



Wholesale Connect API Gateway

Order/Track API User Guide

Version 1.4

Change Log

Change date	Document version number	Comments
21/03/2022	1.0	First iteration of this document
21/09/2022	1.1	Minor corrections
13/04/2024	1.2	Changes to Middleware Platform and Postman
10/10/2025	1.3	Adding FTTP Attributes to Order Submit and Track
20/02/2026	1.4	Additional FTTP Attributes Updated

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1. Hello and welcome

Welcome to our Wholesale Connect API Gateway service. We're pleased to have you on board. This service will give you access to API capabilities of your choice including the ability to quote, place orders and track the status of your orders through your native systems, enabling a more seamless and automated quote to order delivery journey.

Our next generation API portfolio consists of a suite of RESTful APIs, written in JSON – a more modern, readable language, that will make life that much easier for your developers. All of our APIs now support four key products: our National High Capacity Services and Dedicated High Capacity Services – through which you can now access bandwidths of up to 10GB, in addition to our standard National Ethernet and Ethernet Extensions products.

Our Quote API service has been designed specifically to support you in building a consolidated view of pricing quotes from multiple suppliers, with efficiency and ease.

Our order creation Order API service will then enable you to convert the quotes you have raised into new orders, placed directly from your native systems into our order management systems, offering an additional level of automation to your order journey.

Finally, our order status tracking Order API service will introduce a brand-new, order tracking automation capability that will provide real-time completion and ad-hoc updates about the status of your order delivery at each delivery stage - removing the need to manually request updates through your Service Desk, Service Manager or Account Manager contacts.

We believe the integration of these API services will provide you with a more seamless and uninterrupted workflow across your ordering journey – significantly improving your ease of doing business with us.

You'll probably want to keep this document somewhere handy for future reference.

2. Guide Purpose

The purpose of this guide is to give you the information you need to successfully integrate and activate our new Wholesale Connect Order API. This API will support two order actions:

1. Submitting a new order
2. Tracking the delivery status of an order

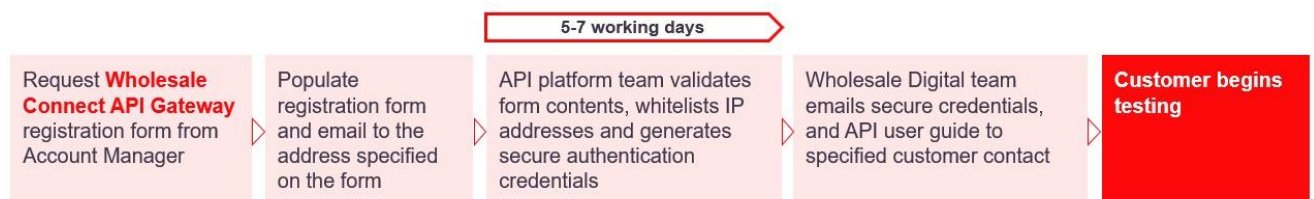
This guide will also provide instructions on how to troubleshoot faults with our API services. The business rules and validations that are provided in this document should be carefully considered while developing your own interface for use of our APIs.

3. Getting Connected

This section of the user guide will outline how to register for a Wholesale Connect API service and a description of how your access to our service will be authenticated.

3.1 Customer registration

To formally request access to any of our API services, you'll need to complete this [registration form](#) and return it to the email address at the bottom of the form. The diagram below outlines this process.



To access any of our API services, you must be registered within our Wholesale Connect API Gateway and in our business systems.

Using the details provided on your registration form, our API platform team will create an internal customer account for you within our API Gateway, to which they will assign the API service(s) you wish to consume. The team will also generate and share a unique **client ID and secret key** which will act as your access credentials to our API services. The registration process will also include the whitelisting of your IP addresses, as a mandatory security measure.

3.2 API Gateway authentication

Our new RESTful APIs have been developed with connectivity being authenticated and secured via an API Gateway. Our Wholesale Connect API Gateway plays a vital role in ensuring connectivity between your systems and Virgin Media Business systems is secured to the appropriate level.

The client ID and secret key credentials issued to you, during registration, will be essential to accessing our APIs, as our API Gateway will authenticate all your API requests, to ensure they have been sent with your unique credentials.

You will need to pass the client ID and secret key in the http request headers for your API request, as shown in Section 4.9 of this document. Both headers are mandatory for all your API requests.

This table displays the header name and sample values of your client ID and secret credentials:

Header name	Sample values
MWH-AppID	VMB_07645
MWH-ClientSecret	3c1fE3AA48CB46789D45Acc22c2601dB

Your credentials will be renewed at set intervals as per Virgin Media's security guidelines. You will be notified one month in advance to refresh the new credentials in your server.

In case you need any additional details related to API credentials, please contact our Digital team at the email address specified on your registration form.

4. Next Generation Order API

The new Order API will support two order actions:

1. Creating and placing a new order
2. Tracking the delivery status of an order

This is a JSON based REST API, which will replace existing SOAP webservises. JSON is a more modern, lightweight data-interchange format that is widely used in web and application development. It is more readable and more easily parsed by machines.

API definitions, for each service, will be provided in RESTful API Modeling Language (RAML). RAML makes it easy to manage the API lifecycle from design to deployment to sharing - it is concise and reusable. In comparison to other API specs, it was uniquely developed to not only document an API, but to model it. To make that happen, RAML comes with tools including a RAML/API Designer, an API Console, and the API Notebook, which allows developers to interact with an API. You can, therefore, model and test your API to ensure that it will be robust, easy to use, and long-lived. RAML is both machine and human readable - it is written in the YAML format, making it easy to read and easy to edit by all levels of technical background.

The RAML version we have used for our API services is **1.0**. More information about RAML can be found via these links below:

[https://github.com/raml-org/raml-spec/blob/master/versions/raml-10/raml10.md/](https://github.com/raml-org/raml-spec/blob/master/versions/raml-10/raml10.md) <https://www.mulesoft.com/resources/api/design-apis-easily-with-RAML>

4.1 HTTP headers

This table lists out all the http headers that should be passed in your Order API request, for both placing an order and tracking your order status.

Header name	Description	Data type	Mandatory	Example value
MWH-AppID	This is the client ID authentication credential issued to you during registration	String	Yes	VMB_07645
MWH-RequestID	An identifier, unique to each request/response message, which will be used to map log and error messages against a user's request. Recommendation is to use GUID.	String	Yes	b1321522- bfc5-4b04-8004- 4b21dc06e389
MWH-RequestTimestamp	Specifies the date and time a request was created	DateTime	Yes	2021-01-17T09:30:47Z
MWH-ChannelID	Identifies the channel which is making the request. Please use the example value input to populate this header.	String	Yes	WHOLESALE
MWH-CorrelationID	A unique identifier value that is attached to request/response message, referencing a particular transaction	String	No	M4981522- bfc5-4b04-8004- 4b21dc06e389
MWH-ClientSecret	This is the secret key authentication credential issued to you during registration	String	Yes	3c1fE3AA48CB46789D45Acc22c2601dB

MWH-UserId	This is the ID that which authorises your request within our pricing system and will be identical to an active username from your Engage customer account. This value will be emailed to you in addition to your clientID credential, during registration.	String	Yes	307451AkhtarA
MWH-OriginatorID	This is the API customer reference used to identify the request source. Please use your company name to populate this value.	String	Yes	VIRGIN_MEDIA_BUSINESS

4.2 HTTP response codes

API responses are classified into various HTTP status codes. The industry standard definition for all HTTP codes is available [here](#), on the World Wide Web Consortium (W3C) website.

In the context of our Wholesale Connect APIs, the key status code categories are described below.

HTTP Code	Description
200	You will receive HTTP200 for all success scenarios
400	All business errors have been mapped to HTTP400 error code for ease. E.g., Business error 10701 denotes "Site mismatch. Site <postcode> does not exist in the quote <quoteld>"
401	Invalid credentials. This error code indicates that the supplied clientId and secret have either been expired or incorrect.
500	Any system error or connectivity issues have been classified under HTTP 500.

5. Creating an Order

This section contains guidance about the service within the Order API that will enable you to create and place an order based on a given, pre-generated quote, raised either via our Wholesale Connect Quote API or via the Engage customer portal. We've ensured all the fields that are currently required and used within the Engage order placement journey, have been included in the JSON request and response, to place a successful order.

5.1 Products

This service will support creating orders for the following Virgin Media Business products and bandwidths:

National Ethernet

Access Circuit	Network Status	Access Circuit/Bearer Bandwidth	Circuit Bandwidth
National Ethernet	On-Net Off-Net	10Mbps; 100Mbps; 1Gbps; 10Gbps	10Mbps; 20Mbps; 30Mbps; 40Mbps; 50Mbps; 60Mbps; 70Mbps; 80Mbps; 90Mbps; 100Mbps; 200Mbps; 300Mbps; 400Mbps; 500Mbps; 600Mbps; 700Mbps; 800Mbps; 900Mbps; 1Gbps; 2Gbps; 3Gbps; 4Gbps; 5Gbps; 10Gbps

Ethernet Extensions

Access Circuit	Network Status	Access Circuit/Bearer Bandwidth	Circuit Bandwidth
Ethernet Extensions	On-Net	Not Applicable	10Mbps; 100Mbps; 1Gbps; 10Gbps

National High-Capacity Services (NHCS)

Access Circuit	Network Status	Access Circuit/Bearer Bandwidth	Circuit Bandwidth
NHCS	On-Net Off-Net	Not Applicable	10Gbps

Dedicated High-Capacity Services (DHCS)

Access Circuit	Network Status	Access Circuit/Bearer Bandwidth	Circuit Bandwidth
DHCS	On-Net	Not Applicable	10Gbps

5.2 Attributes and JSON structures

This section will contain the request and response attribute description tables for this API along with the request and response JSON structures for each product.

5.2.1 General request attributes

Object name	Attribute name	Type	Mandatory	Description	Value options
order	activity	String	Yes	Activity description. 'Submit' will submit a new order through your Engage customer account. 'Save' will save, but not submit, the order request to your Engage customer account.	SUBMIT; SAVE
order.user	engageUser	String	Yes	The Engage portal User ID you would like to use to submit your order	User specified e.g. '307251John'
order.customer	accountNumber	String	Yes	Your account number	User specified e.g. '345678'

	poNumber	String	No	Your Purchase Order number	User specified e.g. 'PO123445-ORD1'
order.quote	quoteId	String	Yes	The quote ID for the quote, with which you would like to place an order. This value is returned within your Quote API / Engage portal response	User specified e.g. 50904406
	productCode	String	Yes	The product code for the product you would like to submit an order request for. NE = National Ethernet EE = Ethernet Extensions NHCS = National High Capacity Services DHCS= Dedicated High Capacity Services	NE; EE; NHCS; DHCS
order.Service	orderType	String	Yes	Type of order. Default value is 'NEW'	NEW
	acceptEarlyDelivery	String	Yes	Indicates if customer can accept early delivery	Yes; No
	crmRefNo	String; 80	Yes	Customer generated order reference number	User specified
	serviceRequiredDate	Date	Yes	Order required by date must be a future date (yyyy-mm-dd)	User specified e.g. '2022-1030'
order.service.serviceAttribute	Please refer to the Service attributes table below.				
order.site	end	String	Yes	Site A-end or B-end	A; B

	postcode	String	Yes	Postcode	User specified e.g. E11AA
	siteId	String	No, unless both sites have the same postcode	Virgin Media Business site ID – included in Quote API JSON response	User specified
	additionalInfo	String (256)	No	Please use this attribute to enter any additional information you would like us to know about your order	User specified
order.site.site Attribute	Please refer to the Site attributes table below.				
promotions	promoCode	String; 225	No	Insert Promo Code	-

5.2.2 Service attributes

The attributes and value options shown in this table, should be used to populate the **order.service.serviceAttribute** 'name' and 'value' attributes in your request JSON structure. These attributes are mandatory for National Ethernet (NE) and Ethernet Extensions (EE) requests alone.

Attribute name	Datatype & length	Mandatory	Description	Value options
QosClassification	String	Yes	Quality of Service classification. Default value is 'Dot1P'	Dot1P
VlanTaggingScheme	String	Yes	Input 'C-VLAN' to request vLAN tagging, or 'Not required', if not required	C-VLAN; Not required
Below attributes are mandatory when the product is NE and the quote is created for MRI (Managed Router Install) i.e. when primaryRouter is specified.				
NocContactName	String		NOC Contact name	"John Lenon"

NocContactEmail	String		NOC Contact email	"john.lenon@email.com"
NocContactNumber	String		NOC Contact number	"07585624793"

5.2.3 Site attributes

The attributes and value options shown in this table, should be used to populate the **order.service.serviceAttribute** 'name' and 'value' attributes in your request JSON structure.

Attribute name	Datatype & length	Mandatory	Description	Value options
interconnectName	String	No	Identifier for interconnect configuration	-
physicalBandwidth	String	No	Physical bandwidth in Mbps	-
logicalBandwidth	String	No	Logical bandwidth in Mbps	-
bookedBandwidth	String	No	Bandwidth already booked	-
availableBandwidth	String	No	Remaining bandwidth available	-
partnerContactFirstName	String	Yes (for Site B)	First name of partner contact	-
partnerContactLastName	String	Yes (for Site B)	Last name of partner contact	-
partnerContactEmail	String	Yes (for Site B)	Email of partner contact	-
partnerContactPhone	String	Yes (for Site B)	Phone number of partner contact	-

engineerWithDBS	String	Yes (for Site B)	Indicates if engineer has DBS clearance (See Section 5.2.3.3 for more details)	Yes/No
MDUOfficeBlock	String	Yes (for Site B)	Indicates if site is an MDU office block (See Section 5.2.3.3 for more details)	Yes/No
SSRAMSorSecurityAccess	String	Yes (for Site B)	Indicates if SSRAMS or security access is (See Section 5.2.3.3 for more details)	Yes/No
WallMountedDeviceAtEntry	String	Yes (for Site B)	Is wall mounted device at entry? (See Section 5.2.3.3 for more details)	Yes/No
servicePresentation	String	Yes	The service presentation required	Port; VLAN
vLan	Integer; 4	Yes, if value above attribute is 'VLAN'	Your vLAN number	User specified
SEPI	String	Yes	Standard Ethernet Physical Interface	Please find the matching SEPI value in the SEPI table below. The value in the field is based on the circuit bandwidth that is specified in quote request.
Layer2Control	String	Yes	If Port to Port, do you require Layer 2 Control Protocol tunnelling? (Only applicable to B-end sites)	On (Standard Set); Off (discard everything); Bespoke (As agreed with sales); Not Applicable (not port to port)

ExistingService	String	Yes	Does this property have any existing Virgin Media Business services (excluding xDSL)?	New; Existing; Not Sure
PowerSupply	String	Yes	Please specify your power supply type	AC Power; DC Power
UseExistingNTU	String	No	Please specify the ID number for your NTU.	Yes; No
NTUId	String; 20	No	Please specify the ID number for your NTU. This field is required only if 'Existing' NTU is selected for above attribute.	User specified;
NTU	String;	No	Please specify the ONU number for your NTU (FTTP Only)	'ONU'
PortNumber	String	No	Which port number should the service be added to? If none specified, Virgin Media Business will select the next appropriate/available.	User specified
Floor	String; 255	Yes	On which floor should the equipment be installed?	User specified e.g. 'Ground Floor'
Room	String; 255	Yes	In which room should the equipment be installed?	User specified e.g. 'Comms Room'
Rack	String; 255	Yes	On which rack should the equipment be installed?	User specified e.g.

				'Cabinet mounted'
ContactFirstName	String; 255	Yes	Please provide contact details for the property contact	User specified
ContactLastName	String; 255	Yes	Please provide contact details for the property contact	User specified
ContactEmail	String; 255	Yes	Please provide details for a secondary property contact in the event that the primary contact is unavailable	User specified
ContactPhone	String; 255	Yes		User specified
SecondContactFirstName	String; 255	Yes		User specified
SecondContactLastName	String; 255	Yes	Please provide details for a secondary property contact in the event that the primary contact is unavailable	User specified
SecondContactEmail	String; 255	Yes		User specified
SecondContactPhone	String; 20	Yes	Were any of the buildings built, or refurbished prior to 2000?	User specified
AsbestosPre2000	String	Yes		Yes; No
AsbestosRegister	String	Yes (If 'AsbestosPre2000' is 'Yes')	Is there an Asbestos Register on site?	Yes; No
WayleaveOwner	String	Yes	Are you the owner of this property?	Yes; No
WayleaveYearsLeftForLease	String	Yes, if 'WayleaveOwner' is 'No')	How many years are left on your lease?	User specified
WayleaveAuthorityToMake Changes	String	Yes, if 'WayleaveOwner' is 'No')	Do you have authority to make changes internally to your building, including routing cabling?	Yes; No
WayleaveWillProvideCopy	String	Yes (If 'WayleaveLandlordDetailsKnown' is Yes)	Are you willing and able to provide a copy of your lease?	Yes; No
WayleavePropertyListed	String		Is the property a listed building?	Yes; No
WayleaveLandlordDetailsKnown	String		Do you have the Landlord/Managing Agent's contact details?	Yes; No

WayleavelandlordContactFirstName	String; 255		Please provide the Landlord/Managing Agent's contact details	User specified
WayleavelandlordContactEmail	String; 255	Yes (If 'WayleaveLandlordDetailsKnown' is Yes)	Please provide the Landlord/Managing Agent's contact details	User specified
WayleavelandlordContactTelephone	String; 20			User specified
<i>The fields below are only required if you are not a Wholesale sector customer <u>OR</u> if any of the order premises are serviced by BT Openreach or BT Retail</i>				
OloNumberDaysNoticeRequiredArrangingCustomerSiteAccess	String; 20	Yes	How much Notice (in number of days) is required for arranging access to the customer site?	User specified
OloThirteenAmpDoubleSocketWithinOneMetre	String	Yes	Is there a 13amp double socket within 1 metre?	Yes; No
OloCommsRoomAreaReadyForService	String	Yes	Is the comms room/area ready for service?	Yes; No
OloTelephoneLineWithinThreeMetres	String	Yes	Is there a telephone line within 3 metres?	Yes; No
OloHousingType	String	Yes	What is the housing type?	Cabinet; Desk; Wall mount
OloPowerSupplyType	String	Yes	Which power supply is required?	48V; 240V
OloNteChassisOption	String	Yes	What type of NTE is required?	1U Single Port NTE; 4U 15 Slot Modular
OloExistingBTFibreService AtSite	String	Yes	Is there existing BT fibre service at site?	Yes; No
OloCircuitReferenceExisting	String; 50	Yes (If	Circuit reference of the	User specified

BTFibreService	String; 50	'OloExisting BTFibreSer viceAtSite is 'Yes')	existing BT fibre delivered	
OloNewLocationSameAsOri ginalCircuit	String	Yes (If 'OloExisting BTFibreSer viceAtSite is 'Yes')	If quoting for a product on an existing service, is the new location the same as that for the original circuit?	Yes; No
OloSpecialRequirements	String; 3000	No	Please specify any special requirements we need to be aware of	User specified
OloThirdPartyAccessRequired	String	No	Is third party access required?	Yes; No
OloLandlordConsentGranted	String	No	Has the landlord's consent been granted?	Yes; No
<i>The fields below are only applicable for National Ethernet quotes involving a Managed Router Install (MRI)</i>				
RouterDetails_floor	String; 255	Yes (if MRI type quote with product code NE, and Primary router is not selected as 'Not Required')	On which floor should the router be installed?	User specified
RouterDetails_room	String; 255	Yes (if MRI type quote with product code NE, and Primary router is not selected as 'Not Required')	In which room should the router be installed?	User specified
RouterDetails_rack	String; 255		On which rack should the router be installed?	User specified
RouterDetails_wanIP	String; 255		Please specify the applicable WAN IP address(es)	User specified User specified
BackupRouterDetails_floor	String; 255	Yes (if MRI type quote with product code NE, and Backup router is not selected as 'Not Required')	On which floor should the backup router be installed?	User specified

BackupRouterDetails_room	String; 255	Yes (if MRI type quote with product code NE, and Backup router is not selected as 'Not Required')	In which room should the backup router be installed?	User specified
BackupRouterDetails_rack	String; 255		On which rack should the back-up router be installed?	User specified
BackupRouterDetails_wanIP	String; 255		Please specify the applicable WAN IP address(es) for the backup router	User specified

5.2.3.1 SEPI Circuit bandwidth matrix

Circuit Bandwidth	Possible SEPI value for NE product	Possible SEPI value for EE product
10MBPS	100Base-T RJ45	
100MBPS	100Base-T RJ45 1000Base-Sx MM 1000Base-Lx SM 1000Base-T RJ45	
1GBPS	1000Base-Sx MM 1000Base-Lx SM 1000Base-T RJ45	1000Base-LxSM 1000Base-SxMM 1000Base-TRJ45
10GBPS	10GBase-SR 10GBase-LR	10 Gbps LAN Phy - Optical SM 10 Gbps LAN Phy - Optical MM 10 Gbps WAN Phy - Optical SM 10 Gbps WAN Phy - Optical MM

5.2.3.2 SEPI Circuit bandwidth matrix (FTTP)

Circuit Bandwidth	Possible SEPI value for NE product	Possible SEPI value for EE product
1GBPS	RJ45 electrical 1G	-
2.5GBPS	RJ45 electrical 2.5G	-
10GBPS	RJ45 electrical 10G	-

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5.2.3.3 XGSPON Attribute Description

XGS Field	Description
Is the end customer site part of an MDU (Multi-Dwelling Unit) building (Yes / No)?	An MDU (Multi-Dwelling Unit) is a multi-tenant building with shared risers, ducts or comms spaces (e.g., multi-tenant offices, serviced offices, business centres).
2. Do you require an engineer who can present a valid DBS (Disclosure & Barring Service) certificate (Yes / No)?	A DBS (Disclosure and Barring Service) certificate is a document issued by the UK Disclosure and Barring Service which shows a person's criminal record. It is needed to work on sites where children or vulnerable adults may be found
3. A simple install will provide no internal cabling and will terminate a wall mounted ONU on the internal wall at the point of entry into the premise. Do you instead require further internal cabling to terminate the ONU in a different location within the building (Yes / No)?	Customers with a comms room or a comms rack will likely require further internal cabling
4. Will the installation site require SSRAMS (Site Specific Risk Assessment and Method Statement) or Security Access (Yes / No)?	A SSRAMS (Site Specific Risk Assessment and Method Statement) is a safety document created before work begins at a site, containing general and specific details like photos and planned activities. It helps engineers assess risks and plan a safe work environment.

5.2.4 Circuit configuration attributes

The below attributes are required only for NHCS or DHCS orders and will depend on the number of managed services required, as declared in your quote. The attributes and values shown in this table, should be used to populate the **circuitPresentation.circuitConfigAttributes** 'name' and 'value' attributes in your request JSON structure. Please refer to the JSON structure sections **5.5** and **5.6** for NHCS and DHCS.

Attribute name	Datatype & length	Mandatory	Description	Value options
clientInterface	String	Yes	Please select the client interface type	1310nm Single Mode; 850nm Multimode

connector	String	Yes	Please select the connector type	LC; FC; FC/PC
-----------	--------	-----	----------------------------------	---------------------

5.3 National Ethernet JSON structure

5.3.1 Request JSON structure

FTTP Example:

<https://github.com/VM-B2B-Wholesale-APIs/Order-APIs/blob/main/NE%20Order%20FTTP>

Response JSON structure

```
{
  "quoteld": "34743680",
  "customerld": "30745",
  "status": "SUBMITTED",
  "info": "Your order is currently being progressed. Please check back in 30 minutes for the status.",
  "fault": [
  ]
}
```

5.4 Ethernet Extensions JSON structure

Request JSON structure

<https://github.com/VM-B2B-Wholesale-APIs/Order-APIs/blob/main/EE%20Order>

Response JSON structure

```
{
  "quoteld": "34743681",
  "customerld": "30745",
  "status": "SUBMITTED",
  "info": "Your order is currently being progressed. Please check back in 30 minutes for the status.",
  "fault": [
  ]
}
```

5.5 NHCS JSON structure

Request JSON structure

<https://github.com/VM-B2B-Wholesale-APIs/Order-APIs/blob/main/NHCS%20Order>

Response JSON structure

```
{
  "quoteld": "34743683",
  "customerid": "30745",
  "status": "SUBMITTED",
  "info": "Your order is currently being progressed. Please check back in 30 minutes for the status.",
  "fault": []
}
```

5.6 DHCS JSON structure**Request JSON structure**

<https://github.com/VM-B2B-Wholesale-APIs/Order-APIs/blob/main/DHCS%20Order>

Response JSON structure

```
{
  "quoteld": "34743684",
  "customerid": "30745",
  "status": "SUBMITTED",
  "info": "Your order is currently being progressed. Please check back in 30 minutes for the status.",
  "fault": []
}
```

5.6 Business error response codes

Type	Code	Severity	Description
System	2020	Critical	Unexpected Error
System	2102	Critical	Backend Authentication System Error
Business	10007	Error	Schema Validation Error
Business	10008	Error	Field Validation Error
Business	10223	Error	Invalid User
System	10358	Error	Service time out

Business	10685	Error	Business exception
System	10686	Error	System exception
Business	10700	Error	Backend Field validation Error
Business	10701	Error	Backend Combination Fields validation Error
Business	10703	Warning	Backend Field validation Warning
Business	10706	Error	User does not have authorization for this activity.
Business	10707	Error	Order already exists for given quote.
Business	10708	Error	Customer does not have authorisation for this product.
Business	10709	Error	Missing mandatory product attribute for this product.
Business	10710	Error	The order contains duplicate site postcodes. It is mandatory for location identifiers to be provided.

Note: Additional error codes may be added to the above list. Once they are available they will be included in this document.

Additional error mapping

The following table lists additional detailed error code mapping which can be used for troubleshooting. The detailed error codes provide additional error details at field level.

Type	Code	Additional fault	Severity	Code	Description	Additional error details
System	2102	NA	Critical	AUTH0001	Invalid userid/credentials	none
Business	10223	NA	Error	USER0001	Invalid order.user.engage User. UserID must be active, and from a valid and active account for the organisation	none
Business	10706	NA	Error	USER0002	User does not have the authorisation	none

					on to raise an order	
Business	10700	quoteID	Error	QUOTE0001	Invalid order.quote.quotel d	quotel d
Business	10707	quoteID	Error	QUOTE0002	Order already exists for the given order.quote.quotel d	quotel d
Business	10700	customerID	Error	CUSTOMER00	Invalid order.customer.cus tomerId. This must match an active customer account in the Engage portal.	customerId
Business	10007	NA	Error	CUSTOMER00 02	Missing order.customer. acc ou ntNumber	none
Business	10708	NA	Error	CUSTOMER00 03	Customer not permitted to order this product	None
Business	10709	serviceAttribute.Name	Error	SERVICE0001	Missing ServiceAttribute VlanTaggingScheme - mandatory when product is 'NE' or 'EE'	serviceAttribute.Name
Business	10709	serviceAttribute.Name	Error	SERVICE0002	Missing or invalid ServiceAttribute QosClassification - mandatory when product is NE or EE	serviceAttribute.Name
Business	10700	customerOrder	Error	SERVICE0003	Unsupported	orderType
Business	10703	serviceAttribute.name serviceAttribute.value	Warning	SERVICE0004	ServiceAttribute <attribute name & value> ignored	<attribute name & value>

Business	10703	serviceAttribute.name serviceAttribute.value	Warning	SERVICE0005	ServiceAttribute <attribute name & value> not recognised	<attribute name & value>
Business	10007	NA	Error	SERVICE0006	Missing order.service.crmReference	none
Business	10700	orderRequiredByDate	Error	SERVICE0007	Invalid order.service.serviceRequiredDate. Please provide a date no earlier than the SLA date of <SLA date>.	<SLA date>
Business	10700	serviceAttribute.name serviceAttribute.value	Error	SERVICE0008	Illegal Service Attribute value <attribute name & value>. Expected format <format description>	<attribute name & value>
Business	10700	sites.postcode sites.locationID siteAttributes.name siteAttributes.value	Error	SITE0001	SiteAttribute validation error for site <postcode> - <detailed error including field name>	<postcode, siteId>
Business	10701	sites.postcode quoteID	Error	SITE0010	Site mismatch. Site <postcode> does not exist in the quote <quote ID>.	<postcode, quoteId>
Business	10700	NA	Error	SITE0011	Site mismatch. Site <postcode> is missing from the order request.	none
Business	10700	sites.postcode sites.locationID	Error	SITE0013	SiteAttribute <attribute name> not recognised.	<postcode, siteId, attribute name & value>

		siteAttribute s.n ame				
Business	10710	NA	Error	SITE0014	The quote contains duplicate postcodes. It is necessary for the client to pass in the siteld for each site to enable it to be identified.	none
Business	10700	sites.postcode sites.locationID siteAttribute s.n ame siteAttribute s.v alue	Error	SITE0015	Illegal SiteAttribute value <attribute name & value>. Expected format <format description>	<postcode, siteld, attribute name & value>

6. Track an Order

This section provides the necessary information needed to use the order tracking Order API service. This service will enable you retrieve the order ID, key status information and any ad-hoc status updates about new and existing orders placed through the Order API or through the Engage portal.

In relation to new orders placed through the Order API:

After receiving successful acknowledgement of your new order submission from the order placement

Order API service, your order details will then be stored in the back-end Virgin Media Business order management system, and the subsequent order automation background processes will be initiated.

The order placement Order API service will not wait for the completion of order workflow generation in the Virgin Media Business order management system to return immediate acknowledgement of success or failure. However, it may take a few minutes to complete the order workflow and retrieve the corresponding order ID.

To retrieve the order status and the order ID for the given quote, the customer system will need to call the order tracking Order API service. It's advised to leave a small delay of 10 or

15 minutes between calling the order placing Order API service and the order tracking Order API service (e.g., 10 or 15 minutes).

In some unexpected circumstances, an order submission to our order management system may fail. In such an event, an order ID will not be generated in the provisioning system, and manual intervention will be required to complete the order submission. The SLA for completing manual order entry could take up to 48 hours. So, if you don't receive the order ID within the first call (after 10 or 15 minutes), please call the following day to avoid having to make repeated calls.

6.1 Products

This API service will retrieve order status details for the following product orders:

- National Ethernet
- Ethernet Extensions
- National High Capacity Services
- Dedicated High Capacity Services

6.2 Request attributes & JSON structure

This API service has a single request body attribute – the quote ID corresponding with the order you would like to track.

Name	Mandatory	Data type & length	Sample values
quoteld	Yes	String	12008678

6.2.1 Request JSON structure

```
{
  "quoteld": "34748175"
}
```

6.3 Response attributes & JSON structure

6.3.1 Response attributes

Attribute name	Description
AccountName	Customer account name
CustomerContact	This will be the primary contact against the account
ProductName	Name of the product ordered
OrderManagerName	Name of the manager who owns the customer order
ProjectManagedOrder	Indicates if the order delivery is being managed as a project by a Virgin Media Business Project Manager

ProjectManagerName	Specifies the project manager's name (if the order is being managed as a project)
CustomerExecuteDate	Specifies the order completion date stamp, once the order has been completed
OrderID	Virgin Media Business Order ID
CancellationReason	If the order is cancelled, a cancellation reason will be shown in this field
CustomerID	Virgin Media Business order management system customer ID
QuoteId	Quote ID associated with the order
CustomerOrderReference	Displays customer order reference if one has been created during order placement
A_End_Address	A-end site address
B_End_Address	B-end site address
A_End_Country	Default value will be United Kingdom
B_End_Country	Default value will be United Kingdom
A_End_Postcode	A-End site postcode
B_End_Postcode	B-End site postcode
A_End_UPRN	A-End Unique Property Reference Number
B_End_UPRN	B-End Unique Property Reference Number
JeopardyStatus	Value will be 'Red', 'Amber' or 'Green'. If 'Red', the order delivery has been blocked from progressing e.g. due to wayleave issues; customer delay (e.g. while waiting for customer approval for excess costs) etc. If 'Amber', order delivery is in progress but past its initial due date If 'Green', order delivery is on track for delivery by initial due date
JeopardyReason	This will display the reason code from the order management system, which will be accompanied by an email to the customer, each time the code is updated.
OrderActions	OrderActions is an object which contains multiple sets of variable values. It denotes the progress of the order till date. The table below shows the variable values that will be displayed through this object.

OrderActions response attributes

Attribute name	Field description
----------------	-------------------

OrderUpdate	This will have variable values and will be automatically updated based on order stage - New KCI Welcome KCI Progress KCI Delivery KCI Confirm KCI Adhoc/Jeopardy Change KCI Close (KCI = keep customer informed [stage])
	<i>Each KCI update will confirm the completion of the corresponding KCI stage and readiness to proceed to the next KCI stage, e.g. 'KCI Welcome' will confirm that a Service Delivery Co-ordinator has been assigned, and the site survey booked.</i>

	KCI stage definitions (what each stage update represents) KCI Welcome will provide confirmation that the following steps have been completed: <i>the order has been received, validated against the customer contract and loaded into the delivery workflow</i> <i>the site survey has been booked</i> <i>the PTW (Permission to Work form: a one-page document which needs to be signed to allow Virgin Media Business to install their services at the customer site) has been sent</i> <i>site contact details have been checked</i> KCI Progress will provide confirmation that the following steps have been completed: <i>a CEB (Cost Exceed Budget: costs that have been identified which take the order over budget and need approval before the order can progress) has been confirmed, if relevant checks have been made to confirm whether there is a wayleave required the Customer E-Pack has been sent</i> KCI Delivery will provide confirmation that the following steps have been completed: <i>the order has moved into Delivery a Category of Work has been provided a Customer Promise Date has been provided</i> KCI Confirm will provide confirmation that the following steps have been completed: <i>the service installation date has been provided</i> Ad-Hoc KCI: this KCI will display ad-hoc updates from your Service Delivery Coordinator, in-between KCI stages. These updates will be more frequent where completion of a KCI stage has been delayed or where more information is needed. KCI Close will provide confirmation that the following steps have been completed:
--	---

	<i>confirmation that the service has been successfully installed and is now live</i> <i>confirmation of live service handover</i> <i>confirmation that the BIS (Brought Into Service) certificate and any other relevant handover documents have been provided</i> <i>The KCI Close stage is also the Ready for Bill trigger</i>
KCI Description	This will display the KCI email body text currently shared with customers through our order management system.

6.3.2 JSON Response structure

<https://github.com/VM-B2B-Wholesale-APIs/Order-APIs/blob/main/Order%20Status%20Response>

7. RAML and Postman collections

We have made it easier for you to start testing with our Staging server by pre-compiling a set of sample test cases, in the form of a Postman collection.

7.1 RAML & Sample test cases

The Postman collection contained in this [Git Repo](#) will help you integrate your application with our Order API.

7.2 Postman instructions

Follow the steps below to set-up your Postman application for use of our sample Postman collections. These can be used to fire sample API requests and responses:

Step 1: If you don't already have the Postman application, please [download](#), and install the free tool onto your desktop/laptop device.

Step 2: Import the *postman file* by clicking the **'Import'** button on the Postman tool, shown in the bottom, centre-left section of the image below. Alternatively you can drag the file into the Postman UI.

Step 3: Click on the **'Headers'** section in the top menu of the tool (as highlighted in the image below) and select *fill out the AppID and ClientSecret* with the staging credentials provided to you.

B2B-WholeSaleMigration / exp-ws-order / /orders/creation / Success Cases / 200-Success

POST https://gw-vip-n.gcp.virginmediao2.com/stg1/exp-ws-order/v1/orders/creation

Params Authorization Headers (17) Body Scripts Settings Cookies

☒	MWH-RequestID	fa416313-db92-47b7-a171-56e5f22f46fb
☒	MWH-RequestTimestamp	2022-12-17T09:30:47Z
☒	MWH-AppID	
☒	MWH-ClientSecret	

Step 4: Now, click on the **'Body'** button and fill in the necessary fields/attributes.

B2B-WholeSaleMigration / exp-ws-order / /orders/creation / Success Cases / 200-Success

POST https://gw-vip-n.gcp.virginmediao2.com/stg1/exp-ws-order/v1/orders/creation

Params Authorization Headers (17) Body Scripts Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```

1 {
2   "order": {
3     "activity": "SUBMIT",
4     "user": {
5       "engageUser": ""
6     },
7     "customer": {
8       "accountNumber": "926029",
9       "poNumber": "P-00116"
10    },
11    "quote": {
12      "quoteId": "41825672",
13    }
14  }
15 }

```

Step 5: Now, click submit. If you face any issues, like a 404 error or a 500 error, please first check your credentials and URL is correct. If it still does not connect, please contact WholesaleDigital@virginmediao2.co.uk.

*If you have any questions, please get in touch with our **Wholesale Digital** team via your Account or Service Manager.*

8. Incident and change management

This section outlines the API incident and change management processes associated with our Wholesale Connect Quote API service.

8.1 Incident management process

It's crucial that we work together to resolve issues as quickly as possible when they arise.

When raising an issue with your API service, it's important that we receive:

- the input request data (contained within the JSON structure);
- the output response data (contained within the JSON structure);
- your Engage customer ID;
- your customer name registered on the service; and
- any other associated detail relating to a specific order(s).

This information can be sent by email to your Account Manager.

Having this information available to analyse, will speed up the troubleshooting process and help us get to the root cause quicker.

Although our API support team has a 5 working day SLA for incident resolution, we will aim to resolve your issue as quickly as we can.

To minimise the impact to your business - while awaiting the resolution of your issue - please use our [Engage customer portal](#) to continue generating pricing and serviceability quotes.

8.2 Change management process

Should you be planning any changes to your IP network configuration, please do notify us in advance so that we can whitelist any new IP addresses on our authorisation and authentication platform. We don't want you to lose connectivity, but it will not be possible to gain connectivity to the service for any IP addresses that haven't been whitelisted by us.

9. Frequently asked questions

Based on feedback from our prospective and current API users, we have collated some frequently asked questions and answers, you may find helpful:

Q. Do I need to register separately for these services?

A. No. One of the benefits of our Wholesale Connect API Gateway, is the one-time registration process. Once you've been registered for a Wholesale Connect API service, the same authentication credentials generated for that service, can be used to access all subsequent Wholesale Connect API services. That said, please notify us once you are ready to integrate any additional API services, so we can add the relevant service to your client account on our API platform. Without this step, you won't be able to access the API environments for that service.

Q. When I place my order, why is the price I am quoted sometimes different to the price in my initial quote?

A. To provide accurate pricing, we encourage each Wholesale Connect Quote API user to incorporate UPRN within their interface. UPRN is a unique premise identifier reference, assigned by the Ordnance Survey to identify every premise throughout the UK. This identifier enables pricing at a premise level which ensures accuracy.

If UPRN isn't incorporated, pricing will be based upon generic information such as street name or post code which offers less accuracy of site serviceability. In such instances and upon converting a quote, our Order API or Engage portal will then convert to a premise level price which may differ to what was originally provided, based on varying factors impacting the serviceability of the exact premise.

Q. Is there a more efficient way of integrating the UPRN data?

A. We are currently looking into integrating an Ordnance Survey API directly into our Quote API, which will give users integrated access to Ordnance Survey, Royal Mail and local authority address data (including UPRN data) for increased accuracy and efficiency. We will provide updates to our API partner base as this progresses.

Q. Will VMB provide support to develop or maintain an external user interface?

A. Our support team is always ready to help, if there are any queries relating to our Wholesale Connect API service or JSON code. As every user interface is unique, we do not offer a specific service around development and maintenance of external interfaces.

Q. Are there more API capabilities coming soon?

A. Yes! We're currently developing a suite of network fault management APIs. If you would be interested in being an early adopter, please contact us at WholesaleDigital@virginmediao2.co.uk to let us know. We also have a [public API roadmap on Trello](#), which shows more upcoming API features we're investigating. We'd love your feedback, so please create a free account on Trello to vote, comment on, or watch any of our API feature cards, for updates!

We're always open to feedback! Whether we've missed out information you think would be useful to know, something doesn't make sense, or something simply doesn't look right, within this user guide please email us at WholesaleDigital@virginmediao2.co.uk to let us know!