

NCI CTRP API Authentication Guide

NCI uses Okta for authentication and authorization services for the CTRP applications and APIs. This page describes the tasks required to obtain the proper authorization to use the CTRP API. For any questions or support contact CTRP_support@nih.gov.

1. Create NCI CTRP user account

All users are required to have a valid Okta CTRP user account to access CTRP applications (CTRP Registration and CTRP Accrual) and use the CTRP API. For instructions on requesting an Okta CTRP account, refer to the following: [Creating New NCI CTRP User Accounts](#).

2. Obtain Okta Client ID and Client Secret

Once your Okta CTRP user account has been created, contact CTRP_support@nih.gov to request authorization to use the CTRP APIs. CTRP Support will review the request and, if approved, will generate a Client ID and Client Secret associated with your account and provide these key values to you. The Client ID and Client secret are required parameters to generate an Okta access token.

3. Generate Okta access token

All service endpoints require Okta access token authentication. To generate an Okta access token, a request must be made to the environment service endpoint using a valid Client ID and Client Secret. See below for additional details on how to construct the access token request.

Method: POST

Service Endpoints:

Stage	https://bioappdev.okta.com/oauth2/aus478s3eb0x3du23297/v1/token
Production	https://bioappdev.okta.com/oauth2/aus8jhc6kdbWPwYa297/v1/token

Headers

Content-Type	application/x-www-form-urlencoded
Accept	application/json

Parameters:

grant_type	client_credentials
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Authorization:

Authorization Type	Basic
Username	Client ID generated by CTRP Support for the user account
Password	Client Secret generated by CTRP Support for the user account

Response:

```
{"token_type":"Bearer","expires_in":<seconds>,"access_token":<accessToken>}
```



The access token expiration period is set per the following:

Stage: 8 Hours (28800 seconds)

Production: 4 Hours (14400 seconds)

4. Call REST Service with Bearer Authentication

Once the access token has been generated, it will need to be included in the 'Authorization: Bearer' parameter when submitting API requests. The following example uses the accrual-services URL in the Stage environment and lists the required header and parameters values.

Method: PUT

Service Endpoint:

Stage	https://trials-int.nci.nih.gov/accrual-services/trials/{idType}/{trialId}/sites/po/{id}
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idType	Type of identifier you want to use to identify a study in CTRP. Possible values: <i>pa, nci, ctep, dcp</i>
trialID	Trial identifier value itself
id	PO identifier of the organization that is the site on the study

Headers

Accept-Encoding	gzip, deflate, br
Connection	keep-alive
Content-Type	application/xml
Accept	text/plain
Accept	/*/*

Authorization:

Authorization Type	Bearer Token
Token	Access Token generated in step 3 above

Body:

```
<tns:studySubjects xmlns:tns="gov.nih.nci.accrual.webservices.types"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="gov.nih.nci.accrual.webservices.types ../../src/resources/ws.xsd ">
  <tns:studySubject>
    <tns:identifier>SU001</tns:identifier>
    <tns:birthDate>2002-01-01</tns:birthDate>
    <tns:gender>Female</tns:gender>
    <tns:race>Black or African American</tns:race>
    <tns:ethnicity>Not Hispanic or Latino</tns:ethnicity>
    <tns:country>USA</tns:country>
    <tns:zipCode>22201</tns:zipCode>
    <tns:registrationDate>2014-01-01</tns:registrationDate>
    <tns:methodOfPayment>MEDICAID_AND_MEDICARE</tns:methodOfPayment>
    <tns:disease codeSystem="ICD9">861.20</tns:disease>
  </tns:studySubject>
</tns:studySubjects>
```

Error Codes for the Okta API

Error	Code	Message
Invalid Client Id	401	{ "errorCode": "invalid_client", "errorSummary": "Invalid value for 'client_id' parameter.", "errorLink": "invalid_client", "errorId": "oaejDJuWCiRTQeH8n6WG2116A", "errorCauses": [] }

Invalid Client Secret	401	{ "error": "invalid_client", "error_description": "The client secret supplied for a confidential client is invalid." }
Invalid User Credentials / Account Locked*	400	{ "error": "invalid_grant", "error_description": "The credentials provided were invalid." }

Password Rotation

The Client ID and Client Secret need to be updated on a yearly basis. Contact the CTRP Support to obtain a new Client ID / Client Secret combination.

CTRP REST services

See the following for additional details on the various CTRP web services:

- [NCI CTRP Trial Registration REST Service Guide](#)
- [NCI CTRP Accrual REST Service Guide](#)
- [NCI CTRP Participating Site REST Service Guide](#)