Food and Agriculture Organization of the United Nations

Introduction

Description

SOLA Community Server is a Web-application that hosts and maintains data collected using Open Tenure mobile application. It is open source, developed by UN Food and Agriculture Organization and distributed free under a "Modified BSD License";

Although SOLA Community Server can be used standalone for creating and processing new claims, it is most commonly used in conjunction with Open Tenure application, which is specifically designed to do field work (see more details in Open Tenure Quick Reference Guide).

Key features

- Fully open source, based on the best practices and well-known platforms and tools;
- Multilingual – supports 10 languages (English, Arabic, French, Italian, Spanish, Khmer, Russian, Portuguese, Albanian, Vietnamese);
- Implements multi-project concept, allowing configuration of multiple projects for different communities;
- Can be hosted in local environment or cloud;
- Supports Google Maps and any custom layers, sourced from map servers (e.g. GeoServer);
- Implements robust security model with clearly defined user roles;
- Bundles Web Admin module, allowing convenient management of various system settings;
- Allows flexible management of reports and ownership certificates without source code modifications;
- Contains number of predefined reports for claims collection analysis;
- Implements workflows for claims processing and issuing ownership certificates, including printing of public display lists and map;
- Implements simple post-registration transactions (e.g. ownership transfer), allowing records maintenance after the first registration processes;
- Maintains full history of previous ownerships;
- Allows configuration of dynamic forms – adding new data collection fields by the user;
- Allows capturing and editing land-related claims in the office;
- Allows claims uploading from the file;
- Allows capturing community area boundaries in the office, reviewing, printing and approving them;
- Provides public access to the community map and collected records;
- Implements automatic email notifications of claim reorders and claimants if any change or action is made on their claims;
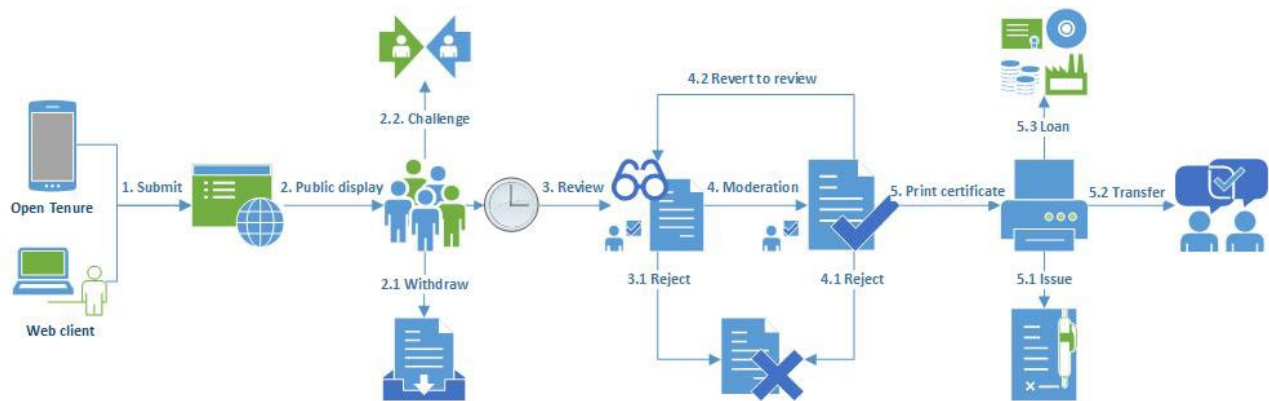
Requirements

SOLA Community Server should be accessible for Open Tenure mobile clients and external community users. Therefore, it requires a reliable dedicated server, with uninterruptable power supply and Internet access. A good choice would be cloud hosting, but in some cases, because of lack of financing or unreliable Internet connection, it could be a local server, connected to Wi-Fi network and allowing access for mobile devices.

Detailed system requirements and installation procedures can be found in the SOLA Community Server Quick Reference Guide.

Claim lifecycle

Each claim goes through the following workflow steps, maintained by SOLA Community Server:

1. Claim captured in the field or created in the office, submitted to SOLA Community Server.
2. Claim enters public display phase, available for public review. It can be edited at this stage by claim **Recorder** or **Reviewer** role.
   2.1. Claimant can ask for withdrawal.
   2.2. Other people can challenge this claim (dispute).
3. Once public display is expired, claim can be further reviewed by the **Reviewer** role. It has to be self-assigned first. Reviewer can edit the claim. If everything is ok, Reviewer approves review phase and un-assigns the claim from himself.
   3.1. Claim can be rejected because of different reasons.
4. Claim is available for moderation, which is done by **Moderator** role. It has to be self-assigned first. Moderator can do further edits if required. Moderator makes final approval, making claim registered and recognized by the community.
   4.1. Claim can be rejected because of different reasons.
   4.2. It also can be reverted to the reviewing stage for additional corrections.
5. After moderation approval, claim certificate can be printed.
   5.1. Additionally claim can be issued, which means a scanned copy of ownership certificate attached to the claim and printed version handed over to the claimant.
   5.2. Over the time, the claim can be transferred as the result of changing its ownership.
   5.3. A loan can be registered as well.

All actions, over the existing claims, mentioned in the workflow are triggered from the claim form, using buttons on the toolbar. Depending on the user role and claim status, this toolbar will look accordingly. Below are examples of the toolbar of 2 different claims. Claim #20120067 is on public display and Claim #20110066 is at the review stage, assigned to one of the Reviewer users.
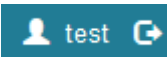
Structure

The following table describes the main pages of the application

Name	Description	How to access
Home	Home page with general information about SOLA Community Server and links to registration and login page.	Opens by default when accessing Community Server. Can be also accessed from main menu "**Home**"
Registration	Allows self-registration of new users.	Available on the Home page for unauthenticated users, from the main menu "**Registration → New registration**"
Login	Login page for user authentication.	Link is available on the Home page in the description text or page header on the right side, next to the language bar.
Logout	Logs out current user and redirects to the Login page.	Logout is an icon, located on all pages in the header on the right side, next to the user name.
Dashboard	Main page, listing the following claims in different tabs: › **My claims** (created by user) › **Assigned to me** (assigned to the current user) › **For review** (claims available for reviewing) › **For moderation** (claims available for moderation) Claims can be searched and ordered. Availability of listed tabs depends on user's role(s).	Dashboard is a default page after login. It can be also access from the main menu "**Dashboard**"
Claim view	Claim page, displaying full details of a claim and containing various action buttons to process it. Action buttons availability depends on claim status and user role(s).	Claim viewing form can be accessed by clicking claim number in the list of claims on the **Dashboard** page or **Claim search** results.
Claim search	Allows claims searching using various criteria	Main menu "**Claims → Search**"

New claim	Allows creation of a new claim, if user has appropriate role(s).	Main menu "**Claims → New**"
Claim upload	Allows uploading a new claim from the archive file. User should have appropriate role(s).	Main menu "**Claims → Upload**"
Public display map	Allows generation of a public display map, showing captured claims.	Main menu "**Claims → Public display (Map)**"
Public display owners	Allows generation of owners list for public display events.	Main menu "**Claims → Public display (Owners)**"
Community area list	Contains a list of community areas.	Main menu "**Community Areas → List**"
View community area	Displays full details of community area, including its boundary.	Community area name should be clicked from the community area list.
New community area	Allows creation of a new community area.	Main menu "**Community Areas → New**"
Map	Displays interactive community map, with all the claims on it, allowing users navigate it, search on the map and check quick information on the claim by using information tool.	Main menu "**Map**"

Reports	Contains various reports, published on the Reports server. Default ones are:
	  › Claims By Gender
	  › Claims By Land Use
	  › Claims By Status
	  › Claims By Type
	  › Claims List By Claimant
	  › Claims List By Number
	  › Claims Summary
		Main menu "**Reports**"

Admin	Admin is a separate module, bundled with SOLA Community Map to manage, users, map layers, data dictionaries and other system settings.	Admin module should be accessed by adding "admin" to the URL of SOLA Community Server. For instance: **http://my-server:8080/admin**

Capturing new claim

The following diagram shows general steps in creating a new claim using SOLA Community Server interface.

NEW CLAIM

MAP CLAIM

CLAIM DETAILS

COMMUNITY
Community Server

OPEN TENURE
Android Device

CLAIM COMPLETE

Claim Export File

New Claim Polygon Sequence

1. Select Current Claim layer
2. Click Map Edit icon
3. Click New Polygon
4. Double Click to end

Edit Claim Polygon Sequence

1. Click Map Edit icon
2. Click Snap (if adjacent polygons)
3. Click Add to snapping icon
4. Click on adjacent polygons
5. Click Edit shape icon
6. Select current Claim polygon
7. Edit current Claim polygon points
8. Save

Layers

Current claim

Edit map

Draw polygon

Snap

Add to snapping

Edit shape

Save

CLAIMAINT

Claim #TEST20040069

DOCUMENTS

Claim #TEST20040069

OWNERS

Claim #TEST20040069

SHARE

ALTER OWNERSHIP

Claim #TEST20040069

COMMENTS

Claim #TEST20040069

ADJACENCIES

Claim #TEST20040069

Submit

Print

Save