World Bank Group SurveyCTO Enterprise Documentation

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Introduction

SurveyCTO's Enterprise Edition is designed for situations where multiple teams will share a single, centrally-managed SurveyCTO subscription. Like most SurveyCTO subscriptions, Enterprise subscriptions typically feature one or more global administrators who manage the overall SurveyCTO subscription and server settings. However, unlike in standard subscriptions:

- Enterprise administrators are able to define custom user roles and, through them, exercise fine-grained control over which users can see or do what.
    - This includes being able to control which users can see or use different groups of forms or datasets.
- In effect, Enterprise servers can be partitioned into separate workspaces that different teams can use independently.

Each Enterprise subscription includes global limits on the following:

- total number of survey forms,
- total number of users,
- total number of custom user roles (described below),
- total number of web submissions per month,
- total number of Android submissions per month,
- total data storage (submissions and attachments),
- total number of support contacts (users authorized to contact SurveyCTO support),
- ability to stream incoming submissions directly into server datasets (on or off),
- ability to use advanced offline data synchronization features (on or off),
- ability to configure automated quality checks (on or off),
- ability to use other advanced features, like the server API (on or off).

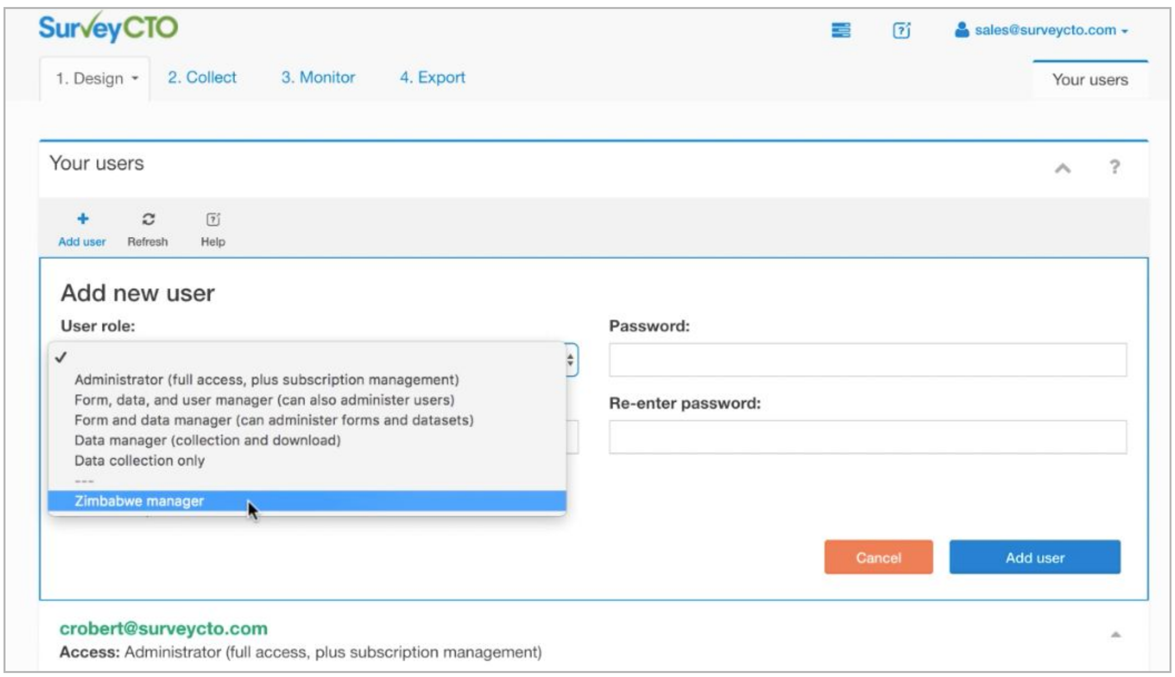
These limits are set case-by-case, depending on the needs of the user.

Typical Enterprise subscriptions are shared by a series of different country offices and/or project teams. Each office or team will be given access to their own group of forms and datasets, so that they can work independently. While one office or team's users will typically not have any access to see or use the forms or datasets of another office or team, regional or other managers might be granted access that spans multiple offices and teams. A wide range of different access structures are possible, since SurveyCTO's Enterprise configuration options are designed to be extremely flexible.

Overview of differences

Relative to standard SurveyCTO subscriptions, here is a brief overview of differences in Enterprise subscriptions:

1. Subscription plans are customized and billing arrangements negotiated case-by-case (generally on an annual basis rather than month-to-month).
2. In the server settings, there is an extra option to list administrator email addresses for internal support queries, plus an extra option to list email addresses for monthly usage reports.
3. In addition to the five pre-configured user roles included in every SurveyCTO subscription (“Data collection only”, “Data manager”, etc.), global administrators can define new custom roles that specify fine-grained permissions over forms and datasets, including at the group level.
4. In order to be able to operate more independently, different teams can be configured to use different datasets for case management.
5. Some Enterprise subscriptions include integration with an outside identity-management system like Okta or Microsoft Azure Active Directory.



Enterprise subscribers are able to generate new user roles with fine-grained permissions — for example, a “ZImbabwe manager” role that only has visibility into Zimbabwe-relevant files

Configuring users and user roles

In SurveyCTO, a user’s *role* governs their level of access throughout the system. Every SurveyCTO subscription includes five pre-configured global roles, to which users can be assigned:

- **Data collection only**: Permission to see and collect data for all forms.

- **Data manager (collection and download)**: Permission to see and collect data for all forms, plus permission to view and download data for all forms and datasets.
- **Form and data manager (can administer forms and datasets)**: Permission to see and collect data for all forms, permission to view and download data for all forms and server datasets, and permission to add, edit, or delete all forms and datasets.
- **Form, data, and user manager (can also administer users)**: Permission to see and collect data for all forms, permission to view and download data for all forms and server datasets, permission to add, edit, or delete all forms and datasets, and permission to add, edit, or delete users.
- **Administrator (full access, plus subscription management)**: Full administrator permission system-wide, including permission to manage the SurveyCTO subscription.

These are called "global roles" because they apply system-wide. In addition to these global roles, Enterprise administrators—any user configured with the **Administrator (full access, plus subscription management)** global role—can define one or more "custom roles" that control user access in a more fine-grained manner. Users can then be assigned to these custom roles.

> For each custom role, permissions can be granted regarding user management as follows (each being a checkbox for enabled or disabled, granted or not-granted):
>
> - Can **add** users
> - Can **edit** users
> - Can **delete** users

Additional permissions concern forms and datasets, and these permissions are all *specified per top-level group*.

> *These top-level groups are the top-level groups configured in the* Your forms and datasets *section of the server console's* Design *tab, plus the root group itself. You can think of these groups like folders on a computer hard drive: the C: drive has certain files in the root folder itself ("C:\") and then there are a series of top-level folders (like "C:\Program Files" and "C:\Documents and Settings"); in the same way, SurveyCTO forms and datasets have a root group (the forms and datasets outside of all groups) as well as certain top-level groups (those groups in the root).*

For the root group, plus each top-level group, permissions can be granted as follows (each being a checkbox for enabled or disabled, granted or not-granted):

- **Can see forms**. The basic ability to see and download forms, form definitions, and attached files -- including attached datasets. If data is attached to a form, assume that anybody with "can see forms" permission can see that data.

- **Can submit responses** (logically requires "Can see forms"). The ability to actually submit data for forms, via web forms, *SurveyCTO Collect*, or *SurveyCTO Sync*.
- **Can view form data in aggregate** (logically requires "Can see forms"). The ability to view field and relationship summaries in the Data Explorer. While the user interface will not allow somebody with only this permission level to download raw data or view full submission details, a hacker with this level of permission (and any necessary private key) could access the raw data.
- **Can view individual responses** (logically requires "Can view data in aggregate"). The ability to zoom in on individual submissions in the Data Explorer. While the user interface will not allow somebody with only this permission level to download raw data, a hacker with this level of permission (and any necessary private key) could access the raw data.
- **Can download data** (logically requires "Can view individual responses"). The ability to download and export data.
- **Can modify or delete data** (logically requires "Can view individual responses"). The ability to purge data and accept incomplete submissions.
- **Can add forms** (logically requires "Can see forms"). The ability to add new survey forms.
- **Can edit forms** (logically requires "Can see forms"). The ability to edit survey forms, upload new versions, re-order forms within the group, and change the configuration of forms (including, e.g., publishing to datasets or the cloud for users who also have "Can download data" permission).
- **Can delete forms** (logically requires "Can see forms"). The ability to delete survey forms.
- **Can see server datasets**. The ability to see (and download) server datasets. Note, however, that anybody who has access to see a form can always see any datasets attached to that form (regardless of whether they have "Can see server datasets" permission for the dataset), and anybody who has access to submit data can also see the "cases" dataset configured for their user role (see the *Case management* section below).
- **Can add server datasets** (logically requires "Can see server datasets"). The ability to add server datasets.
- **Can edit server datasets** (logically requires "Can see server datasets"). The ability to edit server datasets (title and settings), re-order datasets within the group, and edit the configuration for server datasets (including, e.g., publishing to the cloud).
- **Can delete server datasets** (logically requires "Can see server datasets"). The ability to delete server datasets.
- **Can modify or delete server dataset data** (logically requires "Can see server datasets"). The ability to modify or delete server dataset data.
- **Can move forms in or out of group** (logically requires "Can see forms"). The ability to move forms in or out of the group (to successfully move a form from one group to another, a user must have this permission to both groups).
- **Can move datasets in or out of group** (logically requires "Can see datasets"). The ability to move datasets in or out of the group (to successfully move a dataset from one group to another, a user must have this permission to both groups).
- **Can move groups in or out of group** (logically requires "Can see forms" AND "Can see datasets"). The ability to move sub-groups in or out of the group (to successfully move a

sub-group from one group to another, a user must have this permission to both groups). Note that only global administrators can have access to move sub-groups in or out of the root group (because of the implications such moves have on roles and permissions).
- **Can add groups**. The ability to add new groups. Note that only global administrators can have access to add groups to the root (because of the implications on roles and permissions).
- **Can edit groups**. The ability to edit groups (their titles). Note that only global administrators can have access to edit groups in the root (because of the implications such moves have on roles and permissions).
- **Can delete groups**. The ability to delete groups. Note that only global administrators can have access to delete groups in the root (because of the implications such moves have on roles and permissions).

In addition to permissions for a new role, you will specify a title, short description, unique ID, and dataset ID for case management. The title you choose will dictate how the role is shown (and chosen) in the *Your users* sections of the server console. The short description is meant to help you to keep better track, internally, of additional details about the role. The unique ID, like a form or dataset ID, must be short, without spaces and punctuation, and cannot be edited later; it, like the cases dataset ID, is only used in case-management applications (discussed further below).

> Group, role, and user management
>
> In an Enterprise subscription, a global administrator manages three key things:
>
> 1. the **top-level groups** in the *Design* tab's *Your forms and datasets* section,
> 2. the **user roles** in the *Design* tab's *Enterprise configuration* section, and
> 3. the **users** in the *Design* tab's *Your users* section.

Groups

Because permissions are ultimately assigned by top-level group, a key job of the global administrator is to manage the list of top-level groups. Each one can effectively provide an independent workspace for particular offices or teams, including any number of forms or datasets, organized into any number of sub-groups. So for example, one Enterprise administrator might create the following top-level groups:

- Global form and dataset library
- Ethiopia
- Kenya
- Kenya - MCH
- Kenya - Poverty
- Rwanda
- Tanzania
- Uganda
- Malawi
- Zambia
- Zimbabwe

In this example, there's a top-level group for sharing forms and datasets organization-wide, plus top-level groups for a series of country teams in East and Southern Africa, plus two separate groups for the MCH and Poverty teams in Kenya. The top-level groups are designed specifically to facilitate the ideal permissions structure for this example context: which independent workspaces make sense, based on how the organization's country and project teams are naturally organized.

Roles

Based on the example structure described above, for top-level groups, a logical approach to custom roles might parallel the pre-configured global roles. For example:

- **Ethiopia - Data collection only**. Same permissions as the global role, but only for the "Ethiopia" group.
- **Ethiopia - Data manager (collection and download)**. Same permissions as the global role, but only for the "Ethiopia" group.
- **Ethiopia - Form and data manager (can administer forms and datasets)**. Same permissions as the global role, but only for the "Ethiopia" group -- plus read-only access to the "Global form and dataset library" group.
- **Ethiopia - Form, data, and user manager (can also administer users)**. Same permissions as the global role, but only for the "Ethiopia" group -- plus read-only access to the "Global form and dataset library" group.

Tip: as you create new user roles in the Enterprise configuration *section of the* Design *tab, you can click the* Preview *option under any role to quickly see how the server console appears and operates for users assigned to that role.*

> Essentially, for each top-level group, there are typically a handful of custom roles that are designed for users who will work within that top-level group. In addition, you could create some other roles, such as:
>
> - **Global form and dataset manager**. Full access to all groups, including the "Global form and dataset library" group.
> - **East Africa - Form and data manager (can administer forms and datasets)**. Full access to all team groups within East Africa.
> - **Southern Africa - Form and data manager (can administer forms and datasets)**. Full access to all team groups within Southern Africa.

A note about root-group access:

> *While you can technically grant access to the root group and allow teams to put forms and datasets there, you're generally better off never giving root-group access and never*

> *having forms or datasets there in the root group. That's because, if a user has access to only a single top-level group and can't see anything in the root group, SurveyCTO will simplify the user interface and essentially make it seem like there is no top-level group structure at all; e.g., a user who only has access to the "Ethiopia" group will just see everything inside that group as their workspace, without having to worry about that top-level group at all. The user interface, for users, can be simpler if you don't put anything there in the root group (outside of all groups).*

In practice, the global administrator typically creates a new top-level group in the *Your forms and datasets* section of the *Design* tab, then goes immediately down to the *Enterprise configuration* section to create new roles and possibly edit existing roles. This is because:

> *By default, when a new top-level group is added (or an existing sub-group is dragged and dropped into the root to create a new top-level group), no custom roles -- and therefore no users in those custom roles -- will have any access whatsoever to the new top-level group. Users will only see a new top-level group if (a) they are in pre-configured global roles (which have the same access system-wide), or (b) they are in a custom role that is added or edited to include explicit access to the new top-level group.*

There are two ways to add a custom role: starting from scratch by clicking *Create role*, and starting from an existing role by clicking *Duplicate*. Because a role's permissions need to be set group-by-group, the easiest approach is often to duplicate an existing role, then make changes from there.

To make editing each group's permissions as painless as possible, there's a *Copy from* option that lets you easily copy another role's permissions to a group. So, for example, you could duplicate an existing role, then flip through the tabs for each group that requires different permissions, copying permissions from one of the pre-configured global roles. You can always, then, tweak the individual permission checkboxes as desired.

Users

Once there are the appropriate top-level groups and custom user roles, there becomes the question of which users are assigned to which roles. The assignment of users to roles happens in the *Your users* sections of the server console: new users are assigned a role, and existing users can be edited to change their role.

Global administrators (those assigned to the global "Administrator (full access, plus subscription management)" role) can see all users system-wide, and they can add, edit, or delete users without restriction. Users with lesser access might also be allowed to see, add, edit, or delete users, either via the global "Form, data, and user manager (can also administer users)" role or via a custom role that includes "Add user", "Edit user", and/or "Delete user" access.

> All users with add-user, edit-user, or delete-user permission will be able to see the *Your users* sections throughout the server console. However, **users will only be able to see users, edit users, delete users—or even see user roles—that are less than or equal to their own level of access.**
>
> *SurveyCTO user role A is considered "less than or equal to" user role B if A has no permission that B does not have. In other words, if you were to edit role A and role B, to observe all of the checkboxes that represent the permissions they each have, role A would not have a single checkbox checked that role B does not also have checked. Note that role A can have some permissions that role B does not have and, at the same time, role B can have some permissions that role A does not have; in such a case, role A is not <= role B and role B is also not <= role A. Finally, a user A in role A is considered to have access less than or equal to user B in role B if and only if role A is <= role B.*

What this means, in practice, is that the global administrator can safely delegate responsibility for user management. For example, a user given the "Ethiopia - Form, data, and user manager (can also administer users)" role would only be able to see users and roles less than or equal to that role -- so, continuing with the example roles above, "Ethiopia - Form, data, and user manager (can also administer users)", "Ethiopia - Form and data manager (can administer forms and datasets)", "Ethiopia - Data manager (collection and download)", and "Ethiopia - Data collection only", provided that each of those roles would be less than or equal, given the definition above. Such a user would be able to see, add, edit, and delete users, but only within those Ethiopia roles. Users with greater permissions would be entirely hidden, as would roles with greater permissions; so, for example, an Ethiopia manager would not be able to edit or delete a Zimbabwe user, create a new user in any of the Zimbabwe roles, or be able to see or grant access to global administrators.

Internal support vs. SurveyCTO support

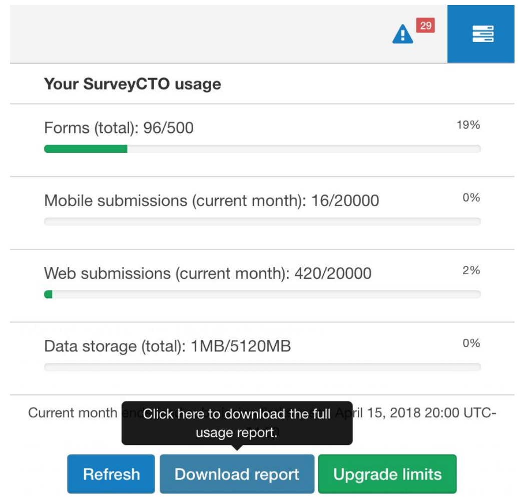
Users who need help using SurveyCTO, within the context of an Enterprise subscription, might want to get help from an internal helpdesk or global administrator rather than from the SurveyCTO team. This is particularly true for help relating to users, permissions, and top-level groups. To make it easy for users to essentially file internal support requests, the overall Enterprise configuration includes one or more email addresses for contacting an administrator.

Whenever a user wants to contact an administrator (primarily in the context of getting an "access denied" error, or when clicking "Support Center" in the online help), they will be able to fill out a short form, and the request will be emailed to whatever email addresses are configured in the Enterprise configuration. Your internal support team can then follow up with the user, via email. (You can configure a single email address for these queries, or a comma-separated list of multiple addresses.)

If you have an internal help-desk system, you can configure the contact-an-administrator email address such that internal support requests are routed directly to your help desk. Depending on your help-desk configuration, you might, for example, automatically open a support ticket for each email received through this system.

Usage reporting

If you have multiple departments or teams sharing your Enterprise subscription, you probably want to monitor usage or even manage internal cost-sharing. You can explore usage for the current usage period (the current month) by clicking the usage icon in your server console, then clicking to zoom in on details for submissions or data storage; there, you can see usage by form or dataset, or you can click *Download report* to download spreadsheets that include aggregated and disaggregated usage by top-level group.



To make it easy for you to keep tabs on usage, you can specify one or more email addresses in your enterprise configuration, to have usage reports automatically emailed at the end of every usage period. We recommend that you configure at least one email address so that you have a record of usage for every usage period.

Case management

If independently-operating teams wish to use [SurveyCTO's case management features](), they will need to be allowed to use different "cases" datasets. This is easy to configure: for each custom role for a given team, simply override the default dataset ID ("cases") and communicate that dataset ID to the team. So, for example, the Zambia roles could specify "zambia_cases" as the cases dataset ID and the Kenya roles could specify "kenya_cases" instead. You can choose any ID you wish for any role, and the dataset with that matching ID doesn't even have to exist right away.

When a user logs in to a server's web forms interface at servername.surveycto.com/collect, for example, the system will check to see if there's a dataset ID with the cases ID listed in the user's role (or just "cases" if it's a global role rather than a custom role), and if so, it will show the *Manage Cases* button. Likewise, *SurveyCTO Collect*'s *Manage Cases* button will pull the appropriate cases dataset based on the current user's role.

> ***Note:*** *All users who are authorized to submit data (for any form) will automatically have access to download whichever cases dataset is defined for their user role (regardless of whether they have "Can see server datasets" permission for the relevant group).*

Filtering by role

There is one additional case-management difference that could be very useful in Enterprise settings: in addition to showing individual cases based on the logged-in user, you can configure cases to appear (or not) depending on the logged-in user role.

In the standard version of SurveyCTO, a case list is filtered with the "users" column of the cases dataset: if the users column is blank, a case appears for everybody; otherwise, the case will only appear for users explicitly listed. In order to show particular cases to only specific *teams*, you had two choices: (a) have everybody on a team share a single login and put that in the users column, or (b) include everybody on a team in the users column. The first option might not be ideal if you prefer that everybody have their own logins, and the second option might not be ideal if you have team members coming and going over time (or even changing teams).

With an Enterprise subscription, there is a third option: creating different user roles for different teams, and then specifying that cases should be filtered by role. Simply add a "roles" column to the cases dataset, and then list there one or more role IDs separated by commas (these are the unique IDs, exactly as they appear in the *Enterprise configuration* section of the *Design* tab). That will then show the relevant cases to only logged-in users who have one of the specified roles.

For example, rather than a single "Ethiopia - Data collection only" role, I might create two roles:

- "Ethiopia - Data collection only - East" (unique ID: ETHIOPIA_COLLECTOR_EAST),

and

- "Ethiopia - Data collection only - West" (unique ID: ETHIOPIA_COLLECTOR_WEST).

In the "roles" column of the appropriate cases dataset, I could then put "ETHIOPIA_COLLECTOR_EAST" (without the quotes) for any cases that I wanted to appear only for users on Team East, "ETHIOPIA_COLLECTOR_WEST" for Team West's cases, and "ETHIOPIA_COLLECTOR_EAST, ETHIOPIA_COLLECTOR_WEST" for any cases that I wanted to appear for both teams.

Copying forms and data from other servers

If you want to copy any forms, datasets, or submission data from another SurveyCTO server, you can do that. *Please be aware, however, that uploading data to your server, as described below, will count against your monthly Android submissions limit*.

Transferring forms and submissions

For each form that you want to transfer, first use the *Download/Form files* option on the *Design* tab of any SurveyCTO server console to download the Excel form definition and all attachments (except for .csv attachments associated with server datasets: ignore those for now). Then use the *Upload form definition* option to upload the forms (and attachments, again ignoring server datasets) to your Enterprise server.

Once the appropriate forms are on your Enterprise server, you can also transfer submission data using *SurveyCTO Sync*. Run Sync, choose *Server* as the source and *Local* as the destination, enter your source server name (the server that has the data), and download all data to your local computer. Then run Sync again, choose *Local* as the source and *Server* as the destination, enter your destination server name (the server to which you want to push the data), and upload all the data to the server.

> *Please note that each submission you upload in this way will count against your current month's limit for Android submissions.*

Transferring datasets

If you also have server datasets that you'd like to transfer, first use the *Download* options to download both the data and the definition for each one, available on the *Design* tab of any SurveyCTO server console. Then, on your Enterprise server, add a new dataset for each, using the *New dataset from definition* tab to upload the .xml file; and, once each has been created, use the *Upload* option to upload the .csv data downloaded from the other server.

Assuming that you first transfer all relevant forms, any links between datasets and forms (datasets that are attached to forms and/or forms that publish into datasets) will be automatically transferred as part of this process (since those links are included in the dataset definition .xml file).

Integrating with an enterprise identity-management system

SurveyCTO Enterprise subscriptions can be configured to integrate with enterprise identity-management systems like Okta or Microsoft Azure Active Directory. For more information, contact your SurveyCTO support contact.