Switched E-Line APIs User Guide

Welcome to Verizon's Switched E-Line API Services!

Verizon's Switched E-Line APIs provide a system-to-system interface that enables true end-to-end business process integration between customers' internal applications and Verizon's enterprise network management applications to perform Product Offer Qualification (POQ) services, Quotes, and Orders. Switched E-Line APIs services share a common infrastructure with the Digital Connect site, allowing customers to work across a choice of access methods with Verizon's operational support systems (OSS) to provide a variety of automation and self-service capabilities. Switched E-Line APIs are focused on automating a customer's high volume business transactions with Verizon.

Switched E-Line API services utilize standards-based technologies to allow system-to-system access from the customer to Verizon's back office. This document will provide the following critical information for customers who are using Switched E-Line APIs to Verizon:

- Key contact information, including Switched E-Line APIs Help Desk
- Description of Verizon processes, procedures, and responsibilities for reporting Switched E-Line API issues
- Notification steps for unplanned maintenance windows and updates
- Description of what a customer can expect during an outage
- Responsibilities during an outage occurring within a customer's network
- Support for changes in the customer's system(s)

Each topic is addressed in more detail below, and all are critical to a customer's success in utilizing these Switched E-Line API services.

API Details

The details on each specific API are available online at Digital Connect.

The APIs are intended for sequential use:

- 1. The productOfferingQualification request should be completed to obtain parameters required for a Quote.
- 2. Then the quote request should be completed to obtain parameters necessary for ordering.
- 3. Then the productOrderQuest request may be submitted with valid data.

Mapping MEF Use Cases and API Calls

The PoQ Use Cases are described in MEF 79

#	MEF Use Case	API call at <u>Digital Connect</u>
6	Create Product Offering Qualification	<u>productOfferingQualification</u>
7	Retrieve POQ List	productOfferingQualificationRetrieval
8	Retrieve POQ by Identifier	<u>ProductOfferingQualificationById</u>
5	Register for POQ Notifications	registerPoqNotification
9	Notify of POQ State Change	poqNotification

The Quote Use Cases are described in MEF 80

#	MEF Use Case	API call at Digital Connect
1-a	Create Quote (immediate)	<u>quote</u>
1-b	Create Quote (deferred requested & Provided)	Not Supported

1-c	Create Quote (deferred requested but immediate provided) quote	
2	Retrieve Quote List	<u>quoteRetrieval</u>
3	Retrieve Quote by Identifier	<u>quoteById</u>
4	Cancel Quote by Identifier	Not Supported
5	Decline Quote by Identifier	Not Supported
6	Register for Quote Notification	registerQuoteNotfication
7	Send Quote Notification	quoteNotification

The Order Use Cases are described in MEF 57.2.

#	MEF Use Case	API call at <u>Digital Connect</u>
1-a	Create Product Order (Install)	<u>productOrderByQuote</u>
1-b	Create Product Order (Change)	Not Supported
1-c	Create Product Order (Disconnect)	disconnect
2	Update Product Order by Product Order Identifier	Not Supported
3	Retrieve list of Product orders	<u>productOrderList</u>

4	Retrieve Product Order by Product Order Identifier	<u>productOrderById</u>
5-a	Modify Product Order Item Requested Delivery Date (expedite)	modifyProductOrderItemRequested DeliveryDate
5-b	Modify Product Order Item Requested Delivery Date (requested completion date request)	modifyProductOrderItemCompletionDateById
6	Retrieve Modify Product Order Item Requested Delivery Date List	modifyProductOrderItemCompletionDateForOrder
7	Retrieve Modify Product Order Item Requested Delivery Date by Modify Product Order Item Requested Delivery Date Identifier	<u>requestDueDateChange</u>
8	Cancel Product Order	requestToCancel
9	Retrieve List of Cancel Product Orders	cancelProductOrderList
10	Retrieve Cancel Product Order by Cancel Product Order Identifier	cancelProductOrderById

 11-a	Initiate Charge (Product Item)	initiateCharge
11-b	Initiate Charge (Modify	not supported
11-c	Initiate Charge (Cancel)	not supported
12-a	Respond to Charge (Product order Item)	<u>chargeResponse</u>
12-b	Respond to Charge (Modify)	<u>chargeResponse</u>
12-c	Respond to Charge (Cancel)	<u>chargeResponse</u>
13	Retrieve list of charges	chargeResponseList
14	Retrieve Charge by Charge Identifier	<u>chargeResponseById</u>
15	Register for Notifications	registerOrderNotifications
16	Send Notification	orderNotification
17	Disconnect Acknowledgement Confirmation Request	(VZ Extension) acknowledgementConfirmationRequest
18	Disconnect Confirmation	(VZ Extension) disconnectCustomerConfirmation

Notifications

The MEF APIs support a notification feature that generates API notifications based on events in the MEF state model. It is necessary for the user to request a subscription for API notifications before they can be received. There are separate APIs requests in PoQ, Quote and Order. This enables notifications to be turned on or off for PoQ, Quote and Order state change. Notifications are asynchronous events. In the event of a failure in the customers systems, there is no retrieval mechanism for requesting the resending of past notifications. Customers always have access to other API calls that allow the synchronous retrieval of current status of their API requests for PoQ, Quote or Order.

Customers should note that they are required (by MEF 57.2 Requirement [106]) to subscribe to notifications for chargeCreateEvent. Refer to the associated <u>API documentation</u> for specific details on notification subscription procedures.

Modify Due Date Request

The MEF API supports a Change request for the Due date. If the Due Date change request is accepted by Verizon, additional charges may be incurred for any expedite per the contract. Those additional charges must be confirmed within 24hrs or the change will lapse and the order will proceed with the original due date.

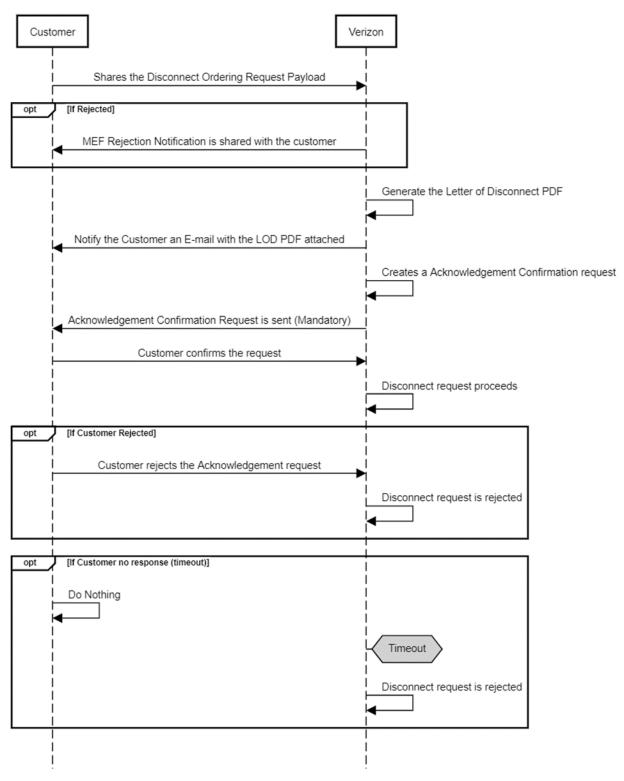
Cancel Request

The MEF API supports a Cancel request for product orders. Customers should note that the entire product order in the cancel request must be able to complete, or the Cancel request will be rejected and the product order will continue as originally requested.

Disconnect

The MEF API supports a Disconnect request. Services being disconnected will only be processed if there are no dependencies. To avoid unplanned outages, Verizon will send a Letter of Disconnect via email to confirm the disconnect request. The flow diagram below shows the Disconnect Request sequence.

Disconnect Ordering Sequence Diagram



The parameter "buyerOrderContact" is mandatory in the MEF API Disconnect request in order to properly direct the Letter of Disconnect. The MEF API will also generate a request via the API for the customer to confirm the disconnect. The customer may confirm or reject the disconnect

confirmation request. If the customer does not respond via API within 2 days of the disconnect confirmation request, then the disconnect operation will not proceed. Customers should note that an early disconnect may result in termination charges per the existing service contract.

Key Contact Information

Below is a list of contact information for key organizations within Verizon that support the E-Line (Switched) API services. Roles and responsibilities within each area are detailed in subsequent sections of this document.

Verizon Enterprise Center Help Desk (VEC HD)

The fastest and easiest way to request help is via the "Contact Us" tab on the <u>Digital Connect Home page</u>.. This opens a form to request support.

If you experience problems with the "Contact Us" tab, your next level of support is to report a Switched E-Line API issue by calling the Verizon Enterprise Center Help Desk:

- +1800-569-8799
- Hours of operations are from 9 AM ET to 6 PM ET, Monday through Friday.
 - To report a Switched E-Line API outage after-hours, please leave a voicemail message providing callback details and mark the message as "urgent".
 - A Tier 2 representative of the Verizon Enterprise Center Help Desk will be notified and will return the call within 30 minutes.

Procedures for Reporting Issues

The following section describes processes and procedures for reporting issues with Switched E-Line API Services. This applies to all Switched E-Line API services.

Reporting All Switched E-Line API Issues

Upon discovering an issue between the customer application and Verizon enterprise backend applications, the customer should notify the Verizon Enterprise Center Help Desk. When calling, please specify that the issues are related to Switched E-Line API services. See the Verizon Enterprise Center Help Desk (VEC HD) section above for contact information.

During normal business hours, you will reach the Verizon Enterprise Center Help Desk Tier 1 team. Please remain on the line while a ticket is created. The ticket and call will be transferred to a Tier 2 representative.

The Verizon Enterprise Center Help Desk Tier 1 representative answering your call will need to obtain the following details for prompt ticket creation:

- Switched E-Line API Customer Company Name
- Contact Name, Telephone, and email address
- · Brief description of the problem

The Ticket will be opened and the call will be transferred. Please provide as many of these additional details to the Verizon Enterprise Center Help Desk Tier 2 representative as possible:

- Specific examples of events that did not function properly
- Error details, including timestamps, should also be emailed directly to the Verizon Enterprise Center Help Desk Tier 2 rep assigned.

The Verizon Enterprise Center Tier 2 Help Desk is aware of all customers who have implemented Switched E-Line APIs to Verizon. The Tier 2 team is trained on common customer problems and decision trees to engage appropriate staff. To escalate an issue that is not addressed to your satisfaction, please ask to speak to the supervisor on duty.

The Verizon Enterprise Center Tier 2 Help Desk Representative will be responsible for providing all status updates and will manage customer issues to resolution.

Alternate Tools during Unplanned Outages

During an unplanned outage, customers have alternate methods of communicating with Verizon for critical issues. These are detailed below.

Trouble Management

To report a trouble ticket or check on the status of an existing trouble ticket, call the Verizon Enterprise Solutions Service Center. Verizon suggests that while the interface is down, customers open the ticket as usual in their systems. Customers should provide the Customer Ticket Number to the Verizon Enterprise Solutions agent when calling in the ticket.

This will help alleviate duplicate ticket creation when the Switched E-Line APIs interface is restored.

Customer System Outage Notification

To help mitigate service interruptions, Verizon should be notified of customer system maintenance, as well as planned and unplanned outages. This allows the Switched E-Line APIs support team to take appropriate action as required.

Planned Outages of Customer Applications

Please notify Verizon promptly of planned outages via the Digital Connect "Contact Us" form including a contact phone or email address should Verizon need to request any additional information regarding the outage.

Unplanned Outages of Customer Applications

As with planned outages, please notify Verizon of all unplanned outages when they occur that affect the Switched E-Line APIs' interface. This action is necessary so that the Verizon Enterprise Center HD can alert backend applications that may encounter timeout errors due to the customer's system outage.

Please notify Verizon promptly of unplanned outages via the Digital Connect "Contact Us" form, including a contact phone or email address should Verizon need to request any additional information regarding the outage.

Thank you for choosing to use Verizon's Switched E-Line API services!