FHS-IT Services: REDCap & Research Support Services

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EXECUTIVE SUMMARY

The Faculty of Health Sciences has assessed its IT service needs and developed its service offerings and delivery models to ensure effectiveness, avoid duplication and gaps, and take advantage of synergies with IT groups across McMaster. Based on this assessment, models for FHS IT core service offerings were developed and implemented.

Created at Vanderbilt University and maintained by a global consortium for more than 15 years, REDCap (Research Electronic Data Capture) is a secure web application for building and managing online surveys and databases. It offers flexible design, interoperability with health records via FIHR, and can be installed in a variety of environments for compliance with such standards as HIPAA, 21 CFR Part 11, FISMA (low, moderate, high), and other international standards. This has become a crucial tool in many research efforts across the FHS and McMaster.

REDCap Research Support Services (RRSS) have been provided to the FHS via the CSU, in collaboration with FHS Health Research Services. The service offering has been designed as a core service to be centrally funded and have minimal or no cost to the end user, based on a set of eligibility criteria.

EXPECTED OUTCOMES & BENEFITS:

- To provide a responsive body of technical experts to ensure REDCap resources function smoothly and support research continuity both within the FHS and across McMaster.
- To provide a highly responsive, secure, and robust hosting infrastructure, with lower maintenance requirements through automation and individual REDCap instances vs a single institutional installation.
- To ensure the highest level of data integrity, security, and compliance to protect research quality and lower institutional risk.
- To provide timely end to end support; from needs assessment through to data archival and system decommissioning, to researchers using REDCap at McMaster.
- To provide guidance and direction in collaboration with other stakeholders across McMaster for REDCap at McMaster that is in keeping with McMaster's IT priorities, compatible with IT infrastructure, and tailored to users' needs when handling research data in REDCap.
- To enhance researcher engagement by providing a standard platform for McMaster researchers to access a moderated peer to peer community of practice and institutional knowledgebase.

SERVICE DETAILS

What are these services?
REDCap Research support services are a suite of services that provide consultation, software as a service, and support to They are provided by a small team of specialists, including research support

specialists, server specialists, and other administrative supports. Some examples of these services and their scopes include:

- Needs assessment (software evaluation, distribution methods, etc.)
- Data assessment (privacy, PHI, security, etc.)
- System provisioning (system setup, domain reservation, etc.)
- Admin user support (training, consultation, troubleshooting, etc.)
- Security & backup (data backup, encryption, etc.)
- Periodic Server Reviews (new data types, service decommission planning, etc.)
- Export & decommissioning (data export, retention, etc.)

What are the key locations associated with these services?
The FHS datacentres are central to the service and located in the McMaster University Medical Centre (MUMC), rooms 2D11 and 4H16. Other smaller network locations are also included in the service throughout MUMC and MDCL.

REDCap & Research Support Services will be administered and managed within the FHS CSU within the CSU Infrastructure Management service stream.

Who owns the services & their products?
Most services will be owned by CSU, though ownership of data collected in any REDCap instance may vary depending on project sponsor, data sharing agreements, etc. Any data stored on or moving across the network will be owned according to these agreements, laws, and policies, not necessarily by CSU

SERVICE SCOPE

Who are the intended users of the services?
Only faculty within the FHS engaged in REB reviewed research at McMaster are eligible for the service. They are not intended for use by McMaster students of any faculty, arm's length partners or any other parties who do not have a faculty appointment and carry out research activities for the FHS.

What kind / how many services will the services support?
The mandate of CSU is to support core technologies within the FHS. Any REB approved data collection effort that supports the research mission of the FHS or its departments is within these services' scope. In all cases, any REDCap request will be assessed by CSU, and eligibility to access the service may be denied in cases where the proposed project does not meet eligibility criteria or is otherwise determined to not be within scope of the service offering by CSU or Research Services. In cases where eligibility for the service is in question, the final decision will be reached in collaboration between CSU and Research Services.

Examples of specific services that may be included in the service offering include but are not limited to:

1. Needs Assessment
   a. Providing assessment if REDCap is an appropriate tool based on user requirements, providing alternate recommendations,

b. Providing guidance on distribution methods to support data collection in REDCap (public, token based, etc.)
        c. Providing guidance on standards & best practices within McMaster.
2. Data Assessment
        a. Providing assessment of proposed data to determine if hosting requirements are adequate to meet relevant policies and laws.
        b. Referral to experts in data requirements when applicable.
        c. Providing guidance on standards & best practices within McMaster.
3. System Provisioning & Hosting
        a. Hosting REDCap instances; server space, domain names, etc.
        b. Configuring REDCap instances to allow for secure login, to access the public Internet, etc.
        c. Creating initial super administrator credentials for users.
4. REDCap Admin User Support
        a. Direction to Existing REDCap training resources.
        b. Best effort support for questions and troubleshooting when resources are available.
        c. Providing guidance on standards & best practices within McMaster.
5. Security & Backup Services
        a. Setting up automatic data backup for REDCap instances.
        b. Maintaining encryption certificates, at rest encryption, etc.
        c. Security updates for both the REDCap application and servers.
6. Excluded Services
        a. Any of the above services for non-FHS faculty, staff, or students.
        b. Any services which cannot be reasonably accommodated due to availability of resources or other considerations, as determined by the service manager.

SERVICE PROCESSES & PROCEDURES

How do users access these services
FHS faculty members seeking REDCap services must create an online ticket through the MyCSU portal describing their project, and providing information to determine eligibility. CSU may gather additional information to determine if the request is eligible for the service offering. CSU will approach research services for final approval if any question of eligibility remains after this review.

How are the services tracked?
All requests and work efforts are tracked in a ticket tracking helpdesk system. This system handles issue allocation, communications, work tracking and reporting. This system also acts as an inventory of REDCap systems within the service offering.

How are services terminated?
Service users request termination, and CSU will establish a service end date. The client will have an opportunity to export any data or have it archived (e.g., burned to DVD, provided for download, etc.) before termination. Alternately, the client may elect to export their data according to a mutually agreed-upon schedule. Once complete, the server will be taken offline and deleted. The REDCap service is designed for electronic data collection; not for long term storage of collected data. Servers will be scheduled for decommission once data collection efforts are complete.

Who approves access to and continued use of these services?

The FHS Director of IT, CSU management, and research services, may be part of a specific project's approvals process. CSU will determine the relevant parties during initial consultations.

SERVICE AGREEMENTS & ACCOUNTABILITIES

What are the supported hours of the services?
Most of the services will be available during regular working hours. however availability of hosted systems will be as close to 24x7x365 as possible.

How are client communications handled?
CSU will send broad communication of changes or events, including scheduled maintenance periods, to clients via email. Clients will be responsible for informing their system users. For specific project reviews or other issues, CSU staff will communicate directly with the REDCap administrator of the instance in question.

How are issues submitted, prioritized, and responded to?
Client requests will be submitted via email or as an online service request ticket. CSU will investigate incidents, assess impact, and provide service according to the assessed impact. Where possible, CSU's support will be scheduled in coordination with key stakeholders to minimize downtime of resources and maintain business continuity.

What are the client accountabilities associated with the services?
- Providing an accurate representation of research project needs, data types, and other information to determine eligibility and maintain data security
- Requesting changes, customizations, service cancellations, etc.
- Reporting technology issues to CSU when detected
- Responding to communications in relation to a REDCap instance
- Exporting results and archival of collected data.

What are the CSU accountabilities associated with the services?
- Ensuring network connectivity of equipment and services
- Maintaining hardware and software in REDCap instances
- Maintaining detailed records and project documentation.
- Providing clear and responsive communications.

SERVICE COSTS & PAYMENTS

Are there costs associated with the services?
As a core service, there should be no direct costs to access the service. In some cases, clients will be responsible for costs to third parties (e.g., project specific hardware, honoraria, etc.). These costs are the responsibility of the client and will not be billed through CSU.

How are payments for the services to be made?
Payments to CSU for any cost recovery items must be from a McMaster account via a valid McMaster Chartfield. A valid client Chartfield will be required as part of the scope where any cost recovery elements are anticipated. Any special arrangements outside of this will be at the discretion of the FHS Director of IT.