Phone Numbers via API

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Revision History

VERSION	DATE	DESCRIPTION	AUTHOR
1.0	2023-01-30	Document creation	Collin Winget
1.1	2024-02-15	Added emergency and porting information	Collin Winget
1.2	2024-04-23	Added additional Dynamic Inventory options	Collin Winget
1.3	2024-08-05	Added Submit Port for Canadian Phone number	Ashley Roney

About Alianza's APIs

Alianza has many public APIs that can be used for partition and account orchestration. To view our full suite of APIs, with code examples, please view our public API documentation: https://api.alianza.com/v2/apidocs/#/

For an overview of our API solution, see Alianza's Provisioning APIs data sheet.

Additionally, Alianza provides a beta environment for customers to develop in a non-production environment. Talk to your Alianza representative to have a beta partition created with settings that mimic those of your production environment. The beta environment is not an exact copy of the production environment, and IDs of key elements are different including *PartitionId*, *CarrierId*, *CallingPlanId*.

If you have any questions regarding our public APIs, please contact your Customer Success Manager or sales representative for assistance.

Authentication/Working with Tokens

Before using the Alianza API, an authentication call must be made to acquire a token. The token is passed in the X-AUTH-TOKEN header in each subsequent call. Tokens are valid for 8 hours from the last use.

POST	`/v2/authorize`

POST BODY

NAME	DESCRIPTION OF VALUE
username	Alianza platform account needed to access platform. It is recommended to create an account used only by the API. Username is an email address. (string)
password	Password assigned to the username. (string)

RESPONSE BODY

NAME	DESCRIPTION OF VALUE
authToken	Authentication token used in the X-AUTH-TOKEN header in each subsequent call (string)
partitionId	Unique key used to reference the Alianza service provider partition. (string)

* Additional name/values not listed

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EXAMPLE POST JSON

```
{
"username" : "user@email.com",
"password" : "thisISmyP4ssw0rd"
}
```

EXAMPLE RESPONSE

The response includes details about this management user and an Auth Token to be used as X-AUTH-TOKEN in the header of subsequent requests.

```
{
"authToken": "xRyqjCTfSK3tl5W6aa61xg",
"userId": "9sPet0RZ5mnniO271ojg",
"userType": "User",
"username": "user@email.com",
"firstName": "User",
"lastName": "Test",
"partitionId": "asdk12387asdhjkASD1",
"partitionName": "TEST CUSTOMER",

"permissions": {
"Account": "DELETE",
        ...
}
```

CURL REQUEST

Here's an example of how to use this Auth Token as a cURL request:

```
curl --location --request POST
'https://api.alianza.com/v2/partition/asdk12387asdhjkASD1/account'
--header 'Content-Type: application/json'
--header 'X-AUTH-TOKEN: xRyqjCTfSK3tl5W6aa61xg'
--data-raw '{
    "partitionId": "asdk12387asdhjkASD1",
    . . . .
    . . . .
}'
```

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Add Phone Number

There are two main ways to add a telephone number to an account: porting an existing number from another carrier and activating a new number from inventory. This document will go through the steps for both. These processes assume that an account has already been created.

Different endpoints may be used for "Be Your Own Carrier" or "Bring Your Own Telephone Number" scenarios. Please consult your Customer Service Manager for more information on your specific carrier setup.

Regardless of how it is added, once the telephone number is on the account, you can reference it to a user, Business Line, or SIP Trunk.

Activate Number from Inventory

Follow these steps to activate a new telephone number from local inventory:

1. Validate customer address and get the latitude/longitude for the address.
2. Search for a phone number by latitude/longitude, postal code, NPA, or NPA-NXX.
3. Add it to an account.

Address Validation

Alianza is integrated with third-party vendors to help validate addresses and increase success rates when submitting ports and E911. This endpoint will parse a single line address into the proper address fields required by Alianza's carrier services partners and E911 providers, increase success rates when submitting addresses for Customer Service Records and E911, and return Lat/Long fields for use with Directory Listing and E911 location.

Using the **Address Validation** endpoint will increase the success rate in getting 911/CSR address validated by the 911 service provider and underlying carrier for phone number activation. For best results, the user should visually validate their address before submission.

GET	`https://api.alianza.com/v2/address/validate?address=333 S 520 W, Lindon,UT&country=USA`

The *customerServiceRecord* object that is returned should be saved in memory to be used in subsequent requests. The latitude and longitude will be used to search for a number in inventory and can optionally be used to validate E911.

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EXAMPLE RESPONSE

```json
{
"customerServiceRecord": {
"streetNumber": "333",
"streetNumberSuffix": "",
"preDirectional": "S",
"streetName": "520",
"streetSuffix": "",
"postDirectional": "W",
"city": "Lindon",
"state": "UT",
"postalCode": "84042",
"blockCustomerName": false
},
"latitude": "40.332486",
"longitude": "-111.728156",
"valid": true
}
```

This endpoint can also detect if the address is for a building that requires a unit number, and will return it on the same object:

```json
{
"requiredFields": ["unit", "secondaryLocationDescription"],
"customerServiceRecord": {…}
}
```

Find Available Numbers

To find available numbers near the customer's location, you have a few options:

- Use the latitude and longitude from the previous response.
- Provide a postal code, NPA, or NPA-NXX.

Because multiple rate centers can cover an area, using latitude/longitude is the most accurate method.

You can request up to 15 numbers at once by adjusting the *maxResults* parameter. To search for multiple sequential numbers, add "sequential=true".

The numbers returned from the search are reserved for 30 minutes to prevent them from being accidentally assigned to another user.

GET	`/v2/partition/{PartitionId}/telephonenumber/search?type=LAT_LONG&lat=40.332492&long=-111.728167`
GET	`/v2/partition/{PartitionId}/telephonenumber/search?searchDynamic=true&maxResults=1&type=POSTALCODE&q=84042`
GET	`/v2/partition/{PartitionId}/telephonenumber/search?searchDynamic=true&maxResults=1&npa-nxx=801769&qty=1`
GET	`/v2/partition/{PartitionId}/telephonenumber/search?searchDynamic=true&maxResults=1&npa=801&qty=1`

RESPONSE BODY

List of the following structure:

NAME	DESCRIPTION OF VALUE
phoneNumber	The telephone number from local inventory.
partitionId	The telephone number is included in this partition's inventory. If you are searching for telephone numbers on a sub-partition, this may be the Parent Partition ID.
rateCenter	Rate center to which the phone number belongs.
State	State to which the rate center belongs.
distance	The distance from the provided latitude/longitude for the address provided.

* Additional name/values not listed

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EXAMPLE RESPONSE BODY

```
[ {
    "partitionId" : "{{Partition_ID}}",
    "phoneNumber" : "18017690817",
    "rateCenter" : "PLEASANT GROVE",
    "rateCenterReorderName" : "PLEASANT GROVE",
    "state" : "UT",
    "country" : "USA",
    "prefix" : "1801769",
    "carrierId" : "{{CarrierID}}",
    "distance" : 2.285842,
    "byotn" : false,
    "id" : "18017690817"
},
. . .

. . .

]}
```

Reserve Telephone Number

Reserving a telephone number will ensure it is not unintentionally assigned to another Account by someone else. This endpoint requires no request body and returns a 204 response. The reservation will expire automatically after 30 minutes, or it can be manually removed by calling DELETE on the same endpoint.

PUT	/v2/partition/{partitionId}/account/{accountId}/telephonenumber/{TelephoneNumber}/reserve

Add New Phone Number to Account

After a Telephone Number has been chosen from the search, you can now assign it to an account. This initiates an Activation event with the carrier. This can be done whether or not the number has been reserved, but it will fail if the number is on another account.

POST	/v2/partition/{partitionId}/account/{accountId}/telephonenumber

Address Objects

There are three Address objects in a **TelephoneNumber** POST request body:

OBJECT	DESCRIPTION
customerServiceRecord	**Required.** It should be the same object from previous requests. The customer service record (CSR) is the main set of information the losing service provider (LSP) will validate against when authorizing a port request. It is important that the port CSR information matches what the LSP has on file; otherwise, the port could be rejected for a mismatch. If the customer has changed addresses, this can be changed after the port has completed.
E911 Address	**Optional.** If not provided, the *customerServiceRecord* address will be used for E911. If a different address is required for E911, you'd include a different address here. Addresses — new construction in particular — which cannot be verified by the E911 provider will result in a rejection. Providing latitude/longitude coordinates with the address will help reduce the number of rejections, which can be found on the Address Validate response from earlier.
directoryListing	**Required**, but an address does not need to be provided if the number isn't being listed. The listing options are 'LIST_PUBLISH', 'LIST_NOT_PUBLISH', 'NOT_LIST_NOT_PUBLISH'.

EXAMPLE BODY

NAME	DESCRIPTION OF VALUE
telephoneNumbers	An array of *phoneNumber*. (array)
phoneNumber	An 11-digit string beginning with 1. i.e. 18015551212 (string)
customerServiceRecord	Details of the end-user to which a phone number is assigned. Contains name, address, directory listing, and caller id name. (object)
customerType	Describing the *customerServiceRecord* owner. (enum BUSINESS, RESIDENTIAL)
customerName	Caller ID name assigned to the phone number. (string — containing up to 15 alphanumeric characters)
firstName	End-user first name. Required with *customerType* of RESIDENTIAL. (string)
lastName	End-user last name. Required with *customerType* of RESIDENTIAL. (string)
businessName	In case *customerType* is BUSINESS (string)

streetNumber	NENA address element HNO (as defined by RFC 4776). Bolded in the following example: 123 S. Jefferson St, Houston, TX. 54321 (string)
streetNumberSuffix	NENA address element HNS (as defined by RFC 4776). Bolded in the following example: 123 1/2 S. Jefferson St, Houston, TX. 54321 (string)
preDirectional	NENA address element PRD (as defined by RFC 4776). Bolded in the following example: 123 S. Jefferson St, Houston, TX. 54321 (enum N, NE, E, SE, S, SW, W, NW)
streetName	NENA address element STN (as defined by RFC 4776). Bolded in the following example: 123 S. Jefferson St, Houston, TX. 54321 (string)
streetSuffix	NENA address element STN (as defined by RFC 4776). Bolded in the following example: 123 S. Jefferson St, Houston, TX. 54321 (string – abbreviation or full name.
postDirectional	NENA address element PRD (as defined by RFC 4776). Bolded in the following example: 123 S. Jefferson St. SW, Houston, TX. 54321 (enum N, NE, E, SE, S, SW, W, NW)
city	NENA address element PCN (as defined by RFC 4776). Bolded in the following example: 123 S. Jefferson St, Houston, TX. 54321 (string)
state	NENA address element STA (as defined by RFC 4776). Bolded in the following example: 123 S. Jefferson St, Houston, Texas. 54321 (string – abbreviation or full name)
postalCode	NENA address element STA (as defined by RFC 4776). Bolded in the following example: 123 S. Jefferson St, Houston, Tx. 54321 (string)
directoryListing	Directory Listing structure.
listed	Determines if the address should be included in directory listing. (boolean TRUE, FALSE)
Type	Determines if the address should be listed in 411/Information or published in local phone book. For testing it is recommended to use "NOT_LIST_NOT_PUBLISH". (enum LIST_PUBLISH, LIST_NOT_PUBLISH, NOT_LIST_NOT_PUBLISH)
referenceType	Defines the type of object to which the phone number is directed. (enum SIP_TRUNK, END_USER, IVR, LINE_APPEARANCE, LINE_HUNTGROUP)
referenceId	Identifier of the object to which the phone number is directed. I.e. If the *referenceType* is END_USER, the referenceId will be the userId. (string)

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EXAMPLE REQUEST BODY

Response body should be the same.

```json
{
"customerServiceRecord": {
"firstName": "John",
"lastName": "Smith",
"streetNumber": "333",
"preDirectional": "S",
"streetName": "520",
"postDirectional": "W",
"city": "Lindon",
"state": "UT",
"country": "USA",
"postalCode": "84042",
"secondaryLocationDescription": "SUITE",
"unit": "500",
"customerType": "RESIDENTIAL",
"customerName": "Smith John"
},
"directoryListing": {
"listed": true,
"type": "NOT_LIST_NOT_PUBLISH",
"address": {
"firstName": "John",
"lastName": "Smith",
...
}
},
"e911Address": {
"address": {
"firstName": "John",
"lastName": "Smith",
...
}
"latitude": "40.332492",
"longitude": "-111.728167"
},
"holdActivation": false,
"telephoneNumbers": [{
```

```
"phoneNumber": "18015551212"
        }]
}
```

Porting Phone Numbers

This document explains how to manage all aspects of porting a phone number on the Alianza platform via the API, including pre-validating addresses, submitting a port request, managing a port in progress, triggering and canceling requests, and handling rejections.

These processes assume that an account has already been created.

Porting Overview

Alianza's cloud communications platform equips service providers with a comprehensive set of APIs to automate all phone number management, including porting.

This document is an overview of the different porting types and time frames involved in porting residential, commercial, and toll-free telephone numbers to Alianza. Most port requests are automated; however, project ports will require manual intervention.

Submitting a Standard Port

Standard or simple ports are for 1–100 local numbers with the same BTN and within the same rate center. These are the most common and are considered the default if the request doesn't qualify as a project port (50+ lines) or a toll-free port.

The time frames listed below are a general idea of how long a port can take to complete. Any manual interventions not scheduled in advance will be handled during standard hours of operation.

PORTING TIME FRAME

PHASE	TIME FRAME
AVG TIME	4–7 business days*
PRE-PORT	N/A–Automated
CSR PHASE	24–48 hours (e-Bonded: 10–15m)
LSR PHASE	3 business days (72 hours)

STANDARD HOURS

COMPANY	MONDAY–FRIDAY
ALIANZA	8:00 a.m.–5:00 p.m. (MT)
BANDWIDTH	7:00 a.m.–4:00 p.m. (MT)
LUMEN	6:00 a.m.–6:00 p.m. (MT)
SINCH	6:00 a.m.–6:00 p.m. (MT)

* Requests after 1:00 p.m. (MT) will be submitted the next business day.

Visit the Alianza Help Center for more information about porting phone numbers.

Submit Port for Canadian Phone Number

Canadian ports are slightly different from porting an US number. Additional information is required when submitting a port request for Canadian numbers.

For a Canadian port, include the **telecomSettings** object under the Port object. This is where you provide the information required for Canadian ports. Either a local reseller or a carrier must be provided; otherwise the port request might get rejected.

POST	https://api.alianza.com/v2/p**artition/{partitionID}/account/{account ID}/telephonenumber**

EXAMPLE REQUEST

```
{
    "customerServiceRecord": {
        "firstName": "Peter",
        "lastName": "Smith",
        . . .
    },
    "telephoneNumbers": [{
        "phoneNumber": "16045551212"
    }],
    "port": {
        "billingTelephoneNumber": "16045551212",
        "crdDate": "2023-11-27",
        "telecomSettings": {
                "notes": "notes here",
                "currentCarrier": "Telus Mobility",
                "localReseller": "Telus",
                "loaDate": "2023-11-17",
                "disconnectInternetService": false,
                "disconnectTelevisionService": false,
        },
    },
    "e911Address": {
        "firstName": "Peter",
        "lastName": "Smith",
        . . .
        "latitude": "49.286531",
        "longitude": "-123.118664"
    },
    "directoryListing": {
        "type": "PORTED"
    }
}
```

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Authentication

To perform any operation with the Public API, an AuthToken must first be obtained by making a POST request to the **Authorize** end point and providing a valid Admin Portal username and password.

POST	https://api.alianza.com/v2/authorize

EXAMPLE POST JSON

```
{
"username" : "user@email.com",
"password" : "thisISmyP4ssw0rd"
}
```

EXAMPLE RESPONSE

The response includes details about this management user and an Auth Token to be used as X-AUTH-TOKEN in the header of subsequent requests.

```
{
      "authToken": "xRyqjCTfSK3tl5W6aa61xg",
      "userId": "9sPet0RZ5mnniO271ojg",
      "userType": "User",
      "username": "user@email.com",
      "firstName": "User",
      "lastName": "Test",
      "partitionId": "asdk12387asdhjkASD1",
      "partitionName": "TEST CUSTOMER",

      "permissions": {
            "Account": "DELETE",
       ...
      }
}
```

CURL REQUEST

Here's an example of how to use this Auth Token as a cURL request:

```
curl --location --request POST
'https://api.alianza.com/v2/partition/asdk12387asdhjkASD1/account'
```

```
--header 'Content-Type: application/json'
--header 'X-AUTH-TOKEN: xRyqjCTfSK3tl5W6aa61xg'
--data-raw '{
    "partitionId": "asdk12387asdhjkASD1",

    . . . .

    . . . .

}'
```

Rate Center Coverage Availability

First, validate that rate center coverage is available. If it is not, the telephone number cannot be ported. This will also tell you whether a telephone number is in a wireless rate center, which will help determine if a PIN will be required later.

GET	https://api.alianza.com/v2/partition/{{PARTITION_ID}}/ratecenter/18014048259

EXAMPLE RESPONSE

```
{
  "prefix" : "801404",
  "reorderName" : "PROVO",
  "originalReorderName" : "PROVO",
  "name" : "PROVO",
  "abbrName" : "PROVO",
  "msa" : "PROVO-OREM, UT",
  "zips" : [ "84097", "84059", "84058", "84057" ],
  "wireless" : true,
  "state" : "UT",
  "country" : "USA",
  "portable" : true,
  "serviceAvailable" : true,
  "inboundCarrierType" : "BANDWIDTH"
}
```

Typeahead

This step is optional. To help reduce data entry time, the **Address Type Ahead** endpoint can provide suggestions based on partial addresses. While the user is typing, the API will

provide suggestions based on what has been typed so far. The user can continue typing to narrow the suggestions until they select an address.

The Postal Code is optional, but, if provided, it will narrow down to addresses only in that Postal Code.

GET	https://api.alianza.com/v2/address/typeahead?address=333%20S&postalCode=84042&country=USA

EXAMPLE RESPONSE

```
[
  "333 S 520 W, Lindon UT",
  "333 E 680 N, Lindon UT",
  "333 N Old Farm Ln, Lindon UT",
  "333 W 100 N, Lindon UT",
  "333 W 600 N, Lindon UT"
]
```

Address Validation

As a service provider, you will need to gather and provide us with the necessary customer information to submit the port request. The time necessary to complete this task can take anywhere from an hour to a few days, depending on the request and based on the length of time to gather the data.

Alianza is integrated with third-party vendors to help validate addresses and increase success rates when submitting Ports and E911. This endpoint will parse a single line address into the proper address fields required by Alianza's carrier services partners and E911 providers, increase success rates when submitting addresses for Customer Service Records and 911, and return Lat/Long fields for use with Directory Listing and E911 location.

Using the address validation will increase the success rate in getting 911/CSR address validated by the 911 service provider and underlying carrier for phone number activation; however, it is not a guarantee that a port will be successful. It is possible that the MSAG database may be outdated and that a valid address may be rejected by the 911 service provider. For best results, the user should visually validate their address before submission.

GET	`https://api.alianza.com/v2/address/validate?address=333 S 520 W, Lindon,UT&country=USA`

The *customerServiceRecord* object that is returned should be saved in memory to be used in subsequent requests. The latitude and longitude can optionally be used to validate E911.

EXAMPLE RESPONSE

```
{
"customerServiceRecord": {
"streetNumber": "333",
"streetNumberSuffix": "",
"preDirectional": "S",
"streetName": "520",
"streetSuffix": "",
"postDirectional": "W",
"city": "Lindon",
"state": "UT",
"postalCode": "84042",
"blockCustomerName": false
},
"latitude": "40.332486",
"longitude": "-111.728156",
"valid": true
}
```

This endpoint can also detect if the address is for a building that requires a unit number, and will return it on the same object:

```
{
"requiredFields": ["unit", "secondaryLocationDescription"],
"customerServiceRecord": {…}
}
```

Port Pre-Validate

This is the final verification with the carrier that the telephone number can be ported. The system will validate that the number can be ported and return a list of CRDs (Customer Request Dates) that are available. If a port is submitted with a date that is not on this list, it will likely be rejected.

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POST	https://api.alianza.com/v2/partition/{{PARTITION_ID}}/account/preva lidate

The *customerServiceRecord* object from the **Address Validate** endpoint will be used here with some additional fields, including the *firstName* and *lastName* or *businessName*, and *secondaryLocationDescription,* if required.

The *telephoneNumbers* object can be either a single phone number or list of phone numbers.

The port object includes the *billingTelephoneNumber*.

EXAMPLE REQUEST

```
{
"telephoneNumbers": [{"phoneNumber": "18015551212"}, {"phoneNumber":
"18015551213"}],
      "customerServiceRecord": {
"firstName": "John",
"lastName": "Doe",
"blockCustomerName": false,
"customerName": "Doe John",
"customerType": "RESIDENTIAL",
"country": "USA",
"postalCode": "84042",
"streetNumber": "333",
"streetNumberSuffix": "",
"preDirectional": "S",
"streetName": "520",
"streetSuffix": "",
"postDirectional": "W",
"city": "Lindon",
"state": "UT",
"businessName": null,
"requiresUnitInfo": true,
"secondaryLocationDescription": "SUITE",
"unit": "500",
},
"port": {
"billingTelephoneNumber": "18015551212"
}
}
```

EXAMPLE RESPONSE

```json
{
  "id" : "88d84631f4f248efabd7800013d52928",
  "requestedActivation" : {
    "partitionId" : "{{PARTITION_ID}}",
    "port" : {
      "billingTelephoneNumber" : "18015551212",
      "portingWireType" : "Wireline",
    },
    "customerServiceRecord" : {…},
    "directoryListing" : { },
    "holdActivation" : false,
    "telephoneNumbers" : [ {
      "phoneNumber" : "18015551212",
      "canAcceptSMS" : false,
      "id" : "18013731111",
      "tollFree" : false
    } ]
  },
  "serviceAvailable" : true,
  "carrierType" : "BANDWIDTH",
  "earliestCRD" : "2022-11-14",
  "latestCRD" : "2022-12-08",
  "availabilityList" : [ "2022-11-14", "2022-11-15", "2022-11-16", "2022-11-17", "2022-11-18", "2022-11-21", "2022-11-22", "2022-11-23", "2022-11-28", "2022-11-29", "2022-11-30", "2022-12-01", "2022-12-02", "2022-12-05", "2022-12-06", "2022-12-07", "2022-12-08" ],
  "resultCSRs" : [ {…} ],
  "directoryListingAllowed" : true,
  "lnp" : true,
  "wirelessPort" : false
}
```

Submit a Port Request

This endpoint sends the order to the upstream carrier. The port response will include a Port ID, which can be used to monitor its status after it has been submitted.

POST	https://api.alianza.com/v2/partition/{{PARTITION_ID}}/account/{{ACCOUNT_ID}}/telephonenumber

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Address Objects

There are three Address objects in a **TelephoneNumber** POST request body:

OBJECT	DESCRIPTION
customerServiceRecord	**Required.** It should be the same object from previous requests. The customer service record (CSR) is the main set of information the losing service provider (LSP) will validate against when authorizing a port request. It is important that the port CSR information matches what the LSP has on file; otherwise, the port could be rejected for a mismatch. If the customer has changed addresses, this can be changed after the port has completed.
E911 Address	**Optional.** If not provided, the *customerServiceRecord* address will be used for E911. If a different address is required for E911, you'd include a different address here. Addresses — for new construction in particular — which cannot be verified by the E911 provider will result in a rejection. Providing latitude/longitude coordinates with the address will help reduce the number of rejections, which can be found on the Address Validate response from earlier.
directoryListing	**Required**, but an address should not be provided. Directory Listing options can only be modified after the port is complete. The *Type* should be set to *PORTED*.

Port Object

On the Port object, there are a few required fields and a few optional fields:

OBJECT	DESCRIPTION
billingTelephoneNumber	**Required.** The Billing Telephone Number or BTN is another field that should match what is on record with the losing service provider (LSP). When only one number exists on the account, the BTN is the number that is porting. If multiple numbers exist on the account, the BTN is the main number on the account, and usually identifiable in the Copy of the Bill.
crdDate	**Required.** Customer Request Date, or CRD, is the date initially submitted to have the number(s) port on. This should be one of the dates from the *availabilityList* from the Port Pre-Validate.
portingAuthorizedName	**Required** when porting a phone number for a company. Make sure to populate this field with the name of a *person* that is authorized on the account. Most of the authorized name mismatch errors are generated when

	the Authorized Name is left blank or has a company name instead of a person's name.
portingAuthorizedName	**Required** when porting a phone number for a company. Make sure to populate this field with the name of the *person* who is authorized on the account. Most of the authorized name mismatch errors are generated when this is left blank or has a company name instead of a person's name.
portingWireType	**Required.** This will be either "Wireline" or "Wireless." The Rate Center Coverage Availability endpoint will tell you if a phone number block is defined as wireless or not. All wireless service providers require a PIN. Some wireline service providers who have a PIN feature set up or LSP Freeze will also require it. In some cases, the PIN is the last 4 digits of their SSN.

EXAMPLE REQUEST BODY JSON

```
{
     "customerServiceRecord": {
          "firstName": "John",
          "lastName": "Smith",
          .  .  .
     },
     "telephoneNumbers": [{
          "phoneNumber": "18015551212"
     }],
     "port": {
          "billingTelephoneNumber": "18015551212",
          "crdDate": "2022-11-21",
          "portingWireType": "Wireline",
          "portingAuthorizedName": "John Smith",
          "wirelessAccountNumber": "12345",
          "wirelessPin": "54321"
     },
     "e911Address": {
          "firstName": "John",
          "lastName": "Smith",
          .  .  .
"latitude": "40.350973",
          "longitude": "-111.762948"
     },
     "directoryListing": {
```

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```
        "type": "PORTED"
    }
}
```

EXAMPLE RESPONSE JSON

```json
{
    "partitionId": "{{PARTITION_ID}}",
    "accountId": "{{ACCOUNT_ID}}",
    "port": {
        "id": "hPoHWm4STiagD1RjuhIaGw",
        "partitionId": "1",
        "accountId": "{{ACCOUNT_ID}}",
        "telephoneNumbers": [
            "18015551212"
        ],
        "status": "PORT_PENDING",
        "sendLoa": false,
        "loaSaved": false,
        "customerServiceRecord": {
            "firstName": "John",
            "lastName": "Smith",
            .   .   .
        },
        "crdDate": "2022-11-21T00:00:00.000Z",
        "billingTelephoneNumber": "18015551212",
        "portingWireType": "Wireline",
        "portingAuthorizedName": "John Smith",
        "createdDate": "2022-11-10T16:55:33.220Z"
    },
    "customerServiceRecord": {
        "firstName": "John",
        "lastName": "Smith",
        .   .   .
    },
    "directoryListing": {
        "type": "PORTED"
    },
    "e911Address": {
        "firstName": "John",
```

```
        "lastName": "Smith",

        .   .   .

    },
    "holdActivation": false,
    "telephoneNumbers": [
        {
            "phoneNumber": "18015551212",
            "functionType": "ELS",
            "portId": "hPoHWm4STiagD1RjuhIaGw",
            "id": "18015551212",
            "tollFree": false
        }
    ]
}
```

Port Monitoring – Awaiting FOC

We recommend that you follow the status of the port in the Admin Portal under **Management > Service Activation**, but it can also be handled directly through the API. The **Port Request Reference** endpoint shows the status of the request, what the current firm order commitment (FOC) date is, and which fields are editable.

A newly submitted standard port will be in *PENDING* status. Once the port is accepted by the carrier, it will be assigned a Parent Order Number (PON), and the port will be updated to *IN PROGRESS* status. If the port is *PENDING* for more than 24 hours, submit a ticket or call our LNP team.

When the port is accepted, the carrier will provide an FOC date, and the API will show *FOC_RECEIVED* status. Once you have an FOC date, we encourage you to communicate the date and time of port to your customers. It's also a good idea to make sure that support staff and equipment are ready prior to the FOC date.

Rejections

If there is a problem with the port, the status may be updated to *PORT_REJECTED*. A port can be rejected for many reasons including but not limited to Address Mismatch, LSP Freeze, Disconnected Number, Pending Order, Missing Wireless Account/PIN, etc.

Depending on the issue, you may be able to resubmit with updated information, or you may need to cancel the request and submit a new one.

GET	https://api.alianza.com/v2/partition/{{PARTITION_ID}}/account/{{ACCOUNT_ID}}/reference/{{PORT_ID}}/type/PORT_REQUEST

EXAMPLE RESPONSE BODY JSON

```
{
    "id": "{{PORT_ID}}",
    "partitionId": "{{PARTITION_ID}}",
    "accountId": "{{ACCOUNT_ID}}",
    "serviceType": "PORT_REQUEST",
    "referenceType": "PORT",
    "referenceId": "PORT_ID",
    "activationStatusType": "FOC_RECEIVED",
    "createdDate": "2022-11-09T21:12:22.185Z",
    "lastUpdatedDate": "2022-11-10T17:24:23.902Z",
    "focDate": "2022-11-21T07:00:00.000Z",
    "crdDate": "2022-11-21T07:00:00.000Z",
    "mainTelephoneNumber": "18015551212",
    "subTelephoneNumbers": [
        "18015551212"
    ],
    "firstName": "John",
    "lastName": "Smith",
    "l3Reaction": "IGNORE",
    "parentOrderId": "ORDER ID",
    "editableFieldTypes": [
        "crdDate"
    ],
    "inboundCarrierType": "LEVEL_3",
    "logs": [
        {
            "status": "PENDING",
            "actionDate": "2022-11-09T21:12:22.228Z",
            "code": "Port",
            "message": "Start Port",
            "creationDate": "2022-11-09T21:12:22.228Z"
        },
        {
            "status": "IN_PROGRESS",
            "actionDate": "2022-11-09T21:18:00.307Z",
```

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```
                "code": "SUBMIT",
                "message": "",
                "creationDate": "2022-11-09T21:18:00.742Z",
                "generatedTicketId": "ALZREST.12345"
        },
        {
                "status": "FOC_RECEIVED",
                "actionDate": "2022-11-10T17:24:23.902Z",
                "code": "FOC",
                "message": "",
                "creationDate": "2022-11-10T17:24:24.308Z",
                "generatedTicketId": "ALZREST.12345"
        }
    ]
}
```

Update Port Information

If a port needs to be updated, it is most easily edited in the Alianza Admin Portal, but it can also be done via API.

First, do a GET on the **Port** endpoint, then edit the required fields and update with a PUT. The *CRD Date*, *CSR*, *Account Number*, or *PIN* are the most frequently updated fields.

GET/PUT	https://api.alianza.com/v2/partition/{{PARTITION_ID}}/account/{{ACCOUNT_ID}}/port/{{PORT_ID}}

EXAMPLE GET RESPONSE/PUT REQUEST BODY

```
{
    "id": "{{PORT_ID}}",
    "partitionId": "{{PARTITION_ID}}",
    "accountId": "{{ACCOUNT_ID}}",
    "telephoneNumbers": [
        "18015551212"
    ],
    "status": "PORT_REJECTED",
    "sendLoa": false,
    "loaSaved": false,
    "customerServiceRecord": {
```

```
        "firstName": "John",
        "lastName": "Smith",
        . . .
    },
    "crdDate": "2022-11-21T00:00:00.000Z",
    "billingTelephoneNumber": "18015551212",
    "portingWireType": "Wireline",
    "wirelessAccountNumber": "",
    "focDate": "2022-11-21T07:00:00.000Z",
    "createdDate": "2022-11-09T21:12:22.185Z"
}
```

Cancel Port

To cancel a port that is currently in progress, call the following endpoint:

DELETE	https://api.alianza.com/v2/partition/{{{PartitionID}}/account/{{AccountId}}/port/{{PortId}}/cancelport

Trigger Port

This is the last step in the porting process.

For standard ports submitted through the Alianza API or Alianza Portal, you can manually trigger the port up until the default trigger time on the FOC Date. You cannot trigger a port if it is not yet the FOC date.

- Auto-trigger time for Bandwidth is 8:00 p.m. (ET)
- Auto-trigger time for Lumen is 9:00 p.m. (MT)
- Auto-trigger time for Sinch is 6:00 p.m. (MT)

Manual Trigger

To manually trigger the port, call the following endpoint:

PUT	https://api.alianza.com/v2/partition/{{PartitionId}}/account/{{accountId}}/port/{{portId}}/triggerport

This request requires no request body and responds with an empty body and a "202 accepted" response code.

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> **CONTACT SUPPORT**
>
> If you receive a rejection error or the triggered port fails to complete within 20 minutes, please contact Alianza Support for assistance.

Set Phone Number Reference

Once a telephone number has been added to an account, whether via port or cctivation, it needs to reference an object to be able to route calls.

The Reference ID and Reference Type associated with a telephone number determines the routing of inbound calls, while the caller ID setting for a user specifies the telephone number displayed for outbound calls.

Both settings can be set through a PATCH or PUT request to the **Telephone Number** endpoint.

PATCH	`/v2/partition/{partitionId}/account/{accountId}/telephonenumber/{telephoneNumber}`

NAME	DESCRIPTION OF VALUE
referenceType	The type of object that calls will be routed to. For a User, the Reference Type is END_USER. Possible options: 'SIP_TRUNK', 'END_USER', 'IVR', 'VFAX', 'BUSINESS_LINE', 'BUSINESS_LINE_HUNT_GROUP', 'AUTO_ATTENDANT', 'CONTACT_CENTER'
referenceId	The ID of the object that calls will be routed to, such as a User ID. (string)
assignAsCallerId	Set this value to TRUE to assign this number as outbound Caller ID on an End User. This setting only works for End Users and does not work for any other object type. (boolean)

Activation Hold

The normal activation process requires phone numbers to be activated on the carrier side the moment it is added to an account. However, some business processes require a number to be put in an activation hold, pending a customer install (usually 2–3 weeks out). The number activation is either completed and sent to the carrier at the time of install, or canceled if the customer canceled the order.

The activation hold and activation complete/cancel are only available via API calls, and not available through the Alianza Admin Portal UI.

Phone Number Activation with Hold

Activating a phone number with a hold in place is the same as activating a phone number from inventory, however, the field **holdActivation** needs to be set to true.

POST	https://api.alianza.com/v2/partition/{{PARTITION_ID}}/account/telephonenumber

RESPONSE

```
{ {
  "accountId" : "{{AccountId}}",
  "partitionId" : "{{PartitionId}}",
  "holdActivation": true,
  "telephoneNumbers":[
    {
"phoneNumber" : "18018025513",
"functionType":"ELS"
    }
    ],
    "customerServiceRecord": {
        "firstName": "Test",
        "lastName": "onhold",
        "streetNumber": "333",
        "streetNumberSuffix": "",
        "preDirectional": "S",
        "streetName": "520",
        "streetSuffix": "",
```

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```
        "postDirectional": "W",
        "city": "Lindon",
        "state": "UT",
        "country": "USA",
        "postalCode": "84042",
        "customerType": "RESIDENTIAL",
        "blockCustomerName": false,
        "customerName": "On Hold Test"
    },
  "directoryListing": {
  "listed": false}
}
```

This process puts the phone number Service Activation Event in a ON_HOLD status.

Submit On-Hold Activation to Carrier

To submit the activation to the carrier, the Service Activation Event needs to be put in a "IN_PROGRESS" status, which will send an API call to the carrier.

PUT	https://api.alianza.com/v2/partition/{partitionId}/account/{accountId}/reference/{phoneNumber}/type/ACTIVATION'

EXAMPLE RESPONSE

```
{"activationStatusType":"IN_PROGRESS"}
```

Cancel an On-Hold Activation

To submit the activation to the carrier, the Service Activation Event needs to be put in a "CANCELLED" status, which will send an API call to the carrier.

PUT	https://api.alianza.com/v2/partition/{partitionId}/account/{accountId}/reference/{phoneNumber}/type/ACTIVATION'

EXAMPLE RESPONSE

```
{"activationStatusType":"CANCELLED"}
```

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E911 Records

Account Prevalidate

E911 address rejections are a common problem because they require extra work to ensure users have a valid E911 address on file. Using the **Account Prevalidate** endpoint, E911 address can be validated in the UI before it's submitted for activation. This step will increase the success rate for E911/CSR address validation by the E911 provider and underlying carrier.

PUT	https://api.alianza.com/v2/partition/{partitionId}/account/e911/prevalidate

The API sends the address to our E911 provider's Master Street Address Guide (MSAG) to validate. The API response includes a *customerServiceRecord* object and a Boolean "valid" field that indicates whether the address was validated successfully.

EXAMPLE VALID RESPONSE

```
{
  "valid": "VALID",
  "errors": [],
  "addressAlternatives": [],
  "address": {
    "firstName": "Lotta",
    "lastName": "Hitschmanova",
    "streetNumber": "56",
    "streetName": "Sparks",
    "streetSuffix": "St",
    "city": "Ottawa",
    "state": "ON",
    "country": "CAN",
    "postalCode": "K1P 5A9"
  }
}
```

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EXAMPLE INVALID RESPONSE

```
{
  "valid": "INVALID",
  "errors": [
    "The provided address is failing at returning alternatives. Please
verify the address value"
  ],
  "addressAlternatives": [],
  "address": {
    "firstName": "Lotta",
    "lastName": "Hitschmanova",
    "streetNumber": "56",
    "streetName": "Sparks",
    "streetSuffix": "St",
    "city": "Ottawa",
    "state": "QB",
    "country": "CAN",
    "postalCode": "K1P 5A9"
  }
}
```

EXAMPLE INVALID RESPONSE

```
{
  "valid": "INVALID",
  "errors": [
    "The specified Civic Address is invalid. No MSAG Match, alternatives
found"
  ],
  "addressAlternatives": [
    {
      "streetNumber": "56",
      "streetName": "Sparks St",
      "city": "OTTAWA",
      "state": "ON",
      "country": "CA",
      "postalCode": "K1P 5A9"
    }
  ],
```

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```
  "address": {
    "firstName": "Lotta",
    "lastName": "Hitschmanova",
    "streetNumber": "56",
    "streetName": "Sparks",
    "streetSuffix": "St",
    "city": "Sandy Hill",
    "state": "ON",
    "country": "CAN",
    "postalCode": "K1P 5A9"
  }
}
```

Rejections

If the address is rejected and alternative addresses are available, those addresses will be displayed in the API for the end user to choose from.

This is what a rejection looks like in the Alianza Admin Portal:

Status	REJECTED
Code	WEST:UPDATE:CRITICAL_ERROR
Message	#409 - Error registering e911 address ▒▒▒▒▒▒▒ to ▒▒▒▒▒▒▒: 409 (The specified Civic Address is invalid. No MSAG Match, alternatives found) Alternate Address: [Address:Georgian Bay, City:MACTIER, State:ON, PostalCode:P0C 1H0, Country:CA] Alternate Address: [Address:Georgian Bay, City:MACTIER, State:ON, PostalCode:P0C 1H0, Country:CA]
Action Date	Jul 15, 2019 03:11:33 PM

If the provider's MSAG database is not up to date, a valid address could be rejected by the E911 provider. We recommend using our validated address as a suggested valid address and have the data entry agent visually validate the address to be recorded.

Address Type Ahead

To help reduce data entry time, the **Address Type Ahead** endpoint can provide suggestions based on partial addresses. While the user is typing, the API will provide suggestions based on what has been typed so far. The user can continue typing to narrow the suggestions until they select an address.

GET	`/v2/address/typeahead?address=333 S 520&country=CAN`

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EXAMPLE RESPONSE

```
[
  "333 S 520 W, Orem UT",
  "333 S 520 E, Orem UT",
  "333 S 520 Rd, Afton OK",
  "333 S 520 E, Draper UT",
  "333 S 520 Rd, Eucha OK",
  "333 S 520 St, Genoa NE",
  "333 S 520 E, Lagrange IN",
  "333 S 520 Rd, Cookson OK",
  "333 S 520 W, Blackfoot ID",
  "333 S 520 W, Atomic City ID"
]
```

For more information, see our REST API documentation for Account Prevalidate.

E911 Language Routing

End users can set their language preference in the Admin Portal, but that setting isn't carried over to their E911 record. By default, addresses in Quebec are routed to French-speaking public safety answering points (PSAPs), and all other addresses default to English PSAPs. For French users in other provinces, their calls may have to be transferred to a French-speaking agent, causing a delay in care.

An *e911Address* object has been added to the following API endpoints that are used to create or edit a telephone number. This object enables service providers to set an end user's E911 routing language to French or English, so the user's emergency calls are delivered to the appropriate PSAP.

Create a Telephone Number

POST	/v2/partition/{partitionId}/account/{accountId}/telephonenumber

Edit a Telephone Number

PUT	/v2/partition/{partitionId}/account/{accountId}/telephonenumber/{tn}
PATCH	/v2/partition/{partitionId}/account/{accountId}/telephonenumber/{tn}

E911 Address Language Parameters

- **French:** fr-CA
- **English:** en-US

If an integration is in place and the user does not set a language on this new object, we will provision the address with a value of "null" and our E911 provider will route emergency calls based on the default behavior: TNs in Quebec are delivered to French PSAPs and all other TNs are routed to English PSAPs.

EXAMPLE

This is an example of editing the E911 Language to French on a phone number that is already assigned to a device/user. The language change is made on line 42.

PUT	/v2/partition/{partitionId}/account/{accountId}/telephonenumber/{tn}
PATCH	/v2/partition/{partitionId}/account/{accountId}/telephonenumber/{tn}

```
{
  "phoneNumber": "15555551234",
  "referenceType": "END_USER",
  "referenceId": "ajfrBZJMQNC4-9TeBSfnlQ",
  "functionType": "ELS",
  "accountId": "bRW8jpoCTGOaOIF5wqvSVg",
  "partitionId": "X4fbfNlFRpy7bWDFmCwwdw",
  "customerServiceRecord": {
    "firstName": "John",
    "lastName": "Sample",
    "streetNumber": "56",
    "streetNumberSuffix": "",
    "preDirectional": "",
    "streetName": "Sparks",
    "streetSuffix": "St",
    "postDirectional": "",
    "city": "Sandy Hill",
    "state": "ON",
    "country": "CAN",
    "postalCode": "K1P 5A9",
    "customerType": "RESIDENTIAL",
```

```
    "blockCustomerName": false,
    "customerName": "Sample John"
  },
  "carrierStatus": "ACTIVE",
  "orderVersion": "KoaCIiTPTL21dG5DKmBzFg",
  "e911Address": {
    "firstName": "John",
    "lastName": "Sample",
    "streetNumber": "56",
    "streetNumberSuffix": "",
    "preDirectional": "",
    "streetName": "Sparks",
    "streetSuffix": "St",
    "postDirectional": "",
    "city": "Sandy Hill",
    "state": "ON",
    "country": "CAN",
    "postalCode": "K1P 5A9",
    "secondaryLocationDescription": "",
    "unit": "",
    "customerType": "RESIDENTIAL",
    "language": "fr-CA"
  },
  "directoryListing": {
    "listed": true,
    "type": "NOT_LIST_NOT_PUBLISH"
  },
  "carrierId": "kp0MqP3HQRmXSQKADoMXnw",
  "id": "15555551234",
  "tollFree": false
}
```

RESPONSE

```
200 OK
```