL	Top-level hierarchy for Details					
2	GAS_DAY	The Gas Day for which nominations are to be created. The date should be in YYYY-MM-DD format.	xs:date	{"type": "string"}	10	1	1
2	SERVC_ID	Unique ID associated to a BA's service.	xs:string	{"type": "string"}	15	1	1
2*	UPDT_NM_INF	Top-level hierarchy for Physical Re-nominations				0	∞
3	ACTVTY_NBR	Unique number within a Service that defines the flow of gas through a meter.	xs:nonNegativeInteger	{"type": "number"}	6	1	1
3	REQ_NRG	Quantity of energy requested for the Gas Day for the Service / Activity in kWh.	xs:unsignedlong	{"type": "number"}	13	1	1
3	STS	The status of the records Expected values are: S- Success F Failure	xs:string	{"type": "string"}	1	1	1
3	MSG_CD	This field gives the corresponding message code, in the case of success as well as failure.	xs:string	{"type": "string"}	18	1	1
3	MSG_DESC	This field provides further descriptive information on the status of the record. Indicates if record is successful or has failed. In case of failure, a reason is provided.	xs:string	{"type": "string"}	200	1	1

4.2.1.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.1.4 Error Handling

4.2.1.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0051	Invalid Service Id for the BA.
GEM_API_ERROR_0316	Gas Day is not within the nomination window.
GEM_API_ERROR_0057	Invalid Activity for entered Contract.
GEM_API_ERROR_0058	Cannot create Nomination for NDMA meters.
GEM_API_ERROR_0059	The meter on this Activity is inactive.
GEM_API_ERROR_0060	Opposite flow nomination cannot be added.
GEM_API_ERROR_0317	Tolerance validation has failed for this Activity.
GEM_API_MSG_0318	Nomination Added/Updated Successfully.
GEM_API_ERROR_0056	Nomination for the Activity Number-Special Function Combination already exists.
GEM_API_ERROR_0084	The data you require is currently locked by another user.

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.2 Confirm Multilocational Trades (Update) API

4.2.2.1 Overview

Physical and Locational Trades conducted by a Market Operator through the On-the-day Commodity Market require confirmation by BAs within timescales defined by the specified Physical Re-nomination Incentive. This API allows BAs to confirm OCM trades against multiple locations by providing the Locations (Meter Ids) at which the BA wishes to renominate. Re-nominations will be created for the confirmed trades

4.2.2.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.2.2.1 URI to access the Web API

[/UpdateMultiLocationalOCMTrades/v1](#)

4.2.2.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/UpdateMultiLocationalOCMTradesControllerAPI/](#)

4.2.2.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.2.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	UPDT_MUL_RNM	Top-level hierarchy for Update Nominations.							
1	GAS_DAY	The Gas Day for which nominations are to be created / updated. The date should be in YYYY-MM-DD format.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	BID_ID	Unique ID associated to a BA's service.	xs:string	{"type": "string"}	8	1	1	Yes	A valid ID
1*	UPDT_MUL_RNM_DTL	Top-level hierarchy for Update Nominations for Gas Day.				0	∞		
2	MTR_ID	The meter on which the Renomination is created	xs:string	{"type": "string"}	10	1	1	Yes	A valid number
2	RNM_QTY	Renomination Quantity	xs:long	{"type": "number"}	13	1	1	Yes	A valid number
2	IGNR_TLRNCE	Flag to indicate whether the tolerance check must be carried out for the record. Permissible values are: Y- Ignore tolerance check N- Perform tolerance check	xs:string	{"type": "string"}	1	1	1	Yes	Y- Ignore tolerance check N- Perform tolerance check

4.2.2.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	UPDT_MUL_RNM_OUT	Top-level hierarchy for output elements.					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	DTL	Top-level hierarchy for Details.					
2	UPDT_MUL_RNM_INF	Top-level hierarchy for Physical Re-nominations.					
3	GAS_DAY	The gas day for which OCM trades are to be confirmed.	xs:date	{"type": "string"}	10	1	1
3	BID_ID	The bid identifier associated with each bid (unique).	xs:string	{"type": "string"}	8	1	1
3*	UPDT_MUL_RNM_DTL	Top-level hierarchy for Physical Re-nominations response for the Gas Day.				0	∞
4	MTR_ID	The meter Id against which the trade is confirmed.	xs:string	{"type": "string"}	10	1	1
4	RNM_QTY	Quantity of energy to be renominated in KWh.	xs:long	{"type": "number"}	13	1	1
4	IGNR_TLRNCE	Flag to indicate whether the tolerance check must be carried out for the record. Permissible values are: Y- Ignore tolerance check N- Perform tolerance check	xs:string	{"type": "string"}	1	1	1
4	STS	The status of the records The permissible values are: S- Success F- Failure	xs:string	{"type": "string"}	1	1	1
4	MSG_CD	This field gives the message code.	xs:string	{"type": "string"}	18	1	1
4	MSG_DESC	This field gives a more descriptive information on the status of the physical / locational trade records, i.e. whether all trades have been accepted or only some have been accepted.	xs:string	{"type": "string"}	400	1	1

*Note: For Web API response swagger metadata, replace UPDT_MUL_RNM_DTL with UPDT_MUL_RNM_DTL_OUT

4.2.2.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.2.4 Error Handling

4.2.2.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0300	Invalid Bid Id for the BA.
GEM_API_ERROR_0302	Current time is before the beginning Re-nominations deadline.
GEM_API_ERROR_0303	Current time is after the ending Re-nominations deadline.
GEM_API_ERROR_0304	Production Date has expired.
GEM_API_MSG_0305	Re-nomination committed successfully.
GEM_API_ERROR_0306	Meter is not active on Gemini system.
GEM_API_ERROR_0307	Location should be ST, DC, OS, SE, XI and XF.
GEM_API_ERROR_0308	Shipper is not a registered user for the meter.
GEM_API_ERROR_0309	A negative implied flow rate validation has occurred.
GEM_API_MSG_0310	Re-nomination committed with PRI charges.
GEM_API_ERROR_0311	Tolerance value has been exceeded while confirming the trade.
GEM_API_ERROR_0312	Total quantity should match Trade Quantity.
GEM_API_ERROR_0313	Duplicate meter runs are not allowed.
GEM_API_ERROR_0315	Service is not available for the shipper
GEM_API_MSG_0319	This record is valid, but cannot be committed due to failure of one or more of the other records.

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API Specification	Date :22-Jun-2023

4.2.3 Daily Cashout Tolerance Breakdown API

4.2.3.1 Overview

This API allows the BA to retrieve the cashout tolerance breakdown details for a given gas day.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.3.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.3.2.1 URI to access the Web API

[/DailyCashoutBreakDown/v1](#)

4.2.3.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/DailyCashoutBreakDownControllerAPI/](#)

4.2.3.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tables denotes an element or group that may occur multiple times

4.2.3.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	CSHOUT_BRKDN_QRY	Top level hierarchy for query elements							
1	GAS_DAY	Day for which the cash out tolerance breakdown details are retrieved.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

4.2.3.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	CSHOUT_BRKDN_OUT	Top level hierarchy for query elements						
1	METADATA	Top level hierarchy for meta information elements						
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	CSHOUT_BRKDN_QRY	Top level hierarchy for meta information elements For child element details please refer to the request specification						
1	DTL	Top-level hierarchy for details.						
2	CSHOUT_BRKDN_DTL	Top-level hierarchy for cashout breakdown details.						
3	HDR_DTL	Top-level hierarchy for the Header Details.					0	1
4	CSHOUT_TLRNCE	The BA's cashout tolerance quantity	xs:long	{"type": "number"}	13	1	1	
4	FCAST_DEVTN	The BA's forecast deviation for a gas day	xs:long	{"type": "number"}	13	1	1	
4	NDMA_OP_RNM_FCAST	The NDMA output re-nomination forecast for the BA, for the gas day	xs:long	{"type": "number"}	13	1	1	
4	DEEMED_ALLOC_NDMA_LOAD	The deemed allocated NDMA Load Quantity for the Shipper, for the Gas Day	xs:long	{"type": "number"}	13	1	1	

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
3*	DLY_CSHOUT_BRKDN_DTL	Top-level hierarchy for Daily Cashout Tolerance Breakdown Details.				0	∞
4	METER_TYPE	Specifies the type of meter	xs:string	{"type": "string"}	2	1	1
4	DMC_TYPE	The sub type for a meter. This is applicable only for DC meters. The permissible values are S - Small N -Normal L - Large	xs:string	{"type": "string"}	1	1	1
4	PCTG	The tolerance percentage set for each meter type.	xs:float	{"type": "number"}	6,3	1	1
4	TOT_MSMT_ALLOC	The total allocated/measured quantity for the meter Type	xs:long	{"type": "number"}	13	1	1
4	TLRNCE_QTY	The tolerance quantity for the meter type	xs:float	{"type": "number"}	16,3	1	1

4.2.3.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:
box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.3.4 Error Handling

4.2.3.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.4 Gas Trades Breakdown API

4.2.4.1 Overview

This API retrieves the detailed breakdown of the gas trades for the BA for a requested gas day.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.4.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.4.2.1 URI to access the Web API

[/GasTradesBreakdown/v1](#)

4.2.4.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/GasTradesBreakdownControllerAPI/](#)

4.2.4.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.4.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	GAS_TRD_BRKDN_QRY	Top level hierarchy for query elements							
1	GAS_DAY	Day for which the cash out tolerance breakdown details are retrieved.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	MKT_OP_CD	The market operator for whom the trade breakdown details are retrieved.	xs:string	{"type": "string"}	3	0	1	No	For example, by specifying the value for this field as 'ENO', the gas trade details are retrieved for the OBO party (ENMO). If this field is omitted then trades with all the trading partners, not just the Market Operator, will be returned

4.2.4.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	GAS_TRD_BRKDN_OUT	Top level hierarchy for query elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	GAS_TRD_BRKDN_QRY	Top level hierarchy for meta information elements For child element details please refer to the request specification					
2	GAS_DAY	Day for which Gas Trades where registered.	xs:date	{"type": "string"}	10	1	1
2	MKT_OP_CD	The market operator for whom the trade breakdown details are retrieved. For example, by specifying the value for this field as 'ENO', the gas trade details are retrieved for the OBO party (ENMO)	xs:string	{"type": "string"}	3	0	1
1	DTL	Top-level hierarchy for Details.					
2	GAS_TRD_DTL	Top-level hierarchy for Gas Trade Details.				0	1
3	TRD_BRKDN_DTL	Top-level hierarchy for Gas Trade Breakdown Details.					
4*	SCHD_NRG_DTL	Top-level hierarchy for Scheduled Energy Details.				0	∞
5	TRD_PTNR	The abbreviated name of the BA involved in the trade.	xs:string	{"type": "string"}	12	1	1
5	SAP	Indicates whether the trading partner is to be included in SAP Calculations. The permissible values are: Y- Yes N- No	xs:string	{"type": "string"}	1	1	1
5	SCHD_NRG_BGT	The approved energy for the buy trade (kWh)	xs:long	{"type": "number"}	13	1	1
5	SHCD_NRG_BUY_STS	The status of the approved buy trade (kWh)	xs:string	{"type": "string"}	1	1	1
5	SCHD_NRG_SOLD	The approved Energy for the sell trade (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG_SELL_STS	The status of the approved sell	xs:string	{"type": "string"}	1	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		trade.					
5	NET_SCHD_NRG	The difference between the scheduled energy for the buy trade and the scheduled energy for sell trade (kWh)	xs:long	{"type": "number"}	13	1	1
4	SCHD_NRG_SUMM	Top-level hierarchy for Scheduled Energy Summary.					
5	TOT_SCHD_NRG_BGT	The sum of the approved energies for all the buy trades (kWh)	xs:long	{"type": "number"}	-	1	1
5	TOT_SCHD_NRG_SOLD	The sum of the approved energies for all the sell trades (kWh)	xs:long	{"type": "number"}	-	1	1
5	TOT_SCHD_NRG_NET	The difference between the scheduled energies of the buy and sell trades (kWh)	xs:long	{"type": "number"}	-	1	1

4.2.4.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.4.4 Error Handling

4.2.4.4.1 API Specific Business Errors

None

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4.2.5 Maintain OCM Renominations (View) API

4.2.5.1 Overview

Physical and Locational Trades conducted by a Market Operator through the On-the-day Commodity Market require confirmation by Shippers within timescales defined by the specified Physical Re-nomination Incentive. This API allows Shipper retrieval of the unconfirmed Physical and/or Locational Trades. Note that although the API name is based on the Gemini screen for maintaining OCM Renominations, the API itself implements only 'view' functionality (i.e. retrieval of data only).

4.2.5.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.5.2.1 URI to access the Web API

[/ConfirmOcmTrades/v1](#)

4.2.5.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/ConfirmOcmTradesControllerAPI/](#)

4.2.5.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.5.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	VW_OCM_RNM	Top-level hierarchy for view elements.							
1	GAS_DAY	The Gas Day for which OCM Trades are to be retrieved. Information can be requested for only one Gas Day. The date should be in the format YYYY-MM-DD.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TRD_TYP	This indicates the type of trade for which the data can be retrieved. This can either be Physical, Locational or both types of trades. Permissible values are: A- Both types of trades P- Physical Trade L- Locational Trade	xs:string	{"type": "string"}	1	1	1	Yes	A- Both types of trades P- Physical Trade L- Locational Trade
1	BID_ID	The Bid Id field can be blank to retrieve all the bids for that particular day, or a Bid Id may be specified to retrieve details for that particular bid	xs:string	{"type": "string"}	8	0	1	No	A valid ID
1	BUY_SELL_IND	This indicates if the OCM trade is a buy trade or a sell trade.	xs:string	{"type": "string"}	1	1	1	Yes	A-for both Buy/Sell B-Buy

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		Permissible values are: A - for both Buy/ Sell B - Buy S - Sell							S- Sell

4.2.5.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	VW_OCM_RNM_DTLS_OUT	Top-level hierarchy for output elements.					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	VW_OCM_RNM_DTLS_QRY	Top-level hierarchy for query elements.					
2	GAS_DAY	The Gas Day for which OCM Trades are to be retrieved. The Gas date would be of YYYY-MM-DD format.	xs:date	{"type": "string"}	10	1	1
2	TRD_TYP	This indicates the type of trade for which the data is to be retrieved. This can either be Physical, Locational or both the types of trades. Permissible values are : A - Both the type of trades P - Physical Trade L - Locational Trade	xs:string	{"type": "string"}	1	1	1
2	BID_ID	The Bid Id field can be blank to retrieve all the bids for that particular day, or a Bid Id may be specified to retrieve details for that particular bid.	xs:string	{"type": "string"}	8	1	1
2	BUY_SELL_IND	This indicates if the OCM trade is a buy trade or a sell trade. Permissible values are: A - for both Buy/ Sell B - Buy	xs:string	{"type": "string"}	1	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		S - Sell					
1	DTL	Top-level hierarchy for Details.					
2*	OCM_RNM_DTL	Top-level hierarchy for Re-nominations.				1	∞
3	BID_ID	The Bid Id of the particular trade.	xs:string	{"type": "string"}	8	1	1
3	BUY_SELL_IND	This indicates if the OCM trade is a buy trade or a sell trade. Possible values are: B- Buy S- Sell	xs:string	{"type": "string"}	1	1	1
3	TRD_TYP	This indicates the type of trade Physical or Locational. Possible values are : P- Physical Trade L- Locational Trade	xs:string	{"type": "string"}	1	1	1
3	TRD_QTY	Quantity bought/sold by the Shipper in kWh.	xs:long	{"type": "number"}	13	1	1
3	STR_TIME	Time from when the traded energy will begin to flow. Possible values are between 0 and 23.	xs:NonNegative Integer	{"type": "number"}	23	1	1
3	MTR_ID	Unique identifier for a meter.	xs:string	{"type": "string"}	10	0	1
3	I_O_IND	Indicates if the meter is an input or an output Meter. Possible values are: I- Input O- Output	xs:string	{"type": "string"}	1	0	1
3	OPP_FL	Flag to indicate the direction of flow. Possible values are: N- Indicates that it is a normal flow Nomination / Re-nomination Y-Indicates that it is an opposite flow Nomination / Re-nomination	xs:string	{"type": "string"}	1	0	1
2	TOT	Sum of the total trade quantity displayed in kWh.	xs:long	{"type": "number"}	-	1	1

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4.2.5.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.5.4 Error Handling

4.2.5.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.6 Maintain Physical Renominations (Update) API

4.2.6.1 Overview

Physical and Locational Trades conducted by a Market Operator through the On-the-day Commodity Market require confirmation by BA's within timescales defined by the specified Physical Re-nomination Incentive. This API allows BA's to confirm OCM Physical trades by providing the Location at which the Shipper wishes to renominate. Re-nominations will be created for confirmed trades.

4.2.6.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.6.2.1 URI to access the Web API

[/UpdatePhysicalRenominations/v1](#)

4.2.6.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/UpdatePhysicalRenominationsControllerAPI/](#)

4.2.6.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.6.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	UPDT_PHY_RNM	Top-level hierarchy for Update Physical Re-nominations.							
1	GAS_DAY	The Gas Day for which OCM physical trades are to be confirmed. The date should be in YYYY-MM-DD format.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1*	UPDT_PHY_RNM_DTL	Top-level hierarchy for Update Physical Re-nominations for Gas Day.				0	∞		
2	BID_ID	The bid identifier associated with each Bid (unique).	xs:string	{"type": "string"}	8	1	1	Yes	A valid ID
2	MTR_ID	The Meter Id against which the trade is to be confirmed.	xs:string	{"type": "string"}	10	1	1	Yes	A valid ID
2	IGNR_TLRNCE	Flag to indicate whether the tolerance check must be carried out for the record. Permissible values are: Y - Ignore tolerance check N - Perform tolerance check	xs:string	{"type": "string"}	1	1	1	Yes	Y- Ignore tolerance check N- Perform tolerance check

4.2.6.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	UPDT_PHY_RNM_OUT	Top-level hierarchy for output elements.					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	DTL	Top-level hierarchy for Details.					
2	UPDT_PHY_RNM_DTL_QRY	Top-level hierarchy for Physical Re-nominations.					
3	GAS_DAY	The Gas Day for which OCM trades are to be confirmed	xs:date	{"type": "string"}	10	1	1
3*	UPDT_PHY_RNM_DTL	Top-level hierarchy for Physical Re-nominations response for the Gas Day.				0	∞
4	BID_ID	The bid identifier associated with each Bid (unique) for which the OCM trades are confirmed.	xs:string	{"type": "string"}	8	1	1
4	MTR_ID	The Meter Id against which the trade is confirmed.	xs:string	{"type": "string"}	10	1	1
4	IGNR_TLRNCE	Flag to indicate whether the tolerance check must be carried out for the record. Permissible values are: Y - Ignore tolerance check N - Perform tolerance check	xs:string	{"type": "string"}	1	1	1
4	STS	The status of the records The permissible values are: S- Success F- Failure	xs:string	{"type": "string"}	1	1	1
4	MSG_CD	This field gives the message code.	xs:string	{"type": "string"}	18	1	1
4	MSG_DESC	This field gives a more descriptive information on the status of the physical / locational trade records, i.e. whether all trades have been accepted or only some have been accepted.	xs:string	{"type": "string"}	400	1	1

**Note: For Web API response swagger metadata, replace UPDT_PHY_RNM_DTL with UPDT_PHY_RNM_DTL_OUT*

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.6.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.6.4 Error Handling

4.2.6.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.7 Meter to Zone Relationship API

4.2.7.1 Overview

This API is used to retrieve the relationship between the Meter and its locational Zone. It provides a list of all Zone relationships that exist for the specified Meter. This relationship is established for BL, BN, DC, DF, DI, US and NA Meter Types, and optional for OS, SE, ST, SX, XF and XI Meter Types. Results may be retrieved only for Meters that are associated to the BA account, or those that the BA has authority to view.

4.2.7.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.7.2.1 URI to access the Web API

[/MTRDetails/v1](#)

4.2.7.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/MTRDetailsControllerAPI/](#)

4.2.7.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.7.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	VW_MTR_ZON_RLP	Top-level hierarchy for view elements.							
1	MTR_ID	Unique Identifier of the meter.	xs:string	{"type": "string"}	10	1	1	Yes	A valid ID

4.2.7.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	VW_MTR_ZON_DTLS_OUT	Top-level hierarchy for output elements.					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	VW_MTR_ZON_DTLS_QRY	Top-level hierarchy for query elements.					
2	MTR_ID	Unique Identifier of the meter	xs:string	{"type": "string"}	10	1	1
1	DTL	Top-level hierarchy for Details.					
2	MTR_ZON_DTLS_HDR	Top-level hierarchy for Meter-Zones.					
3	MTR_ID	Unique Identifier of the meter.	xs:string	{"type": "string"}	10	1	1
3	MTR_NAME	Meter Name	xs:string	{"type": "string"}	40	1	1
3	MTR_TYPE	Meter Type	xs:string	{"type": "string"}	2	1	1
2*	MTR_ZON_DTLS_INF	The detail record for Meter-Zones.					
3	LCTN_CD	Unique identifier of the zone to which the meter belongs.	xs:string	{"type": "string"}	10	1	1
3	LCTN_DESC	Description of the zone where meter is	xs:string	{"type": "string"}	200	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		located.					
3	EFF_ST_DT	Date from which the zone relationship will be effective.	xs:date	{"type": "string"}	10	1	1
3	EFF_END_DT	Date to which the zone relationship will be effective.	xs:date	{"type": "string"}	10	0	1
3	ACTV_IND	A flag to indicate Zone Relationship is active or inactive for a Meter. The possible values are: N - Indicates that Meter to Zone relationship is not active Y - Indicates that Meter to Zone relationship is active	xs:string	{"type": "string"}	1	1	1

4.2.7.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.7.4 Error Handling

4.2.7.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0301	Invalid Meter Id for the BA.

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.8 Price Information History API

4.2.8.1 Overview

This API allows the market operator to retrieve the SAP, SMP (buy) and SMP (sell) information for a given gas day.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.8.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.8.2.1 URI to access the Web API

[/PriceInformationHistory/v1](#)

4.2.8.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/PriceInformationHistoryControllerAPI/](#)

4.2.8.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.8.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	PR_INFO_HSTRY_QUERY	Top level hierarchy for query elements							
1	GAS_DAY	The gas day that the price information relates to.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	MKT_OP_CD	Market Operator short code for which the price information history is retrieved.	xs:string	{"type": "string"}	3	1	1	Yes	For example, by specifying the value for this field as 'ENO', the gas trade details are retrieved for the OBO party (ENMO). If this field is omitted then trades with all the trading partners, not just the Market Operator, will be returned

4.2.8.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	PR_INFO_HSTRY_OUT	Top level hierarchy for output elements						
1	METADATA	Top level hierarchy for meta information elements						
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	PR_INFO_HSTRY_QRY	Top level hierarchy for query elements						
2	GAS_DAY	The gas day that the price information relates to.	xs:date	{"type": "string"}	10	1	1	
2	MKT_OP_CD	Market Operator short code for which the price information history is retrieved.	xs:string	{"type": "string"}	3	1	1	
1	DTL	Top level hierarchy for header fields.						
2*	PR_INFO_HSTRY_DTL	Top level hierarchy for the individual record elements					0	∞
3	UPDT_DT	The calendar date on which the price information was registered	xs:date	{"type": "string"}	10	1	1	
3	UPDT_TM	Time when the price information was registered This will be of the format hh:mm	xs:string	{"type": "string"}	5	1	1	
3	SAP	System Average Price	xs:float	{"type": "number"}	6,4	1	1	
3	SMP_BUY	System Marginal Price- Buy	xs:float	{"type": "number"}	6,4	1	1	
3	SMP_SELL	System Marginal Price- Sell	xs:float	{"type": "number"}	6,4	1	1	

4.2.8.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.8.4 Error Handling

4.2.8.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.9 Register Physical/ Locational Trades API

4.2.9.1 Overview

This API allows the BA (Market Operator) to register physical or locational Trades. This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.9.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.9.2.1 URI to access the Web API

[/RegisterPhyLocTrades/v1](#)

4.2.9.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/RegisterPhyLocTradesControllerAPI/](#)

4.2.9.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.9.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	REG_PHYS_LOC_TRDS	Top level hierarchy for Register Physical/Locational Trade elements							
1	GAS_DAY	Day for which OCM Trades were registered	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	BTCH_ID	Identification for National Grid Physical/Locational Trades	xs:string	{"type": "string"}	8	0	1	No	A valid ID
1	RSN_CD	Reason Code describes the National Grid's reason for participating in an OCM Trade. This is mandatory only if the batch id is specified	xs:string	{"type": "string"}	4	0	1	No	A valid Reason Code
1*	REG_PHYS_LOC_TRDS_DTL	Top level hierarchy for individual input records				0	∞		
2	BID_ID	Identifier for a Bid	xs:string	{"type": "string"}	8	1	1	Yes	A valid ID
2	BID_TYPE	Field indicating locational or physical bid The permissible values are: P – Physical L - Locational	xs:string	{"type": "string"}	1	1	1	Yes	P- Physical L-Locational

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
2	BID_ORGNTOR	Unique identification BA party code	xs:string	{"type": "string"}	10	1	1	Yes	A valid BA code
2	BID_TMSTMP	Time at which the trade was finalized	xs:dateTime	{"type": "string"}	19	1	1	Yes	
2	LCN	Meter Id. The Meter Id on which the trade is to be confirmed. This is entered only if the BID_TYPE is 'L'	xs:string	{"type": "string"}	10	0	1	No	A valid location
2	BUY_SELL	OCM trade buy/sell quantity indicator The permissible values are: B- Buy S – Sell	xs:string	{"type": "string"}	1	1	1	Yes	B- Buy S – Sell
2	STRT_TM	The time from when the traded energy will begin to flow.	xs:NonnegativeInt	{"type": "number"}	--	1	1	Yes	The permissible values are from 0 to 23
2	TRD_QTY	Quantity bought/sold by the BA (KWh)	xs:long	{"type": "number"}	13	1	1	Yes	A valid number
2	PRC	The price at which the energy was sold/purchased (p/KWh) This is mandatory only if the batch id is specified	xs:decimal	{"type": "number"}	6,4	0	1	No	A valid number of Length 6,4

4.2.9.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	REG_PHY_LOC_OUT	Top level hierarchy for output elements						
1	METADATA	Top level hierarchy for meta information elements						
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	GAS_DAY	Day for which OCM Trades were registered	xs:date	{"type": "string"}	10	1	1	
1	BTCH_ID	Identification for National Grid Physical/Locational Trades	xs:string	{"type": "string"}	8	0	1	
1	RSN_CD	Reason Code describes the National Grid's reason for participating in an OCM Trade. This is mandatory only if the batch id is specified	xs:string	{"type": "string"}	4	0	1	
1	DTL	Top level hierarchy for Registered Records						
2*	REG_PHY_LOC_DTL	Top level hierarchy for individual elements					0	∞
3	BID_ID	Identifier for a Bid	xs:string	{"type": "string"}	8	1	1	
3	BID_TYPE	Field indicating Locational or Physical Bid The permissible values are: P – Physical L - locational	xs:string	{"type": "string"}	1	1	1	
3	BID_ORGNTOR	Unique identification code for a Shipper.	xs:string	{"type": "string"}	10	1	1	
3	BID_TMSTMP	Time at the which the trade was finalized	xs:dateTime	{"type": "string"}	19	1	1	
3	LCN	Meter ID.	xs:string	{"type": "string"}	10	0	1	
3	BUY_SELL_IND	OCM Trade buy/sell quantity indicator The permissible values are: B -Buy S – Sell	xs:string	{"type": "string"}	1	1	1	
3	STRT_TM	The time from when the traded energy will begin to flow The permissible values are from 0 to 23.	xs:Non-negativeint	{"type": "number"}	--	1	1	
3	TRD_QTY	Quantity bought/sold by the Shipper	xs:long	{"type": "number"}	13	1	1	
3	PRC	The price at which the energy was sold/purchased	xs:decimal	{"type": "number"}	6,4	0	1	
3	STS	The status of the records The permissible values are: S- Success F- Failure	xs:string	{"type": "string"}	1	1	1	

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
3	MSG_CD	This field gives the message code.	xs:string	{"type": "string"}	18	1	1
3	MSG_DESC	This field gives a more descriptive information on the status of the physical / locational trade records, i.e. whether all trades have been accepted or only some have been accepted.	xs:string	{"type": "string"}	400	1	1

4.2.9.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.9.4 Error Handling

4.2.9.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0069	Reason Code cannot be present for a trade if Batch ID is not entered
GEM_API_ERROR_0070	Price cannot be present for a trade if Batch ID is not entered
GEM_API_ERROR_0071	Reason Code should be present for a trade if Batch ID is entered
GEM_API_ERROR_0072	Price should be present for a trade if Batch ID is entered
GEM_API_ERROR_0073	Location cannot be present for a trade if Bid Type is Physical
GEM_API_MSG_0074	This OCM trade is accepted
GEM_API_ERROR_0075	This OCM trade is rejected

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.10 Register Title Swap API

4.2.10.1 Overview

This API allows the BA (Market Operator) to upload title swap trades for a gas day.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.10.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.10.2.1 URI to access the Web API

[/RegisterTitleSwap/v1](#)

4.2.10.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/RegisterTitleSwapControllerAPI/](#)

4.2.10.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.10.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	REG_TTL_SWP_RG STR	Top level hierarchy for Register Title Swap elements							
1	GAS_DAY	Day when the Price Information was calculated	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1*	REG_TTL_SWP	Top level hierarchy for individual input records				0	∞		
2	PRTY_CD	Party Code of the BA.	xs:string	{"type": "string"}	10	1	1	Yes	A valid BA code
2	BUY_SELL	OCM Trade buy/sell quantity indicator The permissible values are (Case sensitive): B - Buy S - Sell	xs:string	{"type": "string"}	1	1	1	Yes	B - Buy S - Sell
2	TRD_QTY	Total energy bought/sold by the BA	xs:long	{"type": "number"}	13	1	1	Yes	A valid number

4.2.10.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	REG_TTL_SWP_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	GAS_DAY	Day for which OCM Trades were registered.	xs:date	{"type": "string"}	10	1	1
1	DTL	Top level hierarchy for Registered Records					
2*	REG_TTL_SWP_DTL	Top level hierarchy for individual elements				0	∞
3	PRTY_CD	Party Code of the BA.	xs:string	{"type": "string"}	10	1	1
3	BUY_SELL	OCM Trade buy/sell quantity indicator The permissible values are: B – Buy S - Sell	xs:string	{"type": "string"}	1	1	1
3	TRD_QTY	Total energy bought/sold by the BA	xs:long	{"type": "number"}	13	1	1
3	STS	The status of the records The permissible values are: S - Success F - Failure	xs:string	{"type": "string"}	1	1	1
3	MSG_CD	This field gives the message code.	xs:string	{"type": "string"}	18	1	1
3	MSG_DESC	This field gives more descriptive information on the status of the title swap records, whether all have been accepted or only some have been accepted.	xs:string	{"type": "string"}	400	1	1

4.2.10.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.10.4 Error Handling

4.2.10.4.1 API Specific Business Errors

Message Code	Message
GEM_API_MSG_0074	This OCM trade is accepted
GEM_API_ERROR_0075	This OCM trade is rejected

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.11 Shipper EOD Noms (Hour Bar) API

4.2.11.1 Overview

This API retrieves EOD Nomination details for a BA for a requested gas day. This API retrieves the details of the requested and the scheduled Nominations prevailing at the specified hour bars for the selected gas day.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.11.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.11.2.1 URI to access the Web API

[/ViewShipperEODNoms/v1](#)

4.2.11.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/ViewShipperEODNomsControllerAPI/](#)

4.2.11.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.11.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	SHPR_EOD_NMS_ORY	Top level hierarchy for query elements							
1	GAS_DAY	The gas day for which the details are to be retrieved.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

4.2.11.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	SHPR_EOD_NMS_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	SHPR_EOD_NMS_QRY	Top level hierarchy for query elements					
2	GAS_DAY	The Gas Flow Day for which the details are to be retrieved.	xs:date	{"type": "string"}	10	1	1
1	DTL	Top level hierarchy for detail					
2*	NRG_DTL	Top level hierarchy for energy detail					
3	HR_BR	The hour bar for which the scheduled nominations and the INS nominations are retrieved This will be of the format "hh D-n" where hh = Hour bar D = Gas day n = The number of gas days prior to D for which the information was received For e.g.: If the HR_BR is "17 D- 1", this implies	xs:string	{"type": "string"}	6	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		that the value of the EOD nominations data is as of 17:00 hrs on D-1 for gas day D. If the HR_BR is "17 D", this implies that the value of the EOD nominations data is as of 17:00 hrs on D for gas day D, i.e., the "-n" component of this element is omitted.					
3	REQ_NRG	Top level hierarchy for the Requested energy.					
4	REQ_INP_NRG	The requested input energy value at the specified hour bar (kWh)	xs:long	{"type": "number"}	13	1	1
4	REQ_OP_NRG	The requested output energy value at the specified hour bar (kWh)	xs:long	{"type": "number"}	13	1	1
4	NET_REQ_NRG	The difference between the requested input and the requested output energy (kWh)	xs:long	{"type": "number"}	13	1	1
3	SCHD_NRG	Top level hierarchy for the Scheduled energy.					
4	SCHD_INP_NRG	The scheduled input energy value at the specified hour bar (kWh) Long	xs:long	{"type": "number"}	13	1	1
4	SCHD_OP_NRG	The scheduled output energy value at the specified hour bar (kWh)	xs:long	{"type": "number"}	13	1	1
4	NET_SCHD_NRG	The difference between the scheduled input and the scheduled output energy (kWh)	xs:long	{"type": "number"}	13	1	1

4.2.11.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.11.4 Error Handling

4.2.11.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.12 Shipper Preliminary Balance API

4.2.12.1 Overview

This API retrieves the breakdown of the input and output Nominations details for the primary BA for a specified gas day. The API gives the breakdown of the BA's Nominations and the corresponding net balance on the input side as well as the output side.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

*** COR1154 changes begin ***

UK Link DBI Programme changes the way the Demand Forecast and Allocation is calculated in Gemini and also introduces the Unidentified Gas (UG). This will be a new Output Meter Type – 'UG'.

The Output Balance will consist of 'UG' meters along with Daily and Non – Daily meters. This API specification document covers the inclusion of Unidentified Gas to the Output Balance details.

*** COR1154 changes end ***

4.2.12.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.12.2.1 URI to access the Web API

[/ShipperPreliminaryBalance/v1](#)

4.2.12.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/ShipperPreliminaryBalanceControllerAPI/](#)

4.2.12.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.12.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	SHPR_PRLIM_BAL_QRY	Top level hierarchy for query elements							
1	GAS_DAY	Gas day for which the BA balance details for the entire system are requested.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

4.2.12.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	SHPR_PRLIM_BAL_OUT	Top level hierarchy for the response elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	SHPR_PRLIM_BAL_QRY	Top level hierarchy for the query elements					
2	GAS_DAY	Gas day for which the BA balance details for the entire system are requested.	xs:date	{"type": "string"}	10	1	1
1	DTL	Top-level hierarchy for details					
2	NRG_DTL	Top-level hierarchy for overall energy details					
3	IP_BAL	Top-level hierarchy for Input energy details					
4	TRNS_IP	The Top-level hierarchy for the sum of all the requested & scheduled transportation Nominations for the specified gas day.					
5	REQ_NRG	The requested transport input energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The scheduled transport input energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	STRG_IP	The Top-level hierarchy for the requested & scheduled Storage Input Nominations for the specified gas day.					
5	REQ_NRG	The requested storage input energy (kWh)	xs:long	{"type": "number"}	-	N/A	N/A
5	SCHD_NRG	The scheduled storage input energy (kWh)	xs:long	{"type": "number"}	-	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
4	TRD_BUY	The Top-level hierarchy for the sum of all requested & scheduled Input OTC gas trades Nominations for the specified gas day					
5	REQ_NRG	The requested Trades Buy energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The scheduled Trades Buy energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	OCM_NBP_BUY	The Top-level hierarchy for the sum of all requested & scheduled Input OCM title trade Nominations for the specified gas day					
5	REQ_NRG	The requested OCM NBP Buy energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The scheduled OCM NBP Buy energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	OCM_PHY	The Top-level hierarchy for the sum of all requested & scheduled Input Physical/locational Nominations for the specified gas day conducted either through the OCM.					
5	REQ_NRG	The requested OCM Physical energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The scheduled OCM Physical energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	FLEXBLTY	The Top-level hierarchy for the sum of all requested & scheduled Input Flexibility Nominations for the specified gas day					
5	REQ_NRG	The requested Flexibility energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The scheduled Flexibility energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	TOT_IP	The Top-level hierarchy for the net sum of all the requested & scheduled Input quantities excluding Flexibility Nominations					
5	REQ_NRG	The Total requested energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The Total scheduled energy (kWh)	xs:long	{"type": "number"}	-	1	1
3	OP_BAL	Top-level hierarchy for Output energy details.					
4	DM_SHR	Top-level hierarchy for the sum of the requested & scheduled energy for the Daily Metered, Daily Metered Aggregate and the Shrinkage Nominations for the specified gas day					
5	REQ_NRG	The DMCs/DMA/ Shrinkage requested energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The DMCs/DMA/ Shrinkage scheduled energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	NDM	Top-level hierarchy for the sum of the requested & scheduled energy for all the Non- Daily Metered sites for the specified gas day					
5	REQ_NRG	The Non-Daily Metered requested energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The Non-Daily Metered scheduled energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	UIG	Top-level hierarchy for the sum of the requested & scheduled energy for all the Unidentified Gas Meters for the specified gas day					

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
5	REQ_NRG	The Unidentified Gas Metered requested energy (kWh).This can either be a positive or a negative value	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The Unidentified Gas Metered scheduled energy (kWh).This can either be a positive or a negative value	xs:long	{"type": "number"}	-	1	1
4	STRG_OP	Top-level hierarchy for the sum of all the requested & scheduled Storage Output Nominations for the specified gas day					
5	REQ_NRG	The Storage Output requested energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The Storage Output scheduled energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	TRD_SELL	Top-level hierarchy for the sum of all requested & scheduled Output OTC gas trades Nominations for the specified gas day					
5	REQ_NRG	The Trades Sell requested energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The Trades Sell scheduled energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	OCM_NBP_SELLS	Top-level hierarchy for the sum of all requested & scheduled Output OCM title trade Nominations for the specified gas day					
5	REQ_NRG	The OCM NBP Sells requested energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The OCM NBP Sells scheduled energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	OCM_PHY	Top-level hierarchy for the sum of all requested & scheduled Output Physical/locational Nominations for the specified gas day conducted through the OCM.					
5	REQ_NRG	The OCM Physical requested energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The OCM Physical scheduled energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	FLEXBLTY	Top-level hierarchy for the sum of all requested & scheduled Output Flexibility Nominations for the specified gas day					
5	REQ_NRG	The Flexibility requested energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The Flexibility scheduled energy (kWh)	xs:long	{"type": "number"}	-	1	1
4	TOT_OP	Top-level hierarchy for the net sum of all the output quantities excluding Flexibility Nominations					
5	REQ_NRG	The total output requested energy (kWh)	xs:long	{"type": "number"}	-	1	1
5	SCHD_NRG	The total output scheduled energy (kWh)	xs:long	{"type": "number"}	-	1	1
3	NET_BAL	Top-level hierarchy for the net balance of the requested & scheduled input and output energies					
4	REQ_NRG	The net balance of input & output requested energy (kWh) This can either be a positive	xs:long	{"type": "number"}	-	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		or a negative value					
4	SCHD_NRG	The net balance of input & output scheduled energy (KWh) This can either be a positive or a negative value	xs:long	{"type": "number"}	-	1	1

4.2.12.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.12.4 Error Handling

4.2.12.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.13 Shipper Total Energy Forecast API

4.2.13.1 Overview

Using this API, BAs will be able to retrieve their Total NDMA Forecast values for a Gas Day.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.13.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.13.2.1 URI to access the Web API

[/ShipperTotalEnergyForecast/v1](#)

4.2.13.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/ShipperTotalEnergyForecastControllerAPI/](#)

4.2.13.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.13.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	SHPR_TOT_NRG_FCAST_QRY	Top level hierarchy for query elements							
1	GAS_DAY	The gas day for which the details are to be retrieved.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

4.2.13.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	SHPR_TOT_NRG_FCAST_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	SHPR_TOT_NRG_FCAST_QRY	Top level hierarchy for query elements					
2	GAS_DAY	The gas day for which the details are to be requested.	xs:date	{"type": "string"}	10	1	1
1	DTL	Top-level hierarchy for details.					
2*	NRG_FCAST_DTL	Top-level hierarchy for Shipper Total Energy Forecast Headers.					
3	CRT_DT	The Date on which the NDMA Nomination values are calculated	xs:date	{"type": "string"}	10	1	1
3	CRT_TM	The time at which the forecast values are calculated. This will be in the format HH:MM:SS	xs:time	{"type": "string"}	8	1	1
3	TOT_FCAST	The shipper's total NDMA forecast across all the LDZs for the selected gas day (kWh)	xs:long	{"type": "number"}	-	1	1
3	CNG_SNCE_LST_NM	The percentage change since the last	xs:float	{"type": "number"}	7,4	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		NDMA forecast. It is an indicator of the percentage change by which the Total NDMA Forecast for a Shipper has changed from the last NDMA Forecast.					
3	NA_RNM_UPDTD	This shows whether the Re-nomination is created for the NDMA meters of the shipper. If the percentage change of the Total NDMA Forecast is greater than or equal to the set percentage value, then this indicator will be set to 'Y'. Else it will be set to 'N'.	xs:string	{"type": "string"}	1	1	1

4.2.13.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.13.4 Error Handling

4.2.13.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.14 System Nomination Balance API

4.2.14.1 Overview

This API retrieves the Nominations Balance details at a system level for a gas day.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.14.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.14.2.1 URI to access the Web API

[/SystemNomBalance/v1](#)

4.2.14.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/SystemNomBalanceControllerAPI/](#)

4.2.14.3 XML Specifications

4.2.14.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	SYS_BAL_NOM_QRY	Top level hierarchy for query elements							
1	GAS_DAY	Gas day for which the BA balance details for the entire system are requested.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

4.2.14.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	SYS_BAL_NOM_OUT	Top level hierarchy for query elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	SYS_BAL_NOM_QRY	Top level hierarchy for query elements					
2	GAS_DAY	Gas day for which Nominations balance details are requested.	xs:date	{"type": "string"}	10	1	1
1	DTL	Top-level hierarchy for details.					
2	NRG_DTL	Top-level hierarchy for the overall energy details.					
3	REQ_NRG	Top-level hierarchy for the requested energy details.					
4	IP_BAL	The total amount of energy requested to be flowed into the NBP (kWh)	xs:long	{"type": "number"}	-	1	1
4	OP_BAL	The total amount of energy requested to be flowed out of the NBP (kWh)	xs:long	{"type": "number"}	-	1	1
4	NET_BAL	The difference between the requested input balance and requested output balance (kWh) This can either be a positive or a negative value	xs:long	{"type": "number"}	-	1	1
3	SCHD_NRG	Top-level hierarchy for the scheduled energy details.					

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
4	IP_BAL	The total amount of energy scheduled to be flowed into the NBP (kWh)	xs:long	{"type": "number"}	-	1	1
4	OP_BAL	The total amount of energy scheduled to be flowed out of the NBP (kWh)	xs:long	{"type": "number"}	-	1	1
4	NET_BAL	The difference between the scheduled input balance and scheduled output balance (kWh) This can either be a positive or a negative value	xs:long	{"type": "number"}	-	1	1

4.2.14.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.14.4 Error Handling

4.2.14.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.15 System Status History API

4.2.15.1 Overview

This API retrieves the System Status History for a calendar day.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.15.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.15.2.1 URI to access the Web API

[/SystemStatusHistory/v1](#)

4.2.15.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/SystemStatusHistoryControllerAPI/](#)

4.2.15.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.15.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	NM_SYS_HSTRY_QRY	Top level hierarchy for query elements							
1	CLNDR_DAY	The calendar day for which the system status history details are being queried.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

4.2.15.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	NM_SYS_HSTRY_OUT	Top level hierarchy for query elements						
1	METADATA	Top level hierarchy for meta information elements						
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	NM_SYS_HSTRY_QRY	Top level hierarchy for query elements						
2	CLNDR_DAY	The calendar day for which the system status history details are being queried.	xs:date	{"type": "string"}	10	N/A	N/A	
1	DTL	Top level hierarchy for header fields.						
2*	SYS_STATS_HSTRY_DTL	Top level hierarchy for the Individual record elements					0	∞
3	UPDT_TM	The time at which the Line pack details were received from the source system This will be of the format hh:mm	xs:string	{"type": "string"}	5	1	1	
3	CURR_DMND	The current forecast for the EOD demand (mcm)	xs:float	{"type": "number"}	4,1	1	1	
3	OPN_LNPK	The linepack at the start of the Calendar Day (mcm)	xs:float	{"type": "number"}	4,1	1	1	
3	PCLP1	The Projected Closing Line pack based on DFN	xs:float	{"type": "number"}	4,1	1	1	

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		information received from Delivery Facility Operators (DFOs') (mcm)					
3	PCLP2	The Projected Closing Line pack based on aggregate BA INS nominations (mcm)	xs:float	{"type": "number"}	4,1	1	1
3	SAP	The system average price (p/kWh)	xs:float	{"type": "number"}	6,4	0	1
3	SMP_BUY	The system marginal price- buy (p/kWh)	xs:float	{"type": "number"}	6,4	0	1
3	SMP_SELL	The system marginal price- sell (p/kWh)	xs:float	{"type": "number"}	6,4	0	1
3	DAY_AHEAD_DMND	The day ahead demand data as entered by National Grid NTS user (mcm)	xs:float	{"type": "number"}	5,1	1	1
3	LNPK_CMNT	Additional details related to the system status information	xs:string	{"type": "string"}	400	1	1

4.2.15.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.15.4 Error Handling

4.2.15.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.16 System Status Information API

4.2.16.1 Overview

This API allows the BA to view the System Status information for the current System Date.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.16.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.16.2.1 URI to access the Web API

[/SystemStatusInfo/v1](#)

4.2.16.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/SystemStatusInfoControllerAPI/](#)

4.2.16.3 XML Specifications

4.2.16.3.1 API Request Parameters

None

4.2.16.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	STS_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	DTL	Top level hierarchy for detail.					
2	SYS_STS_INFO	Top level hierarchy for the record elements					
3	UPDT_TIME	The latest time when the System Status details were updated. This will be of the format hh:mm:ss	xs:time	{"type": "string"}	8	1	1
3	CLNDR_DAY	The current Calendar Day	xs:date	{"type": "string"}	10	1	1
3	CURR_DMND	The current forecast for the EOD demand (mcm)	xs:float	{"type": "number"}	4,1	1	1
3	OPN_LNPK	The linepack at the start of the Calendar day (mcm)	xs:float	{"type": "number"}	4,1	1	1
3	PCLP1	Projected Closing Line pack 1 (mcm)	xs:float	{"type": "number"}	4,1	1	1
3	PCLP2	Projected Closing Line pack 2 (mcm)	xs:float	{"type": "number"}	4,1	1	1
3	SAP	System Average Price (p/kWh)	xs:float	{"type": "number"}	6,4	0	1
3	SMP_BUY	System Marginal Price Buy (p/kWh)	xs:float	{"type": "number"}	6,4	0	1
3	SMP_SELL	System Marginal Price Sell (p/kWh)	xs:float	{"type": "number"}	6,4	0	1
3	DAY_AHEAD_DMND	The day ahead demand data as entered by National Grid NTS user (mcm)	xs:float	{"type": "number"}	5,1	1	1
3	LNPK_CMNT	Additional details related to the Status Information	xs:string	{"type": "string"}	400	1	1

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API Specification	Date :22-Jun-2023

4.2.16.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.16.4 Error Handling

4.2.16.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.17 Update Renominations API

4.2.17.1 Overview

Using this API, BA will be able to update input/output re-nominations for a Gas Day and a Service Id. The input / output re-nominations are differentiated based on the service identifier.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.17.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.2.17.2.1 URI to access the Web API

[/UpdateRenominations/v1](#)

4.2.17.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/UpdateRenominationsControllerAPI/](#)

4.2.17.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.17.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	UPDT_RNM	Top level hierarchy for the Update Re-nominations							
1	GAS_DAY	Gas Day for which re-nominations are updated	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	SERV_ID	Unique ID associated to a BA's service	xs:string	{"type": "string"}	15	1	1	Yes	A valid ID
1*	UPDT_RNM_DTL	Top level hierarchy for the details of update Re-nominations				0	∞		
2	ACTVTY_NBR	Unique number within a Service which defines the flow of gas through a meter	xs:NonNegativeInteger	{"type": "number"}	6	1	1	Yes	A valid number
2	STRT_TM	Start time of the Re-nomination step. The Start Time should be in the range 0 to 23.	xs:NonNegativeInteger	{"type": "number"}	2	1	1	Yes	The Start Time should be in the range 0 to 23.
2	REQ_NRG	Quantity of energy requested for the Gas Day for the Service/Activity (kWh)	xs:unsignedLong	{"type": "number"}	13	1	1	Yes	A valid number
2	IGNR_TLRNCE	A flag to indicate whether the tolerance check must be carried out for the record or whether it should be ignored. The permissible values are (Case sensitive): Y - To ignore the	xs:string	{"type": "string"}	1	1	1	Yes	Y-To ignore the tolerance check. N- To carry out the tolerance check.

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		tolerance check. N - To carry out the tolerance check.							

4.2.17.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	UPDT_RNM_OUT	Top level hierarchy for update elements						
1	METADATA	Top level hierarchy for meta information elements						
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	GAS_DAY	Gas Day for which re-nominations are updated	xs:date	{"type": "string"}	10	1	1	
1	SERV_ID	Unique ID associated to a BA's service	xs:string	{"type": "string"}	15	1	1	
1*	ACTVTY	Top level hierarchy for activity elements				0	∞	
2	ACTVTY_NBR	Unique number within a service which defines the flow of gas through a meter	xs:NonNegativeinteger	{"type": "number"}	6	1	1	
2*	STEP	Top level hierarchy for step elements				0	∞	
3	STRT_TM	Start time within a gas day. The Start Time is of 2 characters. Range 0 to 23.	xs:NonNegativeinteger	{"type": "number"}	2	1	1	
3	REQ_NRG	Quantity of energy requested for the Gas Day for the Service/Activity	xs:long	{"type": "number"}	13	1	1	
3	STS	The status of the records The permissible values are: S - Success F - Failure	xs:string	{"type": "string"}	1	1	1	
3	MSG_CD	This field gives the message code.	xs:string	{"type": "string"}	18	1	1	
3	MSG_DESC	This field gives more descriptive information on the status of the record. If a record is successful it indicates the same. In case if a record has failed, It is the	xs:string	{"type": "string"}	400	1	1	

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Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		reason for failure of the record.					

4.2.17.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.17.4 Error Handling

4.2.17.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.18 Update INS Nominations API

4.2.18.1 Overview

Using this API, a BA can add INS Nominations for a set of gas days. The BA can also use this API to modify the existing INS Nominations.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.18.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.2.18.2.1 URI to access the Web API

[/UpdateINSNominations/v1](#)

4.2.18.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/UpdateINSNominationsControllerAPI/](#)

4.2.18.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.18.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	UPDT_INS_NMS	Top level hierarchy for update elements							
1	UPDT_INS_NMS_DTLS	Top level hierarchy for update detail elements				0	∞		
2	GAS_DAY	Gas day for which the INS Nominations are to be updated.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
2	PROJ_EOD_IMBAL	This is a positive or negative value, which indicates the intended end of the day imbalance (or INS Nomination) in kWh	xs:long	{"type": "number"}	13	1	1	Yes	A valid number
2	RSN	This field is used for entering the reason (if any) for modifying an existing INS Nomination. However, if a reason is provided for a new INS Nomination record, the field will be ignored and will not be updated into the system for the new record. If the field is omitted during modification, then the system will insert a default reason - 'Record modified'	xs:string	{"type": "string"}	255	0	1	No	A valid Reason for Modifying an existing INS nomination

4.2.18.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	UPDT_INS_NMS_OUT	Top level hierarchy for update elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	UPDT_INS_NMS_DTLS*	Top level hierarchy for detail information elements				0	∞
2	GAS_DAY	Gas Day for which the INS Nominations are to be updated.	xs:date	{"type": "string"}	10	1	1
2	PROJ_EOD_IMBAL	This is a positive or negative value, which indicates the intended End Of Day Imbalance (or INS Nomination) in kWh provided by the BA or as applied by the system. Positive value of INS Nomination will indicate that the BA intends to over deliver gas. Negative value will indicate an under delivery of gas.	xs:long	{"type": "number"}	13	1	1
2	RSN	This field is used for providing the reason (if any) for modifying an existing INS Nomination	xs:string	{"type": "string"}	255	1	1
2	STS	The status of the records The permissible values are: S - Success F - Failure	xs:string	{"type": "string"}	1	1	1
2	MSG_CD	This field provides a unique message code	xs:string	{"type": "string"}	18	1	1
2	MSG_DESC	This field gives the description for the message code specified. If a record is successful it indicates the same. In case if a record has failed, It is the reason for failure of the record.	xs:string	{"type": "string"}	400	1	1

**Note: For Web API response swagger metadata definition, replace UPDT_INS_NMS_DTLS with UPDT_INS_NMS_DTLS_OUT*

4.2.18.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.18.4 Error Handling

4.2.18.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0077	The INS Nomination for this gas day is already being updated
GEM_API_ERROR_0078	INS Nomination creation time elapsed
GEM_API_ERROR_0079	The Gas Day not within Current Nomination period
GEM_API_ERROR_0080	The record is being modified by another user
GEM_API_MSG_0081	This record has been successfully added
GEM_API_MSG_0082	This record has been successfully modified

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.19 View INS Nominations API

4.2.19.1 Overview

This API retrieves the existing INS Nominations in descending order of the Gas Day. This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on

API function and usage, see the API Usage Guidelines document.

4.2.19.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.2.19.2.1 URI to access the Web API

[/ViewINSNomination/v1](#)

4.2.19.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/ViewINSNominationControllerAPI/](#)

4.2.19.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.19.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	VW_INS_NMS_QRY	Top level hierarchy for query elements							
1	EFF_ST_DT	The date from which the INS Nominations needs to be retrieved.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	EFF_END_DT	The date till which the INS Nominations needs to be retrieved.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

4.2.19.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	VW_INS_NMS_OUT	Top level hierarchy for output elements						
1	METADATA	Top level hierarchy for meta information elements						
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	VW_INS_NMS_QRY	Top level hierarchy for query elements						
2	EFF_ST_DT	The date from which the INS Nominations needs to be retrieved.	xs:date	{"type": "string"}	10	1	1	
2	EFF_END_DT	The date till which the INS Nominations needs to be retrieved.	xs:date	{"type": "string"}	10	1	1	
1	DTL	Top-level hierarchy for Details.						
2*	INS_NM_DTL	Top-level hierarchy for INS Nomination Headers.					1	∞
3	GAS_DAY	Gas day for which the INS Nominations are to be retrieved.	xs:date	{"type": "string"}	10	1	1	

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
3	PROJ_EOD_IMBAL	This is a positive or negative value, which indicates the intended end of the day imbalance (or INS Nomination) in kWh	xs:long	{"type": "number"}	13	1	1

4.2.19.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.19.4 Error Handling

4.2.19.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0083	End Date should be greater than or equal to Start Date

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.20 View Renomination Details API

4.2.20.1 Overview

Using this API, the BA can retrieve step details of an input/output Re-nomination for a gas day. The input / output Re-nominations are differentiated based on the service identifier.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.20.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.2.20.2.1 URI to access the Web API

[/ViewRenominationDetails/v1](#)

4.2.20.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/ViewRenominationDetailsControllerAPI/](#)

4.2.20.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.20.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	VW_RNM_DTLS_QUERY	Top level hierarchy for query elements							
1	GAS_DAY	Gas Day for which re-nominations are retrieved	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	SERV_ID	Unique ID associated to a BA's service	xs:string	{"type": "string"}	15	1	1	Yes	A valid ID
1	ACTVTY_NBR	Unique identifier for an activity under a service for a BA	xs:int	{"type": "number"}	6	1	1	Yes	A valid number
1	SF	Special Function indicates the Re-nomination type.	xs:string	{"type": "string"}	2	0	1	No	AF - Accepted Flex bid OC-OCM Re-nomination Spaces(' ')-Normal Re-nomination The values are Case sensitive.

4.2.20.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	VW_RNM_DTLS_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	VW_RNM_DTLS_QRY	Top level hierarchy for query elements					
2	GAS_DAY	Gas Day for which Re-nominations are retrieved	xs:date	{"type": "string"}	10	1	1
2	SERV_ID	Unique ID associated to a BA's service	xs:string	{"type": "string"}	15	1	1
2	ACTVTY_NBR	Unique identifier for an activity under a service for a BA	xs:int	{"type": "number"}	6	1	1
2	SF	Special Function indicates the Re-nomination type. AF - Accepted Flex bid OC – OCM Re-nomination Spaces (' ') - normal Re-nomination	xs:string	{"type": "string"}	2	0	1
1	DTL	Top-level hierarchy for Details.					
2	RNM_DTL	Top-level hierarchy for Re-nominations.					
3	RNM_HDR	Top-level hierarchy for Re-nominations Headers.					
4	GAS_DAY	Gas Day for which Re-nominations are retrieved	xs:date	{"type": "string"}	10	1	1
4	SERV_ID	Unique ID associated to a BA's Service	xs:string	{"type": "string"}	15	1	1
4	ACTVTY_NBR	Unique identifier for an activity under a Service for a BA	xs:int	{"type": "number"}	6	1	1
4	SF	Special Function indicates the Re-nomination type. AF - Accepted Flex bid OC – OCM Re-nomination Spaces (' ') - normal Re-nomination	xs:string	{"type": "string"}	2	0	1
4	BA_CD	Business Associate Short Code	xs:string	{"type": "string"}	3	1	1
4	RT_SCHD	Type of BA service	xs:string	{"type": "string"}	10	1	1
4	OBO	The OBO party in case the activity is for a Gas Trade	xs:string	{"type": "string"}	3	0	1
4	METER_ID	Unique identifier for a meter	xs:string	{"type": "string"}	10	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
4	OPP_FL	Flag to indicate the direction of flow The permissible values are: N - Indicates that it is a normal flow Nomination / Re-nomination Y - Indicates that it is an opposite flow Nomination / Re-nomination	xs:string	{"type": "string"}	1	1	1
4	I_O_IND	Flag to indicate the direction of flow The permissible values are: I - Input O - Output	xs:string	{"type": "string"}	1	1	1
4	BUY_SELL_IND	Flag to indicate whether the trade is a Buy or sell B - Buy Trade S - Sell Trade	xs:string	{"type": "string"}	1	0	1
3	RNM_DTLS_INF	The detail record for re-nomination					
4*	RNM_INF	The detail record for re-nomination info				1	∞
5	STRT_TM	The time from when the nominated/re-nominated energy should begin to flow. The permissible values are from 0 to 23.	xs:NonNegativeInteger	{"type": "number"}	2	1	1
5	COUNTR_PARTY_BA	<ul style="list-style-type: none"> For Trade – 3 character code of the counter party BA For Non-Trade – NA (Not Applicable) 	xs:string	{"type": "string"}	3	1	1
5	TRD_OR_NONTRD	Whether it is a Trade Nomination or not. T – Trade N – Non Trade	xs:string	{"type": "string"}	1	1	1
5	CV	Calorific Value.	xs:float	{"type": "number"}	6,4	1	1
5	VOL	Volume of Gas nominated for that Re-nomination Step.	xs:float	{"type": "number"}	11,5	1	1
5	REQ_STS	The Status of the entered Nominations/Re-nominations The permissible values are: N - Nominated A - Approved	xs:string	{"type": "string"}	1	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		R – Rejected E - Estimated					
5	REQ_NRG	This gives the amount of energy requested for the step	xs:long	{"type": "number"}	13	1	1
5	STEP_NRG	This gives the amount of energy to be flowed at that particular step.	xs:long	{"type": "number"}	13	1	1
5	DAY_RATE	The flow rate per day	xs:float	{"type": "number"}	11,5	1	1
5	PRCNT_CHNG	The percentage change in the amount of energy to be flowed. This is calculated based on the scheduled Energy.	xs:int	{"type": "number"}	7	1	1
5	CMT_TMSTMP	This gives the time at which the Nomination/Re-nomination was committed.	xs:dateTime	{"type": "string"}	20	1	1

4.2.20.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.20.4 Error Handling

4.2.20.4.1 API Specific Business Errors

Message Code	Message
GEM_API_ERROR_0051	Invalid Service Id for the BA

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.21 View Renominations API

4.2.21.1 Overview

Using this API, the BA will be able to retrieve their input/output Re-nominations for a gas day. The input / output Re-nominations are differentiated based on the service identifier. Re-nominations for Non- Daily-Metered (NDM) meters are excluded, i.e., they are not returned.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.21.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.2.21.2.1 URI to access the Web API

[/ViewRenomination/v1](#)

4.2.21.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/ViewRenominationControllerAPI/](#)

4.2.21.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.21.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	VW_RNM_QRY	Top level hierarchy for query elements							
1	GAS_DAY	Gas Day for which Re-nominations are requested	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	SERV_ID	Unique ID associated to a BA's service	xs:string	{"type": "string"}	15	1	1	Yes	A valid ID
1	STRT_ACTVTY_NBR	Unique identifier for an activity under a service for a BA.	xs:NonNegativeInteger	{"type": "number"}	6	1	1	Yes	A valid number
1	END_ACTVTY_NBR	Unique identifier for an activity under a service for a BA. If the value input is '0' (zero) for the STRT_ACTVTY_NBR and '999999' for END_ACTVTY_NBR, then the results are fetched for all the activities.	xs:NonNegativeInteger	{"type": "number"}	6	1	1	Yes	A valid number
1	REQ_STS	The status of the entered Nominations/Re-nominations. The permissible values are (Case sensitive): N – Nominated A – Approved R – Rejected E – Estimated	xs:string	{"type": "string"}	1	0	1	No	N – Nominated A – Approved R – Rejected E – Estimated

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		– Rejected E – Estimated If this field is omitted, then the records will be fetched irrespective of the status of the Nomination/ Re-nomination.							

4.2.21.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	VW_RNM_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	VW_RNM_QRY	Top level hierarchy for meta information elements	For child element details please refer to the request specification				
2	GAS_DAY	Gas Day for which Re-nominations are requested	xs:date	{"type": "string"}	10	1	1
2	SERVC_ID	Unique ID associated to a BA's service	xs:string	{"type": "string"}	15	1	1
2	STRT_ACTVTY_NBR	Unique identifier for an activity under a service for a BA.	xs:NonNegativeInteger	{"type": "number"}	6	1	1
2	END_ACTVTY_NBR	Unique identifier for an activity under a service for a BA.	xs:NonNegativeInteger	{"type": "number"}	6	1	1
2	REQ_STS	The status of the entered Nominations/Re-nominations The permissible values are: N – Nominated A – Approved R – Rejected E – Estimated If this field is omitted, then the records will be fetched irrespective of the status of the Nomination/ Re-nomination.	xs:string	{"type": "string"}	1	0	1
1	DTL	Top-level hierarchy for Details.					
2	RNM_DTL	Top-level hierarchy for Re-nominations Details.					
3*	RNM_DTL_INF	The detail record for Re-nomination				1	∞

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
4	ACTVTY_NBR	Unique identifier for an activity under a service for a BA.	xs:NonNegativeInteger	{"type": "number"}	6	1	1
4	SF	Special Function indicates the type of Re-nomination. AF - Accepted Flex bid OC – OCM Re-nomination Spaces(' ') – Normal Re-nomination.	xs:string	{"type": "string"}	2	1	1
4	METER_ID	The meter on which the Re-nomination is created	xs:string	{"type": "string"}	10	1	1
4	STRT_TM	The start time of the latest Re-nomination step for an activity. This will be of the format hh	xs:NonNegativeInteger	{"type": "number"}	2	1	1
4	REQ_NRG	Quantity of energy requested for the gas day for the service/activity (kWh).	xs:long	{"type": "number"}	13	1	1
4	REQ_STS	The status of the entered Re-nomination. The permissible values are: N - Nominated. A - Approved. R - Rejected. E – Estimated.	xs:string	{"type": "string"}	1	1	1
4	SCHD_NRG	Quantity of energy approved by O&T User for the Gas Day for the Service/Activity (kWh) If the Nomination / Re-nomination is unapproved, the value will be 'NULL'	xs:long	{"type": "number"}	13	0	1
4	SCHD_STS	The scheduled status of the entered Nominations/Re-nominations. The permissible values are: A - The Nomination / Re-nomination has been approved Blank space(NULL)- The Nomination / Re-nomination is unapproved	xs:string	{"type": "string"}	1	0	1
4	NO_OF_STPS	The number of Re-nomination Steps	xs:int	{"type": "number"}	2	1	1
4	OPP_FL	Flag to indicate the direction of flow The permissible values are: N - Indicates that it is a normal flow Nomination	xs:string	{"type": "string"}	1	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		/ Re-nomination Y - Indicates that it is an opposite flow Nomination / Re-nomination					
4	FRST_NM	Flag to indicate whether the record is a Nomination, Re-nomination or a first Nomination. The permissible values are: N - This indicates that a Nomination was created for this Activity in the Nomination Window. R - This indicates that a Renomination was created for this Activity in the Renomination window. F – This is displayed when a Renomination is created on an activity for the first time in the Renomination window, i.e. an Activity for which a prior Nomination does not exist. E - This is displayed when there is no shipper Nomination/Re-nomination placed for an activity number. The Nomination value is updated as part of Estimation process.	xs:string	{"type": "string"}	1	1	1
3	ENRGY_TOTLS	Top-level hierarchy for Energy Totals.					
4	REQ_NRG_TOT	This is the sum of all the Requested Energy for the specified Gas Day (kWh).	xs:long	{"type": "number"}	-	1	1
4	SCHD_NRG_TOT	This is the sum of all the Scheduled Energy for the specified Gas Day (kWh).	xs:long	{"type": "number"}	-	1	1
3	NO_OF_ACTVTS	The total number of activities fetched	xs:int	{"type": "number"}	6	1	1

4.2.21.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.21.4 Error Handling

4.2.21.4.1 API Specific Business Errors

Error Code	Error Message
GEM_API_ERROR_0050	Start Activity Number can't be greater than End Activity number
GEM_API_ERROR_0051	Invalid Service Id for the BA

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.22 View Shipper Trade Details AP

4.2.22.1 Overview

Using this API, BA will be able to retrieve their gas trade details for a gas day. The API provides the following information to the BA:

- 1) Whether the trading partner has made a Nomination
- 2) The details of the Nomination made by the trading partner

The status of the Nominations made by both the BA and their trading partner.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.22.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change

4.2.22.2.1 URI to access the Web API

[/ViewShprTradeDetails/v1](#)

4.2.22.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/ViewShprTradeDetailsControllerAPI/](#)

4.2.22.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.22.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	SHPR_TRD_DTL_QRY	Top level hierarchy for query elements							
1	GAS_DAY	Gas day for which the gas trades where registered.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	MATCH_YN	This to specify whether matched or unmatched trades are to be retrieved. The permissible values are: Y - Matching trades to be retrieved. N - Non-matching trades to be retrieved. If this field is omitted, all trades irrespective of whether they are matched or not will be retrieved.	xs:string	{"type": "string"}	1	0	1	No	Y-Matching trades to be retrieved. N-Non-matching trades to be retrieved.
1	STS	Status of the Trade The permissible values are: N - Nominated A - Approved R - Rejected	xs:string	{"type": "string"}	1	0	1	No	N - Nominated A - Approved R - Rejected

4.2.22.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	SHPR_TRD_DTL_OUT	Top level hierarchy for output elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	SHPR_TRD_DTL_QRY	Top level hierarchy for Query elements					
2	GAS_DAY	Gas day for which the gas trades where registered.	xs:date	{"type": "string"}	10	1	1
2	MATCH_YN	This to specify whether matched or unmatched trades are to be retrieved. The permissible values are: Y - Matching trades to be retrieved. N - Non-matching trades to be retrieved. If this field is omitted, all trades irrespective of whether they are matched or not will be retrieved.	xs:string	{"type": "string"}	1	0	1
2	STS	Status of the Trade The permissible values are: N - Nominated A - Approved R - Rejected	xs:string	{"type": "string"}	1	0	1
1	DTL	Top-level hierarchy for Details.					
2*	SHPR_TRD_DTL	Top-level hierarchy for Shipper Trade Details.				1	∞
3	BUY_DTL	Top-level hierarchy for Buy Details.					
4	BA_CD	The BA involved in the buy trade	xs:string	{"type": "string"}	3	1	1
4	REQ_NRG	The amount of energy nominated by the BA	xs:long	{"type": "number"}	13	0	1
4	REQ_STS	The status of the trade. The permissible values are: N - Nominated A - Approved R - Rejected	xs:string	{"type": "string"}	1	0	1
4	RSN_CD	The reason for rejecting the buy bid.	xs:string	{"type": "string"}	5	0	1
4	SCHD_NRG	The approved energy value.	xs:long	{"type": "number"}	13	0	1
3	SELL_DTL	Top-level hierarchy for Sell Details.					
4	BA_CD	The BA involved in the sell trade	xs:string	{"type": "string"}	3	1	1
4	REQ_NRG	The amount of energy nominated by the BA	xs:long	{"type": "number"}	13	0	1
4	REQ_STS	The status of the trade. The permissible values are: N - Nominated A - Approved R - Rejected	xs:string	{"type": "string"}	1	0	1

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API Specification	Date :22-Jun-2023

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
4	RSN_CD	The reason for rejecting the sell bid.	xs:string	{"type": "string"}	5	0	1
4	SCHD_NRG	The approved energy value.	xs:long	{"type": "number"}	13	0	1

4.2.22.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.22.4 Error Handling

4.2.22.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.23 View Storage Output Claims API

4.2.23.1 Overview

This API retrieves the storage output claims that for a gas day

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.23.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.23.2.1 URI to access the Web API

[/StorageOutputClaims/v1](#)

4.2.23.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/StorageOutputClaimsControllerAPI/](#)

4.2.23.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.23.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	STRG_OP_CLMS_QUERY	Top level hierarchy for query elements							
1	GAS_DAY	The gas day for which the storage output claims are retrieved	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	METER_ID	The meter Id for which the storage output claims are retrieved	xs:string	{"type": "string"}	10	1	1	Yes	A valid ID

4.2.23.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	STRG_OP_CLMS_OUT	Top level hierarchy for query elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	STRG_OP_CLMS_QRY	Top level hierarchy for meta information elements					
2	GAS_DAY	The gas day for which the storage output claims are retrieved	xs:date	{"type": "string"}	10	1	1
2	METER_ID	The meter Id for which the storage output claims are retrieved	xs:string	{"type": "string"}	10	1	1
1	DTL	Top-level hierarchy for Details.					
2	STRG_OP_DTL	Top-level hierarchy for Storage Output Details.					
3	HDR_DTL	Top-level Header Details.					
4	FIRM_METER_NO	The firm meter id.	xs:string	{"type": "string"}	10	1	1
4	INTR_METER_NO	The interruptible meter id.	xs:string	{"type": "string"}	10	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
4	MSRD_QTY	The quantity of energy measured for the specified meter id / gas day (kWh).	xs:long	{"type": "number"}	13	1	1
3*	CLM_DTL	Top-level Claim Details.				0	∞
4	SHPR_NM	The BA's abbreviated name.	xs:string	{"type": "string"}	12	1	1
4	FLOW_TYPE	The flow type of the meter. The permissible values are: F - Firm I - Interruptible	xs:string	{"type": "string"}	1	1	1
4	NET_NMTD_QTY	Indicates the net nominated quantity (kWh)	xs:long	{"type": "number"}	13	1	1
4	NET_CURR_ALLOC_QTY	Indicates the net current allocated quantity (kWh)	xs:long	{"type": "number"}	13	1	1
4	CLMD_QTY	Indicates the claimed quantity (kWh)	xs:long	{"type": "number"}	13	1	1
3	TRLR_DTL	Top-level hierarchy for Trailer Details					
4	TOT_ALLOC_QTY	Indicates the total net current allocated quantity (kWh).	xs:long	{"type": "number"}	-	1	1
4	TOT_CLM_QTY	Indicates the total claimed quantity (kWh).	xs:long	{"type": "number"}	-	1	1

4.2.23.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.23.4 Error Handling

4.2.23.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.24 View WCF/SF Values API

4.2.24.1 Overview

This API retrieves Weather Correction Factor (WCF) and the Scaling Factor (SF) Values (both Forecast and Allocated) for each LDZ for the gas day requested.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

*** COR1154 changes begin ***

UK Link DBI Programme changes the way the Demand Forecast and Allocation is calculated in Gemini. Scaling Factor will no longer be calculated as part of Demand Forecast and Demand Allocation process. The fields containing the Scaling Factor will return as empty field if the request is made for the Gas Day after the UK Link DBI implementation date.

This API specification document covers the changes to the Scaling Factor described above.

*** COR1154 changes end ***

4.2.24.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.24.2.1 URI to access the Web API

[/ViewWCFSFValues/v1](#)

4.2.24.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/ViewWCFSFValuesControllerAPI/](#)

4.2.24.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.2.24.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	VW_WCF_SF_VAL_QRY	Top level hierarchy for View WCF/SCF Values elements							
1	GAS_DAY	The Gas Flow Day for which the details are to be retrieved.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	LDZ	The two character LDZ code. If omitted then data for all LDZs is retrieved.	xs:string	{"type": "string"}	2	0	1	No	2 character LDZ code

4.2.24.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	VW_WCF_SF_VAL_OUT	Top level hierarchy for query elements						
1	METADATA	Top level hierarchy for meta information elements						
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	VW_WCF_SF_VAL_QRY	Top level hierarchy for query elements						
2	GAS_DAY	The Gas Flow Day for which the details are to be retrieved.	xs:date	{"type": "string"}	10	1	1	
2	LDZ	The two character LDZ code. If LDZ is left blank then all the records are retrieved.	xs:string	{"type": "string"}	2	0	1	
1	DTL	Top level hierarchy detail						
2*	WCF_SF_DTL	Top level hierarchy SF detail					0	∞
3	LDZ	This field gives the combination of the two character LDZ code along with the LDZ name.	xs:string	{"type": "string"}	205	1	1	

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		This field will be of the format 'LDZ Id – LDZ name' For e.g.: 'EA – EASTERN LDZ' The first two characters is the two character LDZ code i.e. EA. This is followed by the LDZ name (maximum of 200 characters) starting from the 6th character i.e. EASTERN LDZ.					
3	ALLCTD_FCAST	Indicates whether the retrieved WCF/SF is an allocation or a forecast value. A - indicates allocated values F - indicates forecast values A - indicates allocated values F - indicates forecast values	xs:string	{"type": "string"}	1	1	1
3	WCF	The Weather Correction Factor for the LDZ.	xs:float	{"type": "number"}	8,4	1	1
3	SCLNG_FCTR	The scaling factor for the LDZ. This field will return no value if the Gas Day requested is after the UK Link DBI Implementation date.	xs:float	{"type": "number"}	14,10	1	1
3	CRT_DT	The Date on which the WCF and SF values are calculated.	xs:date	{"type": "string"}	10	1	1
3	CRT_TM	The time at which the WCF and SF values are calculated This will be of the format hh:mm	xs:string	{"type": "string"}	5	1	1

4.2.24.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.24.4 Error Handling

4.2.24.4.1 API Specific Business Errors

None

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.25 Add Update IP Nomination API

4.2.25.1 Overview

This specification contains the interface details (e.g. relevant URIs, request and response XML message formats, specific error messages) for the Add/Update IP Nomination API. For more general guidance on API function and usage, refer to the Gemini API Usage Guidelines.

The Add/Update IP Nomination API will be used to place Nominations and Re-Nominations at EU NTS Interconnector Points for a Gas Day.

The Add/Update IP Nomination API can be accessed by Shippers.

The API request schema and response schema for Add / Update IP Nomination API are in line with Nomination Initiation message (NOMINT) and Acknowledgement message (ACKNOW) respectively, as defined under EDIG@S Nomination schemas V5.1.

4.2.25.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.25.2.1 URI to access the Web API

[/Geminiipnominations/v1](#)

4.2.25.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality

[/gemini/controllers/GemIPNomintControllerAPI /](#)

4.2.25.3 XML Specifications

4.2.25.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	NOMINATION_DOCUMENT	Top-level hierarchy for Nomination Document.							
1	IDENTIFICATION	Unique Identification of nomination file	xs:string	{"type": "string"}	35	1	1	Yes	A valid UID of nomination file
1	VERSION	Version of the XML file being sent	xs:integer	{"type": "number"}	03	1	1	Yes	A valid number
1	TYPE	This field represents the type of request being sent.	xs:string	{"type": "string"}	03	1	1	Yes	01G - Nomination Document
1	CREATIONDATETIME	This field represents Date and time of the creation of the API request.	xs:dateTime	{"type": "string"}	20	1	1	Yes	YYYY-MM-DDThh:mm:ssZ 2015-10-30T08:15:30Z
1	VALIDITYPERIOD	This field represents the start and end date and time of the period of validity covered in the file	xs:string	{"type": "string"}	35	1	1	Yes	YYYY-MM-DDTHH:MMZ/YYYY-MM-DDTHH:MMZ
1	CONTRACTREFERENCE	This field is not applicable for National Grid NTS. A default value of "NA" must be used	xs:string	{"type": "string"}	35	1	1	Yes	N/A
1	CONTRACTTYPE	This field is not applicable for National Grid NTS. A default value of "NA" must be used	xs:string	{"type": "string"}	3	0	1	No	N/A
1	ISSUER_MARKETPARTICIPANT.IDENTIFICATION	Unique Identification (EIC) of the party who has issued the API request	xs:string	{"type": "string"}	16	1	1	Yes	Issuer Unique ID-EIC
1	ISSUER_MARKETPARTICIPANT.MARKETROLE	This field represents the role of the party who has issued the API request.	xs:string	{"type": "string"}	03	1	1	Yes	ZSH - Shipper

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
	E.CODE								
1	RECIPIENT_MARKET PARTICIPANT.IDENTIFICATION	Unique Identification (EIC) of the party who is receiving the API request	xs:string	{"type": "string"}	16	1	1	Yes	Recipient Unique ID-EIC
1	RECIPIENT_MARKET PARTICIPANT.MARKET ROLE.CODE	This field represents the role of the party who is issuing the API request.	xs:string	{"type": "string"}	03	1	1	Yes	ZSO - Transmission System Operator
1	APPLICATIONCONTEXT	Used for coded identification for an EIC location code.	xs:string	{"type": "string"}	03	0	1	No	305 - EIC location code
1	CONNECTIONPOINT	Top-level hierarchy for Connection Point.				1	∞		
2	IDENTIFICATION	Unique identification (EIC) of a connection point	xs:string	{"type": "string"}	35	1	1	Yes	Unique ID-EIC
2	MEASUREUNIT.CODE	This field represents the unit of measure which is applied to all the quantities in the API request.	xs:string	{"type": "string"}	03	1	1	Yes	KW2 - Kilowatt-hour per day (kWh/d)
2	NOMINATIONTYPE	Top-level hierarchy for Nomination Type.				1	2		
3	TYPE	This field represents whether the underlying information refers to a single sided nomination or a double sided nomination	xs:string	{"type": "string"}	03	1	1	Yes	A01 - Single Sided A02 - Double Sided
3	ACCOUNT	Top-level hierarchy for Account				1	∞		
4	INTERNALACCOUNT	Unique identification of the internal account (Shippers) that is defined by the	xs:string	{"type": "string"}	35	1	1	Yes	Unique Internal Shipper ID

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		Transmission System Operator BA							
4	INTERNALACCOUNT TSO	Unique identification of the System Operator that created the internal account identification	xs:string	{"type": "string"}	16	0	1	No	Unique Internal TSO ID
4	EXTERNALACCOUNT	Unique identification of the external account (Shippers) that is defined by the adjacent System Operator	xs:string	{"type": "string"}	35	0	1	No	Unique External Shipper ID
4	EXTERNALACCOUNT TSO	Unique identification of the System Operator that created the External account identification	xs:string	{"type": "string"}	16	0	1	No	Unique External TSO ID
4	PERIOD	Top-level hierarchy for Nomination details.				1	∞		
5	TIMEINTERVAL	This field will represent the Nomination Period	xs:string	{"type": "string"}	35	1	1	Yes	YYYY-MM-DDThh:mmZ/yyy-mm-ddThh:mmZ 2015-10-30T08:15Z/2015-11-30T08:00Z
5	DIRECTION.CODE	This field represents the direction of flow Possible values: Z02 – Input Z03 - Output	xs:string	{"type": "string"}	03	1	1	Yes	Z02 – Input Z03 - Output
5	QUANTITY.AMOUNT	This field represents the total quantity for the connection point within the time interval	xs:decimal	{"type": "number"}	17	1	1	Yes	A valid Quantity
5	PRIORITY_STATUS.CODE	This field is not applicable for National Grid NTS. A default value of "NA" must be used	xs:string	{"type": "string"}	03	0	1	No	N/A

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
5	DECOMPOSITION_QUANTITY	Top-level hierarchy for Decomposition Quantity details.			0	∞			
6	TYPE	This field is not applicable for National Grid NTS. A default value of "NA" must be used	xs:string	{"type": "string"}	03	0	1	No	N/A
6	AMOUNT	This field is not applicable for National Grid NTS. A default value of "0" must be used	xs:decimal	{"type": "number"}	17	0	1	No	0

Note: The fields marked in Grey will have a default value of "NA" for string and "0" for numeric field as they are not applicable to National Grid.

4.2.25.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	ACKNOWLEDGEMENT_DOCUMENT	Top-level hierarchy for Acknowledgement Document.					
1	IDENTIFICATION	Unique Identification of the document	xs:string	{"type": "string"}	35	1	1
1	VERSION	This field represents the version of the document being sent	xs:int	{"type": "number"}	3	0	1
1	TYPE	This field represents the type of request being sent. Possible values: 294 - Application Error and Acknowledgment	xs:string	{"type": "string"}	3	1	1
1	CREATIONDATETIME	This field represents Date and time of the creation of the API request. E.g. YYYY-MM-DDThh:mm:ssZ 2015-10-30T08:15:30Z	xs:dateTime	{"type": "string"}	20	1	1
1	VALIDITYPERIOD	This files represents the start and end date and time of the period of validity	xs:string	{"type": "string"}	35	0	1
1	ISSUER_MARKETPARTI	Unique Identification (EIC) of the party who has issued the API request	xs:string	{"type": "string"}	16	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
	CIPANT.IDENTIFICATION							
1	ISSUER_MARKETPARTI CIPANT.MARKETROLE. CODE	This field represents the role of the party who has issued the API request. Possible values: ZSO - Transmission System Operator	xs:string	{"type": "string"}	3	1	1	
1	RECIPIENT_MARKETPA RTICIPANT.IDENTIFICA TION	Unique Identification (EIC) of the party who is receiving the API request	xs:string	{"type": "string"}	16	1	1	
1	RECIPIENT_MARKETPA RTICIPANT.MARKETRO LE.CODE	This field represents the role of the party who is issuing the API request. Possible values: ZSH -Shipper	xs:string	{"type": "string"}	3	0	1	
1	APPLICATIONCONTEXT	Used for coded identification for an EIC location code. Possible values: 305 - EIC location code	xs:string	{"type": "string"}	3	0	1	
1	RECEIVING_DOCUMEN T.IDENTIFICATION	Unique identification of the document being acknowledged (NOMINATION_DOCUMEN T.IDENTIFICATION field from API request)	xs:string	{"type": "string"}	35	0	1	
1	RECEIVING_DOCUMEN T.VERSION	Version of the document being acknowledged	xs:int	{"type": "number"}	3	0	1	
1	RECEIVING_DOCUMEN T.TYPE	Identification of the type of document being received	xs:string	{"type": "string"}	3	0	1	
1	RECEIVING_DOCUMEN T.CREATIONDATETIME	The date and time of the creation of the original message	xs:dateTime	{"type": "string"}	20	0	1	
1	RECEIVING_DOCUMEN T.PAYLOADNAME	The identification of the payload object used to transmit the document	xs:string	{"type": "string"}	150	0	1	
1	CONNECTIONPOINT*	Top-level hierarchy for Connection Point.					1	∞
2	IDENTIFICATION	Unique identification (EIC) of a connection point	xs:string	{"type": "string"}	35	1	1	
2	MEASUREUNIT.CODE	This field represents the unit of measure which is applied to all the quantities in the API request.	xs:string	{"type": "string"}	3	1	1	
2	NOMINATIONTYPE*	Top-level hierarchy for Nomination Type.					1	2
3	TYPE	This field represents whether the underlying	xs:string	{"type": "string"}	3	1	1	

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		information refers to a single sided nomination or a double sided nomination Possible values: A01 - Single Sided A02 - Double Sided Nomination Type					
3	ACCOUNT*	Top-level hierarchy for Account				1	∞
4	INTERNALACCOUNT	Unique identification of the internal account (Shippers) that is defined by the transmission System Operator	xs:string	{"type": "string"}	35	1	1
4	INTERNALACCOUNTTSO	Unique identification of the System Operator that created the internal account identification	xs:string	{"type": "string"}	16	0	1
4	EXTERNALACCOUNT	Unique identification of the external account (Shippers) that is defined by the adjacent System Operator	xs:string	{"type": "string"}	35	0	1
4	EXTERNALACCOUNTTSO	Unique identification of the System Operator that created the External account identification External Account TSO EIC	xs:string	{"type": "string"}	16	0	1
4	PERIOD*	Top-level hierarchy for Nomination details.				1	∞
5	TIMEINTERVAL	This field will represent the Nomination Period e.g. YYYY-MM-DDThh:mmZ/yyyy-mm-ddThh:mmZ 2015-10-30T08:15Z/2015-11-30T08:00Z	xs:string	{"type": "string"}	35	1	1
5	DIRECTION.CODE	This field represents the direction of flow Possible values: Z02 - Input Z03 - Output	xs:string	{"type": "string"}	3	1	1
5	QUANTITY.AMOUNT	This field represents the total quantity for the connection point within the time interval	xs:decimal	{"type": "number"}	17	1	1
5	PRIORITY_STATUS.CODE	This field is not applicable for National Grid NTS. A default value of "NA" is provided	xs:string	{"type": "string"}	3	0	1
5	REASON	Top-level hierarchy for Nomination Status.				0	∞
6	CODE	This field represents the status of given quantity	xs:string	{"type": "string"}	25	0	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		within a time interval					
6	REASON.TEXT	This field represents the textual explanation of the status code	xs:string	{"type": "string"}	512	0	1

**Note: For Web API response swagger metadata, replace CONNECTIONPOINT with CONNECTIONPOINT_OUT, NOMINATIONTYPE with NOMINATIONTYPE_OUT, ACCOUNT with ACCOUNT_OUT and PERIOD with PERIOD_OUT*

4.2.25.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.25.4 Error Handling

4.2.25.4.1 API Specific Business Errors

Error Code	Error Message
01G	Processed and accepted - The message has been processed and accepted.
04G	Received after deadline - The message has been received after a deadline has passed.
14G	Unknown account identification - The message contains an account identification that is unknown to the system.
61G	Invalid message sender - The identification of the message sender in UNB is invalid.
68G	Other - One or more problems that have not been specifically coded have been identified. A textual explanation will be provided.
77G	Not a valid quantity - The quantity is not according to the contractual agreements.
GEM_EU_API_ERROR_0003	Meter is not active within given period
GEM_EU_API_ERROR_0004	No valid activity present for the meter
GEM_EU_API_ERROR_0005	Not a valid Connection point

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Error Code	Error Message
GEM_EU_API_ERROR_0007	No valid nomination matching relationship present for the meter
GEM_EU_API_ERROR_0009	Invalid re-nomination lead time
GEM_EU_API_ERROR_0024	Nomination has already been placed for a later hour bar. Please choose another hour bar.
GEM_EU_API_ERROR_0025	Re-nomination cannot be carried out for one or more hour bar as they are under processing. Please re-try after sometime. Alternatively, re-nomination can be carried out for different hour bar
GEM_EU_API_ERROR_0026	EXTERNALACCOUNTTISO is mandatory while placing nomination at Moffat.
GEM_API_ERROR_0065	FLOW RATE VALIDATION HAS FAILED FOR SOME OF THE STEPS OF THIS ACTIVITY.
GEM_API_ERROR_0079	THE GASDAY NOT WITHIN CURRENT NOMINATION PERIOD
GEM_EU_API_ERROR_0013	NORMAL FLOW NOMINATION IS LESS THAN OPPOSITE FLOW NOMINATION FOR THE METER ID
GEM_EU_API_ERROR_0014	EU Nominations regime is not active for the provided VALIDITYPERIOD
GEM_EU_API_ERROR_0015	TIMEINTERVAL is not within the VALIDITYPERIOD
GEM_EU_API_ERROR_0016	SSN or DSN for Connection Point, Gas Direction and Gas Day(s) combination already exists
GEM_EU_API_ERROR_0017	Receiving document Creation Date Time is greater than System Date Time
GEM_EU_API_ERROR_0019	EXPECTED FORMAT DURING NOMINATION WINDOW IS YYYY-MM-DDTST:00Z/YYYY-MM-DDTET:59Z
GEM_EU_API_ERROR_0020	Invalid RECIPIENT_MARKETPARTICIPANT.IDENTIFICATION
GEM_EU_API_ERROR_0021	Invalid INTERNALACCOUNTTISO
GEM_EU_API_ERROR_0022	THE CONNECTION POINT IDENTIFICATION / PERIOD GAS DIRECTION COMBINATION DOES NOT EXIST FOR THE SELECTED GAS DAY(S)
GEM_EU_API_ERROR_0023	Issuer market participant EIC is incorrect

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Error Code	Error Message
GEM_API_ERROR_0084	The data you require is currently locked by another user.

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.2.26 View IP Nomination API

4.2.26.1 Overview

This specification contains the interface details (e.g. relevant URIs, request and response XML message formats, specific error messages) for the View IP Nomination API. For more general guidance on API function and usage, refer to the Gemini API Usage Guidelines.

The View IP Nomination API will be used to view Nominations and Re-Nominations at EU NTS Interconnector Points and Gas Day.

The View IP Nomination API can be accessed by Shippers.

The API response schema for View IP Nomination API is in line with Nomination Response message (NOMRES) defined under EDIG@S Nomination schemas V5.1.

4.2.26.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.26.2.1 URI to access the Web API

[/GemIPViewNomres/v1](#)

4.2.26.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/gemini/controllers/GemIPViewNomresControllerAPI/](#)

4.2.26.3 XML Specifications

4.2.26.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	NOMINATION_RESPONSE_REQ	Top-level hierarchy for View Nomination Response Request							
1	IDENTIFICATION	Unique Identification of the Nomination File	xs:string	{"type": "string"}	35	1	1	Yes	A valid UID of nomination file
1	VERSION	Version of the XML file being sent	xs:int	{"type": "number"}	03	1	1	Yes	A valid number
1	TYPE	This field represents the type of request being sent. Possible Values: 08G - Nomination Response Document	xs:string	{"type": "string"}	03	1	1	Yes	08G - Nomination Response Document
1	CREATIONDATETIME	This field represents Date and time of the creation of the API request. E.g. YYYY-MM-DDThh:mm:ssZ 2015-10-30T08:15:30Z	xs:dateTime	{"type": "string"}	20	1	1	Yes	YYYY-MM-DDThh:mm:ssZ 2015-10-30T08:15:30Z
1	ISSUER_MARKETPARTICIPANT.IDENTIFICATION	Unique Identification (EIC) of the party who has issued the API request	xs:string	{"type": "string"}	16	1	1	Yes	Issuer Unique ID-EIC
1	ISSUER_MARKETPARTICIPANT.MARKETROLE.CODE	This field represents the role of the party who has issued the API request. Possible Values: ZSH - Shipper	xs:string	{"type": "string"}	03	1	1	Yes	ZSH - Shipper
1	RECIPIENT_MARKETPARTICIPANT.IDENTIFICATION	Unique Identification (EIC) of the party who is receiving the API request	xs:string	{"type": "string"}	16	1	1	Yes	Recipient Unique ID-EIC

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
1	RECIPIENT_MARKET PARTICIPANT.MARKET ROLE.CODE	This field represents the role of the party who is issuing the API request.	xs:string	{"type": "string"}	03	1	1	Yes	ZSO - Transmission System Operator
1	APPLICATIONCONTEXT	This field represents the identification of a particular context that is significant to the recipient.	xs:string	{"type": "string"}	03	0	1	No	305 - EIC location code
1	CONNECTIONPOINT	Top-level hierarchy for Connection Point.				1	∞		
2	IDENTIFICATION	Unique identification (EIC) of a connection point	xs:string	{"type": "string"}	35	1	1	Yes	Unique ID-EIC
2	MEASUREUNIT.CODE	This field represents the unit of measure which is applied to all the quantities in the API request.	xs:string	{"type": "string"}	3	1	1	Yes	KW2 - Kilowatt-hour per day (kWh/d)
2	NOMINATIONTYPE	Top-level hierarchy for Nomination Type.				1	2		
3	TYPE	This field represents whether the underlying information refers to a single sided nomination or a double sided nomination	xs:string	{"type": "string"}	3	1	1	Yes	A01- Single Sided A02-Double Sided Nomination Type
3	ACCOUNT	Top-level hierarchy for Account				1	∞		
4	INTERNALACCOUNT	Unique identification of the internal account (Shippers) that is defined by the Transmission System Operator	xs:string	{"type": "string"}	35	1	1	Yes	Unique Internal Shipper ID
4	INTERNALACCOUNT TSO	Unique identification of the System Operator that created	xs:string	{"type": "string"}	16	0	1	No	Unique Internal TSO ID

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		the internal account identification							
4	EXTERNALACCOUNT	Unique identification of the external account (Shippers) that is defined by the adjacent System Operator External Account EIC	xs:string	{"type": "string"}	35	0	1	No	Unique External Shipper ID
4	EXTERNALACCOUNT TSO	Unique identification of the System Operator that created the External account identification	xs:string	{"type": "string"}	16	0	1	No	Unique External TSO ID
4	INFORMATIONORIGIN_TIMESERIES	Top-level hierarchy for the type of quantity being sent				1	∞		
5	TYPE	Unique Identification of the Quantity that is requested. (Processed or Confirmed)	xs:string	{"type": "string"}	03	1	1	Yes	14G - Processed 16G - Confirmed
5	PERIOD	Top-level hierarchy for Nomination details				1	∞		
6	TIMEINTERVAL	This field will represent the Nomination Period e.g. YYYY-MM-DDThh:mmZ/yyy-mm-ddThh:mmZ 2015-10-30T08:15Z/2015-11-30T08:00Z This field will represent the Nomination Period	xs:string	{"type": "string"}	35	1	1	Yes	YYYY-MM-DDThh:mmZ/yyy-mm-ddThh:mmZ 2015-10-30T08:15Z/2015
6	DIRECTION.CODE	This field represents the direction of flow	xs:string	{"type": "string"}	03	1	1	Yes	Z02 - Input Z03 - Output

4.2.26.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	NOMINATION_RESPONSE	Top-level hierarchy for Nomination Response					
1	IDENTIFICATION	Unique Identification of the Nomination File	xs:string	{"type": "string"}	35	1	1
1	VERSION	Version of the XML file being sent	xs:int	{"type": "number"}	03	1	1
1	TYPE	This field represents the type of request being sent. Possible Values: 08G - Nomination Response Document	xs:string	{"type": "string"}	03	1	1
1	CREATIONDATETIME	This field represents Date and time of the creation of the API request. E.g. YYYY-MM-DDThh:mm:ssZ 2015-10-30T08:15:30Z	xs:dateTime	{"type": "string"}	20	1	1
1	ISSUER_MARKETPARTICIPANT.IDENTIFICATION	Unique Identification (EIC) of the party who has issued the API request	xs:string	{"type": "string"}	16	1	1
1	ISSUER_MARKETPARTICIPANT.MARKETROLE.CODE	This field represents the role of the party who has issued the API request. Possible Values: ZSH - Shipper	xs:string	{"type": "string"}	03	1	1
1	RECIPIENT_MARKETPARTICIPANT.IDENTIFICATION	Unique Identification (EIC) of the party who is receiving the API request	xs:string	{"type": "string"}	16	1	1
1	RECIPIENT_MARKETPARTICIPANT.MARKETROLE.CODE	This field represents the role of the party who is issuing the API request. Possible Values: ZSO - Transmission System Operator	xs:string	{"type": "string"}	03	1	1
1	APPLICATIONCONTEXT	This field represents the identification of a particular context that is significant to the	xs:string	{"type": "string"}	03	0	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		recipient. Possible values: 305 - EIC location code					
1	CONNECTIONPOINT	Top-level hierarchy for Connection Point.				1	∞
2	IDENTIFICATION	Unique identification (EIC) of a connection point	xs:string	{"type": "string"}	35	1	1
2	MEASUREUNIT.CODE	This field represents the unit of measure which is applied to all the quantities in the API request. Possible Values: KW2 - Kilowatt-hour per day (kWh/d)	xs:string	{"type": "string"}	3	1	1
2	NOMINATIONTYPE	Top-level hierarchy for Nomination Type.				1	2
3	TYPE	This field represents whether the underlying information refers to a single sided nomination or a double sided nomination Possible Values: A01 - Single Sided A02 -Double Sided Nomination Type	xs:string	{"type": "string"}	3	1	1
3	ACCOUNT	Top-level hierarchy for Account				1	∞
4	INTERNALACCOUNT	Unique identification of the internal account (Shippers) that is defined by the Transmission System Operator	xs:string	{"type": "string"}	35	1	1
4	INTERNALACCOUNTTTSO	Unique identification of the System Operator that created the internal account identification	xs:string	{"type": "string"}	16	0	1
4	EXTERNALACCOUNT	Unique identification of the external account (Shippers) that is defined by the adjacent System Operator External Account EIC	xs:string	{"type": "string"}	35	0	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
4	EXTERNALACCOUNTTSO	Unique identification of the System Operator that created the External account identification	xs:string	{"type": "string"}	16	0	1
4	INFORMATIONORIGIN_TIMESERIES	Top-level hierarchy for the type of quantity being sent				1	∞
5	TYPE	Unique Identification of the Quantity that is requested. (Processed or Confirmed) Possible Values: 14G - Processed 16G - Confirmed	xs:string	{"type": "string"}	03	1	1
5	PERIOD	Top-level hierarchy for Nomination details				1	∞
5	TIMEINTERVAL	This field will represent the Nomination Period e.g. YYYY-MM-DDThh:mmZ/yyyy-mm-ddThh:mmZ 2015-10-30T08:15Z/2015-11-30T08:00Z This field will represent the Nomination Period e.g. YYYY-MM-DDThh:mmZ/yyyy-mm-ddThh:mmZ 2015-10-30T08:15Z/2015	xs:string	{"type": "string"}	35	1	1
5	DIRECTION.CODE	This field represents the direction of flow Possible Values: Z02 - Input Z03 - Output	xs:string	{"type": "string"}	03	1	1
5	QUANTITY.AMOUNT	This field represents the total quantity for the connection point within the time interval	xs:decimal	{"type": "number"}	17	1	1
5	STATUS					0	∞
5	CODE	This field represents the status of given quantity within a time interval	xs:string	{"type": "string"}	25	0	1
5	REASON.TEXT	This field represents the textual explanation of the status code	xs:string	{"type": "string"}	512	0	1

*Note: For Web API response swagger metadata, replace CONNECTIONPOINT with CONNECTIONPOINT_OUT, replace NOMINATIONTYPE with

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NOMINATIONTYPE_OUT, replace ACCOUNT with ACCOUNT_OUT, replace INFORMATIONORIGIN_TIMESERIES with INFORMATIONORIGIN_TIMESERIES_OUT and replace PERIOD with PERIOD_OUT

4.2.26.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.26.4 Error Handling

4.2.26.4.1 API Specific Business Errors

Error Code	Error Message
14G	Unknown account identification - The message contains an account identification that is unknown to the system.
61G	Invalid message sender - The identification of the message sender in UNB is invalid.
GEM_EU_API_ERROR_0023	Issuer market participant EIC is incorrect
GEM_EU_API_ERROR_0020	Invalid RECIPIENT_MARKETPARTICIPANT.IDENTIFICATION
GEM_EU_API_ERROR_0021	Invalid INTERNALACCOUNTTTSO
GEM_EU_API_ERROR_0026	EXTERNALACCOUNTTTSO is mandatory while placing nomination at Moffat.
GEM_EU_API_ERROR_0002	No data found for the requested Nomination

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4.2.27 View Shipper UIG Values API

4.2.27.1 Overview

This API retrieves the Shippers Forecast or Allocated Unidentified Gas Share at LDZ level for the specified Gas Day and LDZ.

This specification contains interface details (relevant URIs, request and response XML message formats, specific error messages) for this API. For more general guidance on API function and usage, see the API Usage Guidelines document.

4.2.27.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.27.2.1 URI to access the Web API

[/ShipperUIGAtLDZ/v1](#)

4.2.27.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality
[/gemini/controllers/ShipperUIGAtLDZControllerAPI/](#)

4.2.27.3 XML Specifications

4.2.27.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	SHPR_UIG_AT_LDZ_QRY	Top level hierarchy for query elements							
1	GAS_DAY	Gas Day for which Shipper UIG is requested.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	LDZ	Location code for which Shipper UIG are requested. If no LDZ location code is specified, the results of all LDZ location codes are returned in the response.	xs:string	{"type": "string"}	2	0	1	No	2 character LDZ code
1	ALLOC_OR_FCAST	Allocation/Forecast indicates the type of Shipper UIG A - Allocated F - Forecast	xs:string	{"type": "string"}	1	1	1	Yes	A - Allocated F - Forecast

4.2.27.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	SHPR_UIG_AT_LDZ_OUT	Top level hierarchy for output elements						
1	METADATA	Top level hierarchy for meta information elements					1	1
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	SHPR_UIG_AT_LDZ_QRY*	Top level hierarchy for meta information elements For child element details please refer to the request specification					1	1
2	GAS_DAY	Gas Day for which Shipper UIG is requested.	xs:date	{"type": "string"}	10	1	1	
2	LDZ	Location code for which Shipper UIG are requested.	xs:string	{"type": "string"}	2	1	1	

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
2	BA_CD	Business Associate Short Code	xs:string	{"type": "string"}	3	1	1	
2	ALLOC_OR_FCAST	Allocation/Forecast indicates the type of Shipper UIG A - Allocated F - Forecast	xs:string	{"type": "string"}	1	1	1	
1	DTL	Top-level hierarchy for Details.						
2	SHPR_UIG_AT_LDZ_DTL	Top-level hierarchy for Shipper UIG Details.					0	∞
3	LDZ	Location code for which Shipper UIG are requested.	xs:string	{"type": "string"}	2	1	1	
3	ALLOC_OR_FCAST	Allocation/Forecast indicates the type of Shipper UIG A - Allocated F - Forecast	xs:string	{"type": "string"}	1	1	1	
3	RUN_TIME	The time when the latest demand or allocation batch was run This will be of the format hh:mm	xs:string	{"type": "string"}	5	1	1	
3	RUN_DATE	The date on which the Demand or Allocation was run	xs:string	{"type": "string"}	10	1	1	
3	UIG_SHARE	Unidentified energy calculated for the gas day for the LDZ, BA and A/F (kWh). This can either be a positive or a negative value.	xs:double	{"type": "number"}	13	1	1	

**Note: For Web API response swagger metadata, replace SHPR_UIG_AT_LDZ_QRY with SHPR_UIG_AT_LDZ_QRY_OUT*

4.2.27.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.27.4 Error Handling

4.2.27.4.1 API Specific Business Errors

None

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4.2.28 Shipper Imbalance API

4.2.28.1 Overview

The Shipper Imbalance API will provide Business Associates with the facility to view allocation data at meter ID level and aggregated shipper energy imbalance.

4.2.28.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.28.2.1 URI to access the Web API

[/ShipperImbalance/v1](#)

4.2.28.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality
[/gemini/controllers/GmShipperImbalControllerAPI/](#)

4.2.28.3 XML Specifications

4.2.28.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	SHPR_IMBAL_QRY	Top Level hierarchy for request element							
1	GAS_DAY_FROM	Start date of the gas day range for which the request is initiated	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	GAS_DAY_TO	End date of the gas day range for which the request is initiated	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	METER_ID	Meter ID	xs:string	{"type": "string"}	10	0	1	No	If the meter Id is blank then allocation for all meters will be returned. If the meter Id is having a meter ID then allocation for only that meter will be returned.
1	METER_TYP	Type of the meter	xs:string	{"type": "string"}	2	0	1	No	If the meter type is blank then allocation for all meters will be returned. If the meter type is having a meter type code then allocation for only for that meter type will be fetched.

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
									BL--BOIL OFF, BN--NTS BOIL OFF,
1	DIRECTION_CODE	This field represents the direction of flow	xs:string	{"type": "string"}	1	0	1	No	I – Input O – Output Blank - both
1	AGG_BY_DATE	A field to get result for Aggregated by Gas date.	xs:string	{"type": "string"}	1	0	1	No	Y – Yes N – No By Default Blank Value should be considered as No

4.2.28.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	SHPR_IMBAL_RES	Top level hierarchy for response elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	SHPR_IMBAL_QRY	Top level hierarchy for the query elements					
2	GAS_DAY_FROM	Start date of the gas day range for which the request is initiated	xs:date	{"type": "string"}	10	1	1
2	GAS_DAY_TO	End date of the gas day range for which the request is initiated	xs:date	{"type": "string"}	10	1	1
2	METER_ID	Meter ID – when information for a meter Id is requested Blank – information for all meter ids is requested	xs:string	{"type": "string"}	10	0	1
2	METER_TYP	Meter type – when information for a meter type is requested Blank – when information for all meter types are requested	xs:string	{"type": "string"}	2	0	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
2	DIRECTION_CODE	This field represents the direction of flow. Possible values are: I – Input O – Output Blank- both	xs:string	{"type": "string"}	1	0	1	
2	AGG_BY_DATE	Y – Yes N – No	xs:string	{"type": "string"}	1	0	1	
1	DTL	Top level hierarchy for record fields						
2	SHPR_IMBAL_DTL	Top level hierarchy for Shipper Imbalance details					1	∞
3	GAS_DAY	Gas day for which details are fetched	xs:date	{"type": "string"}	10	0	1	
3	METER_TYP	Meter Type	xs:string	{"type": "string"}	2	1	1	
3	OPP_FL	Flag to indicate if this is opposite flow permissible values are: Y – Yes, N - No	xs:string	{"type": "string"}	1	1	1	
3	METER_ID	Unique identifier for a meter	xs:string	{"type": "string"}	10	1	1	
3	DIRECTION_CODE	This field represents the direction of flow. Possible values are: I – Input O – Output	xs:string	{"type": "string"}	1	1	1	
3	NOM_QTY	Nominated quantity for the meter	xs:long	{"type": "number"}	13	1	1	
3	IP_BAL_NOM_QTY	IP Balance Nomination Quantity for the meter	xs:long	{"type": "number"}	13	1	1	
3	ALLOC_QTY	Allocation for the meter	xs:long	{"type": "number"}	13	1	1	
3	IP_BAL_ALLOC_QTY	IP Balance Allocated Quantity for the meter	xs:long	{"type": "number"}	13	1	1	
1	ALLOC_IP	Allocation for Input meters	xs:long	{"type": "number"}	13	1	1	
1	TRD_QTY	Quantity bought by the BA (KWh)	xs:long	{"type": "number"}	13	1	1	
1	TOT_IP	Total input which equals sum of total input meter allocation and total trades brought	xs:long	{"type": "number"}	13	1	1	
1	ALLOC_OP	Allocation for Output meters	xs:long	{"type": "number"}	13	1	1	
1	TRD_SOLD	Total Trade Sold by the BA (kWh)	xs:long	{"type": "number"}	13	1	1	
1	TOT_OP	Total Output which equals sum of total output meter allocation and total trades sold	xs:long	{"type": "number"}	13	1	1	
1	IMBAL_QTY	Imbalance Quantity which equals difference	xs:long	{"type": "number"}	13	1	1	

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Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		between total input and total output					

4.2.28.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.28.4 Error Handling

4.2.28.4.1 API Specific Business Error

Error Code	Error Message
GEM_API_ERROR_0100	Gas Day From should be less than or equal to Gas Day To
GEM_API_ERROR_0110	Not a Valid meter id and meter type relationship
GEM_API_ERROR_0301	Invalid Meter ID for the BA

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4.2.29 View Shipper Allocation UIG Share API

4.2.29.1 Overview

The Shipper Allocation UIG Share API will provide Business Associates with facility to obtain UIG allocation per class per LDZ.

4.2.29.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.29.2.1 URI to access the Web API

[/ViewShipperAllocUIGShare/v1](#)

4.2.29.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality

[/gemini/controllers/GmViewShipAllocUIGShareControllerAPI/](#)

4.2.29.3 XML Specifications

4.2.29.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	UIG_SHARE_RPT_QRY	Top Level hierarchy for query element							
1	GAS_DAY	Gas Day for which Allocation is required to be retrieved	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	LDZ	The two character LDZ code	xs:string	{"type": "string"}	2	1	1	Yes	2 character LDZ code
1	EXIT_ZONE	3 character Exit Zone. If omitted, then the allocation data for all the Exit Zones mapped with the LDZ will be returned	xs:string	{"type": "string"}	3	0	1	No	Blank for all Exit Zones or a valid Exit Zone which is mapped with the LDZ

4.2.29.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	UIG_SHARE_RPT_RES	Top-level hierarchy for response elements						
1	METADATA	Top level hierarchy for meta information elements						
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	UIG_SHARE_RPT_QRY	Top level hierarchy for the query elements						
2	GAS_DAY	Gas Day for which Allocation is to be retrieved	xs:date	{"type": "string"}	10	1	1	
2	LDZ	The two character LDZ code	xs:string	{"type": "string"}	2	1	1	
2	EXIT_ZONE	3 character Exit Zone. If omitted, then the allocation data for all the Exit Zones mapped with the LDZ will be returned	xs:string	{"type": "string"}	3	0	1	
1	DTL	Top level hierarchy for record fields						
2	UIG_SHARE_RPT_DTL	Top level hierarchy for all UIG allocation details					1	∞

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
3	EXIT_ZONE	3 character Exit Zone	xs:string	{"type": "string"}	3	1	1
3	MTR_TYPE	Meter Type	xs:string	{"type": "string"}	2	1	1
3	EUC	EUC	xs:string	{"type": "string"}	13	1	1
3	CLASS	Class	xs:string	{"type": "string"}	2	1	1
3	ALLOC_FCTR	Allocation Factor	xs:string	{"type": "string"}	7	1	1
3	UIG_SHARE	Unidentified energy in kWh, calculated for the gas day for the LDZ, BA and allocation factor. This can either be a positive or a negative value.	xs:long	{"type": "number"}	13	1	1
1	TOT_UIG_SHARE	Total UIG Share	xs:long	{"type": "number"}	13	1	1

4.2.29.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.29.4 Error Handling

4.2.29.4.1 API Specific Business Error

Error Code	Error Message
GEM_API_ERROR_0111	LDZ and Exit Zone mapping is incorrect

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4.2.30 View Allocation Details by LDZ and Meter Type API

4.2.30.1 Overview

The View Allocation Details by LDZ or Meter Type API will provide Business Associates with facility to obtain daily meter allocation per LDZ including UIG.

4.2.30.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.30.2.1 URI to access the Web API

[/ViewAllocationdetailsbyLDZandmetertype/v1](#)

4.2.30.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality

[/gemini/controllers/GmViewAllocByLDZAndMeterTypeControllerAPI/](#)

4.2.30.3 XML Specifications

4.2.30.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	ALLOC_DET_BY_METER_TYP_REQ	Top Level hierarchy for query element							
1	GAS_DAY_FROM	Gas day from which the BA balance details for the entire system are requested	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	GAS_DAY_TO	Gas day to which the BA balance details for the entire system are requested	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	FLAG	A Flag to identify if the request is for Meter type or LDZ	xs:string	{"type": "string"}	1	1	1	Yes	Flag : M or L
1	LDZ_OR_METER_TYPE	Location code or Meter Type for which allocations/nomination details are requested	xs:string	{"type": "string"}	3	0	1	No	If the flag = M, then the value will be a valid Output Meter Type or blank for all Output Meter Types. If the flag = L, then the value will be a valid LDZ or NTS or blank for all LDZ/NTS

4.2.30.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	ALLOC_DET_BY_METER_TYP_RES	Top Level hierarchy for response element					
1	METADATA	Top level hierarchy for meta information elements					

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	ALLOC_DET_BY_METER_TYP_REQ	Top Level hierarchy for query element					
2	GAS_DAY_FROM	Gas day from which the BA balance details for the entire system are requested.	xs:date	{"type": "string"}	10	1	1
2	GAS_DAY_TO	Gas day to which the BA balance details for the entire system are requested	xs:date	{"type": "string"}	10	1	1
2	FLAG	A Flag to identify if the request is for Meter type or LDZ	xs:string	{"type": "string"}	1	1	1
2	LDZ_OR_METER_TYPE	Location code or Meter Type for which allocations/nomination details are requested	xs:string	{"type": "string"}	3	0	1
1	DTL	Top Level hierarchy for detail element					
2	ALLOC_BY_LDZ_OR_MTR_TYP_DTL	Top level hierarchy for allocation details					
3	LDZ_OR_METER_TYPE	Location code or Meter Type	xs:string	{"type": "string"}	3	1	1
3	NOM	Nominations(kWh)	xs:long	{"type": "number"}	13	1	1
3	ALLOC	Allocation(kWh)	xs:long	{"type": "number"}	13	1	1
3	OPP_FL	Opposite Flow Allocation (kWh)	xs:long	{"type": "number"}	13	1	1
3	NET_ALLOC	Net Allocation	xs:long	{"type": "number"}	13	1	1

4.2.30.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.30.4 Error Handling

4.2.30.4.1 API Specific Business Error

Error Code	Error Message
GEM_API_ERROR_0505	Invalid Meter Type
GEM_API_ERROR_0100	Gas day from less day or equal to Gas day to
GEM_API_ERROR_0503	Invalid Location Code

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4.2.31 Shipper Preliminary Balance across Date Range API

4.2.31.1 Overview

The Shipper Preliminary Balance across date range API will provide Business Associates to query shipper balance data for a range of 5 gas days.

4.2.31.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.31.2.1 URI to access the Web API

[/ShipperPreliminarybalanceacrossdaterange/v1](#)

4.2.31.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality
[/gemini/controllers/GmShipperPrImBalAcrossDateRangeControllerAPI/](#)

4.2.31.3 XML Specifications

4.2.31.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	SHPR_PRLIM_BAL_QRY	Top level hierarchy for query elements							
1	GAS_DAY_FROM	Gas day from which the BA balance details for the entire system are requested	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	GAS_DAY_TO	Gas day to which the BA balance details for the entire system are requested	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

Note: Gas day range should be 5 days or less

4.2.31.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	SHPR_PRLIM_BAL_OUT	Top level hierarchy for the response elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	SHPR_PRLIM_BAL_QRY	Top level hierarchy for the query elements					
2	GAS_DAY_FROM	Gas day from which the BA balance details for the entire system are requested	xs:date	{"type": "string"}	10	1	1
2	GAS_DAY_TO	Gas day to which the BA balance details for the entire system are requested	xs:date	{"type": "string"}	10	1	1
1	DTL	Top-level hierarchy for details					
2	NRG_DTL	Top-level hierarchy for overall energy details					
3	GAS_DAY	Gas day for which the details are fetched	xs:date	{"type": "string"}	10	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
3	IP_BAL	Top-level hierarchy for Input energy details					
4	TRNS_IP	The Top-level hierarchy for the sum of all the requested & scheduled transportation Nominations for the specified gas day.					
5	REQ_NRG	The requested transport input energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The scheduled transport input energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	STRG_IP	The Top-level hierarchy for the requested & scheduled Storage Input Nominations for the specified gas day.					
5	REQ_NRG	The requested storage input energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The scheduled storage input energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	TRD_BUY	The Top-level hierarchy for the sum of all requested & scheduled Input OTC gas trades Nominations for the specified gas day					
5	REQ_NRG	The requested Trades Buy energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The scheduled Trades Buy energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	OCM_NBP_BUYS	The Top-level hierarchy for the sum of all requested & scheduled Input OCM title trade Nominations for the specified gas day					
5	REQ_NRG	The requested OCM NBP Buy energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The scheduled OCM NBP Buy energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	OCM_PHY	The Top-level hierarchy for the sum of all requested & scheduled Input Physical/locational Nominations for the specified gas day conducted either through the OCM.					
5	REQ_NRG	The requested OCM Physical energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The scheduled OCM Physical energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	FLEXBLTY	The Top-level hierarchy for the sum of all requested & scheduled Input Flexibility Nominations for the specified gas day					
5	REQ_NRG	The requested Flexibility energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The scheduled Flexibility energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	BIO_GAS_QTY	Top-level for Bio Gas energy Details					
5	REQ_NRG	The requested Bio gas energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The scheduled Bio gas energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	TOT_IP	The Top-level hierarchy for the net sum of all the requested & scheduled Input quantities excluding Flexibility Nominations					
5	REQ_NRG	The Total requested energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The Total scheduled energy (kWh)	xs:long	{"type": "number"}	13	1	1
3	OP_BAL	Top-level hierarchy for Output energy details.					
4	DM_SHR	Top-level hierarchy for the sum of the requested & scheduled energy for the Daily Metered, Daily Metered Aggregate and					

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		the Shrinkage Nominations for the specified gas day					
5	REQ_NRG	The DMCs/DMA/ Shrinkage requested energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The DMCs/DMA/ Shrinkage scheduled energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	NDM	Top-level hierarchy for the sum of the requested & scheduled energy for all the Non- Daily Metered sites for the specified gas day					
5	REQ_NRG	The Non-Daily Metered requested energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The Non-Daily Metered scheduled energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	UIG	Top-level hierarchy for the sum of the requested & scheduled energy for all the Unidentified Gas Meters for the specified gas day					
5	REQ_NRG	The Unidentified Gas Metered requested energy (kWh). This can either be a positive or a negative value	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The Unidentified Gas Metered scheduled energy (kWh). This can either be a positive or a negative value	xs:long	{"type": "number"}	13	1	1
4	STRG_OP	Top-level hierarchy for the sum of all the requested & scheduled Storage Output Nominations for the specified gas day					
5	REQ_NRG	The Storage Output requested energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The Storage Output scheduled energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	TRD_SELL	Top-level hierarchy for the sum of all requested & scheduled Output OTC gas trades Nominations for the specified gas day					
5	REQ_NRG	The Trades Sell requested energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The Trades Sell scheduled energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	OCM_NBP_SELLS	Top-level hierarchy for the sum of all requested & scheduled Output OCM title trade Nominations for the specified gas day					
5	REQ_NRG	The OCM NBP Sells requested energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The OCM NBP Sells scheduled energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	OCM_PHY	Top-level hierarchy for the sum of all requested & scheduled Output Physical/locational Nominations for the specified gas day conducted through the OCM.					
5	REQ_NRG	The OCM Physical requested energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The OCM Physical scheduled energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	FLEXBLTY	Top-level hierarchy for the sum of all requested & scheduled Output Flexibility Nominations for the specified gas day					
5	REQ_NRG	The Flexibility requested energy (kWh)	xs:long	{"type": "number"}	13	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
5	SCHD_NRG	The Flexibility scheduled energy (kWh)	xs:long	{"type": "number"}	13	1	1
4	TOT_OP	Top-level hierarchy for the net sum of all the output quantities excluding Flexibility Nominations					
5	REQ_NRG	The total output requested energy (kWh)	xs:long	{"type": "number"}	13	1	1
5	SCHD_NRG	The total output scheduled energy (kWh)	xs:long	{"type": "number"}	13	1	1
3	NET_BAL	Top-level hierarchy for the net balance of the requested & scheduled input and output energies					
4	REQ_NRG	The net balance of input & output requested energy (kWh) This can either be a positive or a negative value	xs:long	{"type": "number"}	13	1	1
4	SCHD_NRG	The net balance of input & output scheduled energy (KWh) This can either be a positive or a negative value	xs:long	{"type": "number"}	13	1	1

4.2.31.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.31.4 Error Handling

4.2.31.4.1 API Specific Business Errors

Error Code	Error Message
GEM_API_ERROR_0100	Gas Day From should be less than or equal to Gas Day To
GEM_API_ERROR_0126	Date Range should be less than or equal to 5 days
GEM_API_ERROR_0403	Incorrect date format of Period From/ Period To

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API Specification	Date :22-Jun-2023

4.2.32 View Shipper Input Claims API

4.2.32.1 Overview

The View Shipper Input Claims API will provide Business Associates with facility to view Claims for a Gas Day in Gemini.

4.2.32.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.32.2.1 URI to access the Web API

[/ViewShipperinputclaims/v1](#)

4.2.32.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality
[/gemini/controllers/GmViewShipperClaimControllerAPI/](#)

4.2.32.3 XML Specifications

4.2.32.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	SHPR_INPUT_CLAIMS_QRY	Top Level hierarchy for query element							
1	GAS_DAY	Information will be retrieved for the Gas Day provided as part of this field.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	METER_ID	Unique identifier for a meter	xs:string	{"type": "string"}	10	1	1	Yes	A valid ID

4.2.32.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	SHPR_INPUT_CLAIMS_RES	Top Level hierarchy for response element					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	SHPR_INPUT_CLAIMS_QRY	Top Level hierarchy for query element					
2	GAS_DAY	Information will be retrieved for the Gas Day provided as part of this field.	xs:date	{"type": "string"}	10	1	1
2	METER_ID	Unique identifier for a meter	xs:string	{"type": "string"}	10	1	1
1	DTL	Top Level hierarchy for detail element					
2	SHPR_INPUT_CLAIMS_DTL	Top level hierarchy for input claims details					
3	SHPR_NM	Name of Shipper	xs:string	{"type": "string"}	12	1	1
3	NMTD_QTY	Nominated Quantity	xs:long	{"type": "number"}	13	1	1
3	CURR_ALLOC_QTY	Current Allocated Quantity	xs:long	{"type": "number"}	13	1	1
3	CLMD_QTY	Indicates the claimed quantity (kWh)	xs:long	{"type": "number"}	13	1	1
1	MSRD_QTY	The quantity of energy measured for the specified	xs:long	{"type": "number"}	13	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		meter id / gas day (kWh)					
1	UNAUTHRSO_INPUT_QTY	Total unauthorised input quantity	xs:long	{"type": "number"}	13	1	1
1	TOT_NRG_CLM	Total energy claim	xs:long	{"type": "number"}	13	1	1
1	TOTAL_CLM_QTY	Sum of claim quantity	xs:long	{"type": "number"}	13	1	1
1	TOTAL_CURR_ALLOC_QTY	Sum of current allocated quantity	xs:long	{"type": "number"}	13	1	1

4.2.32.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.32.4 Error Handling

4.2.32.4.1 API Specific Business Errors

Error Code	Error Message
GEM_API_ERROR_0089	Measurement is not available for the Meter.
GEM_API_ERROR_0092	Gas Day must be in the past.
GEM_API_ERROR_0093	Meter is not active for the day.
GEM_API_ERROR_0094	Meter Agent relationship does not exist.
GEM_API_ERROR_0095	Either the Meter does not exist or the Meter is not a valid Input meter.

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API Specification	Date :22-Jun-2023

4.2.33 Update Shipper Input Claims API

4.2.33.1 Overview

The Update Shipper Input Claims API will provide Business Associates with facility to update pre-closeout Input Claims for a Gas Day in Gemini

4.2.33.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.33.2.1 URI to access the Web API

[/UpdateShipperinputclaims/v1](#)

4.2.33.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality
[/gemini/controllers/GmUpdateShipInputClaimControllerAPI/](#)

4.2.33.3 XML Specifications

4.2.33.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values	
			xml	json						
0	STORAGE_IP_CLAIMS_MOD	Top level hierarchy for query elements								
1	METER_ID	The meter Id for which the storage output claims are retrieved	xs:string	{"type": "string"}	10	1	1	Yes	A valid Meter ID	
1	GAS_DAY	The gas day for which the storage output claims are retrieved	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04	
1	DTL	Top-level hierarchy for Details.					1	∞		
2	BA_NAME	BA Abbreviated Name for an External User, as registered in the system	xs:string	{"type": "string"}	12	1	1	Yes	Abbreviated Name of Shipper	
2	CLMD_QTY	Indicates the Claimed quantity (kWh)	xs:long	{"type": "number"}	13	1	1	Yes	A valid Claimed Quantity	
1	UNAUTH_IP_QTY	Indicates the Unauthorized Input Quantity (kWh)	xs:string	{"type": "string"}	13	0	1	No	A valid number	
1	REASON	Reason when closed out period is elapsed	xs:string	{"type": "string"}	512	0	1	No	Blank or a valid string	

4.2.33.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	STORAGE_IP_CLAIMS_MOD_RES	Top level hierarchy for response elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	STORAGE_IP_CLAIMS_MOD_OUT	Top level hierarchy for query elements					
2	METER_ID	The meter Id for which the storage output claims are retrieved	xs:string	{"type": "string"}	10	1	1
2	GAS_DAY	The gas day for which the storage output claims are retrieved	xs:date	{"type": "string"}	10	1	1
2	DTL_OUT	Top-level hierarchy for Details.					
3	STORAGE_IP_CLAIMS_MOD_DTL	Top level hierarchy for storage input claims details					
4	BA_NAME	BA Abbreviated Name for an External User, as registered in the system	xs:string	{"type": "string"}	12	1	1
4	CLMD_QTY	Indicates the Claimed quantity (kWh)	xs:long	{"type": "number"}	13	1	1
4	STS	Status will be Accepted-A	xs:string	{"type": "string"}	1	1	1
4	MSG_CD	This field gives the message code- shows "OK" message code for successful updation	xs:string	{"type": "string"}	18	1	1
4	MSG_DESC	This field gives message description- shows "SUCCESSFULLY CREATED" description for successful updation	xs:string	{"type": "string"}	400	1	1
2	UNAUTH_IP_QTY	Indicates the Unauthorized Input Quantity (kWh)	xs:string	{"type": "string"}	13	0	1
2	REASON	Reason when closed out period is elapsed	xs:string	{"type": "string"}	512	0	1

4.2.33.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.33.4 Error Handling

4.2.33.4.1 API Specific Business Errors

Error Code	Error Message
GEM_API_ERROR_0089	Measurement is not available for the Meter.
GEM_API_ERROR_0090	The Closeout period has elapsed. Claims cannot be modified.
GEM_API_ERROR_0091	Data is being modified by another User.
GEM_API_ERROR_0092	Gas Day must be in the past.
GEM_API_ERROR_0093	Meter is not active for the day.
GEM_API_ERROR_0094	Meter Agent relationship does not exist.
GEM_API_ERROR_0095	Either the Meter does not exist or the Meter is not a valid Input meter.
GEM_API_ERROR_0096	Claims are being currently processed.
GEM_API_ERROR_0097	Claimed Quantity is not equal to the Measured Quantity.
GEM_API_ERROR_0099	Invalid BA Abbreviation Name.
GEM_API_ERROR_0226	Either BA to meter or BA to Agent relationship does not exist

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API Specification	Date :22-Jun-2023

4.2.34 Update Storage Output Claims API

4.2.34.1 Overview

The Update Storage Output Claims API will provide Business Associates with facility to update pre-closeout Output Claims for a Gas Day in Gemini.

4.2.34.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.2.34.2.1 URI to access the Web API

[/UpdateStorageoutputclaims/v1](#)

4.2.34.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality
[/gemini/controllers/GmUpdateStorageOutputClaimControllerAPI/](#)

4.2.34.3 XML Specifications

4.2.34.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	STORAGE_OP_CLAIMS_MOD	Top level hierarchy for query elements							
1	METER_ID	The meter Id for which the storage output claims are retrieved	xs:string	{"type": "string"}	10	1	1	Yes	A valid ID
1	GAS_DAY	The gas day for which the storage output claims are retrieved	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	DTL	Top-level hierarchy for Details					1	∞	
2	BA_NAME	BA Abbreviated Name for an External User, as registered in the system	xs:string	{"type": "string"}	12	1	1	Yes	Abbreviated Name of Shipper
2	CLMD_QTY	Indicates the claimed quantity (kWh)	xs:long	{"type": "number"}	13	1	1	Yes	A valid number

4.2.34.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	STORAGE_OP_CLAIMS_MOD_RES	Top level hierarchy for response elements					
1	METADATA	Top level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	STORAGE_OP_CLAIMS_MOD_OUT	Top level hierarchy for query elements					
2	METER_ID	The meter Id for which the storage output claims are retrieved	xs:string	{"type": "string"}	10	1	1
2	GAS_DAY	The gas day for which the storage output claims are retrieved	xs:date	{"type": "string"}	10	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
2	MSRD_QTY	The quantity of energy measured for the specified meter id / gas day (kWh).	xs:long	{"type": "number"}	13	1	1	
2	INTR_METER_NO	The interruptible meter id.	xs:string	{"type": "string"}	13	0	1	
2	FIRM_METER_NO	The firm meter id.	xs:string	{"type": "string"}	13	0	1	
2	DTL_OUT	Top-level hierarchy for Details						
3	STORAGE_OP_CLAIMS_MOD_DTL	Top level hierarchy for output claims details					1	∞
4	BA_NAME	BA Abbreviated Name for an External User, as registered in the system	xs:string	{"type": "string"}	12	1	1	
4	CLMD_QTY	Indicates the claimed quantity (kWh)	xs:long	{"type": "number"}	13	1	1	
4	STS	Status will be Accepted-A	xs:string	{"type": "string"}	1	1	1	
4	MSG_CD	This field gives the message code- shows "OK" message code for successful updation	xs:string	{"type": "string"}	18	1	1	
4	MSG_DESC	This field gives message description- shows "SUCCESSFULLY CREATED" description for successful updation	xs:string	{"type": "string"}	400	1	1	

4.2.34.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.2.34.4 Error Handling

4.2.34.4.1 API Specific Business Errors

Error Code	Error Message
GEM_API_ERROR_0089	Measurement is not available for the Meter.
GEM_API_ERROR_0090	The Closeout period has elapsed. Claims cannot be modified.
GEM_API_ERROR_0091	Data is being modified by another User.
GEM_API_ERROR_0092	Gas Day must be in the past.
GEM_API_ERROR_0093	Meter is not active for the day.
GEM_API_ERROR_0094	Meter Agent relationship does not exist.
GEM_API_ERROR_0096	Claims are being currently processed.
GEM_API_ERROR_0097	Claimed Quantity is not equal to the Measured Quantity.
GEM_API_ERROR_0098	Either the Meter doesnot exist or the Meter is not a valid SX meter.
GEM_API_ERROR_0099	Invalid BA Abbreviation Name.
GEM_API_ERROR_0226	Either BA to meter or BA to Agent relationship does not exist

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4.3 Gemini Exit Capacity APIs

4.3.1 All Active Requests API

4.3.1.1 Overview

This specification contains the interface details (eg relevant URIs, request and response XML message formats, specific error messages) for the All Active Requests API. For more general guidance on API function and usage, refer to the Gemini NTS Exit API Usage Guidelines.

The All Active Requests API will retrieve all the 'NEW' status requests for Daily Auctions (DADNEX, WDDNEX, DONEX and DBNEX).

- a) All the active requests will be retrieved (NB: the BA identity for each record will be removed)
- b) Only those Method of Sale (MoS) instances where 'Transparency' has been set to 'Open' during the MoS setup will be considered
- c) Only those MoS with an open 'Request Window' will be considered. The All Active Requests API can be accessed by:
 - o Shippers
 - o Distribution Network Operators (DNOs).

4.3.1.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.3.1.2.1 URI to access the Web API

[/AllActiveRequest/v1](#)

4.3.1.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:
[/exit/controllers/ExAllActiveRequestControllerAPI/](#)

4.3.1.3 XML Specifications

4.3.1.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	AllActvReqQry	Top-level hierarchy for query elements.							
1	MOS	Method of Sale name. Only MoS for Daily Auctions are valid.	xs:string	{"type": "string"}	20	1	1	Yes	A valid MOS ID
1	TX_STRT_DT	Transaction Period Start Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction Period End Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	GAS_DAY	Information will be retrieved for the Gas Day provided as part of this field. This date should be within the Transaction Period, and be in the format YYYY-MM-DD.Gas Day	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	LCTNS	Top-level hierarchy for Location element.							
2	LCTN	Location Code may be input for one or All Locations. To query all Locations, this element value should be set	xs:string	{"type": "string"}	20	1	∞	Yes	A valid location

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		to 'ALL'. To retrieve data related to an individual Location, the Location Code should be entered.Location							

4.3.1.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	AllActvReqRes	Top-level hierarchy for output elements.					
1	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	N/A	N/A
1	AllActvReqResponse	Top-level hierarchy for query elements.				0	1
2	PRODUCT	Product for which bids are queried.	xs:string	{"type": "string"}	100	1	1
2	MOS	Method of Sale name. Only MoS for Daily Auctions are valid.	xs:string	{"type": "string"}	20	1	1
2	TX_STRT_DT	Information will be retrieved for the given Transaction Period Start Date. This date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1
2	TX_END_DT	Information will be retrieved for the given Transaction Period End Date. This date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1
1	DETAIL	Top level hierarchy for record fields.				1	∞
2	GAS_DAY	Information will be retrieved for the Gas Day provided as part of this field. This date should be within the Gas Day	xs:date	{"type": "string"}	10	1	1
2	LCTN	The NTS Exit Point for which the data is requested.	xs:string	{"type": "string"}	20	1	1
2	MAX_QTY	The Maximum Capacity Requested by the External User Maximum Requested Capacity	xs:long	{"type": "number"}	13	1	1
2	REQ_PRICE	The 'Price' at which a request is submitted by the External User	xs:float	{"type": "number"}	6,4	1	1
2	REQ_VALUE	The value calculated for the request placed.	xs:float	{"type": "number"}	15,2	1	1

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Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
2	REQ_TIMESTAMP	The time at which the request is saved either after addition or modification in the system in the Capture Request screen.	xs:dateTime	{"type": "string"}	19	1	1

4.3.1.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.3.1.4 Error Handling

4.3.1.4.1 API Specific Business Errors

Error Code	Error Message
NEX_API_ERROR_0017	Invalid MoS Name
NEX_API_ERROR_0006	Only Daily Auctions are valid
NEX_API_ERROR_0014	Transaction Start Date Format Invalid
NEX_API_ERROR_0015	Transaction End Date Format Invalid
NEX_API_ERROR_0016	Transaction Start Date should be less than or equal to Transaction End Date
NEX_API_ERROR_0007	Gas Day format Invalid
NEX_API_ERROR_0005	Gas Day should be within Transaction Period
NEX_API_ERROR_0013	No active short term MoS instance exists for the transaction period requested

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.3.2 Auction Request Information API

4.3.2.1 Overview

This specification contains the interface details (eg relevant URIs, request and response XML message formats, specific error messages) for the Auction Request Information API. For more general guidance on API function and usage, refer to the Gemini NTS Exit API Usage Guidelines.

The Auction Request Information API will provide Business Associates with information on the status of their requests for the Daily Auctions Sell and Buy (DADNEX, WDDNEX, DONEX and DBNEX).

All the request information will be retrieved, with respect to External User. The Auction Request Information API can be accessed by:

- Shippers
- Distribution Network Operators (DNOs).

4.3.2.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.3.2.2.1 URI to access the Web API

[/RequestInfoReport/v1](#)

4.3.2.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality
[/exit/controllers/ExRequestInfoReportControllerAPI/](#)

4.3.2.3 XML Specifications

4.3.2.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	ReqInfoQry	Top-level hierarchy for query elements.							
1	MOS	Method of Sale name. Only MoS for Daily auctions are valid.	xs:string	{"type": "string"}	20	1	1	Yes	A valid MOS ID
1	TX_STRT_DT	Transaction Period Start Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction Period End Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_FROM	The start date from which the details will be queried. Date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_TO	The end date until which the details will be queried. Date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	REQ_STATUS	Represents the status of the request that has been placed.	xs:string	{"type": "string"}	3	1	1	Yes	Allocated – ALL, Exercised - EXE Invoiced – INV, New - NEW Pending – PND, Recalled -REC Rejected – REJ, Terminated – TER, Withdrawn – WDN,

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
									Blank – for ALL
1	LCTNS	Top-level hierarchy for Location element.							
2	LCTN	Location Code may be input for one or All locations. To query for all locations, this element value should be set to 'ALL' or enter the individual Location Code to fetch data related to a Location	xs:string	{"type": "string"}	20	1	∞	Yes	A valid Location

4.3.2.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	ReqInfoRes	Top-level hierarchy for output elements.					
1	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	ReqInfoResponse	Top-level hierarchy for query elements.					
2	PRODUCT	Product for which bids are queried.	xs:string	{"type": "string"}	100	1	1
2	MOS	Method of Sale name. Only MoS for Daily Auctions are valid.	xs:string	{"type": "string"}	20	1	1
2	TX_STRT_DT	Information will be retrieved for the provided Transaction Period Start Date. This date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1
2	TX_END_DT	Information will be retrieved for the provided Transaction Period End Date. This date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1
1	DETAILS	Top level hierarchy for record fields.					
2	LCTN	The NTS Exit Point for which the data is requested	xs:string	{"type": "string"}	20	1	1
2	SUB_TX_PERIOD	The sub period within which the Daily Auctions can occur for the instance of the MoS. This date should be in the format YYYY-MM-DD to	xs:string	{"type": "string"}	24	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		YYYY-MM-DD.					
2	MAX_QTY	The Maximum Capacity Requested by the External User	xs:long	{"type": "number"}	13	1	1
2	MIN_QTY	The Minimum Capacity Requested by the External User	xs:long	{"type": "number"}	13	1	1
2	ALLOC_QTY	Represents the capacity allocated to the External User	xs:long	{"type": "number"}	13	1	1
2	FLOW_ST_TIME	The time from which the actual flow starts for an allocated request	xs:dateTime	{"type": "string"}	10	1	1
2	REQ_TYPE	Denotes the type of request as 'Evergreen' or 'Reducing'	xs:string	{"type": "string"}	1	1	1
2	REQ_TRANS_FLAG	Represents whether the Request is Transferable to another Auction Type or not	xs:string	{"type": "string"}	1	1	1
2	STATUS	The status of the Requests	xs:string	{"type": "string"}	3	1	1
2	REASON	The 'Reason' corresponding to the 'Reason Code' assigned during rejection or partial allocation of a Request	xs:string	{"type": "string"}	100	1	1
2	REQ_PRICE	The 'Price' at which a request is submitted by the External User	xs:float	{"type": "number"}	6,4	1	1
2	REQ_ID	The unique identifier for a Request placed by the External User	xs:string	{"type": "string"}	60	1	1

4.3.2.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.3.2.4 Error Handling

4.3.2.4.1 API Specific Business Errors

Error Code	Error Message
NEX_API_ERROR_0017	Invalid MoS Name
NEX_API_ERROR_0006	Only Daily Auctions are valid
NEX_API_ERROR_0014	Transaction Start Date Format Invalid
NEX_API_ERROR_0015	Transaction End Date Format Invalid
NEX_API_ERROR_0016	Transaction Start Date should be less than or equal to Transaction End Date
NEX_API_ERROR_0010	Period From Date Format Invalid
NEX_API_ERROR_0011	Period To Date Format Invalid
NEX_API_ERROR_0008	Period From Date should be less than or equal to Period To Date
NEX_API_ERROR_0009	Period From and Period To dates should be within Transaction Period
NEX_API_ERROR_0013	No active short term MoS instance exists for the transaction period requested

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.3.3 Max / Min Price Information – Daily Auction API

4.3.3.1 Overview

This specification contains the interface details (eg relevant URIs, request and response XML message formats, specific error messages) for the Max / Min Price Information – Daily Auction API. For more general guidance on API function and usage, refer to the Gemini NTS Exit API Usage Guidelines.

The Max / Min Price Information – Daily Auction API will provide the Maximum and Minimum accepted Price among the allocated requests for every location and Sub Transaction Period of a daily auction.

The Max / Min Price Information – Daily Auction API can be accessed by:

- Shippers
- Distribution Network Operators (DNOs).

4.3.3.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.3.3.2.1 URI to access the Web API

[/MaxMinPriceInfoReport/v1](#)

4.3.3.2.2 URI to Access the API

API clients must invoke this URI to access this API’s functionality:
[/exit/controllers/ExMaxMinPriceInfoReportControllerAPI/](#)

4.3.3.3 XML Specifications

4.3.3.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	MaxMinPriceInfoQry	Top-level hierarchy for query elements.							
1	MOS	Method of Sale name. Only MoS for Short Term auctions are valid.	xs:string	{"type": "string"}	20	1	1	Yes	A valid MOS ID
1	TX_STRT_DT	Transaction Period Start Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction Period End Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_FROM	The start date from which the details will be queried	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_TO	The end date until which the details will be queried	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	LCTNS	Method of Sale name. Only MoS for Short Term auctions are valid.							
2	LCTN	Location Code may be input for one or All locations. To query all Locations, this element value should be set to 'ALL'. To fetch data related to an individual Location, the Location Code should	xs:string	{"type": "string"}	20	1	∞	Yes	A valid Location

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		be entered. Location							

4.3.3.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	MaxMinPricelInfoRes	Top-level hierarchy for output elements.						
1	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	MaxMinPricelInfoResponse	Top-level hierarchy for query elements.					0	1
2	PRODUCT	Product for which bids are queried.	xs:string	{"type": "string"}	100	1	1	
2	MOS	Method of Sale name. Only MoS for Daily Auctions are valid.	xs:string	{"type": "string"}	24	1	1	
2	TX_STRT_DT	Information will be retrieved for the given Transaction Period Start Date. This date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	
2	TX_END_DT	Information will be retrieved for the given Transaction Period End Date. This date should be in the format YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	
1	DETAILS	Top level hierarchy for record fields.					1	∞
2	LCTN	The NTS Exit Point for which the data is requested.	xs:string	{"type": "string"}	20	1	1	
2	SUB_TX_PERIOD	The sub period within which the Daily Auctions can occur for the instance of the MoS. This date should be in the format YYYY-MM-DD to YYYY-MM-DD.	xs:string	{"type": "string"}	24	1	1	
2	MAX_ACC_PRC	The 'Maximum Accepted Price' by National Grid NTS for a request when the auction type is 'SELL'	xs:float	{"type": "number"}	6,4	0	1	

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		<p>Or</p> <p>The 'Maximum Accepted Price' by National Grid NTS for an offer when the auction type is 'BUY'.</p> <p>This field will be populated irrespective of whether the auction type is 'SELL' or 'BUY'.</p>					
2	MIN_ACC_PRC	<p>The 'Minimum Accepted Price' by National Grid NTS for a request when the auction type is 'SELL'</p> <p>Or</p> <p>The 'Minimum Accepted Price' by National Grid NTS for an offer when the auction type is 'BUY'.</p> <p>This field will be populated irrespective of whether the auction type is 'SELL' or 'BUY'.</p>	xs:float	{"type": "number"}	6,4	0	1
2	QTY_ALL_MAX_PRC	<p>The quantity allocated at Max Price for a request when the auction type is 'SELL' Or</p> <p>The quantity allocated at Max Price for an offer when the auction type is 'BUY'.</p> <p>This field will be populated irrespective of whether the auction type is 'SELL' or 'BUY'.</p>	xs:long	{"type": "number"}	13	0	1
2	QTY_ALL_MIN_PRC	<p>The quantity allocated at Min Price for a request when the auction type is 'SELL' Or</p> <p>The quantity allocated at Min Price for an offer when the auction type is 'BUY'. This field will be populated irrespective of whether the auction type is 'SELL' or 'BUY'.</p>	xs:long	{"type": "number"}	13	0	1

4.3.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.3.3.4 Error Handling

4.3.3.4.1 API Specific Business Errors

Error Code	Error Message
NEX_API_ERROR_0017	Invalid MoS Name
NEX_API_ERROR_0006	Only Daily Auctions are valid
NEX_API_ERROR_0014	Transaction Start Date Format Invalid
NEX_API_ERROR_0015	Transaction End Date Format Invalid
NEX_API_ERROR_0016	Transaction Start Date should be less than or equal to Transaction End Date
NEX_API_ERROR_0010	Period From Date Format Invalid
NEX_API_ERROR_0011	Period To Date Format Invalid
NEX_API_ERROR_0008	Period From Date should be less than or equal to Period To Date
NEX_API_ERROR_0009	Period From and Period To dates should be within Transaction Period
NEX_API_ERROR_0013	No active short term MoS instance exists for the transaction period requested

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.3.4 Sold / Unsold – Daily Auction API

4.3.4.1 Overview

This specification contains the interface details (eg relevant URIs, request and response XML message formats, specific error messages) for the Sold / Unsold – Daily Auction API. For more general guidance on API function and usage, refer to the Gemini NTS Exit API Usage Guidelines.

The Sold / Unsold – Daily Auction API provides the details of capacity Sold and Unsold at every Location and for a Sub Transaction Period of a daily auction.

The Sold / Unsold – Daily Auction API can be accessed by:

- Shippers
- Distribution Network Operators (DNOs).

4.3.4.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.3.4.2.1 URI to access the Web API

[/SoldUnsoldReport/v1](#)

4.3.4.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/exit/controllers/ExSoldUnsoldReportControllerAPI/](#)

4.3.4.3 XML Specifications

4.3.4.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	SoldUnsoldReportQry	Top-level hierarchy for query elements.							
1	MOS	Method of Sale name. Only MoS for Short Term auctions are valid.	xs:string	{"type": "string"}	20	1	1	Yes	A valid MOS ID
1	TX_STRT_DT	Transaction Period Start Date Information may be requested for only one Transaction Period. The date format should be YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction Period End Date Information may be requested for only one Transaction Period. The date format should be YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_FROM	The start date from which the details will be queried	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_TO	The end date until which the details will be queried Period To	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	LCTNS	Top-level hierarchy for Location element.							
2	LCTN	Location Code may be input for one or All locations. To query for all locations, this element value should be set to 'ALL' or enter the individual Location Code to fetch data related to a Location.	xs:string	{"type": "string"}	20	1	∞	Yes	A valid Location

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		Location							

4.3.4.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	SoldUnsoldReportRes	Top-level hierarchy for output elements.					
1	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	SoldUnsoldResponse	Top-level hierarchy for query elements.				0	1
2	PRODUCT	Product for which bids are queried.	xs:string	{"type": "string"}	100	1	1
2	MOS	Method of Sale name. Only MoS for Daily Auctions are valid.	xs:string	{"type": "string"}	20	1	1
2	TX_STRT_DT	Information will be retrieved for the provided Transaction Period Start Date. The date format should be YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1
2	TX_END_DT	Information will be retrieved for the provided Transaction Period End Date. The date format should be YYYY-MM-DD.	xs:string	{"type": "string"}	10	1	1
1	DETAILS	Top level hierarchy for record fields.				1	∞
2	LCTN	The NTS Exit Point for which the data is requested.	xs:string	{"type": "string"}	20	1	1
2	SUB_TX_PERIOD	The sub period within which the Daily Auctions can occur for the instance of the MoS. The date format should be YYYY-MM-DD.	xs:string	{"type": "string"}	24	1	1
2	QTY_OFFERED	The Capacity which is made available for Processing, in kWh. This field will be populated only when the auction type is 'SELL'.	xs:long	{"type": "number"}	13	0	1
2	QTY_REQUESTED	This field will show values for those requests which are either in New, Allocated or Rejected Status (but not	xs:long	{"type": "number"}	13	0	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		Withdrawn) for the selected MoS Instance / Location / STP, in kWh. This field will be populated irrespective of the auction type being 'SELL' or 'BUY'.					
2	QTY_SOLD	Capacity sold for the selected MoS Instance / Location / STP, in kWh. This field will be populated only when the auction type is 'SELL'.	xs:long	{"type": "number"}	13	0	1
2	QTY_UN SOLD	Unsold capacity for the selected MoS Instance / Location / STP, in kWh. This field will be populated only when the auction type is 'SELL'.	xs:long	{"type": "number"}	13	0	1
2	REVENUE	Revenue for the MoS Instance	xs:long	{"type": "number"}	13	0	1
2	COST	Cost for the Capacity Bought Back	xs:long	{"type": "number"}	13	0	1
2	QTY_BOUGHT_BACK	Capacity bought back for the selected MoS Instance / Location / STP, in kWh. This field will be populated only when the auction type is 'BUY'.	xs:long	{"type": "number"}	13	0	1

4.3.4.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.3.4.4 Error Handling

4.3.4.4.1 API Specific Business Errors

Error Code	Error Message
NEX_API_ERROR_0017	Invalid MoS Name
NEX_API_ERROR_0006	Only Daily Auctions are valid
NEX_API_ERROR_0014	Transaction Start Date Format Invalid
NEX_API_ERROR_0015	Transaction End Date Format Invalid
NEX_API_ERROR_0016	Transaction Start Date should be less than or equal to Transaction End Date
NEX_API_ERROR_0010	Period From Date Format Invalid
NEX_API_ERROR_0011	Period To Date Format Invalid
NEX_API_ERROR_0008	Period From Date should be less than or equal to Period To Date
NEX_API_ERROR_0009	Period From and Period To dates should be within Transaction Period
NEX_API_ERROR_0013	No active short term MoS instance exists for the transaction period requested

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.3.5 Entitlement Report API

4.3.5.1 Overview

This specification contains the interface details (eg relevant URIs, request and response XML message formats, specific error messages) for the Entitlement Report API. For more general guidance on API function and usage, refer to the Gemini NTS Exit API Usage Guidelines.

The Entitlement Report API provides the capacity entitlement data at every Location and Sub Transaction Period of a daily auction.

The Entitlement Report API can be accessed by:

- Shippers
- Distribution Network Operators (DNOs)
- Allocation Agents.

Note: The data returned by this API is dependent on User role

4.3.5.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.3.5.2.1 URI to access the Web API

[/ExEntitlementsReport/v1](#)

4.3.5.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/exit/controllers/ExEntitlementsReportControllerAPI/](#)

4.3.5.3 XML Specifications

4.3.5.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	EntitlementReportQry	Top-level hierarchy for query elements.							
1	LCTN	Location Code for a single NTS Exit Point	xs:string	{"type": "string"}	20	1	1	Yes	A valid Location
1	PRODUCT_TYPE	Product type for which bids are queried.	xs:string	{"type": "string"}	100	1	1	Yes	Firm or Interruptible
1	PERIOD_FROM	The start date from which the details will be queried	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_TO	The end date until which the details will be queried	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04

4.3.5.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	EntitlementReportRes	Top-level hierarchy for output elements.					
1	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	EntitlementReportResponse	Top-level hierarchy for query elements.					
2	PRODUCT_TYPE	Product type for which bids are queried.	xs:string	{"type": "string"}	100	1	1
2	LCTN	The NTS Exit Point for which the data is requested.	xs:string	{"type": "string"}	24	1	1
1	DETAILS	Top level hierarchy for record fields.					
2	GAS_DAY	Information will be retrieved for the Gas Day provided as part of this field. This date should be within Transaction Period,	xs:date	{"type": "string"}	10	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		and be in the format YYYY-MM-DD.					
2	BA_CODE	The BA Code for an External User, as registered in the system, for which the Entitlements are queried. Note: <u>For Allocation Agents</u> , the BA Code represents all the BAs associated to the corresponding Allocation Agent.	xs:string	{"type": "string"}	3	1	1
2	NET_CAPACITY	<u>For DNO Users</u> : The sum of Net Firm, Net Scaled Off- peak Entitlements and Entitlement Swap. <u>For Shippers and Allocation Agents</u> : The sum of Net Firm and Net Scaled Off-peak Entitlements.	xs:long	{"type": "number"}	13	1	1
2	NET_FIRM	The Net Firm Entitlements for the queried NTS Exit Point at a Location and for a particular User.	xs:long	{"type": "number"}	13	1	1
2	ORIGINAL_OFFPEAK	The Original Off-peak Entitlements, prior to any Constraints or Restorations.	xs:long	{"type": "number"}	13	1	1
2	NET_SCALED_OFFPEAK	The Net Off-peak Entitlements, after any Constraints or Restorations.	xs:long	{"type": "number"}	13	1	1
2	ENTITLEMENT_SWAP	Note: This field is populated for DNO Users ONLY: Net Capacity Swapped In or Out from a DNO Location for a DNO Flow swap adjustment. The value in this field will be a positive number when it is swapped in and a negative number when it is swapped out. The Entitlement Swap value will be zero unless NG NTS confirms the swap of the Entitlement associated to a DNO Flow Swap.	xs:long	{"type": "number"}	13	1	1

4.3.5.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.3.5.4 Error Handling

4.3.5.4.1 API Specific Business Errors

Error Code	Error Message
NEX_API_ERROR_008	Period From Date should be less than or equal to Period To Date
NEX_API_ERROR_0010	Period From Date Format Invalid
NEX_API_ERROR_0011	Period To Date Format Invalid
NEX_API_ERROR_0018	Invalid Product Type

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.3.6 IP Exit Entitlement API

4.3.6.1 Overview

This specification contains the interface details (e.g. relevant URIs, request and response XML message formats, specific error messages) for the Exit IP Entitlement Report API. Shippers can send API request to Gemini to query or view exit entitlements. This API will be sent by Shippers on an ad-hoc basis. For more general guidance on API function and usage, refer to the Gemini Exit API Usage Guidelines.

The Exit IP Entitlement Report API provides the NTS Exit Capacity Entitlement data at Gemini Exit Interconnector Points and Sub Transaction Period.

The Exit IP Entitlement Report API can be accessed by Shippers.

4.3.6.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.3.6.2.1 URI to access the Web API

[/IPentitlementsReport/v1](#)

4.3.6.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:

[/exit/controllers/ExIPentitlementsReportControllerAPI/](#)

4.3.6.3 XML Specifications

An asterisk in the 'Hierarchy' column of API Request and Response element tab denotes an element or group that may occur multiple times

4.3.6.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	IPEXEntitlementReportQry	Top-level hierarchy for query elements.							
1	PRODUCT_TYPE	Product type for which bids are queried. Allowed value – NTS EXIT FLAT CAPACITY	xs:string	{"type": "string"}	100	1	1	Yes	Firm or Interruptible
1	LCTN	Interconnector NTS Exit Point associated with the method of sale. Location Code may be input for one or all locations. 'ALL' needs to be input for all locations	xs:string	{"type": "string"}	20	1	1	Yes	A valid Location
1	PERIOD_FROM	The start date from which the details will be queried. Date should be in the format YYYY-MM-DD	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_TO	The end date until which the details will be queried. Date should be in the format YYYY-MM-DD	xs:string	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TYPE_ENTLMNT	This field represents whether the API request is to query for bundled and/or un bundled entitlements	xs:string	{"type": "string"}	9	1	1	Yes	Bundled-To query for bundled entitlements only. Unbundled-To query for unbundled entitlements only. Aggregate - To query for aggregate of

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
									bundled and unbundled entitlements. Both - To query for both bundled and unbundled entitlements separately.

4.3.6.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	
			xml	json				
0	IPEXEntitlementReportRes	Top-level hierarchy for output elements.						
1	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1	
1	IPEXEntitlementReportQry	Top-level hierarchy for query elements.					0	1
2	PRODUCT_TYPE	Product type for which bids are queried.	xs:string	{"type": "string"}	30	1	1	
2	LCTN	The Interconnector NTS Exit Point for which the data is requested.	xs:string	{"type": "string"}	20	1	1	
2	PERIOD_FROM	The start date from which the details will be queried. Date should be in the format YYYY-MM-DD	xs:string	{"type": "string"}	10	1	1	
2	PERIOD_TO	The end date until which the details will be queried. Date should be in the format YYYY-MM-DD	xs:string	{"type": "string"}	10	1	1	
2	TYPE_ENTLMNT	This field represents the type of entitlement which was queried. This field will be blank if the Gas Day queried is prior to 01-Oct- 2015.	xs:string	{"type": "string"}	09	1	1	
1	DETAIL	Top level hierarchy for record fields.					1	∞
2	LCTN	The Interconnector NTS Exit Point for which the data is requested.	xs:string	{"type": "string"}	20	1	1	
2	TYPE_ENTLMNT	This field represents the type of entitlement which was queried. This field will be blank if the	xs:string	{"type": "string"}	09	1	1	

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		Gas Day queried is prior to 01-Oct- 2015.					
2	GAS_DAY	Information will be retrieved for the Gas Day provided as part of this field. This date should be within Transaction Period, and be in the format YYYY-MM-DD.	xs:date	{"type": "string"}	10	1	1
2	BA_CODE	The BA Code for an External User, as registered in the system, for which the Entitlements are queried.	xs:string	{"type": "string"}	03	1	1
2	NET_CAPACITY	The sum of Net Firm and Net Scaled Interruptible Entitlements for the queried Interconnector NTS Exit Point for a particular User and Gas Day.	xs:long	{"type": "number"}	13	1	1
2	NET_FIRM	The Net Firm Entitlements for the queried Interconnector NTS Exit Point for a particular User and Gas Day.	xs:long	{"type": "number"}	13	1	1
2	NET_OFFPEAK	The Net Off-Peak Entitlements for the queried Interconnector NTS Exit Point for a particular User and Gas Day.	xs:long	{"type": "number"}	13	1	1
2	NET_SCALED_OFFPEAK	The Net Off-Peak Entitlements, after any Constraints or Restorations.	xs:long	{"type": "number"}	13	1	1

4.3.6.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.3.6.4 Error Handling

4.3.6.4.1 API Specific Business Errors

Error Code	Error Message
GEM_API_ERROR_0006	Period To cannot be less than Period From
GEM_API_ERROR_0500	Product Type is incorrect
GEM_API_ERROR_0501	Invalid type of Entitlement
GEM_API_ERROR_0502	Location not an Interconnector Point
GEM_API_ERROR_0503	Incorrect date format of Period From/ Period To

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.3.7 Auction Request Information for IP Locations API

4.3.7.1 Overview

The Auction Request Information for IP Locations API will provide Business Associates with facility to view the information related to Bids placed at IP locations in Gemini Exit.

4.3.7.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.3.7.2.1 URI to access the Web API

[/AuctionReqeustInfoforIPloct/v1](#)

4.3.7.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:
[/exit/controllers/ExAuctionRequestInfoPLocControllerAPI/](#)

4.3.7.3 XML Specifications

4.3.7.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	AUC_REQ_INFO_QRY	Top-level hierarchy for query elements.							
1	PRODUCT	Product for which bids are queried.	xs:string	{"type": "string"}	100	1	1	Yes	NTS EXIT FLAT CAPACITY FIRM PRIMARY NTS EXIT FLAT CAPACITY OFF- PEAK PRIMARY
1	MOS	Method of Sale name for all IP Auctions	xs:string	{"type": "string"}	20	1	1	Yes	IPDADNEX IPWDDNEX IPAYNEX IPAQNEX IPRMNEX IPDONEX
1	TX_STRT_DT	Transaction Period Start Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction Period End Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_FROM	The start date from which the details will be queried	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PERIOD_TO	The end date until which the details will be queried	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
									Example: 2020-09-04
1	REQ_STATUS	Top-level hierarchy for status elements							
2	STATUS	The Status of Request	xs:string	{"type": "string"}	3	0	1	No	Allocated – ALL New - NEW Rejected - REJ Withdrawn – WTH Blank – for all Status
1	LCTNS	Top-level hierarchy for Location element							
2	LCTN	Location Code may be input for 'one or more' or All locations. To query for all locations, this element value should be set to 'ALL' or enter the individual Location Code to fetch data related to a Location.	xs:string	{"type": "string"}	20	1	∞	Yes	List of valid IP locations BACTONINT MOFFATINT All – for all locations

4.3.7.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	AUC_REQ_INFO_RES	Top level hierarchy for response element					
1	METADATA	Top-level hierarchy for meta information elements.					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	AUC_REQ_INFO_QRY	Top-level hierarchy for query elements					
2	PRODUCT	Product for which bids are queried	xs:string	{"type": "string"}	100	1	1
2	MOS	Method of Sale name for all IP Auctions	xs:string	{"type": "string"}	20	1	1
2	TX_STRT_DT	Transaction Period Start Date Information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:date	{"type": "string"}	10	1	1
2	TX_END_DT	Transaction Period End Date information may be requested for only one Transaction Period. Date should be in the format YYYY-MM-DD.	xs:date	{"type": "string"}	10	1	1
2	PERIOD_FROM	The start date from which the details will be queried	xs:date	{"type": "string"}	10	1	1
2	PERIOD_TO	The end date until which the details will be queried	xs:date	{"type": "string"}	10	1	1
2	REQ_STATUS	Top-level hierarchy for meta information elements					
3	STATUS	The Status of Request	xs:string	{"type": "string"}	3	0	1
2	LCTNS	Top-level hierarchy for Location element					
3	LCTN	Location Code may be input for 'one or more' or All locations. To query for all locations, this element value should be set to 'ALL' or enter the individual Location Code to fetch data related to a Location.	xs:string	{"type": "string"}	20	1	∞
1	DETAIL	Top level hierarchy for record fields					
2	AUC_REQ_INFO_DTL	Top level hierarchy for all details				1	∞
3	LCTN	Location code of IP	xs:string	{"type": "string"}	20	1	1
3	SUBTX_PRD_FM	The start date of the sub transaction period. This date should be in the format YYYY-MM-	xs:date	{"type": "string"}	10	1	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
		DD					
3	SUBTX_PRD_TO	The end date of the sub transaction period. This date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1
3	MAX_CAP	The Maximum Capacity (kWh/day) Requested by the External User	xs:long	{"type": "number"}	13	1	1
3	MIN_CAP	The Minimum Capacity (kWh/day) Requested by the External User	xs:long	{"type": "number"}	13	1	1
3	ALLOC_CAP	Represents the capacity (kWh/day) allocated to the External User	xs:long	{"type": "number"}	13	1	1
3	REQ_PRICE	The 'Price' (p/kWh) at which a request is submitted by the External User	xs:decimal	{"type": "number"}	10,8	0	1
3	BID_STG	Bid Stage	xs:integer	{"type": "number"}	3	0	1
3	FLOW_ST_TIME	The time from which the actual flow starts for an allocated request	xs:time	{"type": "string"}	8	1	1
3	BUN_OR_UNBUN	Bundled-B Unbundled-U	xs:string	{"type": "string"}	1	1	1
3	STATUS	The status of the Request	xs:string	{"type": "string"}	3	1	1
3	REASON	The 'Reason' corresponding to the 'Reason Code' assigned during rejection or partial allocation of a Request	xs:string	{"type": "string"}	100	0	1
3	CLRNG_PRC	Clearing Price (p/kWh)	xs:decimal	{"type": "number"}	10,8	0	1
3	ADJ_TSO	Unique identification of the System Operator for the adjacent TSO	xs:string	{"type": "string"}	35	0	1
3	PRISMA_DEAL_ID	Prisma deal ID	xs:string	{"type": "string"}	10	0	1
3	REQ_ID	The unique identifier for a Request placed by the External User	xs:string	{"type": "string"}	60	1	1

4.3.7.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.3.7.4 Error Handling

4.3.7.4.1 API Specific Business Errors

Error Code	Error Message
NEX_API_ERROR_0017	Invalid MoS Name
NEX_API_ERROR_0008	Period From Date should be less than or equal to Period To Date
NEX_API_ERROR_0009	Period From and Period To dates should be within Transaction Period
NEX_API_ERROR_0018	Invalid Product Type
NEX_API_ERROR_0013	No active short term MoS instance exists for the transaction period requested
NEX_API_ERROR_0602	Invalid MOS Type for given Product Type.
NEX_API_ERROR_0600	Location is not applicable for given MOS Type and Transaction Period.
NEX_API_ERROR_0016	Transaction Start Date should be less than or equal to Transaction End Date

Gemini and Gemini Exit API Specification Document	Version:2.2
API Specification	Date :22-Jun-2023

4.3.8 Capture Request API

4.3.8.1 Overview

The Capture Request API will provide Business Associates with facility to Add Update Request in the Gemini Exit System.

Apart from the API specification given below in section 4.3.8.3, for each MOS type there are different sets of mandatory input fields required, which is mentioned in section 4.3.8.5.

4.3.8.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.3.8.2.1 URI to access the Web API

[/CaptureRequest/v1](#)

4.3.8.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:
[/exit/controllers/ExCaptureRequestControllerAPI/](#)

4.3.8.3 XML Specifications

4.3.8.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values	
			xml	json						
0	CAPTURE_RQST_ADD_UPDT_REQ	Top-level hierarchy for query elements								
1	PRDT	Product type for which bids are queried	xs:string	{"type": "string"}	100	1	1	Yes	<ol style="list-style-type: none"> 1. NTS EXIT FLAT CAPACITY FIRM PRIMARY 2. NTS EXIT FLAT CAPACITY OFF-PEAK PRIMARY 3. NTS EXIT FLAT CAPACITY FIRM DERIVED 	
1	MOS	Method of Sale name. Only MoS for Daily Auctions are valid.	xs:string	{"type": "string"}	20	1	1	Yes	<ol style="list-style-type: none"> 1. EAFLEC 2. AFLEC 3. DADNEX 4. WDDNEX 5. DONEX 6. AIEFLEC 7. ADEFLEC 8. DBNEX 9. EXBB 	
1	TRANS_DET	Top Level hierarchy for Sub Trans Detail element					0	1		

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
1	TX_STRT_DT	Transaction start Date	xs:date	{"type": "string"}	10	0	1	No	Format: YYYY-MM-DD Example: 2020-09-04
1	TX_END_DT	Transaction end Date	xs:date	{"type": "string"}	10	0	1	No	Format: YYYY-MM-DD Example: 2020-09-04
1	APPL_WIN_PRD	Application Window Period				0	1		
2	APPL_WIN_PRD_FROM	Application Window Period From	xs:dateTime	{"type": "string"}	19	0	1	No	Example: 2021-04-21T08:00:00
2	APPL_WIN_PRD_TO	Application Window Period To	xs:dateTime	{"type": "string"}	19	0	1	No	Example: 2021-04-21T08:00:00
1	LCTN	A NTS EXIT POINT Location for which request is placed	xs:string	{"type": "string"}	20	1	1	Yes	A valid Location
1	SUB_TENDER_ID	Sub Tender ID	xs:string	{"type": "string"}	30	0	1	No	A Valid ID. It is applicable for MoS EXBB.
1	SUB_TRANS_DET	Top Level hierarchy for Sub Trans Detail element				0	1		
2	SUBTX_PRD_FRM	Sub Transaction Period Start Date	xs:date	{"type": "string"}	10	0	1	No	Format: YYYY-MM-DD Example: 2020-09-04
2	SUBTX_PRD_TO	Sub Transaction Period End Date	xs:date	{"type": "string"}	10	0	1	No	Format: YYYY-MM-DD Example: 2020-09-04
1	RQST_TYPE_INCR_OR_DCR	Request Type Increase or Decrease	xs:string	{"type": "string"}	1	0	1	No	I- Increase or D-Decrease

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
1	INCR_OR_DCR_DET	Top level hierarchy Increase or Decrease detail				0	1		
2	INCR_OR_DCR_START_DT	Increase or Earliest Decrease Date	xs:date	{"type": "string"}	10	0	1	No	Format: YYYY-MM-DD Example: 2020-09-04
1	ADD_MOD_WTH	Add or Modify or Withdrawal	xs:string	{"type": "string"}	1	1	1	Yes	A – Add M – Modify W-Withdrawal
1	CONTRACT_TYPE	Contract Type	xs:string	{"type": "string"}	1	0	1	No	O- Option F- Forward
1	DTL	Top Level hierarchy for detail element							
2	RQST_ID	Request id	xs:string	{"type": "string"}	30	0	1	No	A valid ID
2	RQST_TYPE	Denotes the type of request as 'Evergreen' or 'Reducing'	xs:string	{"type": "string"}	1	0	1	No	E-'Evergreen' R-'Reducing'
2	MIN_QTY	Minimum Quantity	xs:long	{"type": "number"}	13	0	1	No	A valid number
2	MAX_QTY	Maximum Quantity	xs:long	{"type": "number"}	13	0	1	No	A valid number
2	PRC	The price at which the energy was sold/purchased (p/KWh) This is mandatory only if the batch id is specified	xs:decimal	{"type": "number"}	6,4	0	1	No	A valid number of Length 6,4
2	PREMIUM_PRICE	Premium Price	xs:decimal	{"type": "number"}	6,4	0	1	No	A valid number of Length 6,4
2	LEAD_TIME	Lead Time	xs:long	{"type": "number"}	2	0	1	No	A valid number

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
2	NO_OF_EXERCISABLE_INST	No of Exercisable instance	xs:long	{"type": "number"}	2	0	1	No	A valid number
2	RQST_TRANSFER	Eligible for request Transfer, Blank for No	xs:string	{"type": "string"}	1	0	1	No	Y / N / Blank-takes 'No' as default
2	INCR_OR_DCR_START_DT	Increase or Decrease start Date	xs:date	{"type": "string"}	10	0	1	No	Format: YYYY-MM-DD Example: 2020-09-04
2	MIN_DEC_TO	Minimum Decrease to	xs:long	{"type": "number"}	13	0	1	No	A valid Quantity
2	MAX_DEC_TO	Maximum Decrease to	xs:long	{"type": "number"}	13	0	1	No	A valid Quantity
2	INCR_OR_DCR_BUY_QTY	Increase or Decrease Quantity	xs:long	{"type": "number"}	13	0	1	No	A valid Quantity

4.3.8.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	CAPTURE_RQST_ADD_UPDT_RES	Top-level hierarchy for response elements.					
1	METADATA	Top-level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	CAPTURE_RQST_ADD_UPDT_REQ_OUT	Top Level hierarchy for query element					
2	PRDT	Product type for which bids are queried	xs:string	{"type": "string"}	100	1	1
2	MOS	Method of Sale name. Only MoS for Daily Auctions are valid.	xs:string	{"type": "string"}	20	1	1
2	TRANS_DET	Top Level hierarchy for Sub Trans Detail element					
3	TX_STRT_DT	Transaction start Date	xs:date	{"type": "string"}	10	0	1
3	TX_END_DT	Transaction end Date	xs:date	{"type": "string"}	10	0	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
2	APPL_WIN_PRD	Application Window Period				0	1
3	APPL_WIN_PRD_FROM	Application Window Period From	xs:dateTime	{"type": "string"}	19	0	1
3	APPL_WIN_PRD_TO	Application Window Period To	xs:dateTime	{"type": "string"}	19	0	1
2	LCTN	An NTS EXIT POINT Location for which request is placed	xs:string	{"type": "string"}	20	1	1
2	SUB_TENDER_ID	Sub Tender ID	xs:string	{"type": "string"}	30	0	1
2	SUB_TRANS_DET	Top Level hierarchy for Sub Trans Detail element				0	1
3	SUBTX_PRD_FRM	Sub Transaction Period Start Date	xs:date	{"type": "string"}	10	0	1
3	SUBTX_PRD_TO	Sub Transaction Period End Date	xs:date	{"type": "string"}	10	0	1
2	RQST_TYPE_INCR_OR_DCR	Request Type Increase or Decrease	xs:string	{"type": "string"}	1	0	1
2	INCR_OR_DCR_DET	Top level hierarchy Increase or Decrease detail				0	1
3	INCR_OR_DCR_STRT_DT	Increase or Earliest Decrease Date	xs:date	{"type": "string"}	10	0	1
2	ADD_MOD_WTH	Add or Modify or Withdrawal	xs:string	{"type": "string"}	1	1	1
2	CONTRACT_TYPE	Contract Type	xs:string	{"type": "string"}	1	0	1
1	DTL_OUT	Top Level hierarchy for detail element					
2	RQST_ID	Request ID	xs:string	{"type": "string"}	30	0	1
2	REQ_TYPE	Denotes the type of request as 'Evergreen' or 'Reducing'	xs:string	{"type": "string"}	1	0	1
2	MIN_QTY	Minimum Quantity	xs:long	{"type": "number"}	13	0	1
2	MAX_QTY	Maximum Quantity	xs:long	{"type": "number"}	13	0	1
2	PRC	The price at which the energy was sold/purchased (p/KWh) This is mandatory only if the batch id is specified	xs:decimal	{"type": "number"}	6,4	0	1
2	PREMIUM_PRICE	Premium Price	xs:decimal	{"type": "number"}	6,4	0	1
2	LEAD_TIME	Lead Time	xs:long	{"type": "number"}	2	0	1
2	NO_OF_EXERCISABLE_INST	No of Exercisable instance	xs:long	{"type": "number"}	2	0	1
2	RQST_TRANSFER	Eligible for request Transfer, Blank for No	xs:string	{"type": "string"}	1	0	1
2	INCR_OR_DCR_START_DT	Increase or Decrease start Date	xs:date	{"type": "string"}	10	0	1
2	MIN_DEC_TO	Minimum Decrease to	xs:long	{"type": "number"}	13	0	1

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
2	MAX_DEC_TO	Maximum Decrease to	xs:long	{"type": "number"}	13	0	1
2	INCR_OR_DCR_BY_QTY	Increase or Decrease Quantity	xs:long	{"type": "number"}	13	0	1
2	STS	The status of the records.The permissible value is: S- Success	xs:string	{"type": "string"}	1	1	1
2	MSG_CD	This field gives the message code- shows "OK" message code for successful addition/modifying/ withdrawal.	xs:string	{"type": "string"}	2	1	1
2	MSG_DESC	This field gives a more descriptive information on the status of the physical / locational trade records, i.e. whether all trades have been accepted or only some have been accepted- "SUCCESSFULLY CREATED" for successful addition of request "SUCCESSFULLY MODIFIED" for successful modification of request "SUCCEFULLY WITHDRAWN" for successful withdrawal of request	xs:string	{"type": "string"}	30	1	1

4.3.8.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.3.8.4 Error Handling

4.3.8.4.1 API Specific Business Errors

Error Code	Error Message
NEX_API_ERROR_0600	Location is not applicable for given MOS Type and Transaction Period.
NEX_API_ERROR_0602	Invalid MOS Type for given Product Type.
NEX_API_ERROR_0604	Please enter a valid number of price in format 99.9999.
NEX_API_ERROR_0611	Maximum Quantity should be greater than or equal to the Minimum Quantity entered.
NEX_API_ERROR_0609	Please enter valid request ID.
NEX_API_ERROR_0613	Enter a valid Quantity value.
NEX_API_ERROR_0628	Sub Transaction Period Start Date cannot be after Sub Transaction Period End Date
NEX_API_ERROR_0608	Request Window is not opened for given MOS and Transaction Period Combination
NEX_API_ERROR_0607	Minimum Bid Quantity should be greater than or equal to the Minimum Quantity set by National Grid Gas
NEX_API_ERROR_0615	Minimum Quantity requested must be divisible by the Divisible Quantity set by National Grid NTS. Please re-enter the Minimum Quantity
NEX_API_ERROR_0016	Transaction Start Date should be less than or equal to Transaction End Date.
NEX_API_ERROR_0612	Active Credit Sanctions against the selected BA, user is not allowed to add/ Modify bids.
NEX_API_ERROR_0601	MOS Type provided is not available for given Transaction Period
NEX_API_ERROR_0618	The request may be rejected due to active credit sanction
NEX_API_ERROR_0617	Request could be rejected during transfer to another MoS, if the Minimum Quantity or Price of the request violates the Quantity and Price limit set by National Grid NTS.(Warning - For TRANSFER CHECK Yes)
NEX_API_ERROR_0619	Increase By must be greater than or equal to the Minimum Increase By value set by National Grid NTS. Please re-enter the Increase By value.
NEX_API_ERROR_0626	Decrease By must be greater than or equal to the Minimum Decrease By value set by National Grid NTS.
NEX_API_ERROR_0621	Modified Deemed Application must be greater than or equal to the original Deemed Application.
NEX_API_ERROR_0622	The selected Earliest Decrease Start Date should be greater than or equal to the Earliest Decrease Start Date set by National Grid NTS
NEX_API_ERROR_0624	Please enter start of a month for Decrease Start Date
NEX_API_ERROR_0625	Decrease To capacity should be less than the User Entitlement for the requested Decrease Start date
NEX_API_ERROR_0700	Lead Time requested must be within the range of Lead Time set by National Grid NTS. Please re-enter the Lead Time.
NEX_API_ERROR_0701	No of Exercisable Instances must be with in the Minimum and Maximum Number of Exercisable Instances specified in the National Grid Defined Parameters. Please re-enter the No of Exercisable Instances.
NEX_API_ERROR_0702	Maximum Quantity requested must be divisible by the Divisible Quantity set by National Grid NTS. Please re-enter the Maximum Quantity.
NEX_API_ERROR_0703	Please enter Exercise Price greater than or equal to Minimum Exercise Price
NEX_API_ERROR_0704	Please enter Exercise Price lesser than or equal to Maximum Exercise Price
NEX_API_ERROR_0705	Please enter Exercise Price lesser than or equal to Maximum Exercise Price and

Error Code	Error Message
	greater than or equal to Minimum Exercise Price
NEX_API_ERROR_0706	Please enter Premium Price greater than or equal to Minimum Premium Price
NEX_API_ERROR_0707	Please enter Premium Price lesser than or equal to Maximum Premium Price
NEX_API_ERROR_0708	Please enter Premium Price lesser than or equal to Maximum Premium Price and greater than or equal to Minimum Premium Price
NEX_API_ERROR_0709	Please enter Price greater than or equal to Minimum Price
NEX_API_ERROR_0710	Please enter Price lesser than or equal to Maximum Price
NEX_API_ERROR_0711	Please enter Price lesser than or equal to Maximum Price and greater than or equal to Minimum Price
NEX_API_ERROR_0712	Price must be greater than or equal to Price set by National Grid NTS. Please re-enter the Price
NEX_API_ERROR_0713	The User entitlement data is only available until Enduring End Date. Please select an Earliest Decrease Start Date which is earlier than the last month of entitlement data available in the system
NEX_API_ERROR_0714	The User Entitlement for the requested Decrease Start date should be greater than the Minimum Decrease By value set by National Grid NTS
NEX_API_ERROR_0715	The Decrease Request cannot be placed to Decrease the Entitlement below ARCA Booked Quantity. Please contact National Grid for assistance.
NEX_API_ERROR_0716	The Max. Decrease To should be less than the Min. Decrease To
NEX_API_ERROR_0717	Capacity and Price is not defined for the Sub Transaction Period
NEX_API_ERROR_0718	Capacity is not defined for the Sub Transaction Period
NEX_API_ERROR_0719	Price is not defined for the Sub Transaction Period
NEX_API_ERROR_0720	Location is not associated with the Sub Transaction Period
NEX_API_ERROR_0721	The Request cannot be added as the Request Window for the Day is closed.
NEX_API_ERROR_0722	This request exceeds the maximum number of requests allowed for this Product and Gas Day. You cannot enter new requests until the day ahead requests have been allocated or transferred to the Within Day Capture request.
NEX_API_ERROR_0723	The request placed exceeds the maximum number of requests allowed for the Period at this Location for the Method of Sale. Please select another Period or Modify/Withdraw the existing request to place this new request.
NEX_API_ERROR_0724	The Request cannot be modified as the Request Window for the Day is closed
NEX_API_ERROR_0725	The request placed exceeds the maximum number of requests allowed for the Gas Year at this Location for the Method of Sale. Please select another Gas Year or alternatively Modify/Withdraw the existing request.
NEX_API_ERROR_0726	Requested Capacity cannot be more than the capacity made available at the selected Location.
NEX_API_ERROR_0727	The Adhoc Increase Request has already been placed at this location for the method of sale and has not been allocated or closed. Please select another Location or Withdraw the existing request to place this new request.
NEX_API_ERROR_0728	The requested capacity is less than 125% of the Obligated Capacity at the NTS Exit Point or is less than 1GWh/day. Please modify the capacity you are requesting.
NEX_API_ERROR_0729	The request placed exceeds the maximum number of requests allowed for the Sub Tender ID at this Location for this instance of Method of Sale. Please select another Sub Tender ID or Withdraw the existing request first.
NEX_API_ERROR_0731	The Request cannot be modified as the requests are locked for Capacity Selection

Error Code	Error Message
NEX_API_ERROR_0732	The Request cannot be modified as the Request is already Processed
NEX_API_ERROR_0733	The Request cannot be modified as the Hourly Reduction Batch Job has taken place with respect to the request.
NEX_API_ERROR_0018	Invalid Product Type.
NEX_API_ERROR_0730	The Request cannot be withdrawn as the Request Window for the Day is closed
NEX_API_ERROR_0734	The Request cannot be withdrawn as the requests are locked for Capacity Selection
NEX_API_ERROR_0735	The Request cannot be withdrawn as the Request Window for the Day is closed
NEX_API_ERROR_0736	The Request cannot be withdrawn as the Request is already Processed
NEX_API_ERROR_0737	The Request cannot be withdrawn as the Hourly Reduction Batch Job is running with respect to the request
NEX_API_ERROR_0739	A future Decrease Request exists, which results in a lower level of Entitlement. This New/Adjusted Decrease Request will be effective only until the start date of the future Decrease.
NEX_API_ERROR_0740	The Max Price exceeds the External User set Upper Limit set in User Preferences.
NEX_API_ERROR_0741	The Min Price is less than the External User set Lower Limit set in User Preferences.
NEX_API_ERROR_0742	An Increase Request exists in future. This Decrease Request will only be effective until the start date of the future Increase.
NEX_API_ERROR_0743	You may not be able to decrease in future as your entitlement may reduce to below National Grid set minimum Capacity limit.
NEX_API_ERROR_0744	The Decrease Request you are trying to place is within the Commitment Period. The request may not be allocated.
NEX_API_ERROR_0745	A future Decrease Request exists, which results in a lower level of Entitlement. This Decrease Request will be effective only until the start date of the future Decrease.
NEX_API_ERROR_0746	A future Decrease Request exists, which results in a higher level of Entitlement. This Decrease Request will override the Entitlement of the future Decrease.
NEX_API_ERROR_0747	The Price is less than the External User set Lower Limit set in User Preferences.
NEX_API_ERROR_0748	The Price exceeds the External User set Upper Limit set in User Preferences.
NEX_API_ERROR_0749	The Minimum Quantity is less than the External User set Lower Limit set in User Preferences.
NEX_API_ERROR_0750	The Maximum Quantity is less than the External User set Lower Limit set in User Preferences.
NEX_API_ERROR_0751	An Increase Request exists in future; the value of which may be impacted due to the Decrease Request.
NEX_API_ERROR_0752	An increase request already exists for the same effective start date. The decrease request would be allocated first and then the Increase Request altering your enduring annual entitlement.
NEX_API_ERROR_0753	The Maximum Quantity exceeds the External User set Upper Limit set in User Preferences.
NEX_API_ERROR_0754	A Decrease request already exists for the same effective start date. The decrease request would be allocated first and then the Increase Request altering your enduring annual entitlement.
NEX_API_ERROR_0755	A Decrease Request exists within the Commitment Period of this Increase Request. The Decrease Request may be rejected.
NEX_API_ERROR_0756	Increase By exceeds the External User set Capacity Upper Limit set in User Preferences.
NEX_API_ERROR_0757	Increase By is less than the External User set Capacity Lower Limit set in User

Error Code	Error Message
	Preferences.
NEX_API_ERROR_0758	Decrease To exceeds the External User set Capacity Upper Limit set in User Preferences.
NEX_API_ERROR_0759	Decrease To is less than the External User set Capacity Lower Limit set in User Preferences.
NEX_API_ERROR_0760	Commitment Value exceeds the External User set Value Upper Limit set in User Preferences.
NEX_API_ERROR_0761	Value exceeds the External User set Value Upper Limit set in User Preferences.
NEX_API_ERROR_0762	Value is less than the External User set Value Lower Limit set in User Preferences.
NEX_API_ERROR_0763	You are not associated to the Overrun Agreement for the NTS Exit Point for which you are placing the request. It is advisable that you contact the relevant Overrun User.
NEX_API_ERROR_0764	An Earlier Decrease Request exists, which results in a lower level of Entitlement. Please select another Period or Modify/Withdraw the existing request to place this new request.
NEX_API_ERROR_0765	There is already a decrease request with an earlier start date and a lower level of entitlement. Please modify the Decrease To amount to be less than the existing request.
NEX_API_ERROR_0766	Requested Increase Start Date should not be less than [6] months from the current system date.
NEX_API_ERROR_0767	Requests are already being processed
NEX_API_ERROR_0768	Requests at one or more selected Locations and Sub Transaction Periods are already in process.
NEX_API_ERROR_0769	Requests at one or more selected Locations are already in process.
NEX_API_ERROR_0770	Please accept or reject the DN Request in order to Process this location.
NEX_API_ERROR_0771	The request cannot be accepted/rejected as the Process Window for the instance of Method of Sale has started.
NEX_API_ERROR_0772	A request for decrease has already been allocated for the same effective start date. Please modify the effective start date to place the new Increase request.
NEX_API_ERROR_0773	A Decrease Request has been allocated within the Commitment Period of this Increase Request. Please modify the effective start date to place the new Increase request.
NEX_API_ERROR_0774	Commitment Value is less than the External User set Value Lower Limit set in User Preferences.
NEX_API_ERROR_0738	Bids for this auction cannot be captured until validation for Price and Capacity Upper Limits have been set. To set Price and Capacity validation go to Home > Deal > Capture > Setup User Preferences

4.3.8.5 Input Matrix

4.3.8.5.1 EAFLEC and AFLEC

Mandatory: M Not Applicable: NA	EAFLEC			AFLEC			Mandatory/Not Applicable
	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method Of Sale	M	M	M	M	M	M	Mandatory
Transaction Start date	NA	NA	NA	M	M	M	EAFLEC: NA AFLEC: M
Transaction end date	NA	NA	NA	M	M	M	EAFLEC: NA AFLEC: M
Application Window Period From	M	M	M	M	M	M	Mandatory
Application Window Period To	M	M	M	M	M	M	Mandatory
Location	M	M	M	M	M	M	Mandatory
Sub Tendre Id	NA	NA	NA	NA	NA	NA	Not Applicable
Sub Transaction Period From	NA	NA	NA	M	M	M	EAFLEC: NA AFLEC: M
Sub Transaction Period To	NA	NA	NA	M	M	M	EAFLEC: NA AFLEC: M
Request Type Increase or Decrease	M	M	M	NA	NA	NA	EAFLEC: M AFLEC: NA
Increase or Decrease Start Date	M	M	M	NA	NA	NA	EAFLEC: M AFLEC: NA
ADD or Modify or Withdrawal	M	M	M	M	M	M	Mandatory
Contract Type	NA	NA	NA	NA	NA	NA	Not Applicable
Request Id	NA	M	M	NA	M	M	EAFLEC/ AFLEC: Add: NA Modify/ Withdraw: M
Request Type	NA	NA	NA	NA	NA	NA	Not Applicable
Minimum Quantity	NA	NA	NA	M	M	NA	EAFLEC: NA AFLEC: Add/Modify: M Withdraw: NA
Maximum Quantity	NA	NA	NA	M	M	NA	EAFLEC: NA AFLEC: Add/Modify: M Withdraw: NA
Price /Exersice Price for EXBB(Optional)	NA	NA	NA	NA	NA	NA	Not Applicable
premium price	NA	NA	NA	NA	NA	NA	Not Applicable
Lead Time	NA	NA	NA	NA	NA	NA	Not Applicable
no of exercisable instances	NA	NA	NA	NA	NA	NA	Not Applicable
Request Transfer	NA	NA	NA	NA	NA	NA	Not Applicable
Increase or Decrease Start Date	M	M	NA	NA	NA	NA	EAFLEC: Add/Modify: M Withdraw: NA AFLEC: NA
Minimum Decrease to	M	M	NA	NA	NA	NA	EAFLEC: Add/Modify:M Withdraw:NA AFLEC:NA

Maximum Decrease to	M	M	NA	NA	NA	NA	EAFLEC : Add/Modify:M Withdraw:NA AFLEC:NA
Min Decrease by	M	M	NA	NA	NA	NA	EAFLEC: Add/Modify:M Withdraw:NA AFLEC:NA
Increase or Decrease by Quantity	M	M	NA	NA	NA	NA	EAFLEC: Add/Modify: M Withdraw: NA AFLEC: NA

4.3.8.5.2 DADNEX and WDDNEX

Mandatory: M Not Applicable: NA	DADNEX			WDDNEX			Mandatory/Not Applicable
	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method Of Sale	M	M	M	M	M	M	Mandatory
Transaction Start date	M	M	M	M	M	M	Mandatory
Transaction end date	M	M	M	M	M	M	Mandatory
Application Window Period From	NA	NA	NA	NA	NA	NA	Not Applicable
Application Window Period To	NA	NA	NA	NA	NA	NA	Not Applicable
Location	M	M	M	M	M	M	Mandatory
Sub Tendre Id	NA	NA	NA	NA	NA	NA	Not Applicable
Sub Transaction Period From	M	M	M	M	M	M	Mandatory
Sub Transaction Period To	M	M	M	M	M	M	Mandatory
Request Type Increase or Decrease	NA	NA	NA	NA	NA	NA	Not Applicable
Increase or Decrease Start Date	NA	NA	NA	NA	NA	NA	Not Applicable
ADD or Modify or Withdrawal	M	M	M	M	M	M	Mandatory
Contract Type	NA	NA	NA	NA	NA	NA	Not Applicable
Request Id	NA	M	M	NA	M	M	DADNEX/ WDDNEX: Add: NA Modify/ Withdraw: M
Request Type	M	M	M	M	M	M	Mandatory
Minimum Quantity	M	M	NA	M	M	NA	DADNEX/WDDNEX: Add/Modify: M Withdraw: NA
Maximum Quantity	M	M	NA	M	M	NA	DADNEX/WDDNEX: Add/Modify: M Withdraw: NA
Price /Exersice Price for EXBB(Optional)	M	M	NA	M	M	NA	DADNEX/WDDNEX: Add/Modify: M Withdraw: NA
premium price	NA	NA	NA	NA	NA	NA	

							Not-Applicable
Lead Time	NA	NA	NA	NA	NA	NA	Not Applicable
no of exercisable instances	NA	NA	NA	NA	NA	NA	Not Applicable
Request Transfer	M	NA	NA	NA	NA	NA	DADNEX: Add: M Modify/ Withdraw: NA WDDNEX: NA
Increase or Decrease Start Date	NA	NA	NA	NA	NA	NA	Not Applicable
Minimum Decrease to	NA	NA	NA	NA	NA	NA	Not Applicable
Maximum Decrease to	NA	NA	NA	NA	NA	NA	Not Applicable
Min Decrease by	NA	NA	NA	NA	NA	NA	Not Applicable
Increase or Decrease by Quantity	NA	NA	NA	NA	NA	NA	Not Applicable

4.3.8.5.3 DONEX and AIEFLEC

Mandatory: M Not Applicable: NA	DONEX			AIEFLEC			Mandatory/Not Applicable
	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method Of Sale	M	M	M	M	M	M	Mandatory
Transaction Start date	M	M	M	NA	NA	NA	DONEX: M AIEFLEC: NA
Transaction end date	M	M	M	NA	NA	NA	DONEX: M AIEFLEC: NA
Application Window Period From	NA	NA	NA	M	M	M	DONEX: NA AIEFLEC: M
Application Window Period To	NA	NA	NA	M	M	M	DONEX: NA AIEFLEC: M
Location	M	M	M	M	M	M	Mandatory
Sub Tendre Id	NA	NA	NA	NA	NA	NA	Not Applicable
Sub Transaction Period From	M	M	M	NA	NA	NA	DONEX: M AIEFLEC: NA
Sub Transaction Period To	M	M	M	NA	NA	NA	DONEX: M AIEFLEC: NA
Request Type Increase or Decrease	NA	NA	NA	M	M	M	DONEX: NA AIEFLEC: M
Increase or Decrease Start Date	NA	NA	NA	M	M	M	DONEX: NA AIEFLEC: M
ADD or Modify or Withdrawal	M	M	M	M	M	M	Mandatory
Contract Type	NA	NA	NA	NA	NA	NA	Not Applicable
Request Id	NA	M	M	NA	M	M	DONEX/ AIEFLEC: Add: NA Modify/ Withdraw: M
Request Type	M	M	M	NA	NA	NA	DONEX: M

							AIEFLEC: NA
Minimum Quantity	M	M	NA	NA	NA	NA	DONEX: Add/Modify: MWithdraw: NA AIEFLEC: NA
Maximum Quantity	M	M	NA	NA	NA	NA	DONEX: Add/Modify: M Withdraw: NA AIEFLEC: NA
Price /Exersice Price for EXBB(OPTION)	M	M	NA	NA	NA	NA	DONEX: Add/Modify: M Withdraw: NA AIEFLEC: NA
premium price	NA	NA	NA	NA	NA	NA	Not Applicable
Lead Time	NA	NA	NA	NA	NA	NA	Not Applicable
no of exercisable instances	NA	NA	NA	NA	NA	NA	Not Applicable
Request Transfer	NA	NA	NA	NA	NA	NA	Not Applicable
Increase or Decrease Start Date	NA	NA	NA	M	M	NA	DONEX: NA AIEFLEC: Add/Modify: M Withdraw: NA
Minimum Decrease to	NA	NA	NA	NA	NA	NA	Not Applicable
Maximum Decrease to	NA	NA	NA	NA	NA	NA	Not Applicable
Min Decrease by	NA	NA	NA	NA	NA	NA	Not Applicable
Increase or Decrease by Quantity	NA	NA	NA	M	M	NA	DONEX: NA AIEFLEC: Add/Modify: M Withdraw: NA

4.3.8.5.4 ADEFLEC and DBNEX

Mandatory: M Not Applicable: NA	ADEFLEC			DBNEX			Mandatory/Not Applicable
	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method Of Sale	M	M	M	M	M	M	Mandatory
Transaction Start date	NA	NA	NA	M	M	M	AEDFLEC: NA DBNEX: M
Transaction end date	NA	NA	NA	M	M	M	AEDFLEC: NA DBNEX: M
Application Window Period From	M	M	M	NA	NA	NA	AEDFLEC: M DBNEX: NA
Application Window Period To	M	M	M	NA	NA	NA	AEDFLEC: M DBNEX: NA
Location	M	M	M	M	M	M	Mandatory
Sub Tendre Id	NA	NA	NA	NA	NA	NA	Not Applicable
Sub Transaction Period From	NA	NA	NA	M	M	M	AEDFLEC: NA DBNEX: M
Sub Transaction Period To	NA	NA	NA	M	M	M	AEDFLEC: NA DBNEX: M
Request Type Increase or Decrease	M	M	M	NA	NA	NA	AEDFLEC: M DBNEX: NA
Increase or Decrease Start Date	M	M	M	NA	NA	NA	AEDFLEC: M DBNEX: NA
ADD or Modify or Withdrawal	M	M	M	M	M	M	Mandatory
Contract Type	NA	NA	NA	NA	NA	NA	Not Applicable
Request Id	NA	M	M	NA	M	M	AEDFLEC/ DBNEX: Add: NA Modify/ Withdraw: M
Request Type	NA	NA	NA	M	M	M	AEDFLEC: NA DBNEX: M
Minimum Quantity	NA	NA	NA	M	M	NA	AEDFLEC: NA DBNEX: Add/Modify: M Withdraw: NA
Maximum Quantity	NA	NA	NA	M	M	NA	AEDFLEC: NA DBNEX: Add/Modify: M Withdraw: NA
Price /Exersice Price for EXBB(Optional)	NA	NA	NA	M	M	NA	AEDFLEC: NA DBNEX: Add/Modify: M Withdraw: NA
premium price	NA	NA	NA	NA	NA	NA	Not Applicable
Lead Time	NA	NA	NA	NA	NA	NA	Not Applicable
no of exercisable instances	NA	NA	NA	NA	NA	NA	Not Applicable
Request Transfer	NA	NA	NA	NA	NA	NA	Not Applicable

Increase or Decrease Start Date	M	M	NA	NA	NA	NA	AEDFLEC: Add/Modify: M Withdraw: NA DBNEX: NA
Minimum Decrease to	M	M	NA	NA	NA	NA	AEDFLEC: Add/Modify: M Withdraw: NA DBNEX: NA
Maximum Decrease to	M	M	NA	NA	NA	NA	AEDFLEC: Add/Modify: M Withdraw: NA DBNEX: NA
Min Decrease by	M	M	NA	NA	NA	NA	AEDFLEC: Add/Modify: M Withdraw: NA DBNEX: NA
Increase or Decrease by Quantity	NA	NA	NA	NA	NA	NA	Not Applicable

4.3.8.5.5 EXBB

Mandatory: M Not Applicable: NA	EXBB (Contract Type: Optional)			EXBB (Contract Type: Forward)			Mandatory/Not Applicable
	Add	Modify	Withdraw	Add	Modify	Withdraw	
Product	M	M	M	M	M	M	Mandatory
Method Of Sale	M	M	M	M	M	M	Mandatory
Transaction Start date	M	M	M	M	M	M	Mandatory
Transaction end date	M	M	M	M	M	M	Mandatory
Application Window Period From	NA	NA	NA	NA	NA	NA	Not Applicable
Application Window Period To	NA	NA	NA	NA	NA	NA	Not Applicable
Location	M	M	M	M	M	M	Mandatory
Sub Tendre Id	M	M	M	M	M	M	Mandatory
Sub Transaction Period From	M	M	M	M	M	M	Mandatory
Sub Transaction Period To	M	M	M	M	M	M	Mandatory
Request Type Increase or Decrease	NA	NA	NA	NA	NA	NA	Not Applicable
Increase or Decrease Start Date	NA	NA	NA	NA	NA	NA	Not Applicable
ADD or Modify or Withdrawal	M	M	M	M	M	M	Mandatory
Contract Type	M	M	M	M	M	M	Mandatory
Request Id	NA	M	M	NA	M	M	EXBB(O)/ EXBB(F): Add: NA Modify/ Withdraw: M
Request Type	M	M	M	NA	NA	NA	EXBB(O): M EXBB(F): NA
Minimum Quantity	M	M	NA	M	M	NA	EXBB(O)/ EXBB(F): Add/Modify: M

							Withdraw: NA
Maximum Quantity	M	M	NA	M	M	NA	EXBB(O)/ EXBB(F): Add/Modify: M Withdraw: NA
Price /Exersice Price for EXBB(Option)	M	M	NA	M	M	NA	EXBB(O)/ EXBB(F): Add/Modify: M Withdraw: NA
premium price	M	M	NA	NA	NA	NA	EXBB(O): Add/Modify: M Withdraw: NA EXBB(F): NA
Lead Time	M	M	NA	NA	NA	NA	EXBB(O): Add/Modify: M Withdraw: NA EXBB(F): NA
no of exercisable instances	M	M	NA	NA	NA	NA	EXBB(O): Add/Modify: M Withdraw: NA EXBB(F): NA
Reqeust Transfer	NA	NA	NA	NA	NA	NA	Not Applicable
Increase or Decrease Start Date	NA	NA	NA	NA	NA	NA	Not Applicable
Minimum Decrease to	NA	NA	NA	NA	NA	NA	Not Applicable
Maximum Decrease to	NA	NA	NA	NA	NA	NA	Not Applicable
Min Decrease by	NA	NA	NA	NA	NA	NA	Not Applicable
Increase or Decrease by Quantity	NA	NA	NA	NA	NA	NA	Not Applicable

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API Specification	Date :22-Jun-2023

4.3.9 Transfer Registration API

4.3.9.1 Overview

The Transfer Registration API will provide Business Associates with facility to Input Claims and Trade Registration and thus automating registration process for Transfer of Capacity.

4.3.9.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.3.9.2.1 URI to access the Web API

[/TransferRegistration/v1](#)

4.3.9.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:
[/exit/controllers/ExTransferRegistrationControllerAPI/](#)

4.3.9.3 XML Specifications

4.3.9.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	TRANSFER_RGSTR ATN_ADD_REQ	Top Level hierarchy for query element							
1	TRANSFEEEREE_BA_CODE	Transferee BA Code	xs:string	{"type": "string"}	3	1	1	Yes	3 character BA code
1	PRODUCT	Product for which queried	xs:string	{"type": "string"}	100	1	1	Yes	NTS EXIT FLAT CAPACITY FIRM PRIMARY
1	LCTN	A NTS EXIT POINT Location	xs:string	{"type": "string"}	20	1	1	Yes	A valid GB location Eg: ABERDEENOT etc
1	PRD_FROM	The start Date from which the details will be queried. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	PRD_TO	The end Date until which the details will be queried. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY-MM-DD Example: 2020-09-04
1	TRANS_QTY	Transfer Quantity	xs:long	{"type": "number"}	13	1	1	Yes	A valid number
1	TRANS_PRC	Transfer Price	xs:string	{"type": "string"}	7	0	1	No	A valid number Format: XX.XXXX
1	CONTACT_NAME	Contact Name	xs:string	{"type": "string"}	40	0	1	No	A valid Name
1	CONTACT_NO	Contact Number	xs:string	{"type": "string"}	20	0	1	No	A valid Contact Number

4.3.9.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	TRANSFER_RGSTRATN_ADD_RES	Top Level hierarchy for response element					
1	METADATA	Top-level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	TRANSFER_RGSTRATN_ADD_REQ_OUT	Top Level hierarchy for query element					
2	DTL	Top-level hierarchy for details.					
3	TRANSFEREE_BA_CODE	Transferee BA Code	xs:string	{"type": "string"}	3	1	1
3	PRODUCT	Product for which queried	xs:string	{"type": "string"}	100	1	1
3	LCTN	A NTS EXIT POINT Location	xs:string	{"type": "string"}	20	1	1
3	PRD_FROM	The start Date from which the details will be queried. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1
3	PRD_TO	The end Date until which the details will be queried. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1
3	TRANS_QTY	Transfer Quantity	xs:long	{"type": "number"}	13	1	1
3	TRANS_PRC	Transfer Price	xs:string	{"type": "string"}	7	0	1
3	CONTACT_NAME	Contact Name	xs:string	{"type": "string"}	40	0	1
3	CONTACT_NO	Contact Number	xs:string	{"type": "string"}	20	0	1
3	TRANS_REF_ID	Transfer Reference ID Transference id will be blank by default	xs:long	{"type": "number"}	20	0	1
3	STS	The status of the records The permissible values are: A- Accepted	xs:string	{"type": "string"}	1	1	1
3	MSG_CD	This field gives the message code- shows "OK" message code for successful acceptance of trade.	xs:string	{"type": "string"}	18	1	1
3	MSG_DESC	This field gives a more descriptive information on the status of the physical / locational trade records, i.e. whether all trades have been accepted or only some have been accepted- shows "SUCCESSFULLY CREATED" description for successful acceptance of trade.	xs:string	{"type": "string"}	400	1	1

4.3.9.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.3.9.4 Error Handling

4.3.9.4.1 API Specific Business Errors

Error Code	Error Message
NEX_API_ERROR_0008	Period From Date should be less than or equal to Period To Date
NEX_API_ERROR_0018	Invalid Product Type
NEX_API_ERROR_0019	Transfer Cut-off Date and Time has been crossed; the Transfer cannot be saved
NEX_API_ERROR_0021	You do not have Sub Service association to access this screen. Please contact National Grid.
NEX_API_ERROR_0629	Selling BA and Buying BA cannot be same.
NEX_API_ERROR_0631	Period from should be greater than or equal to current gas day
NEX_API_ERROR_0023	Not a valid Transferee BA.
NEX_API_ERROR_0024	Invalid Location

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4.3.10 View Transfer Registration API

4.3.10.1 Overview

The View Registered Transfer API will provide Business Associates with facility to view the Trade registrations.

4.3.10.2 API URIs

All URIs are expressed relative to the root URI for the API service. BAs are advised to parameterise URIs to minimise the impact of change.

4.3.10.2.1 URI to access the Web API

[/ViewTransferRegistration/v1](#)

4.3.10.2.2 URI to Access the API

API clients must invoke this URI to access this API's functionality:
[/exit/controllers/ExViewTransferRegistrationControllerAPI/](#)

4.3.10.3 XML Specifications

4.3.10.3.1 API Request Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
0	TRANSFER_RGS TRATN_QRY_RE Q	Top Level hierarchy for query element							
1	PRODUCT	Product for which queried	xs:string	{"type": "string"}	100	1	1	Yes	NTS EXIT FLAT CAPACITY FIRM PRIMARY
1	LCTN	A NTS EXIT POINT Location	xs:string	{"type": "string"}	20	0	1	No	Blank for All Location Otherwise A valid Exit Location Eg: ABERDEENOT BACTONINT etc
1	STATUS	Status	xs:string	{"type": "string"}	10	0	1	No	Blank – all status Accepted Cancelled Confirmed Invalid Registered Rejected Withdrawn Timeout
1	PRD_FROM	The start Date from which the details will be queried. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY- MM-DD Example: 2020-09- 04
1	PRD_TO	The end Date until which the details will be queried. Date should be in the format	xs:date	{"type": "string"}	10	1	1	Yes	Format: YYYY- MM-DD

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Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs	Mandatory	Allowable Values
			xml	json					
		YYYY-MM-DD							Example: 2020-09-04
1	TRANS_REF_ID	Transfer Reference ID	xs:string	{"type": "string"}	15	0	1	No	A valid ID Eg: 2446 2443 etc

4.3.10.3.2 API Response Parameters

Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
0	TRANSFER_RGSTRATN_QRY_RES	Top level hierarchy for the response elements					
1	METADATA	Top-level hierarchy for meta information elements					
2	TMSTMP	Time stamp of API access	xs:dateTime	{"type": "string"}	19	1	1
1	TRANSFER_RGSTRATN_QRY_REQ	Top Level hierarchy for query element					
2	PRODUCT	Product for which queried	xs:string	{"type": "string"}	100	1	1
2	LCTN	A NTS EXIT POINT Location	xs:string	{"type": "string"}	20	0	1
2	STATUS	Status	xs:string	{"type": "string"}	10	0	1
2	PRD_FROM	The start Date from which the details will be queried. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1
2	PRD_TO	The end Date until which the details will be queried. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1
2	TRANS_REF_ID	Transfer Reference ID	xs:String	{"type": "string"}	15	0	1
1	DETAIL	Top level hierarchy for record fields					
2	TRANSFER_RGSTRATN_DETAIL	Top level hierarchy for all details					
3	TRANS_REF_ID	Transfer Reference ID	xs:String	{"type": "string"}	15	1	1
3	LCTN	A NTS EXIT POINT Location	xs:string	{"type": "string"}	20	1	1
3	TRANSFEROR_BA_CODE	Transferor BA Code	xs:string	{"type": "string"}	3	1	1
3	TRANSFEEER_BA_CODE	Transferee BA Code	xs:string	{"type": "string"}	3	1	1
3	PRD_FROM	The start Date from which the details will be queried. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1
3	PRD_TO	The end Date until which the details will be queried. Date should be in the format YYYY-MM-DD	xs:date	{"type": "string"}	10	1	1
3	TRANS_QTY	Transfer Quantity	xs:long	{"type": "number"}	13	1	1

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Hierarchy	Data Element	Description	Data Type		Data Length	Min Occurs	Max Occurs
			xml	json			
3	TRANS_PRC	Transfer Price	xs:decimal	{"type": "number"}	6,4	0	1
3	DATE_TIME_RGSTRN	Date Time of Registration	xs:dateTime	{"type": "string"}	19	1	1
3	DATE_TIME_WITHDRWL	Date Time of Withdrawal	xs:dateTime	{"type": "string"}	19	0	1
3	DATE_TIME_ACCPTNCE	Date Time of Acceptance	xs:dateTime	{"type": "string"}	19	0	1
3	DATE_TIME_REJECTION	Date Time of Rejection	xs:dateTime	{"type": "string"}	19	0	1
3	DATE_TIME_CONF	Date Time of Confirmation	xs:dateTime	{"type": "string"}	19	0	1
3	STATUS	The Status of the Request	xs:string	{"type": "string"}	10	1	1

4.3.10.3.3 Request and Response Schema Definition

The XML Schema Definition is available from:

box.xoserve.GeminiSystemEnhancements@xoserve.com

4.3.10.4 Error Handling

4.3.10.4.1 API Specific Business Errors

Error Code	Error Message
NEX_API_ERROR_0008	Period From Date should be less than or equal to Period To Date
NEX_API_ERROR_0018	Invalid Product Type

5. Technical Errors

5.1 Application Generated API Technical Errors

Below table displays the application generated API Technical Errors which are valid for both IX and Web APIs

Error Code	Error Messages
GEM_API_ERROR_0000 / NEX_API_ERROR_0000	System Error.
GEM_API_ERROR_0001/ NEX_API_ERROR_0001	XML Document is not valid.
GEM_API_ERROR_0002/ NEX_API_ERROR_0002	No record(s) found.
GEM_API_ERROR_0003/ NEX_API_ERROR_0003	The record could not be saved.
GEM_API_ERROR_0007	Request not serviced. Usage limit exceeded.

5.2 Server Generated API Technical Errors

Below table displays the server generated Technical Errors which are valid for both IX and Web APIs

Error Code	Error Message
1XX	Informational - Communicates transfer protocol-level information.
2XX	Success - Indicates that the client's request was accepted successfully.
3XX	Redirection - Indicates that the client must take some additional action in order to complete their request.
4XX	Client Error - This category of error status codes points the finger at clients.
5XX	Server Error - The server takes responsibility for these error status codes.

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6. Debugging for API Client Developers

This section contains hints and tips for API client developers who wants to develop a client for IX or Internet based APIs.

1. If you are debugging a login API client, then you may make several unsuccessful attempts to login. It is useful to intersperse these attempts with a login to the Gemini / Gemini Exit screen service via Citrix (To do this - you would need to raise a service request for a temporary User ID role update to allow is to access both Gemini Screens and APIs). This achieves two things:
 - a. It confirms that your login credentials are correct and any failure to login via the login API is down to something else.
 - b. It resets your consecutive unsuccessful login attempts count for that user id. This is important to prevent the account being locked.
2. Be aware that when you login to the Gemini / Gemini Exit screens via an API user id you may see an error to the effect that the application has failed to build a menu. This can be ignored for user ids with API access only. It indicates that no screens are allocated to the user id.
3. During API client development, use the XML Schema Definitions (XSDs) on the Gemini / Gemini Exit servers to validate your request XML before sending it. There are various third party tools that will validate XML against an XSD.
4. Avoid physically storing the request/response XML unless you have to. Input/output operations are resource expensive.
5. Document Object Model (DOM) parsers are more memory intensive for read operations. If you have the choice, use Simple API for XML (SAX) parsers for read and DOM for generate/update. SAX is much quicker than DOM for read operations.
6. The error XML contains the error code and associated error messages. If you would rather display a different message you can map our error codes to your own specific messages.
7. Remember that API sessions will time expire after sixty minutes of inactivity. If your client is inactive for this period, you will have to login again to re-establish a session.
 - a. Make the URIs that you access configurable. Do not hard code them within your API clients.
 - b. This is especially important for the root URI of the API service. Changes to domain naming policies, for example, can affect these URIs. For this reason, we specify URIs in all documentation relative to the root URI of the API service, designated by a single “/”.
8. It is useful to separately hold the root URI of the API service that you are accessing, which will be common to all API calls, and the relative URIs, which will be specific to each individual API.
9. API clients must not be multi-threaded.
10. To diagnose errors, try to trap your raw HTTP responses and requests. APIs are intended to be client language independent and the requirements for API client interaction with the API are deliberately specified in terms of HTTP and associated XML structures.
11. If you are investigating a suspected API error, then it will greatly assist both yourselves and us to see the interaction in terms of HTTP messages. What happens in various client languages to send/receive those messages might be very different.
12. If you schedule changes of password via the change password API before your password expires, then you avoid the complexity of having to react to a password expiry warning or actual expiration. Current passwords will expire after thirty days of use. You are warned five days in advance.

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7. Appendix

7.1 Schema Definition

7.1.1 Request XML Schemas

The XML Schema Definitions are available on request by emailing the below email address or raising a service request with Xoserve:

box.xoserve.GeminiSystemEnhancements@xoserve.com

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8. Document Control

Superseded documents

None

Version History

Version	Status	Date	Author(s)	Summary of Changes
0.1	For Review	25-Sep-2020	Wipro Limited	Initial Version
0.2	For Review	15-Oct-2020	Wipro Limited	Modified Post Review Cycle 1
0.3	For Approval	27-Oct-2020	Wipro Limited	Submitted for Approval
1.0	Approved	09-Nov-2020	Wipro Limited	Approved Version
1.1	For Review	28-Feb-2021	Wipro Limited	Modified for Web API
1.2	Approved	04-Mar-2021	Wipro Limited	Made minor changes
1.3	For Review	04-May-2021	Wipro Limited	Modified after ST
1.4	For Review	14-May-2021	Wipro Limited	Modified after ST
1.5	For Review	21-Jun-2021	Wipro Limited	Modified to include structure changes
1.6	For Review	20-Jul-2021	Wipro Limited	Added additional information, no change to the structure
1.7	Approved	21-Sep-2021	Wipro Limited	Approved Version
1.8	For Review	22-Nov-2021	Wipro Limited	As part of Gemini Spring Release (MOD Trio) added additional information, no change to the API structure
1.9	For Approval	09-Dec-2021	Wipro Limited	Document reviewed by Tech Ops (RG) with no comments. Document submitted for approval.
2.0	Approved	20-Dec-2021	Wipro Limited	Approved Version
2.1	Approved	16-Jun-2022	Correla	Minor format and descriptive text changes
2.2	For Review	22-Jun-2023	Wipro Limited	Updated the permissible values list for API Response data element "FRST_NM" for View Renominations API.

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