

Overview

Internet Centre VoIP API provides a programming interface to work with orders in the VoIP platform. This document describes API functions related to the availability of numbers, the ordering of new local numbers, and porting of existing numbers.

This document is regularly updated. Please subscribe to changes or check-back as we're regularly adding functionality based-on customer requests. If there's a feature you'd like added please email: support@incentre.com with the subject "VoIP API addition"

Request structure

Internet Centre VoIP engine is a restful API engine that operates over HTTP/S protocol. Requests are submitted to one of the URLs. API engine is stateless; each request contains all data required for processing.

Each request must bear the authentication token issued by the Internet Centre platform.

API requests are JSON objects passed to the API platform containing the required data.

Response structure

API platform responds with JSON objects which contain all information related to the status of requests and/or order inside the API platform.

A standard response/error consists of three parts:

1. HTTP status code indicating a high-level result of the operation
2. Request details - ID, Status, Errors
3. Order details (if applicable)

Status codes

Status codes returned in response indicate if the request was accepted or not.

Following status codes can be returned by API:

- **200** - A request was successfully accepted
- **400** - Bad request due to format mismatch, e.g., a parameter containing invalid characters
- **401** - Access Denied. Likely wrong user/password, or wrong authentication for data being accessed
- **406** - Bad request due to failed business logic validation, e.g., mandatory parameter missing for the requested operation
- **403** - Unauthorized. The requested operation is not available for this user.
- **409** - Too many requests. May be returned if rate limits are set up for the account
- **5xx** - Server error. Indicates exception in processing due to failures in API engine, or malformed request

Authentication

Login is standard HTTP auth, ie:

PHP

```
$ch = curl_init('https://portal.racknine.net/api/did/availability/?npa=780');  
curl_setopt($ch, CURLOPT_USERPWD, $username . ":" . $password);
```

Where \$username is your login email to portal.racknine.net and \$password is the password.

LNP / Ordering availability

HTTP GET. Return is JSON object, ie:

Request:

<https://portal.incentre.net/api/did/availability/?npanxx=780436>

Query options:

- **npa** - 3-digit area code
- **nxx** - 3-digit local calling code
- **npanxx** - Combined NPANXX
- **ratecenter** - Rate center, ie: TORONTO
- **region** - Two letter province/state
- **type** - LNP (port-in), or NEW (ordering)

Response:

```
{
  "operation": "availability",
  "ratecenters": [
    {
      "npa": "780",           // Area code
      "nxx": "436",         // Local calling code
      "npanxx": "780436",   // Combined NPANXX
      "ratecenter": "EDMONTON", // Rate Center
      "region": "AB",       // Two letter province/state
      "type": "LNP",        // LNP (port-in) or NEW (ordering) available
      "carrier": "8083"     // Optional: originating carrier of NXX
    },
    {
      "npa": "780",
      "nxx": "436",
      "npanxx": "780436",
      "ratecenter": "EDMONTON",
      "region": "AB",
      "type": "NEW",
      "carrier": "8083"
    }
  ]
}
```

PHP

```
$ch = curl_init('https://portal.incentre.net/api/did/availability/?npanxx=780436');
curl_setopt($ch, CURLOPT_USERPWD, "mmeier@racknine.com:XXX");
curl_setopt($ch, CURLOPT_RETURNTRANSFER, TRUE);
curl_setopt($ch, CURLOPT_PORT , 443);
curl_setopt($ch, CURLOPT_HTTPGET, TRUE);
$response = json_decode(curl_exec($ch));
print '<pre>'.print_r($response, true);
curl_close($ch);
```

DID ORDERING

HTTP POST to place order, status updates via GET, ie:

Post:

<https://portal.incentre.net/api/did/order/new/>

```
{
  "subscriber_id": XXX,
  "rate_center": "EDMONTON",
  "quantity": 2,
  "carrier_reference": "order101-uuid"
}
```

Fields:

- **subscriber_id** - integer, required. This is the VoIP subscriber (=Trunk) where the DID will be assigned
- **rate_centre** - string(100), required. Name of Rate Center in which DIDs are requested. Must contain a valid name as defined in NAALEND database. Must be a Short name.
- **npa** - string(10), optional. Three digits representing NPA if specific NPA is requested. If the field is present must be exactly 3 digits.
- **quantity** - integer, required. Quantity of numbers requested. Must be an integer in 1-1000 range.
- **carrier_reference** - string(100), optional. Optional reference field. May contain any string. Not used for processing.

Response:

```
{
  "id": "0bdaea5f-97f4-4f6d-a13b-1a6109c927da", // Transaction ID for reference
  "status": "new", // Status
  "errors": [], // array of errors
  "order": { // Order object
    "rate_center": "EDMONTON",
    "quantity": 2,
    "carrier_reference": "order101-uuid"
  }
}
```

PHP

```
$data_encoded = json_encode(array(
    'rate_center'      => 'EDMONTON',
    'quantity'        => 2,
    'carrier_reference' => 'order101-uuid'
));

$ch = curl_init('https://portal.incentre.net/api/did/order/new/');
curl_setopt($ch, CURLOPT_USERPWD, "mmeier@racknine.com:XXX");
curl_setopt($ch, CURLOPT_RETURNTRANSFER, TRUE);
curl_setopt($ch, CURLOPT_PORT, 443);
curl_setopt($ch, CURLOPT_CUSTOMREQUEST, "POST");
curl_setopt($ch, CURLOPT_POSTFIELDS, $data_encoded);
curl_setopt($ch, CURLOPT_HTTPHEADER, array(
    'Content-Type: application/json',
    'Content-Length: '.strlen($data_encoded)));

$raw = curl_exec($ch);
$info = curl_getinfo($ch); // http_code 200 is ok reply.

$response = json_decode($raw);
print json_encode($response, JSON_PRETTY_PRINT)."\n";
curl_close($ch);
```


Get:

https://portal.incentre.net/api/did/order/status/?uuid=\${transactionid}

{transactionid} is the UUID returned in the original order, ie:
0bdaea5f-97f4-4f6d-a13b-1a6109c927da (see above)

Response::

```
{
  "id": "0bdaea5f-9806-4821-ab98-f00e34cdc329",
  "status": "new",
  "errors": [],
  "order": {
    "rate_center": "EDMONTON",
    "quantity": 1,
    "carrier_reference": "order101-uuid"
  }
}
```

Query responses:

- **New** - The order was created inside the portal and is ready for processing. Although this is the initial state of the order it is highly unlikely that order in this state is accessible due to its temporary nature.
- **Processing** - The order is being processed by the portal. In most cases, the order is being processed by the carrier.
- **Completed** - Processing of the order is complete and numbers were successfully issued. Final state. No further actions with the order are allowed.
- **Error** - Processing of the order is complete but no numbers were issued due to an error. Error field of the order object will contain details of the error. Final state. No further actions with the order are allowed.

Order object:

- **order_id** - string(50), required. ID of the order. This is not an ID of request (which is available as api_id inside the order) but a human readable order id. Typical format of an order ID is NO-XXX where XXX are digits but format may vary depending on the carrier
- **quantity** - int, required. Number of DIDs requested
- **rate_centre** - varchar(50), required. Rate centre short name
- **carrier** - varchar(10), required. Carrier code
- **status** - varchar(50), required. Current status of an order
- **error** - string(1000), optional. Carrier specific string containing error details
- **carrier_reference_order** - string(100), optional. Carrier Reference Order value submitted during request submission
- **api_id** - string(50), optional. ID of API request associated with the order. Although this field is not mandatory for Internet Centre order, it should not be empty for any requests created via API
- **dids** - Array of string(20), optional. For completed orders, list of DIDs reserved during order fulfillment. Size of this array should match the quantity field.

PHP

```
$uuid = '0bdaea5f-980c-46b1-ab98-f00e37c0e946';
$ch = curl_init('https://portal.incentre.net/api/did/order/status/?uuid='.$uuid);
curl_setopt($ch, CURLOPT_USERPWD, "mmeier@racknine.com:XXX");
curl_setopt($ch, CURLOPT_RETURNTRANSFER, TRUE);
curl_setopt($ch, CURLOPT_PORT, 443);
curl_setopt($ch, CURLOPT_CUSTOMREQUEST, 'GET');
curl_setopt($ch, CURLOPT_HTTPGET, TRUE);
curl_setopt($ch, CURLOPT_HTTPHEADER, array('Content-Type: application/json'));
$raw = curl_exec($ch);
$response = json_decode($raw); // This would be your object shown above
print json_encode($response, JSON_PRETTY_PRINT)."\n";
curl_close($ch);
```

LNP (PORT-IN)

HTTP POST to place a new port-in request:

Post:

<https://portal.incentre.net/api/did/lnp/new/>

```
{
  "subscriber_id": XXX, // Replace with your Trunk ID
  "type": "lnp",
  "parameters": {
    "address": {
      "name": "Incentre office 7807015617",
      "building": "",
      "floor": "",
      "room": "",
      "city": "Edmonton",
      "region": "AB",
      "street_name": "95",
      "street_type": "Street",
      "street_directional": "NW",
      "street_number": "4130",
      "postal_code": "T6E 6H5",
      "descriptive_location": ""
    },
    "dids": [
      "17807015617"
    ],
    "provider_type": "wireline",
    "requested_due_date": "2020-11-07T00:00:00.000Z",
    "existing_account_num": "58674207",
    "esn_meid": "",
    "end_user_name": "RackNine Inc",
    "local_reseller": "RackNine Inc",
    "comment_carrier_winning": "",
    "comment_carrier_loosing": "",
    "did_ranges": [],
    "cancellation_requested": false,
    "loa_date": "2020-10-29",
    "customer_specific_object": {
      "subscriber_id": 2,
      "client_id": 3
    }
  }
}
```

}

Fields:

- **subscriber_id** - integer, required. This is the VoIP subscriber (=Trunk) where the DID will be assigned
- **type** - static = Inp
- **parameters** - object. LNP request goes here
 - **address** - object. Customer address. Will be stored by "name" in DB
 - **name** - string, optional. Name of address entity for your reference
 - **building** - string, optional.
 - **floor** - string, optional.
 - **room** - string, optional.
 - **city** - string, required. City name, ie: Edmonton
 - **region** - string, required. Two-letter postal code, ie: AB
 - The following uses address: 3434 West Landing NW
 - **street_name** - string, required. Street name, ie: "West"
 - **street_type** - string, required. Street name, ie: "Landing"
 - **street_directional** - string, required. Street name, ie: "NW"
 - **street_number** - string, required. Street number, ie: "3434"
 - **postal_code** - string, required. 7-character with space, ie: "T6W 0T4"
 - **descriptive_location** - string, optional. For rural addresses
 - **dids** - string array, optional. This or did_range is required, ie: 17804506787
 - **provider_type** - string, required. wireline or wireless
 - **requested_due_date** - date, required. Format timestamp, ie: 2020-10-29T00:00:00.000Z
 - **existing_account_num** - string, required. Existing customer account number.
 - **esn_meid** - string, optional. ESN / MEID if applicable
 - **local_service_provider** - string, optional. OCN of losing carrier
 - **end_user_name** - string, required. Existing customer name
 - **local_reseller** - string, required. Losing carrier name
 - **comment_carrier_winning** - string, optional. Comment to winning carrier (usually blank)
 - **comment_carrier_loosing** - string, optional. Comment from losing carrier (usually blank)
 - **did_ranges** - object, optional. This or dids is required.
 - **npa** - string, required. Area code, ie: 780
 - **nxx** - string, required. Local calling area, ie: 450
 - **start** - string, required. Called number range, ie: 6787
 - **end** - string, required. Caller number range, ie: 6788 (can be same as start)
 - **cancellation_requested** - bool, optional. True/false, used to update order when a cancellation is requested
 - **loa_date** - date, required. Letter of Authorization date, ie: 2020-10-29
 - **customer_specific_object** - object, optional. Client object to be passed on order

Response:

```
{  
  "has_error": false,  
  "http_code": 200,  
  "http_status": "OK",  
  "http_message": "5780e813-c0d4-4807-bb2a-0d34630ecf3d" // Transaction ID for reference  
}
```

Example of an error during submission of a request

```
{  
  "has_error": true,  
  "http_code": 401,  
  "http_status": "Unauthorized",  
  "http_message": ""  
}
```

PHP:

```
$date = new DateTime();
$authdate = $date->format('Y-m-d');
$date->modify('+9 days');
$reqdate = $date->format('Y-m-d');
$data_encoded = json_encode(array(
    "subscriber_id"      => 194,
    "type"               => "Inp",
    "parameters" => array(
        "address" => array(
            "name" => "Incentre office 7807015617",
            "building" => "",
            "floor" => "",
            "room" => "",
            "city" => "Edmonton",
            "region" => "AB",
            "street_name" => "95 Street NW",
            "street_number" => "4130",
            "postal_code" => "T6E 6H5",
            "descriptive_location" => ""
        ),
        "dids" => array(
            "17807015617"
        ),
        "provider_type" => "Wireline",
        "requested_due_date" => $reqdate."T00:00:00.000Z",
        "existing_account_num" => "58674207",
        "esn_meid" => "",
        "end_user_name" => "RackNine Inc",
        "local_reseller" => "RackNine Inc",
        "comment_carrier_winning" => "",
        "comment_carrier_loosing" => "",
        "did_ranges" => array(),
        "cancellation_requested" => false,
        "loa_date" => $authdate,
        "customer_specific_object" => array(
            "subscriber_id"      => 2,
            "client_id"          => 3
        )
    )
));
```

```

$ch = curl_init('https://portal.incentre.net/api/did/Inp/new/');
curl_setopt($ch, CURLOPT_USERPWD, "mmeier@racknine.com:XXX");
curl_setopt($ch, CURLOPT_RETURNTRANSFER, TRUE);
curl_setopt($ch, CURLOPT_PORT , 443);
curl_setopt($ch, CURLOPT_CUSTOMREQUEST, "POST");
curl_setopt($ch, CURLOPT_POSTFIELDS, $data_encoded);
curl_setopt($ch, CURLOPT_HTTPHEADER, array(
    'Content-Type: application/json',
    'Content-Length: '.strlen($data_encoded)));

$raw = curl_exec($ch);
$info = curl_getinfo($ch);
$response = json_decode($raw); // This would be your object shown above
print json_encode($response, JSON_PRETTY_PRINT)."\n";
curl_close($ch);

```


Port-in request statuses

Various status states returned by the API for an LNP order.

- **New.** Order is received by API platform
- **Draft.** Order passed initial validation and submitted to Incentre VoIP platform. At this stage order becomes visible inside the portal
- **Pending.** Order is submitted and is being processed by Incentre VoIP backend and is pending submission to the selected carrier
- **Processing.** Order is submitted to the carrier. Carrier reference ID is available.
- **Confirmed.** Positive Confirmation received from carrier. Carrier processing complete. Incentre VoIP is doing internal activation of a number with the new carrier.
- **Completed/Closed.** Final state. Successful completion of the order. DID(s) are ported in, active and ready for use.
- **Cancelled.** Final state. The order was cancelled.
- **Error.** Final state. Error in processing (not related to carrier).
- **Rejected.** Final state. The order is rejected by the carrier.

CNAM View / Update

Tool to view / update CNAM by DID. This can also be used for customer PBX where URL CNAM lookup is available.

GET

(requires login)

<https://portal.incentre.net/api/did/cnam/7806688400>

This will also query the public CNAM database. You can use this style request for PBXes like FreePBX to access CallerID Name information when not passed via SIP header.

Post

PHP

```
$data_encoded = json_encode(array(
    "cnam" => "Matt Meier"
));

$ch = curl_init('https://portal.incentre.net/api/did/cnam/7806688400');
curl_setopt($ch, CURLOPT_USERPWD, "mmeier@racknine.com:XXX");
curl_setopt($ch, CURLOPT_RETURNTRANSFER, TRUE);
curl_setopt($ch, CURLOPT_PORT, 443);
curl_setopt($ch, CURLOPT_CUSTOMREQUEST, "POST");
curl_setopt($ch, CURLOPT_POSTFIELDS, $data_encoded);
curl_setopt($ch, CURLOPT_HTTPHEADER, array(
    'Content-Type: application/json',
    'Content-Length: '.strlen($data_encoded)));

$raw = curl_exec($ch);
$info = curl_getinfo($ch);

print '<pre>';
print "raw:\n";
print_r($raw);
print "\ninfo\n";
print_r($info);
print "\n";

$response = json_decode($raw);
print json_encode($response, JSON_PRETTY_PRINT)."\n";
curl_close($ch);
exit();
```

Fields

- **cnam** - 3 - 15 character Alpha-numeric CallerID name. This is in addition to what is passed by the client's PBX

Returns

- 1) 4xx/5xx + Standard error (json object)
- 2) 200 + CNAM (if GET or successful POST)

e911 View / Update / Delete

Tool to view / update CNAM by DID. This can also be used for customer PBX where URL CNAM lookup is available

GET - View

(requires login)

<https://portal.incentre.net/api/did/cnam/7806688400>

GET - Delete

(requires login)

<https://portal.incentre.net/api/did/cnam/7806688400?action=delete>

Post

PHP

```
$data_encoded = json_encode(array(
    'first_name'      => 'Matt',
    'last_name'       => 'Meier',
    'street_number'   => '3434',
    'unit'            => "",
    'street_name'     => 'West Landing NW',
    'city'            => 'Edmonton',
    'province'        => 'AB',
    'postal'          => 'T6W 0T4',
    'other'           => "",
    'special'         => 'N'
));

$ch = curl_init('https://portal.incentre.net/api/did/e911/7806688400');
curl_setopt($ch, CURLOPT_USERPWD, "mmeier@racknine.com:XXX");
curl_setopt($ch, CURLOPT_RETURNTRANSFER, TRUE);
curl_setopt($ch, CURLOPT_PORT, 443);
curl_setopt($ch, CURLOPT_CUSTOMREQUEST, "POST");
curl_setopt($ch, CURLOPT_POSTFIELDS, $data_encoded);
curl_setopt($ch, CURLOPT_HTTPHEADER, array(
    'Content-Type: application/json',
    'Content-Length: '.strlen($data_encoded)));

$raw = curl_exec($ch);
$info = curl_getinfo($ch);

print '<pre>';
print "raw:\n";
print_r($raw);
print "\ninfo\n";
print_r($info);
print "\n";

$response = json_decode($raw);
print json_encode($response, JSON_PRETTY_PRINT)."\n";
curl_close($ch);
```

Fields

- **first_name** - First name
- **last_name** - Last name
- **unit** - Unit/Suite/Apt #
- **street_number** - Street number
- **street_name** - Street name, including directional where appropriate
- **city** - City
- **province** - 2-letter province (ie: "AB")
- **postal** - Postal Code
- **other** - Descriptive address information or other info for 911 operator
- **special** - Enhanced 911 capable (generally "N")

Returns

- 3) 4xx/5xx + Standard error (json object)
- 4) 200 + e911 data (if GET or successful POST)