Uploading REDCap Source Data to DataFax

Neshen Moodley IBRSP





Who we are



National Institutes of Health



National Institute of Allergy and Infectious Diseases (1 of 27 National Health Institutes)



Office of Cyber Infrastructure and Computational Biology



International Biomedical Research Support Program



FDA definition of electronic record

Any combination of text, graphics, data, audio, pictorial, or other information represented in digital form that is created, modified, maintained, archived, retrieved, or distributed by a computer system.



Electronic Source Data Collection

- Source and CRF data should be separate.
- Prevalence has increased.
- > Benefits:
 - Facilitate collection of accurate, complete data
 - Enter source data during study visit
 - Eliminate transcription of source data
 - Reduce instances of transcription errors
 - Eliminate unnecessary duplication of data
 - Promote real-time access for data review
 - Facilitate remote monitoring of data
 - Provide monitors with the ability to compare source to eCRF



Data Collection Data Loss DATA SOURCE CDMS **COLLECTION** TRANSCRIPTION OF Mistakes **SOURCE** Mistakes transcribing entering from TO CRF to CRF Mistakes CRF to CDMS entering

data



Our solution — V1.0

- > Host country/PI owns source data > Source data must reside in-country
- mSource was developed and it enabled:
 - Electronic Source Data collection in-country
 - Export of pipe delimited files → Imported into DataFax
 - Data management using array of tools/reports within DataFax
- > All user/programmed activity was captured in an audit log.
- > Increase in Electronic Source Data collection across multiple studies and sites



Our solution — V1.0 (cont.)

Data entered on mobile devices (encrypted)



Data uploaded to in-country SQL server



Pipe-delimited files created



Management of study data performed in DataFax



DFimport.rpc imports latest data into DataFax



Rsync copies files to directory on DataFax server

* Audit trail logging



The Limitations of V1.0

- > mSource licensing model was complicated and restrictive.
- > Integration was labor/time intensive with limited functionality.
- > Forms development required specialized, higher level skills.
- Did not have the many of the features and awareness that DataFax did.



Proposed V2.0 solution

- Must address V1.0 limitations.
- Is there a tool currently in use that can be considered?
 - Yes → REDCap



Proposed V2.0 solution — cont.

Data entered into REDCap Mobile App



Data uploaded to REDCap server via WiFi or Cellular network



Data exported to SAS, pipe-delimited files exported



Management of study data performed in DataFax



DFimport.rpc imports latest data into DataFax database



Rsync copies files to directory on DataFax server



Proposed V2.0 solution — cont.

Benefits – V2.0 (REDCap)	Limitations – V2.0
More flexibility	Mobile device management
Built-in features	User accounts (device + app, changes)
Better integration	Encryption of data & transfers
Licensing model	Non-approved apps
Server can be in-country	Database update synchronization



Wish list: V3.0 — dfdiscover / dfcollect?

- > Must address V1.0 & V2.0 limitations/issues:
 - Central mobile device management
 - **✓** Accounts
 - **✓** Security
 - ✓ Encryption
 - Synchronizing CRF updates with central database/mobile device
 - Preserve Host country/PI ownership of data → Data must reside in-country



Acknowledgements

- > OCICB
- → df/net → We need dfcollect ASAP!
- Project REDCap

