

VERSION 1.5

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API Document

**Fenix Commercial Interface
Implementation for FMS TOS**

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Version History:

S.No	Version	Date	Description	Editor
1	1.0	02-15-2021	Document Created	Burt Kandel
2	1.1	06-04-2021	Added Container Availability specifications, Updated the Priority description to include in yard containers, Added VIP service workflow diagram	Burt Kandel
3	1.2	08-03-2021	Minor changes to the vip service descriptions for ease of understanding	Burt Kandel
4	1.3	08-04-2021	Added sample of "Cancel" request for a VIP service	Burt Kandel
5	1.4	09-30-2021	Updated pre-advice with dual appointment functionality and added SCAC code to VIP requests	Burt Kandel
6	1.5		Updated Introduction, removed VIP section, and added Booking Inquiry	Burt Kandel

Introduction

In this document, you will learn about the different Fenix services that Fenix Commercial Interface (FCI) provides to our partners, as well as providing steps on how to access and use these features.

First, we have “Trucker Pre-Advice”. This service allows users to pre-lodge truck information, such as the SCAC code and truck license plate, to automatically go through the ingate. By doing this, you will save time for both the trucker and the terminal.

Second, we have “Container Availability”. With this feature users can query for information about a container. The FCI will respond back with information such as a container’s last move, appointment status, last free day, etc.

Finally, we have “Booking Inquiry”. This feature allows users to query for information about a particular export booking. The FCI will respond to the request with information such as the ISO code, quantity on containers, etc.

Fenix Web Service API

The web service in general refers to a standardized way of integrating different applications hosted over a network. In Fenix, the web service always represents SOAP based services which complies to the WSDL standards. Third party systems can make use of the below service available for integrating with Fenix.

1. argo-service.wsdl – genericInvoke Web Service used for Gate, ICU, HPU.
FMS UAT: [Link will be provided separately]

Pre-record Truck details - Web Service for Appointment update

FMS provides a custom WS request to perform updates to appointments in Fenix. Vendors can use this request to make updates to the truck's information. The request will replace the dummy data for the truck license plate number and the trucking company that is used may have been used during the initial appointment creation or if changes are needed. On successful update of the Appointment, a response message will be sent to the Agent.

Message Structure

The Update appointment request is identified by the root element **custom** with two attributes, class as "FMSAppointmentWSHandler" and type as "extension". The naming conventions and node elements are mentioned below.

note: When doing a dual appointment, the appointment-identity ctrNbr must always be the import container, with the dropoff-container be the export.

Tag	Data Type	Purpose	Sample Data
appointment	node		
appointment-identity	node		
ctrNbr	attribute	Container number in Fenix as an identifier.	TRLU4859943
type	attribute	Transaction type of the Appointment that requires update. - PICKUP (Delivery transaction) - DROPOFF (Receive transaction)	PICKUP
apptNbr	attribute	Appointment number in Fenix as an identifier.	1072695
extRefNbr	attribute	External reference number of the appointment in Fenix as an identifier.	FTA1233314
properties	node		
property	node		
tag	attribute	The Property name of the appointment that needs to be updated in Fenix	ApptTruckLicenseNbr
value	attribute	The Property value of the appointment that needs to be updated in Fenix	ZZ158

Properties

Following are the properties that can be passed in the **property** tag of the incoming request. These are the attributes for which the updates will be performed.

External Tag	Description	Sample Input
ApptTruckLicenseNbr	License Plate of the Truck to be updated in Appointment.	9F51521
ApptTruckId	(Optional) Truck Id to be updated in Appointment.	107509
TruckingCompanyIdRef	A Unique id for the Trucking Company to update in Appointment.	AAAD
ApptSealNbr1		13045148
ApptSealNbr2		P1151853
ApptSealNbr3		27116147
ApptSealNbr4		11479068
ApptNotes		Updating Appointment details from ABC

Dual Appointments Pre-Advice Requests:

Following are the attributes for the “dropoff-container” tag that is used for dual appointments.

External Tag	Purpose	Sample Input
type	The dropoff type DOM - Drop Off Empty Appointment DOE - Drop Off export Appointment	DOM
ctrlId	Dropoff container number in Fenix as an identifier.	APZU9897969

Sample Request of Single Import Pre-Advice:

```

<custom class="FMSAppointmentWSHandler" type="extension">
<iau>
  <appointment>
    <appointment-identity ctrNbr="TRLU4859943" type="PICKUP" apptNbr="1072695"
extRefNbr="11588">
      </appointment-identity>
    </appointment>
    <properties>
      <property tag="ApptTruckLicenseNbr" value="XZ1158"/>
      <property tag="TruckingCompanyIdRef" value="AAAD"/>
    </properties>
  </iau>
</custom>

```

Request Sample of Dual Appointment Pre-Advice:

```

<custom class="FMSAppointmentWSHandler" type="extension">
<iau>
  <appointment>
    <appointment-identity ctrNbr="TRLU4859943" type="PICKUP" apptNbr="1072695"
extRefNbr="11588">
      </appointment-identity>
    </appointment>
    <properties>
      <property tag="ApptTruckLicenseNbr" value="XZ1158"/>
      <property tag="TruckingCompanyIdRef" value="AAAD"/>
      <property tag="ApptSealNbr1" value="P1151853"/>
    </properties>
    <dropoff-container type="DOM" ctrlId="APZU9897969"/>
  </iau>
</custom>

```

Note:

The appointment is identified in Fenix by the *apptNbr* or *extRefNbr* (*apptNbr* takes precedence). If the *apptNbr/ extRefNbr* in the request is invalid or if the request does not have the appointment identifier, the second level of search will be based on the Container number and transaction type combination.

- If Fenix receives a request with type="PICKUP", the next pending Delivery Appointment created for container <ctrNbr> will be updated.
- If Fenix receives a request with type="DROPOFF", the next pending Receiving Appointment created for container <ctrNbr> will be updated.

One of the three identifiers is sufficient for Fenix to process the request.

Sample Response:

If the request is processed successfully, the below response will be generated, with status code "1"

```
<?xml version="1.0" encoding="UTF-8"?>
<argo-response status="1" status-id="INFO">
  <messages>
    <message message-id="APPT_DETAILS_UPDATED" message-severity="INFO"
message-text="Appointment details updated successfully." />
  </messages>
  <argo:custom-response xmlns:argo="http://www.navis.com/argo" />
</argo-response>
```

Error Response:

If the request fails, a response with status code "3" and status-id "SEVERE" will be sent back.

```
<?xml version="1.0" encoding="UTF-8"?>
<argo-response status="3" status-id="SEVERE">
  <messages>
    <message message-id="ERROR_APPOINTMENT_FOR_ID_DOES_NOT_EXIST" message-severity="SEVERE"
message-text="No appointment with id '112' exists for the facility." message-detail="No appointment with
id '112' exists for the facility." />
  </messages>
  <argo:custom-response xmlns:argo="http://www.navis.com/argo" />
</argo-response>
```

The naming conventions and node elements for the service completion message is below.

Tag	Data Type	Purpose	Sample Data
appointments	root node		NA

mode	attribute	Represents the VIP mode. Listed below are the applicable modes that will be sent in response. -create -update -cancel -expiry -gate-out	create
appointment	node		
gate-id	attribute	Gate Id for which the appointment was created in N4	MAIN
appointment-nbr	attribute	The unique Id generated in N4 on creation of appointment	23141
external-ref-nbr	attribute	The reference number to identify this gate appointment	E11588
service	attribute	Type of VIP that the client had subscribed to in N4.	EXPRESS
tran-type	attribute	The type of transaction for which the appointment is made for.	Pick Up Import
ctr-id	attribute	The id of the container for which this appointment is made.	CMAU1290824
license-nbr	attribute	The truck license number to identify the truck for this appointment.	ZZ1158
trucking-co-id	attribute	The trucking company defined this appointment. Hone will create an Appointment with a Fake SCAC.	HONE123
pin-nbr	attribute		3211
appointment-slot-start	attribute	Appointment slot start time.	2021-01-13T00:00:00
appointment-slot-end	attribute	Appointment slot end time.	2021-01-13T00:29:00

Below is the sample response message that will be sent from Fenix to the Partners. This message will be sent out from Fenix to the respective Agent on gate-out, Appointment creation, Appointment Expiry, Appointment usage and cancellation of Appointment. The mode for each trigger will differ as defined in the message structure. For instance., If the Appointment created by the VIP service has expired without usage, the response will be sent with mode="expiry".

```
<fci>
<appointments mode="create" activity-time="2021-01-13T00:00:00">
```

```

<appointment gate-id="MAIN" appointment-nbr="23141" external-ref-nbr="11588"
service="EXPRESS" tran-type="Pick Up Import" ctr-id="CMAU1290824" license-nbr="ZZ158"
trucking-co-id="AAAD"
pin-nbr="9054" appointment-slot-start="2021-01-13T00:00:00"
appointment-slot-end="2021-01-13T00:29:00">
</appointment>
</appointments>
</unit/>
</fci>

```

The above message will be sent on the following triggers, the mode will change for each trigger.

- create
- update
- cancel
- expiry
- gate-out

FMS Container Availability Specification

Availability API

Container Availability is used to provide your customers with the status of their container. This api call will respond back with many parameters that are pertinent to your customer (view Response Parameters below).

Request to Fenix UAT

[\[Link will be provided separately\]](#)

SI No	Parameter Name	Description	Value
1.	ExtensionName	Name of the Code Extension.	FenixCheckCtrAvailability
2.	OperatorId	A single client who uses the system at the highest level of the organizational hierarchy.	FMS
3.	ComplexId	Two or more facilities that function as one business unit. They share reference data, containers, bookings, and other business information. An operator can have multiple complexes.	USSPQ
4.	FacilityId	A terminal, including its yards. A complex can have multiple facilities.	FMS

5.	YardId	A discrete area in a facility. A facility can have multiple yards.	FMS
6.	FilterName	N4, a set of criteria that you define to limit the data that is displayed in a list view. For example, in the Units view, you can create a filter to display only the import containers.	UNIT_FINDER_QUERY
7.	CTRNBR	ID of the selected Container.	Sample -CMAU2164395,TTNU1153492

Note – CTRNBR is the only parameter to be updated in the Request.

RESPONSE Parameters:

SI No	Parameter Name	Description	Sample
1.	Last Move	A crane/vessel productivity metric. At vessel level, the latest of the last move times of all the cranes that worked on the vessel.	21-May-03 0433
2.	Unit Nbr	ID of the requested unit.	TCNU1654280
3.	Type ISO	A code that was established by the International Standards Organization (ISO) to describe equipment. For example, an ISO code of 2200 denotes a 20' long, 8' 6" high, general purpose container without ventilation.	45G1
4.	Frght Kind	The status of a unit, based on its contents: <ul style="list-style-type: none"> ● Empty: Empty container ● FCL: Full Container Load ● LCL: Less-than Container Load ● B-bulk: Break-bulk 	FCL
5.	Category	A legal designation or classification of a unit, such as Domestic, Export, Import, Storage, Through, or Transship.	Import
6.	V-State	A broad state that N4 uses to indicate when a unit is active for a particular facility in a complex. Visit states can be any of the following:	Active

		<p>1. Advised: A unit that is incoming but not certain to arrive at the facility, such as a unit created via an EDI message. A unit in the Advised state is not visible in XPS.</p> <p>2. Active: The current live use of a unit for a facility. The unit can be located on an inbound carrier, in the yard at the facility, or on an outbound carrier. A unit in the Active state is visible in XPS.</p> <p>3. Departed: A unit that departed a facility on an outbound carrier. The unit is not located at the facility and is not visible in XPS.</p> <p>4. Retired: A special state that indicates that the unit visit life cycle ended at the facility.</p>	
7.	T-State	<p>A state for a unit that N4 uses to describe the status in the terminal. Transit states can be any of the following:</p> <p>1. Advised: Is incoming but not certain to arrive.</p> <p>2. Inbound: Is incoming and located on an inbound carrier.</p> <p>3. EC/In (or EC-In): Is incoming and at the facility. For example, a unit that is in a queue and waiting for the equipment control in XPS to place it in the yard.</p> <p>4. Yard: Is in a specific position in a yard in a facility.</p> <p>5. EC/Out (or EC-Out): Is in a queue at a facility and waiting for the equipment control in XPS to deliver it.</p> <p>6. Loaded: Is loaded on an outbound carrier.</p>	Yard

		<p>7. Departed: Departed on an outbound carrier.</p> <p>8. Retired: Is in a special state to indicate that the unit visit life cycle ended at the facility.</p>	
8.	Position	<p>The place of a unit in a facility. Position has the following components:</p> <ul style="list-style-type: none"> o If the Unit is in Yard and in a Wheeled Location – Wheeled o If the Unit is in Yard and in a Grounded Location – Grounded <p>If the Container is not in Yard, below format will be applicable.</p> <p>Location Type: The location of the unit or equipment, which can have only one of the following values:</p> <ul style="list-style-type: none"> o T: Truck if the unit or equipment is on a truck o R: Rail if the unit is on a train o V: Vessel if the unit is on a vessel <p>Location ID: Additional details for the location, or one of the following:</p> <ul style="list-style-type: none"> o Carrier visit ID if the unit is on a truck, vessel, or train. o Yard block if the unit is in the yard. <p>Location slot if applicable</p>	Grounded
9.	Line Op	A business that operates ships that it may or may not own. In relation to equipment, it is the shipping line responsible for the equipment.	CMA
10.	I/B Declared Carrier Mode	The carrier mode of transport, such as truck, vessel, or train, for the declared inbound carrier visit. Used when the declared inbound carrier mode the carrier visit is unknown, but the mode of arrival is known.	Vessel

11.	O/B Actual Mode	Outbound carrier mode of transport, such as truck, vessel, or train, for the actual inbound carrier visit	Truck
12.	POD	The routing point where a unit is expected to be discharged from the declared outbound carrier visit that takes the unit away from the complex.	SPQ
13.	Storage Charges	Pending charges owed for the Unit in consideration.	1200
14.	Impediments:Road	A list of active holds and required permissions for service business rules that are associated with a gate event, such as a delivery event, for a unit.	CUSTOMS,BL LINE HOLD,TMF-HOLD
15.	Hold Status	Displays whether the holds/permissions associated with a unit. On Hold – If there is an Active Hold that prevents delivery.	On Hold
16.	Appt Status	Whether the appointment is created, cancelled, expired, used or null.	EXPIRED
17.	Appt Slot Start Time	The start time of the first appointment time slot during the day using military time.	2021-05-20 00:00:00.0
18.	Appt Slot End Time	The end time of the last appointment time slot during the same day using military time.	2021-05-20 00:29:00.0
19.	Appointable Status	Denotes if the Container is Ready/ Available for creation of Appointment.	NO
20.	LastFreeDay	The last day until when a container can be stored at the terminal before it starts to incur demurrage.	Fri Feb 26 00:00:00 PST 2021

Sample Requests and Responses

Sample Request 1-

http://honeuat.fenixmarineservices.com:10080/apex/api/codeextension?extensionname=FenixCheckCtrAvailability&operatorId=FMS&complexId=USSPO&facilityId=FMS&yardId=FMS&PARM_filterName=UNIT_FINDER_QUERY&PARM_CTRNBR=TCNU1654280

The following parameter "PARM_CTRNBR" accepts comma separated container numbers.

Response:

Below Unit still has Active Holds in the system and hence is not available for delivery.

```
<?xml version="1.0" encoding="UTF-8"?>
<query-response>
  <data-table filter="UNIT_FINDER_QUERY" count="1">
    <columns>
      <column>Last Move</column>
      <column>Unit Nbr</column>
      <column>Type ISO</column>
      <column>Frght Kind</column>
      <column>Category</column>
      <column>V-State</column>
      <column>T-State</column>
      <column>Position</column>
      <column>Line Op</column>
      <column>I/B Dclrd Mode</column>
      <column>O/B Actual Mode</column>
      <column>POD</column>
      <column>Storage Charges</column>
      <column>Impediments:Road</column>
      <column>Hold Status</column>
      <column>Appt status</column>
      <column>Appt Slot Start Date</column>
      <column>Appt Slot End Date</column>
      <column>Appointable Status</column>
      <column>LastFreeDay</column>
    </columns>
    <rows>
      <row primary-key="7408274">
        <field>21-May-03 0433</field>
        <field>TCNU1654280</field>
        <field>45G1</field>
        <field>FCL</field>
        <field>Import</field>
        <field>Active</field>
        <field>Yard</field>
        <field>Grounded</field>
        <field>CMA</field>
        <field>Vessel</field>
        <field>Vessel</field>
        <field>SPQ</field>
        <field>31330.0</field>
        <field>CUSTOMS,BL LINE HOLD,TMF-HOLD</field>
        <field>On Hold</field>
        <field>EXPIRED</field>
        <field>2021-05-20 00:00:00.0</field>
        <field>2021-05-20 00:29:00.0</field>
        <field>NO</field>
        <field>Fri Feb 26 00:00:00 PST 2021</field>
      </row>
    </rows>
  </data-table>
</query-response>
```

Sample Request 2:

http://honeuat.fenixmarineservices.com:10080/apex/api/codeextension?extensionname=FenixChec kCtrAvailability&operatorId=FMS&complexId=USSPO&facilityId=FMS&yardId=FMS&PARM_filterName=UNIT_FINDER_QUERY&PARM_CTRNBR=CMAU0334363,TGHU0021612

Response:

```
<?xml version="1.0" encoding="UTF-8"?>
<query-response>
  <data-table filter="UNIT_FINDER_QUERY" count="2">
    <columns>
      <column>Last Move</column>
      <column>Unit Nbr</column>
      <column>Type ISO</column>
      <column>Frght Kind</column>
      <column>Category</column>
      <column>V-State</column>
      <column>T-State</column>
      <column>Position</column>
      <column>Line Op</column>
      <column>I/B Dclrd Mode</column>
      <column>O/B Actual Mode</column>
      <column>POD</column>
      <column>Storage Charges</column>
      <column>Impediments:Road</column>
      <column>Hold Status</column>
      <column>Appt status</column>
      <column>Appt Slot Start Date</column>
      <column>Appt Slot End Date</column>
      <column>Appointable Status</column>
      <column>LastFreeDay</column>
    </columns>
    <rows>
      <row primary-key="7305050">
        <field>21-Apr-27 0708</field>
        <field>CMAU0334363</field>
        <field>22G1</field>
        <field>LCL</field>
        <field>Import</field>
        <field>Active</field>
        <field>Yard</field>
        <field>Grounded</field>
        <field>CMA</field>
        <field>Vessel</field>
        <field>Truck</field>
        <field>CH3</field>
        <field>26975.0</field>
        <field />
        <field />
        <field>EXPIRED</field>
        <field>2021-04-06 09:30:00.0</field>
        <field>2021-04-06 09:59:00.0</field>
        <field>NO</field>
        <field>Fri Mar 12 00:00:00 PST 2021</field>
      </row>
      <row primary-key="7302926">
        <field>21-Apr-23 0424</field>
        <field>TGHU0021612</field>
        <field>22G1</field>
        <field>FCL</field>
        <field>Import</field>
        <field>Active</field>
        <field>Yard</field>
        <field>Grounded</field>
        <field>CMA</field>
      </row>
    </rows>
  </data-table>
</query-response>
```

```

<field>Vessel</field>
<field>Truck</field>
<field>SPQ</field>
<field>10560.0</field>
<field />
<field />
<field>EXPIRED</field>
<field>2021-05-05 00:00:00.0</field>
<field>2021-05-05 00:29:00.0</field>
<field>NO</field>
<field>Thu Apr 29 00:00:00 PDT 2021</field>
</row>
</rows>
</data-table>
</query-response>

```

FMS Booking Inquiry Specification

Booking Inquiry API

Booking Inquiry is used to provide your customers with the status of their appointments. This api call will respond back with many parameters that are pertinent to your customer (view Response Parameters below).

Request to Fenix UAT

http://uat.fenixmarineservices.com:10080/apex/api/query?filtername=BOOKING_INQUIRY&PARAM_NBR=TEST001&operatorId=FMS&complexId=USSPQ&facilityId=FMS&yardId=FMS

SI No	Parameter Name	Description	Value
1.	Filter Name	N4, a set of criteria that you define to limit the data that is displayed in a list view. For example, in the Units view, you can create a filter to display only the import containers.	BOOKING_INQUIRY
2.	PARAM NBR	Booking ID	TEST001
3.	OperatorId	A single client who uses the system at the highest level of the organizational hierarchy.	FMS
4.	ComplexId	Two or more facilities that function as one business unit. They share reference data, containers, bookings, and other business information. An operator can have multiple complexes.	USSPQ
5.	FacilityId	A terminal, including its yards. A complex can have multiple facilities.	FMS

6.	YardId	A discrete area in a facility. A facility can have multiple yards.	FMS
----	--------	--	-----

RESPONSE Parameters:

SI No	Parameter Name	Description	Sample
1.	Booking Number	Booking number is a shipping reservation number for your cargo used by your cargo carrier or its agent	TEST001
2.	Booking Line Op	Shipping company that supplied the booking number	OCL
3.	Booking Ves. Visit	Outbound Vessel booking number is associated with	AKAR22
4.	Booking POL	The origin port of loading onto the declared outbound carrier	SPQ
5.	Booking POD-1	The routing point where a unit is expected to be discharged from the declared outbound carrier	HKG
6.	ISO	A code that was established by the International Standards Organization (ISO) to describe equipment.	42G1
7.	Quantity	Total number of containers allowed for the Booking	5
8.	Tally Out	Number of container(s) in the community for the booking that have NOT returned to terminal	0
9.	Tally In	Number of container(s) that have been received into the terminal against the booking	0

Sample Requests and Responses

Sample Request 1-

http://uat.fenixmarineservices.com:10080/apex/api/query?filtername=BOOKING_INQUIRY&PARM_NBR=TEST001&operatorId=FMS&complexId=USSPQ&facilityId=FMS&yardId=FMS

Response:

```
<?xml version="1.0" encoding="UTF-8"?>
<query-response>
  <data-table count="1" filter="BOOKING_INQUIRY">
    <columns>
      <column>Booking Number</column>
      <column>Booking Line Op</column>
      <column>Booking Ves. Visit</column>
      <column>Booking POL</column>
      <column>Booking POD-1</column>
      <column>ISO</column>
      <column>Qty</column>
      <column>Tally Out</column>
      <column>Tally In</column>
    </columns>
    <rows>
      <row primary-key="1203716">
        <field>TEST001</field>
        <field>OCL</field>
        <field>AKAR22</field>
        <field>SPQ</field>
        <field>HKG</field>
        <field>42G1</field>
        <field>5</field>
        <field>0</field>
        <field>0</field>
      </row>
    </rows>
  </data-table>
</query-response>
```