

4.7 Data Collection Servers

Overview

When beginning a mapping project, many organizations ask if they need to have a server. After collecting data, you'll need to get the data from the devices. Sometimes, it works to simply collect and process data directly from the data collection devices. However, this does not scale well when you get more people collecting data, and also means your data is not backed up - if you lose the device, you can lose the data. Prior to data collection, it is important to have a data management strategy that is suited for your operations.

Using a data collection server allows for much better management of forms and deployments, collection and aggregation of responses, and can offer additional features for viewing, analysing and exporting data. Use of a server may be restricted by available resources (cost of a physical server) and/or internet connection (access to cloud server). The most used options are:

- **POSM** - a physical server that contains a set of OpenStreetMap tools, including OpenMapKit server. POSMs allow multiple users to connect and upload data from data collection devices to a central location without the need for internet access. This data can then be aggregated using the OMK Server and synced with OSM directly or downloaded for analysis and processing.
- **OpenMapKit Server** - OpenMapKit Server is a cloud based storage system for specially designed to store and compile OpenMapKit data. Data collected through OpenDataKit can also be uploaded to an OpenMapKit Server.
- **Kobo Toolbox** - An online application that allows users to build Kobo/ODK surveys as well as store, aggregate, and perform analysis of Kobo/ODK data.
- **ODK Aggregate** - ODK Aggregate is an online application (local options possible) that stores, aggregates, and allows users to perform basic analysis on ODK data.

If the use of a server is not available to you, it is still possible and crucial to store backups of data. In this case, data will need to be downloaded or otherwise shared with a central location, such as a laptop computer, and cloned to a secondary location such as a hard-drive or second computer.

POSM

OpenMapKit Server

Kobo Toolbox

ODK Aggregate