Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.14

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INTENDED AUDIENCE

The intended audience for this document is the RadNet Clinical Systems team and the eRAD Support/Service team.

It is appropriate to share the document with any customers applying the patch, in order to review new feature descriptions and resolved defects.

WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.12.

NEW SETTINGS

SYSTEM CONFIGURATION

Setting	Default	Purpose
PortalDiagnosticReportPDFPrint	False	(value = True/False) Determines if the portal print button will provide a PDF or HTML version of the diagnostic report. Set to False (default) to use the pre-existing HTML report format. Set to True to provide the report for printing in a PDF format.

NEW FEATURES

FEATURES #23675, 23719, 23720 - IMPROVEMENTS TO PRINTING REPORTS FROM
PROVIDER, PATIENT AND UTILIZATION MANAGEMENT PORTALS

Previously, the main option for printing reports from the eRAD Connect Portals was to print an HTML version of
the report. There are some disadvantages to printing the report from HTML because it is not possible to control all
of the formatting details. For example, HTML does not support headers and footers at the top and bottom of each
printed page. Instead, it prints only one header on the first page and one footer at the end of the content on the
last page. It was possible to print from PDF, which provides a report with the same formatting and pagination as a
report printed directly from the RIS, but the process to do this was not intuitive or efficient, as the user had to click
the Download button, fill in additional information, and then print the downloaded report.

This feature provides a configuration option to replace HTML printing with PDF printing, so that the user can
receive a printed copy of the report from the portal in a format that maintains proper positioning of headers and
footers on each page. The printed report will be very similar, if not identical, to the same report printed directly
from the RIS.

A new System Configuration option has been added to select the desired behavior for the Print button:
PortalDiagnosticReportPDFPrint. The default setting is False which will maintain the current HTML printing
behavior. Setting this configuration to True will replace the HTML printing with the printing behavior described
below.

When the user clicks the Print button (emphasized in the image below), the portal will launch a PDF of the report
in an embedded web page.
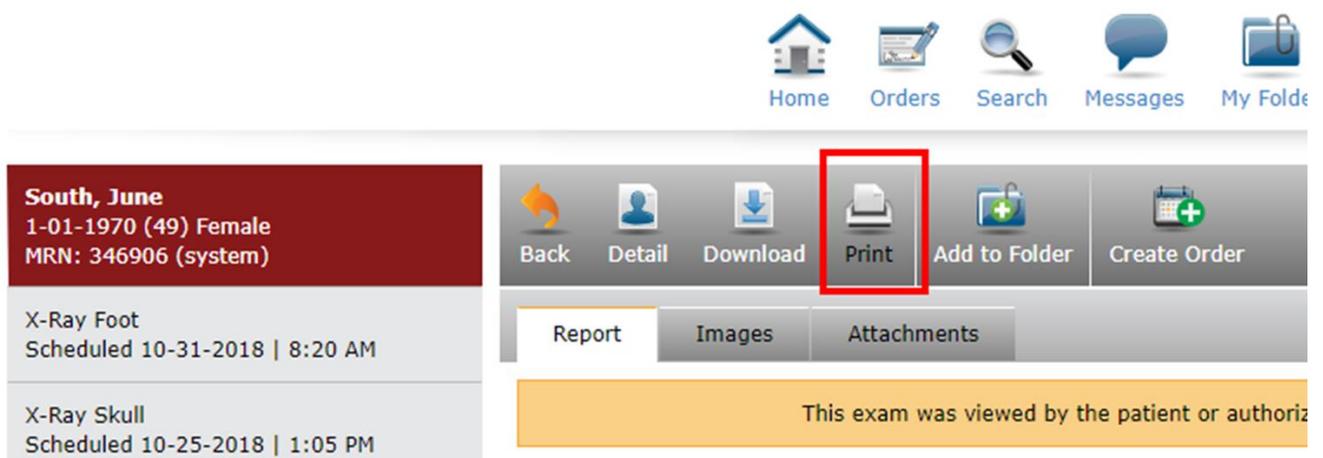
From here, the user will be able to view the report exactly as it will be printed. They can select the Print icon to
launch their operating system's normal print engine.

Unless the user wishes to alter the default settings in their system's print engine, this should result in a 3 click workflow:
1. Click One – Indicate to the portal that the report is to be printed, which will launch the embedded PDF.
2. Click Two – After viewing the preview, click Print to initiate the system print engine.
3. Click Three – Confirm the default system settings to initiate the print job.

In addition to these changes, the report icon on the main worklist and search results list in the Provider and Utilization Management Portals will be modified to immediately launch the report in the embedded PDF version of the report.
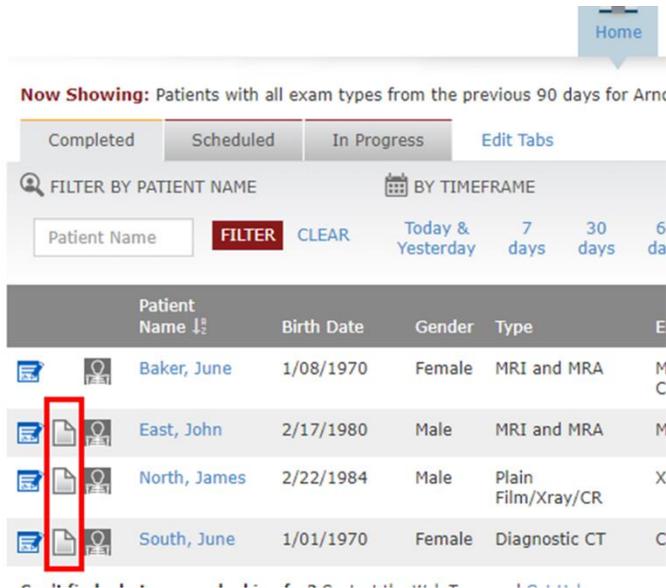
If the report is unavailable due to an unexpected error, such as the SSRS report server being unavailable, the user will be presented with a PDF version of the message from the existing System Configuration setting PortalReportUnavailableMessage.

If the user prints directly from one of the worklist icons instead of printing from the Patient Folder, notification messages will not be visible. However, the Report tab on the patient folder will continue to use the HTML engine to render the report. This **will** allow for the display of notifications and will provide an uninterrupted reading experience for users who wish to view the results from within the portal.
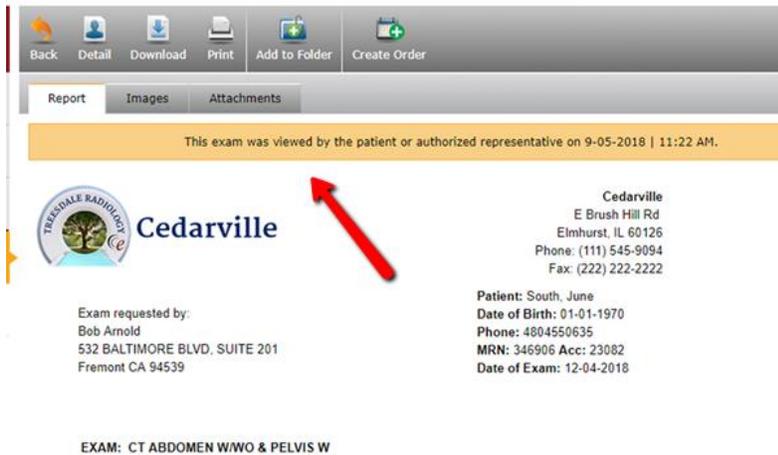
It is possible that the user will right-click and select Print from the hidden browser context menu, which would result in an HTML-formatted report with only a single header and footer.

Some limitations of the print from PDF printing strategy are listed below. The existing HTML printing option is still the default and any customers who find these limitations to be undesirable can continue to use the HTML printing option by leaving the System Configuration set to False.

1. When viewing an embedded PDF in a web page, the page will generally be launched without prompting to download the file. However, this is a computer-based setting.   If the user has selected this browser option, the portal cannot override this setting and the user would need to acknowledge the browser's prompt to continue.
2. Despite the fact that the document appears to be in a web page, it has in fact been downloaded to cache prior to opening. Therefore, the report (PHI) exists on the local PC after this action has been performed.

In general, the new print from PDF option produces a report that is more professionally formatted and matches the reports that are printed directly from the RIS.

CODE STREAM

```
3.2017.6** → 3.2017.6.1** → 3.2017.6.2** → 3.2017.6.3** → 3.2017.6.4** → 3.2017.6.5** → 3.2017.6.6** → 3.2017.6.7** → 3.2017.6.8** → 3.2017.6.9** → 3.2017.6.10** → 3.2017.6.11** → 3.2017.6.12** → 3.2017.6.13** → 3.2017.6.14***

                                                                                                                              3.2017.6.11.1**

3.2018.1 → 3.2018.1.1 → 3.2018.1.2 → 3.2018.1.2.1 → 3.2018.1.3 → 3.2018.1.4 → 3.2018.1.5

3.2018.2 → 3.2018.2.1 → 3.2018.2.2 → 3.2018.2.3***

3.2018.3
```

*** = previous years patches released in 2019
** = 2017.X patches released in 2018
* = 2016.X patches released in 2017
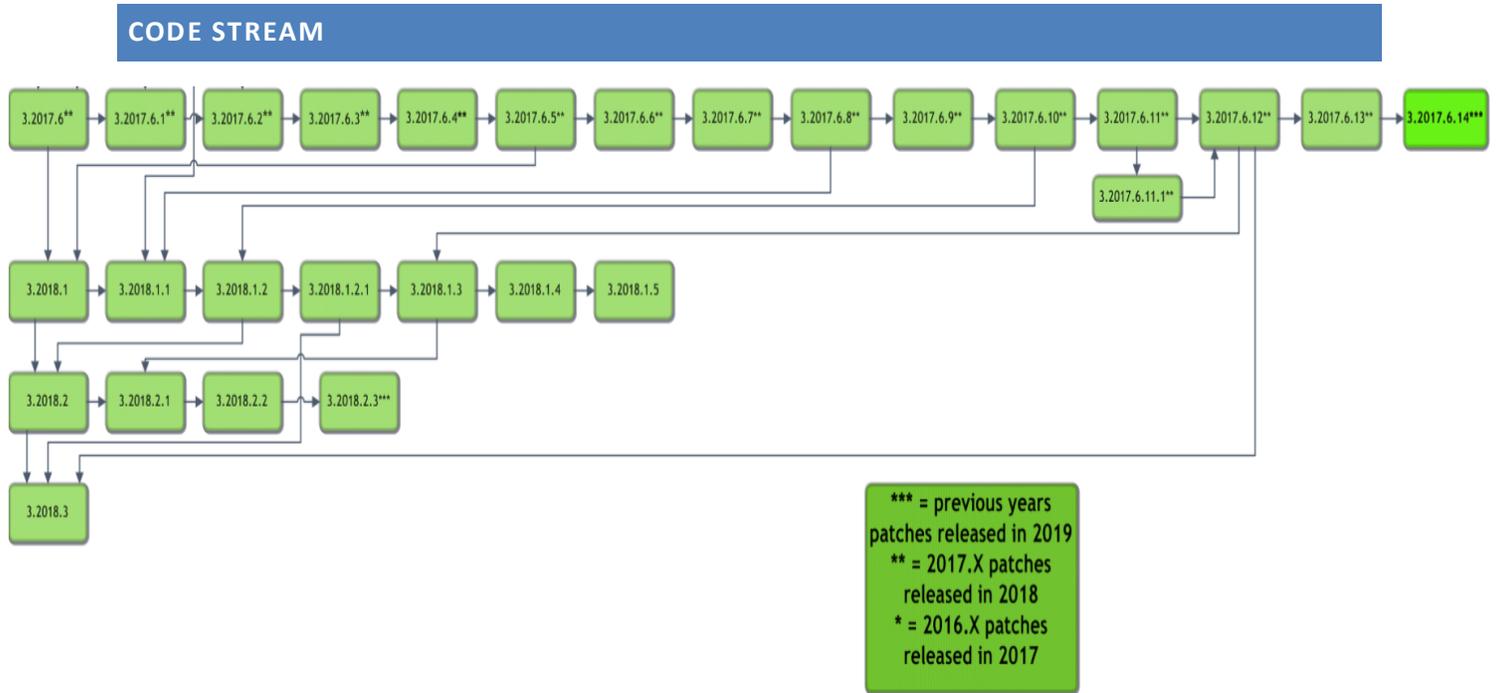
Legend:

Light Green = Previously Released software

Gray = Internal version, non-release version

Bright Green = Current Release

ERAD RIS RELEASE VERSION NUMBERS

Build	Patch	UI Version	Core Version	WS Version	DB Version	Digital Forms	Patient Portal	UM Portal	Provider Portal	Notes
2017.6	-	3.17.6.0(3GB)	3.17.6.0	3.17.6.0	3.17.6.0.01037550	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	Full Version Release. Including Patient, Provider and UM Portals
2017.6	1	3.17.6.1(3GB)	3.17.6.0	3.17.6.1	3.17.6.1.01094077	3.17.6.0	3.17.6.0.1037868	3.17.6.0.1037869	3.17.6.0.1037869	GUI, Web Service and DB updates
2017.6	2	3.17.6.2(3GB)	3.17.6.0	3.17.6.2	3.17.6.2.01130171	3.17.6.2	3.17.6.2.1138297	3.17.6.2.1138298	3.17.6.2.1138298	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	3	3.17.6.3(3GB)	3.17.6.0	3.17.6.3	3.17.6.3.01166033	3.17.6.3	3.17.6.3.1168622	3.17.6.3.1168622	3.17.6.3.1168623	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	4	3.17.6.4(3GB)	3.17.6.0	3.17.6.4	3.17.6.4.01187509	3.17.6.4	3.17.6.4.1190295	3.17.6.4.1190295	3.17.6.4.1190295	GUI, Web Service, DB, Patient, Provider and UM Portals and Digital Forms
2017.6	5	3.17.6.5(3GB)	3.17.6.0	3.17.6.5	3.17.6.4.01187509	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service, Patient, Provider and UM Portals
2017.6	6	3.17.6.6(3GB)	3.17.6.0	3.17.6.6	3.17.6.6.01236363	3.17.6.4	3.17.6.5.1199064	3.17.6.5.1199063	3.17.6.5.1199064	GUI, Web Service and DB updates
2017.6	7	3.17.6.7(3GB)	3.17.6.0	3.17.6.7	3.17.6.7.01257812	3.17.6.7	3.17.6.7.1266287	3.17.6.7.1266287	3.17.6.7.1266287	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	8	3.17.6.8(3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.8.1280869	3.17.6.8.1280870	3.17.6.8.1280869	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	9	3.17.6.8(3GB)	3.17.6.0	3.17.6.8	3.17.6.8.01276873	3.17.6.8	3.17.6.9.1308097	3.17.6.9.1308098	3.17.6.9.1308098	Patient, Provider and UM portals
2017.6	10	3.17.6.10(3GB)	3.17.6.0	3.17.6.10	3.17.6.10.01335594	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	11	3.17.6.11(3GB)	3.17.6.0	3.17.6.10	3.17.6.11.01347408	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI and DB updates
2017.6	11.1	3.17.6.11.1(3GB)	3.17.6.0	3.17.6.11.1	3.17.6.11.01437968	3.17.6.10	3.17.6.10.1331371	3.17.6.10.1331372	3.17.6.10.1331372	GUI, Web Service, DB,
2017.6	12	3.17.6.12(3GB)	3.17.6.0	3.17.6.12	3.17.6.12.01439318	3.17.6.12	3.17.6.12.1439203	3.17.6.12.1439204	3.17.6.12.1439204	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2017.6	13	3.17.6.13(3GB)	3.17.6.0	3.17.6.13	3.17.6.12.01439318	3.17.6.13	3.17.6.13.1538631	3.17.6.13.1538632	3.17.6.13.1538632	GUI, Web Service, Digital Forms, Patient, Provider and UM portals
2017.6	**14**	**3.17.6.14(3GB)**	**3.17.6.0**	**3.17.6.14**	**3.17.6.14.01597996**	**3.17.6.14**	**3.17.6.14.1599367**	**3.17.6.14.1599368**	**3.17.6.14.1599368**	**GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals**
2018.1	-	3.18.1.0(3GB)	3.18.1.0	3.18.1.0	3.18.1.0.01228009	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release
2018.1	1	3.18.1.1(3GB)	3.18.1.0	3.18.1.1	3.18.1.1.01288419	3.18.1.1	3.18.1.1.1299765	3.18.1.1.1299766	3.18.1.1.1299765	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	2	3.18.1.2(3GB)	3.18.1.0	3.18.1.2	3.18.1.2.01341771	3.18.1.2	3.18.1.2.1355946	3.18.1.2.1355947	3.18.1.2.1355947	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	2.1	3.18.1.2.1(3GB)	3.18.1.0	3.18.1.2.1	3.18.1.2.01341771	3.18.1.2	3.18.1.2.1355946	3.18.1.2.1355947	3.18.1.2.1355947	GUI and Web Service
2018.1	3	3.18.1.3(3GB)	3.18.1.0	3.18.1.3	3.18.3.0.01471392	3.18.1.3	3.18.1.3.1466761	3.18.1.3.1466762	3.18.1.3.1466762	GUI, Web Service, DB, Management Reports, Digital Forms, Patient, Provider and UM portals
2018.1	4	3.18.1.4(3GB)	3.18.1.0	3.18.1.4	3.18.1.4.01518863	3.18.1.4	3.18.1.4.1527377	3.18.1.4.1527379	3.18.1.4.1527378	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.1	5	3.18.1.5(3GB)	3.18.1.0	3.18.1.5	3.18.1.5.01547447	3.18.1.5	3.18.1.5.1561651	3.18.1.5.1561652	3.18.1.5.1561653	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.2	-	3.18.2(3GB)	3.18.2.0	3.18.2.0	3.18.2.0.01412126	3.18.2.0	3.18.2.0.1416370	3.18.2.0.1416371	3.18.2.0.1416371	Full Version Release. Including Patient, Provider and UM Portals
2018.2	1	3.18.2.1(3GB)	3.18.2.0	3.18.2.1	3.18.2.1.01490049	3.18.2.1	3.18.2.1.1509822	3.18.2.1.1509823	3.18.2.1.1509822	GUI, Web Service, DB, Management Reports, Digital Forms, Patient, Provider and UM portals
2018.2	2	3.18.2.2(3GB)	3.18.2.0	3.18.2.2	3.18.2.2.01563299	3.18.2.2	3.18.2.2.1583286	3.18.2.2.1583287	3.18.2.2.1583286	GUI, Web Service, DB, Digital Forms, Patient, Provider and UM portals
2018.2	3	3.18.2.3 (3GB)	3.18.2.0	3.18.2.3	3.18.2.2.01563299	3.18.2.3	3.18.2.3.1592002	3.18.2.3.1592003	3.18.2.3.1592003	GUI, Web Service, Digital Forms, Patient, Provider and UM portals
2018.3	-	3.18.3(3GB)	3.18.3.0	3.18.3.0	3.18.3.0.01547822	3.18.3	3.18.3.0	3.18.3.0	3.18.3.0	Full Version Release. Including Patient, Provider and UM Portals

INSTALLING

CLIENT/GUI

Copy and replace the current rRIS…zip file with the eRAD_rRIS_2017.6.14.zip file provided with this release.

Be sure to make a backup of the ris.exe.config file contained within the current .zip folder.

WEB SERVICE

This updated is only required for the Wedge Web Services. The Core RIS Service and Document Distribution Service are not required to be updated.

1. The web service upgrade consists of replacing the files in the RIS Web Service directory with the files supplied in the rRISService folder with this build. Always create a backup of the files being replaced. This upgrade includes 141 files in the rRISService folder and 7 sub folders. Of those folders, 1 is a folder titled **"XSL"** that contains a sub folder and files within the subfolder. Another folder is titled **"deploy"** that contains the new .config files that will be deployed with the user of the file called "ServicesConfigWizard.exe" (see instructions below). Folders ar (Arabic), en_AU (Australian English), en-ZA (South Africa), he (Hebrew), pt_BR (Brazilian Portuguese), es-AR (Argentina Spanish) and ru-RU (Russian) and are localization folders. The WedgePlugins folder contains various plugin files for RADAR, MIRTH, Ensemble, etc…

Services Configuration Wizard

With the release of 42 to decrease the chance of losing configuration setting and missing new configuration options, we will no longer include the configuration files in the release in the main set of files, but they will now exist in a "deploy" folder, which will contain the three site configurable config files; applicationsettings, connectionstrings, and services as well as a copy of the rRISServices.exe configuration file. The contents of this folder should not be required to be touched.

On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

This application will read the existing configuration file(s) (if files exist), and compare to the provided new configuration files then will display three tabs, for each configuration file:

Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.
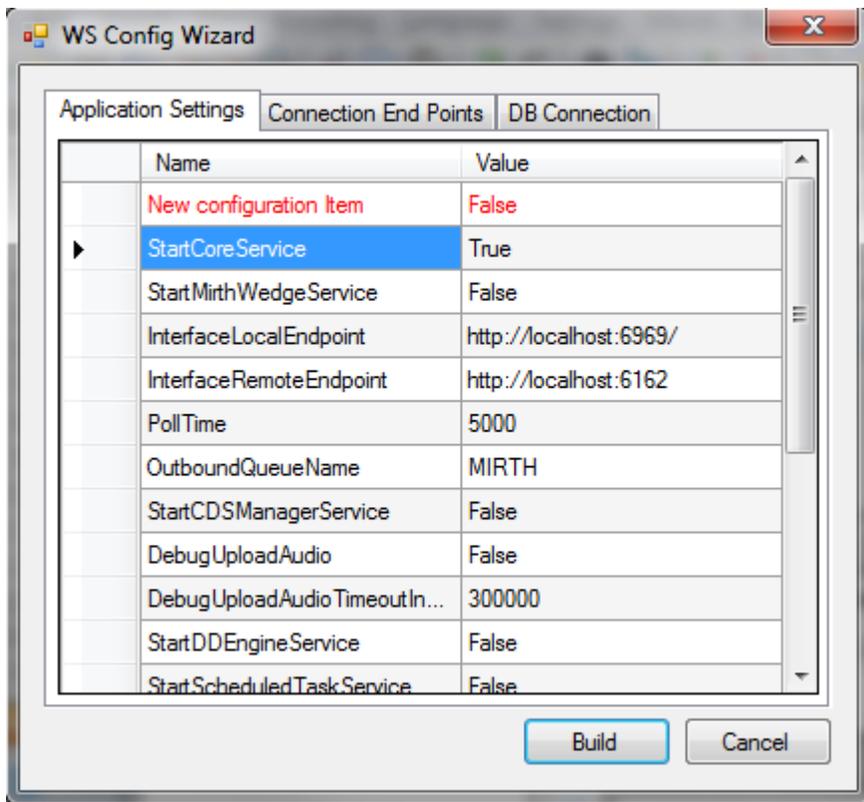
Connection End Points: will display the existing configuration, if the value is left blank then that entry will not be created, in the case of "Study Service" or "CDS Service" if both http and net.tcp were not provided then that endpoint will not be created at all.
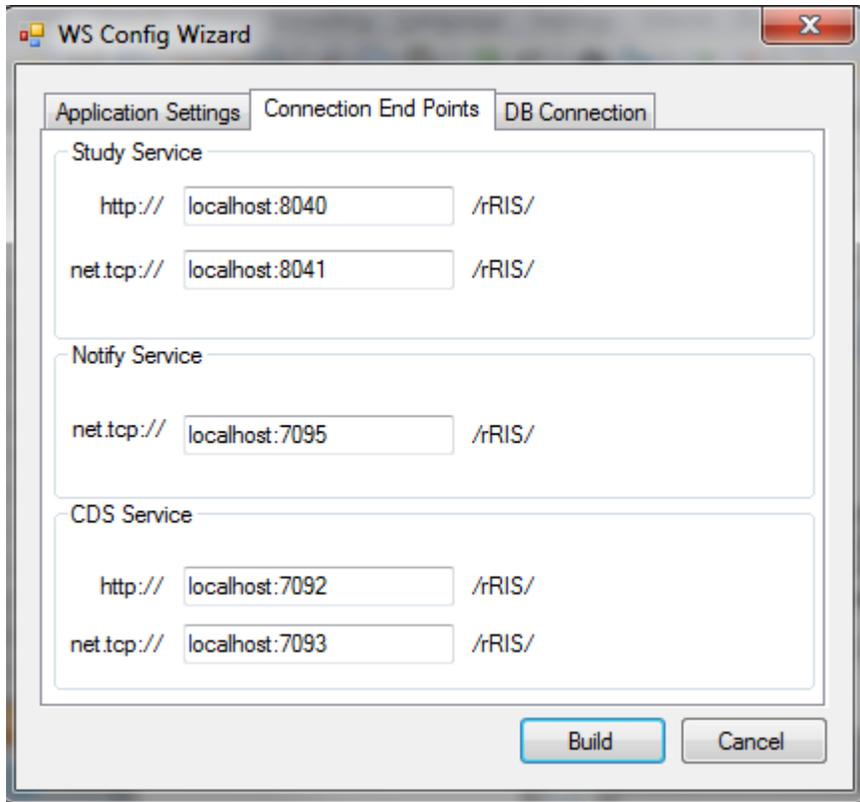
DATABASE UPDATES

Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

Note: There is a new upgrade process introduced with B43.1 called "RunUpgrade.bat". The batch file will open a command window. This process will prompt you for the database server name, database name and authentication credentials. There is no need to run the database upgrade scripts manually as was done in previous releases.

1) From the upgrade folder, double click the "RunUpgrade.bat" command file.

2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

3) You can choose to use "Trusted connection". Using this option will pass the identity of the currently logged on user. If this user has "db_owner" access to the eRAD RIS database then feel free to use this options.

4) If you decide not to use "Trusted connection" then you will be prompted for user id and password.

Example:
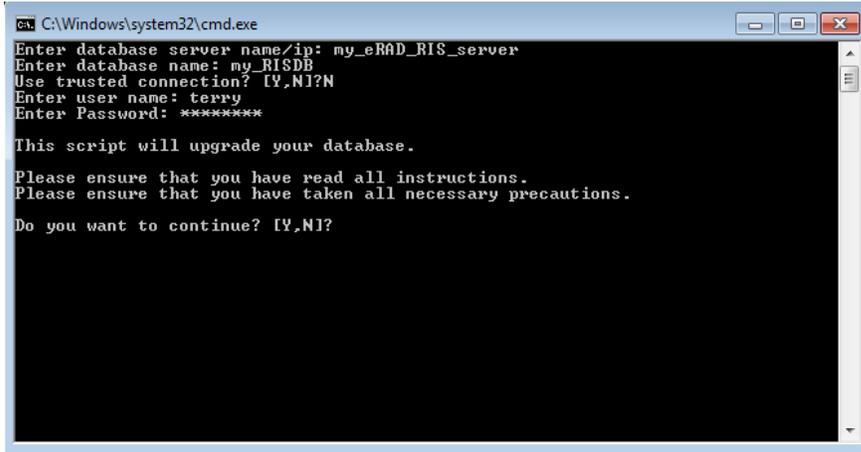
```
C:\Windows\system32\cmd.exe
Enter database server name/ip: my_eRAD_RIS_server
Enter database name: my_RISDB
Use trusted connection? [Y,N]?N
Enter user name: terry
Enter Password: ********

This script will upgrade your database.

Please ensure that you have read all instructions.
Please ensure that you have taken all necessary precautions.

Do you want to continue? [Y,N]?
```

5) After the upgrade program has finished you can find the upgrade logs in the "log" folder. The file name will be eRAD_RIS_db_upgrade_timestamp.log, where timestamp is a value representing the date and time the upgrade started. If you see any errors please contact the development team