

ARCS-11: REDCap Platform

Version 2.0.0

ARC Advanced
Research
Computing



THE UNIVERSITY OF BRITISH COLUMBIA

REDCap Platform Standard

1. Introduction

1.1 Purpose

This standard defines platform specifications and requirements for the REDCap platform administered by UBC Advanced Research Computing (ARC). This describes the overarching structure of the platform, its instances, and servers.

1.2 Scope

This Standard applies to all servers that collectively house the REDCap platform managed by ARC. This includes the associated **UBC ARC REDCap** production, pre-production, and development; application and database instances.

2. Standard

2.1 Platform Overview

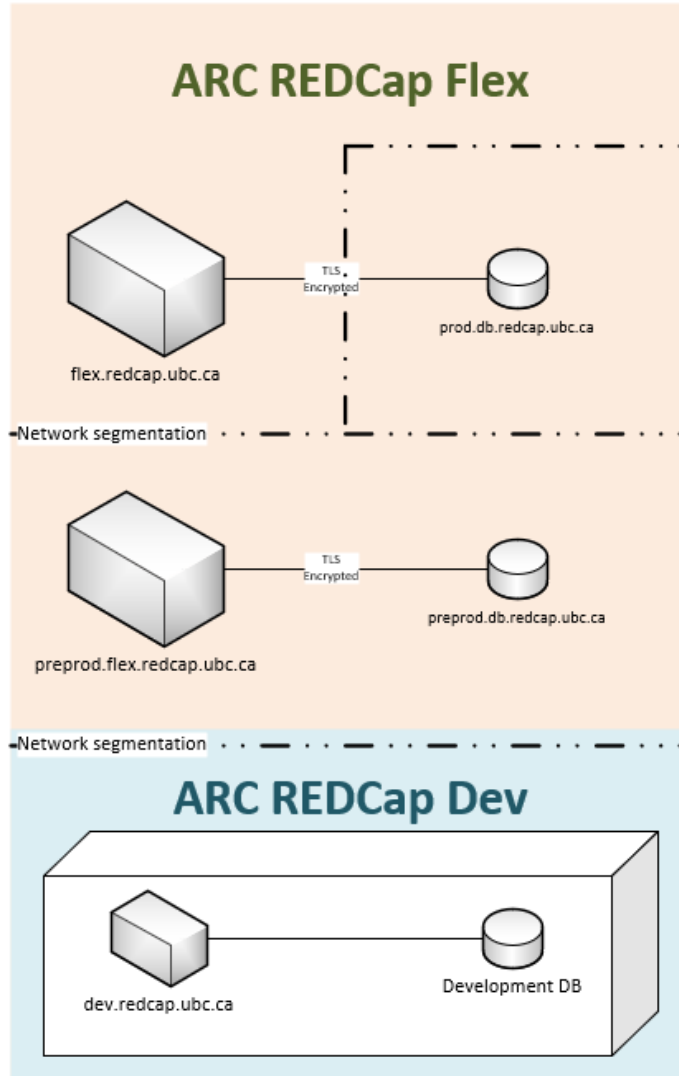
The platform consists of one (1) production instance of REDCap supported by pre-production and development staging instances. The platform is summarized as follows:

REDCap Flex: This instance runs the Standard version of REDCap. It is designed to support projects that seek the latest features available from REDCap and can accept changes over time based on more frequent updates to the software.

Supporting pre-production staging is configured as a duplicate of the production instance. The pre-production instance must never be used for anything other than final testing of a new patch or release bound for production. It is only accessible from the ARC internal network segment and must not be accessible to anyone apart from **ARC System Administrators**.

A Development/Test instance is used for initial testing of patches, software updates, and other changes to the system. Its initial configuration should be a copy of the eventual target instance the candidate update is targeting. This server must only be accessible from the ARC internal network segment and must not be accessible to anyone apart **ARC System Administrators**.

The following diagram provides an overview of the entire platform:



2.2 Server Baseline

All servers are UBC EDUCloud virtual machines, instantiated following baseline specifications and managed through Ansible Playbooks. The baseline configuration is:

- Red Hat Enterprise Linux (RHEL) 7.5+
- SELinux is enabled for the systems
- SSH access is restricted to the ARC VLAN with users access managed through the UBC ELDAP service.
- root access is restricted. It is only initially provided to the `arcansible` setup user.
- sudo access is granted manually by the **ARC Systems Team** only to the roles responsible for managing the REDCap platform.

All maintenance and updates must be done in accordance with the [ARCS-21: System Maintenance](#) standard.

2.3 Application Servers

All application servers include PHP 7.2+ and Apache 2.4+ in addition to the baseline. Only modules outlined below may be included in the associated instance. No other customizations or additions to the software are permitted.

REDCap Flex: Implements REDCap Standard release. The following REDCap Modules are installed in addition to the base release:

1. Session Tracker
2. Shibboleth Esignature
3. Unban IP
4. Multilingual

2.4 Database Servers

All database servers employ MariaDB 10.5+ in addition to the baseline.

2.5 Development Server

The development server combines the application and database servers within a single virtual machine to be used as the initial test bed for maintenance as described in the [ARCS-21: System Maintenance](#) standard.

3. Responsibility

3.1 ARC Platforms Team

Is responsible for the configuration and support of the REDCap applications.

3.2 ARC Systems Team

Is responsible for the configuration, operation, and maintenance of the servers and underlying platform.

3.3 ARC Sensitive Research Team

Is responsible for providing technical advice and documentation for the security and privacy of the platform.

4. References

ARCG-01: ARC Glossary of Terms

ARCG-02: ARC Glossary of Standards

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