CommCare HQ APIs

ⓘ **This feature requires a CommCare Software Plan**

This feature (API Access) is only available to CommCare users with a **Pro** Plan or higher. For more details, see the CommCare Software Plan page.

- This section is for you if...
- Things we take for granted...
- Authentication
- Documented APIs and use of Standards
- API Clients
- Standards used in Some APIs

This section is for you if...

- You are a **programmer**

- You are looking to write code that interacts directly with CommCare HQ through its APIs

If you are **not** a programmer and are looking to integrate CommCare with other platforms we recommend looking at our Zapier Integration.

Things we take for granted...

- You should have a familiarity with HTTP conventions, such as GET and POST and url parameters

- To follow the examples, you should be familiar with the standard command line tool **curl**. Here's the manual: http://www.cs.sunysb.edu/documentation/curl/

- Character encoding is UTF-8. Dates should be compliant ISO 8601. (In some cases we're still using RFC 3339, but we're moving towards ISO 8601.) Guids should be generated in accordance with RFC 4122.

Authentication

Read the Authentication page for information about how to authenticate your requests with CommCare HQ.

Documented APIs and use of Standards

In the following, [version] should always be replaced with one of v0.5, v0.4. These documents only describe the latest version - some prior versions remain available only to support backwards compatibility with *deployed systems*, not for general use.

The latest version is **v0.5**.

API	Description	URL Endpoint	Permission required	
Submission	API to submit data to CommCareHQ.	See Documentation	Set per domain	
User Creation (Mobile Worker)	API to create a mobile worker on CommCareHQ	https://www.commcarehq.org/a/[domain]/api/[version]/user/	Edit Mobile Workers	
User Edit (Mobile Worker)	API to edit a mobile worker on CommCareHQ	https://www.commcarehq.org/a/[domain]/api/[version]/user/[id]	Edit Mobile Workers	
User Delete (Mobile Worker)	API to delete a mobile worker on CommCareHQ	https://www.commcarehq.org/a/[domain]/api/[version]/user/[id]	Edit Mobile Workers	
User Creation (Web User)	API to create a web user on CommCareHQ	https://www.commcarehq.org/a/[domain]/api/[version]/web-user/	Edit Web Users	
User Edit (Web User)	API to edit a web user on CommCareHQ	https://www.commcarehq.org/a/[domain]/api/[version]/web-user/[id]	Edit Web Users	
User Registration [†]	API for registering users on CommCareHQ.	https://www.commcarehq.org/a/\[domain\]/receiver	Set per domain	
OTA Restore (Case List)	API to retrieve data payload consumable to restore a users current state of cases.	See Documentation	Valid login	
Data Export	API to export data from CommCareHQ.	See Documentation	Set per domain	
Groups	List, create, edit and delete groups	See Documentation	Edit Mobile Workers	

Mobile Workers	list mobile workers or access individual user data	https://www.commcarehq.org/a/[domain]/api/[version]/user/	Edit Mobile Workers	
Web Users	list web users or access individual user data	http://www.commcarehq.org/a/[domain]/api/ [version] /web-user/	Edit Web Users	
SMS Mobile Worker Registration API	API to initiate the SMS Mobile Worker Registration workflow	https://www.commcarehq.org/a/[domain]/api/[version]/sms_user_registration/	Edit Data	
Send CommCare Install Info over SMS	API to facilitate the reinstallation of CommCare for already-registered users	https://www.commcarehq.org/a/[domain]/api/[version]/sms_user_registration_reinstall/	Edit Data	
Cases	list cases	https://www.commcarehq.org/a/[domain]/api/[version]/case/	Edit Data	
Case Data	find a single case	https://www.commcarehq.org/a/[domain]/api/[version]/case/[case_id]/	Edit Data	
Forms	list form submissions	https://www.commcarehq.org/a/[domain]/api/[version]/form/	Edit Data	
Form Data	list/search forms or access a single form	https://www.commcarehq.org/a/[domain]/api/[version]/form/[form_id]/	Edit Data	
Data Forwarding	manage your data forwarding endpoints	https://www.commcarehq.org/a/[domain]/api/[version]/data-forwarding/	Domain Admin	
Application Structure	view the schema of modules, cases, and forms for your application	https://www.commcarehq.org/a/[domain]/api/[version]/application/	Edit Apps	
Single Sign On	check login credentials and get the user details	https://www.commcarehq.org/a/[domain]/api/[version]/sso/	Valid login	
Form Attachments	API to get an attachment from a form	https://www.commcarehq.org/a/[domain]/api/form/attachment/{form_id}/{attachment_name}	Valid login	
Case Attachments	API to get an attachment from a case	https://www.commcarehq.org/a/[domain]/api/case/attachment/{form_id}/{ attachment_name}	Valid login	
Lookup Table Download	Get lookup table data	See documentation		
Lookup Table Upload	Create or edit lookup tables by uploading excel file containing table data	See documentation		
Download a .ccz file	Download the .ccz file for a specific version of an application	See documentation		
List Reports	List the available reports in the project	https://www.commcarehq.org/a/[PROJECT]/api/v0.5/simplereportconfiguration/?format=json	Domain Admin	
Download Report Data	Filter and download data for a specific report	https://www.commcarehq.org/a/[PROJECT]/api/v0.5/configurablereportdata/REPORTID/	View Data	

Enabling Data Integration

Connecting to Google Sheets, Email and more using Zapier

How to enable Forms and Case Forwarding

API Clients

Note that any third party libraries are not supported by Dimagi.

- Ruby
    - https://github.com/gdeflaux/commcare_api (third party)
- Python
    - https://github.com/dimagi/commcare-hq-api

Standards used in Some APIs

Standard	Description
OpenRosa Request [†]	The standard for HTTP(S) interactions between CommCare client and server
Meta Data Schema [†]	Open Rosa standard meta data tags. (Taken care of by default by CommCareHQ.)
Case XML [†]	XML spec for case-related transactions. (Taken care of by default by CommCareHQ.)
Authentication [†]	How authentication is done between a CommCare device and the server
CommCare 2.0 Specs [†]	Additional documentation for CommCare APIs

[†] External links to the JavaRosa/CommCare docs