MOBILE DATA COLLECTION IN GOVERNMENT

An Introduction to Open Data Kit

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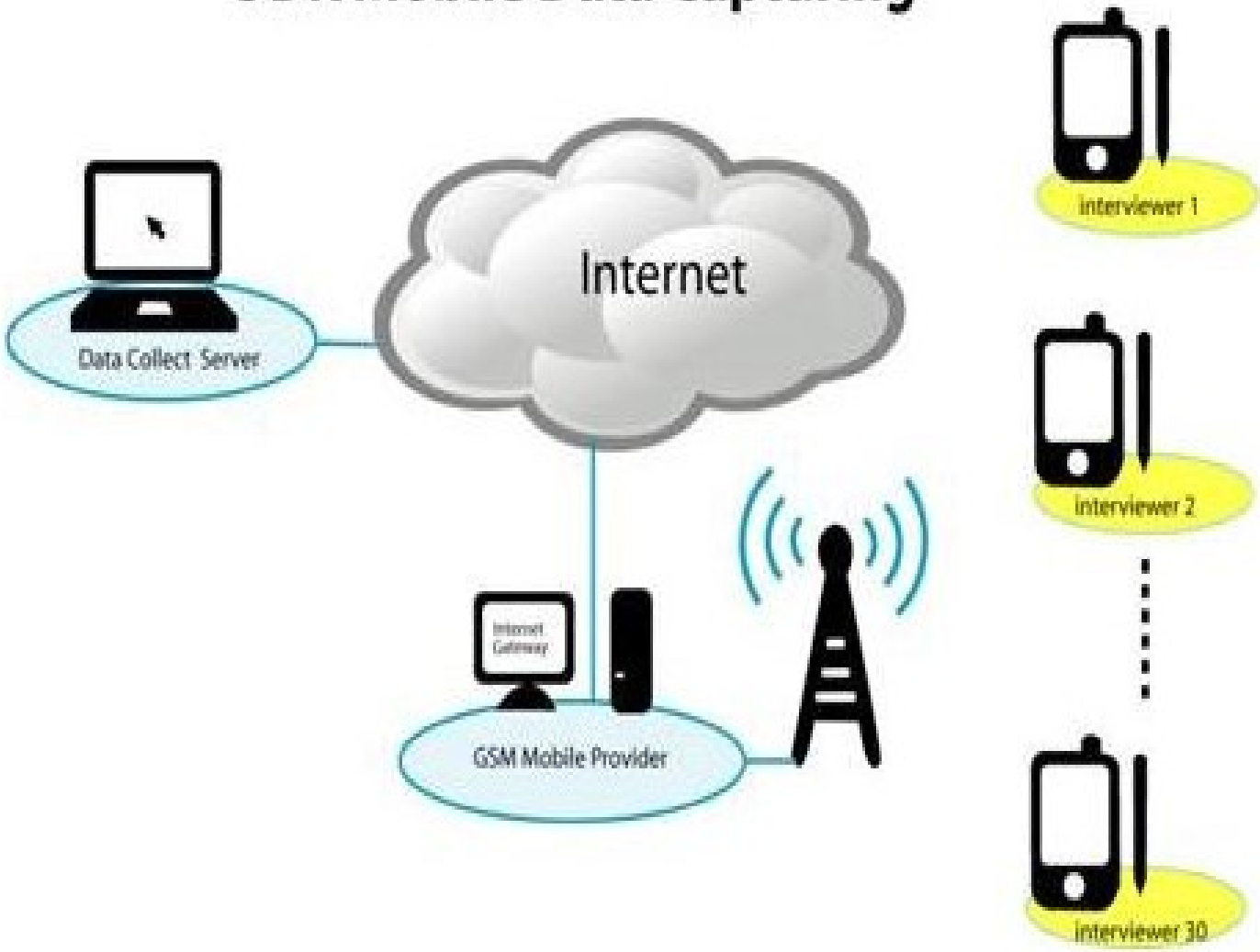
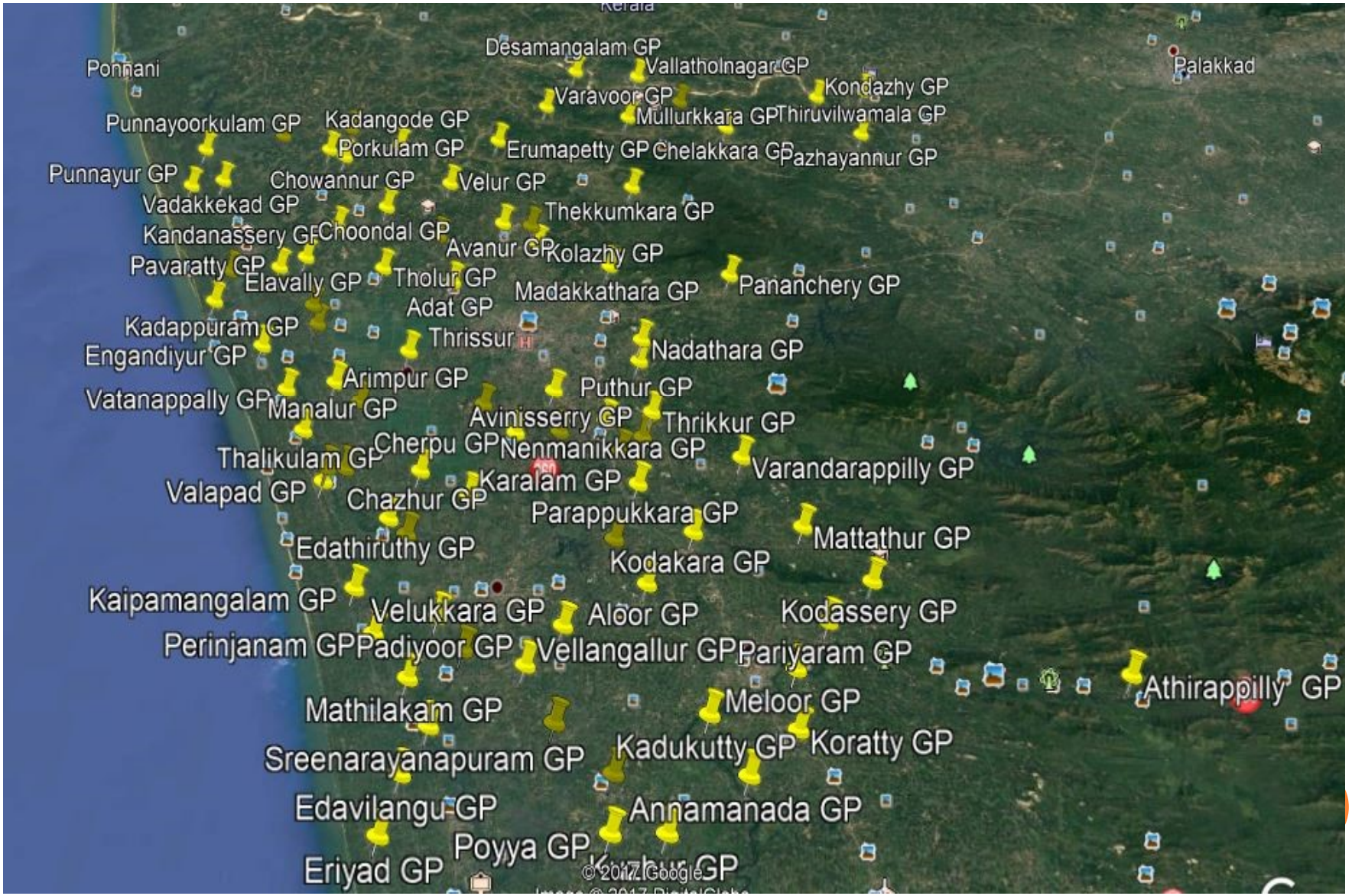
OPEN DATA KIT (ODK)

- Open-source suite of tools for Mobile Data Collection internationally accepted and adopted.
- Implemented in many countries worldwide in Government Projects.
- Mobile data collection and GPS based Geographic Information System implemented free of cost
- User level and data level security incorporated
- Interoperability with other Open Source Tools like Open Street Map, FormHub, Enketo, KoboToolbox, Drupal etc

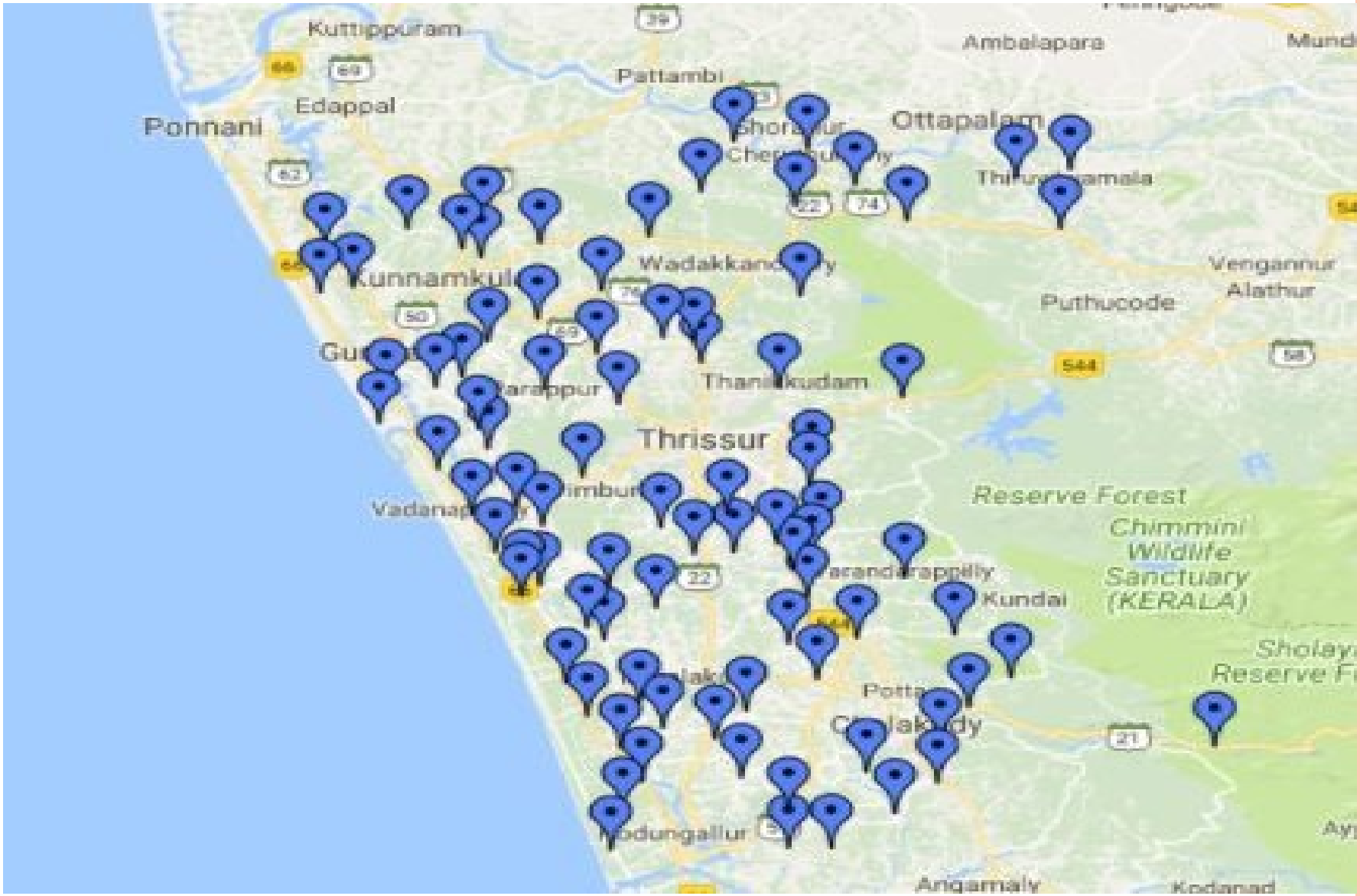
ODK Mobile Data Capturing



GRAM PANCHAYATS IN THRISSUR- SATELLITE



GRAM PANCHAYATS IN THRISSUR-MAP



Open Source and Open Data Policy

- Open Government Data and Open Data Policy under NDSAP- National Data Sharing and Accessibility Policy
- Data has to be published in open format like csv, xls, odf, xml, KML (Keyhole Mark-up Language used for Maps) etc
- Govt. of Kerala, IT Cell Circular 2/701/2015 ITD dated: 21/07/2016- orders to use open source software in Govt. Offices
- LSGD GO 2904/2016 dt:19/10/16 for procuring Android Mobile Phones for GPs

What Device To Have Impact in Future

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Advantages Of Mobile Data Collection

- Very Portable , Small size and high versatility
- Cheap and getting cheaper
- GPS based data capture (Location Specific)
- Automatically solves the problem of connectivity
- Is sealed, self contained, rugged and very reliable
- Fewer data errors and reduce time lag in collection and analyzing of data. Work on the go.
- Various international standardized open source tools and facilities available.
- Effective solutions **today** need to consider the mobile phone as the primary platform for data collection and analysis.

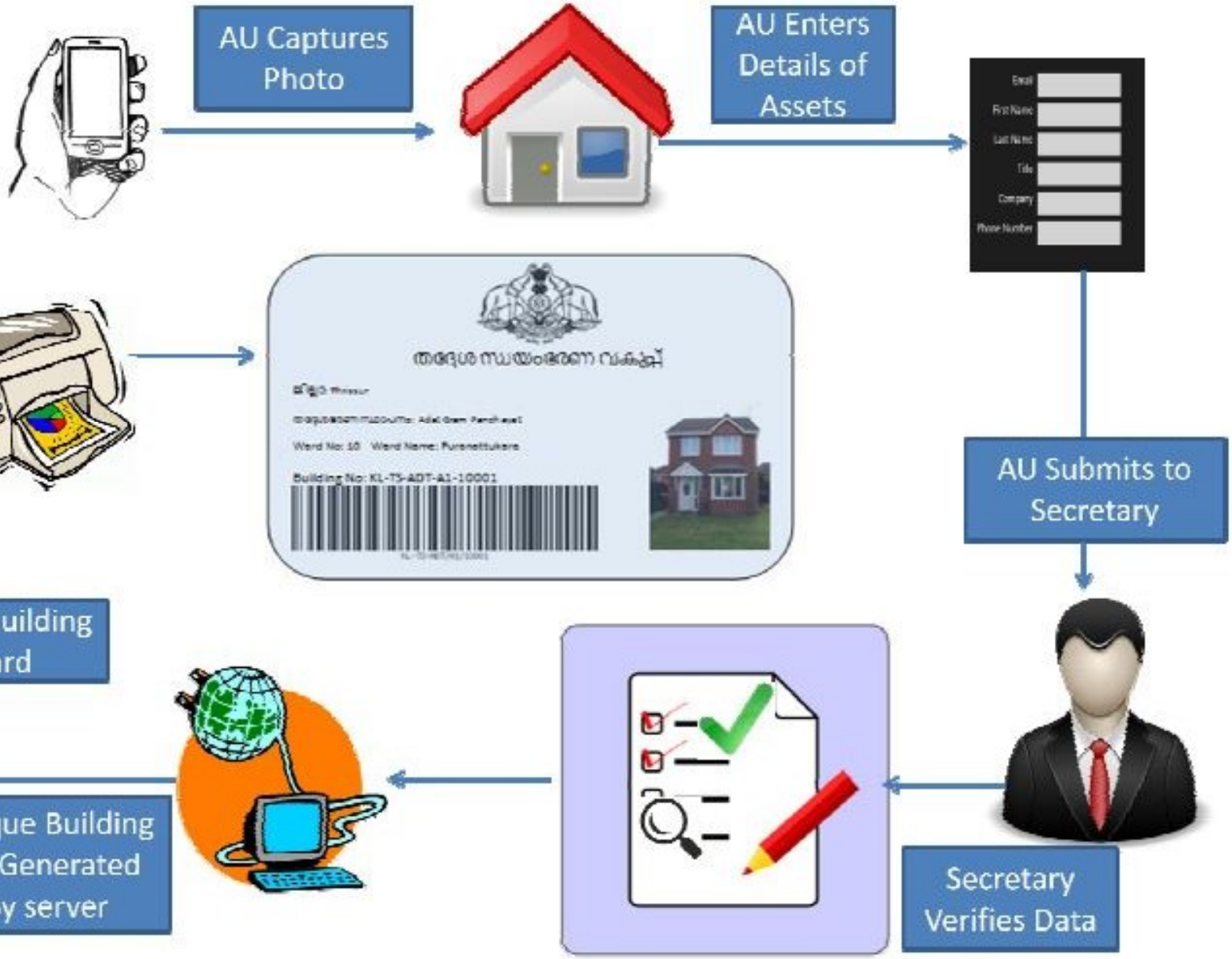
CURRENT OPPORTUNITIES

- Enabling GPS based online Asset register for GP
- GPS based **real-time** monitoring and evaluation of Life Mission Project and Building Numbering
- GPS based **real-time** mapping of Roads and Bridges
- Can be customized and used for any field level **real-time** survey / data collection works of any type of data for any Department.

FUTURE OPPORTUNITIES

- Enabling GPS based GP Boundaries
- GPS based **real-time** monitoring and evaluation of all GP Projects and Schemes
- GPS based **real-time** surveys and field monitoring
- Enabling GP Spatial Planning
- Enabling GIS based GP Development Plan

Proposed Process Flow for Unique Building No Generation



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IN-KL-TS-ADT-100001

തദ്ദേശ സ്വയംഭരണ വകുപ്പ്

Local Self Government Department

ജില്ലാ: Thrissur

തദ്ദേശഭരണ സ്ഥാപനം: Adat Gram Panchayat

Ward No: 10 Ward Name: Puranattukara

Building No: IN-KL-TS-ADT-100001

IN-KL-TS-ADT-100001

Time and Cost Involved

- Entire Mapping completed in One week time
- Work done free of cost in less time
- Existing Human resource utilized
- Open Source Software (Open Data Kit) used for Server and Mobile Application.
- Training time required less than 1 hour
- Used mobile phones of GP Officials to collect data

OPEN DATA KIT WORLD WIDE

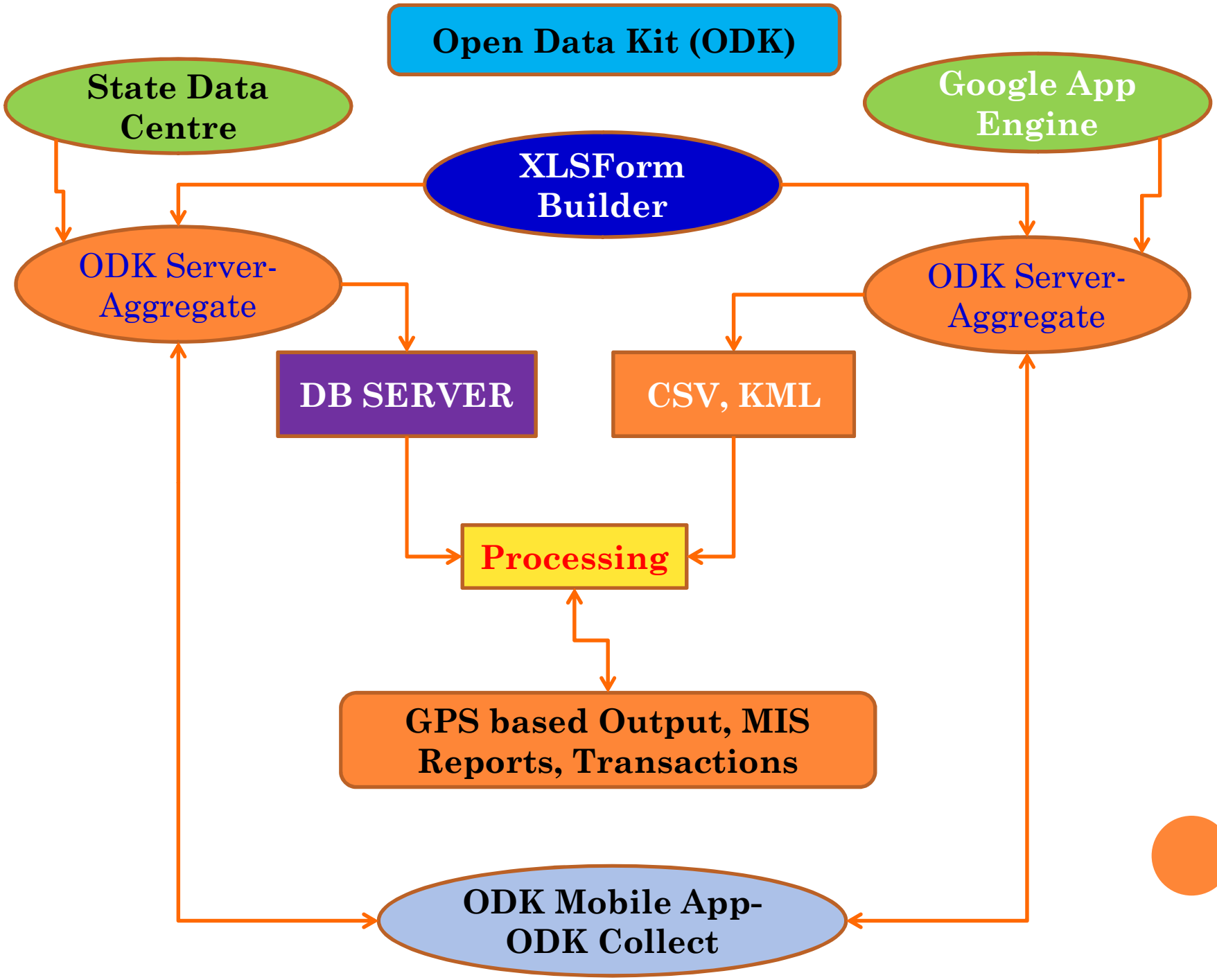
- International Space Station uses ODK to monitor progress on the Carbon for Water program
- Govt. of Pakistan Monitoring Health Officials with ODK
- Govt. of Afghanistan used ODK for fraud monitoring of the 2010 elections
- Africa Soil Information Service is mapping soil conditions of Africa with ODK
- United States is using ODK to gather emergency preparedness and response-related data in the field for natural hazards like storm, flood or tornado
- More details at https://opendatakit.org/about/deployments/

OPEN DATA KIT IN INDIA

- IKP Centre for Technologies in Public Health (ICTPH) enrolled 3,000 households (12,500 individuals) for a comprehensive primary healthcare delivery model in Tamil, Nadu.
- PATH is piloting ODK for use as a digital birthing assistant with clinical decision support, management of patient information, and as a tool for communication and education.
- ODK is being used in UC Berkeley's Health in Hands project in Mumbai and Karnataka.
- UNICEF and the children of Kolkata are mapping their community with ODK.

OPEN DATA KIT IN KERALA-DDP OFFICE

- DDP Office, Thrissur implemented Open Data Kit Server for Mobile based data collection from GPs
- Collected basic & spatial data of 86 Gram Panchayats using ODK through Android Mobile Phones.
- Visualized the data to create a GIS Map of GP's
- Pilot Project Completed in a weeks time.
- Project completed free of cost with existing man power and available resources.
- Project of similar nature if done commercially would have cost huge amount and considerable time.
- Proposed to map all Assets of GP to create an online GIS based Asset Register for GP


Open Data Kit (ODK)
State Data Centre
Google App Engine
XLSForm Builder
ODK Server-Aggregate
ODK Server-Aggregate
DB SERVER
CSV, KML
Processing
GPS based Output, MIS Reports, Transactions
ODK Mobile App-ODK Collect

Thank You!