RAC Web Application

Run Book

Document Category: RB

Version: Draft 1.0.0

Status: Draft

Last Updated: 2018-04-13

Contents

[Contents 2](#_Toc512279556)

[1 Introduction 3](#_Toc512279557)

[1.1 Purpose 3](#_Toc512279558)

[1.2 Scope 3](#_Toc512279559)

[1.3 Target Audience 3](#_Toc512279560)

[2 Installation and Setup 4](#_Toc512279561)

[2.1 Installation 4](#_Toc512279562)

[2.1.1 Application Server Pre-requisites 4](#_Toc512279563)

[2.1.2 Database Server Pre-requisites 4](#_Toc512279564)

[2.1.3 Migration/Installation Steps 4](#_Toc512279565)

[2.2 Setup & Configurations 6](#_Toc512279566)

[2.2.1 Dependent software and service configuration 6](#_Toc512279567)

[2.2.2 RAC Configuration 6](#_Toc512279568)

[3 Operations Procedure 7](#_Toc512279569)

[3.1 Basic Operations 7](#_Toc512279570)

[3.1.1 Start-up and Initial Validation 7](#_Toc512279571)

[3.1.2 Shutdown 7](#_Toc512279572)

[3.1.3 Restart 7](#_Toc512279573)

[3.2 Monitoring 7](#_Toc512279574)

[3.2.1 On Going Monitory 7](#_Toc512279575)

[3.2.2 Escalation Steps 7](#_Toc512279576)

[Approvals 9](#_Toc512279577)

[History 10](#_Toc512279578)

# Introduction

## Purpose

The purpose of this document is to provide install and operational guidelines for RAC and will specifically cover the following topics:

* Installation
* Environment preparation
* Install and post install verification
* Configuration & setup
* Operations Procedures
* start-up/shutdown/restart

## Scope

The RAC Web Application is used mostly by users external to the school to apply for RAC. Unlike most systems within the school, RAC handles the storing and authentication of accounts without using LDAP. This is because external users would not have an LDAP account, making the system unusable from outside the college.

RAC still requires LDAP for the RAC Advisor role, which is for an internal employee of the college to view and follow through with RAC requests. Alongside LDAP, the system also needs CSAdmin for authorization of administrator level permissions for the RAC Advisor.

RAC requires a connection with the CLARA database. Most program data is pulled from CLARA, so without a CLARA instance no programs could be added.

No systems interface with RAC.

## Target Audience

There are two target audiences for the RAC Web Application:

* Candidates
  + External users looking to complete a RAC request. These users are typically post-education and have been within the work force. Candidates are looking to convert their previous education and/or work experience into progress towards a DEC or AEC at a Cegep.
* RAC Advisor
  + An employee of the college who helps Candidates through the RAC process. They work with the Candidate to have their experience assessed by an expert to determine if they are eligible for credits towards a DEC or AEC.

# Installation and Setup

## Installation

### Application Server Pre-requisites

Before installing the RAC Web Application, please make sure the following environment requirements are met.

#### Hardware Requirements:

1. Minimum CPU 1Ghz
2. Minimum 512 MB of RAM
3. Minimum 30 MB Disk Space

The RAC Web Application is not CPU or Memory intensive. Minimum requirements may be lower than the ones given here.

#### Software Requirements:

1. Windows Server 2007 32-bit
2. Microsoft SQL Server 2008 R2
3. IIS 7
4. Visual Studio Enterprise 2015
5. .NET 4.5
6. TFS 2013

Note: The procurement and install process of the required third-party hardware & software components mentioned above is outside the scope of this run book and is not described.

### Database Server Pre-requisites

#### Hardware Requirements:

1. Minimum 5 GB of Disk Space

The RAC Database is not CPU or Memory intensive and has a very small physical disk space footprint.

#### Software Requirements:

1. Microsoft SQL Server 2008 R2 with a linked CLARA database object
2. Visual Studio Enterprise 2015
3. TFS 2013

Note: The procurement and install process of the required third-party hardware & software components mentioned above is outside the scope of this run book and is not described.

### Migration/Installation Steps

#### Pre-install verification steps:

Please make sure the dependencies are installed in the order mentioned in the software requirements.

1. SQL Server must have a linked server object to CLARA
2. An Active Directory instance broadcasting an LDAP connection
3. An instance of CSAdmin

#### Installation:

Log in as cstest or other that has proper privileges required to install

1. Inside TFS, retrieve the version of the RAC Web Application located on the RAC\_PROD branch of the RACApplication project.
2. Modify the Web.config file to modify the connection strings
   1. ADConnectionString connectionString attribute should be changed to the LDAP connection
   2. RacModelContainer connectionString attribute should have its data source key be modified to the correct database
   3. MSIdentityConnections connectionString attribute should be modified to point towards the same database as RacModelContainer
   4. CSAdminUsers connectionString attribute should have its data source key be modified to point towards the CSAdmin database
   5. Clara connectionString attribute should be modified to point towards the CLARA linked server
3. appSettings key RACDatabase should be modified to the name of the RAC database on the Data Server
4. Right click on the RAC project and select *Publish*
5. Under the *Connection* tab:
   1. Change *Server* to point towards the target App Server
   2. Change the *Site name* to the desired path on the target App Server
   3. Enter in the *User name* and *Password* for the target App Server
6. Click the *Publish* button to begin publishing the application
7. Run the RAC schema generation script against your RAC database:
   1. In the RAC project, open RACModels/RACModel.edmx.sql
   2. Change the USE statement to be the name of the RAC database name
   3. Click execute
   4. Enter in the server name, authentication type, username/password, and name of the RAC database
   5. Click Connect to run the script against the Data Server
8. Execute the claraViews.sql script within the App\_Data folder to create the necessary views for CLARA
9. Log onto the Windows Server
10. Navigate to the IIS control panel
11. Add the RAC Web Application to the appropriate Application Pool on the target App Server
    1. Launch the Internet Information Services Manager on the App Server
    2. Find the Web Application within the *Sites* sub-folder
    3. Right click of the RAC project -> Manage Application -> Advanced Settings…
    4. Under the General section, change *Application Pool* to the relevant application pool for your target application server

#### Post Installation verification steps:

Verify the installation is correct

1. Verify the project folder exists inside your IIS instance
2. Set-up and log into the RAC Advisor account. This verifies that the connection to LDAP and CSAdmin is functional
   1. Inside CSAdmin: Navigate to the Application
   2. Roles page Create the *Recognition of Acquired Competencies (RAC)* application description with the application code RAC
   3. Add the RAC Advisor role assigned to the RAC role code
   4. On the Manage User Roles page, assign a user to the RAC Advisor role
3. Create a new program. This verifies that the connection to CLARA is functional

## Setup & Configurations

### Dependent software and service configuration

### RAC Configuration

These attributes are located within the Web.config file inside the RACApplication project on TFS.

|  |  |  |
| --- | --- | --- |
| **Attribute Name** | **Example Value** | **Notes** |
| MaxTotalFileSize | 30000000 | Maximum size of space allotted for an individual Candidate to upload files. |
| MaxFileSize | 10485760 | Maximum size of a single file uploaded for a Candidate. |
| RacAdvisorName | John Smith | Full name of the RAC Advisor. Displayed on the Contact page. |
| RacAdvisorPhoneNumber | 819.555.4561 ext. 4444 | Phone number of the RAC Advisor. Displayed on the Contact page. |
| RacAdvisorFaxNumber | 819.555.1234 | Fax number of the RAC Advisor. Displayed on the Contact page.N |
| RacAdvisorEmail | [racadvisor@school.ca](mailto:racadvisor@school.ca) | Email address of the RAC Advisor. Displayed on the Contact page. |
| NoReply | [NoReply@school.ca](mailto:NoReply@school.ca) | The *No Reply* address for the system. Used for all emails sent by the system. |
| SmtpHost | smtp.school.ca | The SMTP server host address. Used for emails sent by the system. |
| RACDatabase | RAC | Name of the RAC database on your database server instance. |
| AcceptedFileTypes | .zip,.docx,.flac | A comma separated list of file types that are acceptable for uploaded documents. File types not found on this list will not be uploaded. |

Table 2‑1 Web Configuration Attributes

The web application must be restarted for changes to take effect.

# Operations Procedure

## Basic Operations

### Start-up and Initial Validation

To start-up the web application, follow the standard start-up procedures for the version of IIS running on your application server. View section 1.4.3.3 on initial validation steps.

### Shutdown

To shutdown the web application, follow the standard shutdown procedures for the version of IIS running on your application server. This may involve shutting down just the RAC Web Application, or the entire IIS instance.

### Restart

To restart the web application, follow the standard reboot procedures for the version of IIS running on your application server. This may involve rebooting down just the RAC Web Application, or the entire IIS instance.

## Monitoring

### Start of Day Health Checks & Validation

There are no *Start of Day* health checks.

### End of the Day Checks & Validation

There are *no End of the Day* checks.

### On Going Monitory

Monitor and make sure the CPU, memory, disk space usage is within the acceptable range.

### Escalation Steps

#### Escalation Order

Please escalated to the middleware team if required in the order mentioned below starting from top

|  |  |  |
| --- | --- | --- |
| Team | Hotline/Phone number | Distribution list |
| Development |  | rchan@cegep-heritage.qc.ca |

**Table 3‑1 Service Escalation Contact**

#### Stake Holders Contact

Stake holders contact to notify an outage or any other issue (impending or occurred)

|  |  |  |  |
| --- | --- | --- | --- |
| Team | Primary Hotline/Phone number | Primary Distribution list | Team Lead Name & contact |
| System Owner | 819-778-2270 x1280 | abeauparlant@cegep-heritage.qc.ca | Alain Beauparlant |
| Project Manager |  | [rchan@cegep-heritage.qc.ca](mailto:rchan@cegep-heritage.qc.ca) | Richard Chan |
| Technical Advisor |  | amcdonald@cegep-heritage.qc.ca | Allan McDonald |

**Table 3‑2 Stake Holders Contact**

Approvals

This document has been read and approved by the following people, responsible for its implementation. Approval is indicated by an email showing approval. Those approving below indicate that the contents of this document are correct and complete and agree to their implementation:

| Title | Name | Approval |
| --- | --- | --- |
| Developer | Maxwell Haley | Yes |
|  |  |  |
|  |  |  |
|  |  |  |

History

| Version | Status | Date | Author | Reason for changes |
| --- | --- | --- | --- | --- |
| V1.0 | Complete | 2018-04-23 | Maxwell Haley | Final draft of the Runbook |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |