

Server Update

For eRAD RIS

Version 3.0

Build 3.2017.6

Update 3.2017.6.2

Table of Contents

Package Contents	3
Intended Audience	3
Who is affected.....	3
New Features.....	4
Feature #19746 – Auto-calculate Australian Stem checksum on Edit Address screen	4
Feature #19745 – Referring practice name(s) are now visible in address list on the Personnel screen.....	5
Feature #19994 / 18698 – Ability to configure whether Plan Level deductible will be used in Amount to Collect calculation	6
Resolved Items	8
Code Stream	11
eRAD RIS Release Version Numbers	12
Installing	13
Client/GUI.....	13
Web Service	13
Database Updates	15

PACKAGE CONTENTS

 _ReleaseNotes	03/01/2018 4:06 PM
 DB	03/01/2018 11:40 AM
 ExternalWebAPI	03/01/2018 11:40 AM
 PatientConnect	03/01/2018 11:41 AM
 Questionnaires	03/01/2018 11:40 AM
 ReferringConnect	03/01/2018 11:41 AM
 rRISService	03/01/2018 11:40 AM
 Service Tools	03/01/2018 11:40 AM
 ThickClient	03/01/2018 11:40 AM
 UM_Portal	03/01/2018 11:40 AM

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.

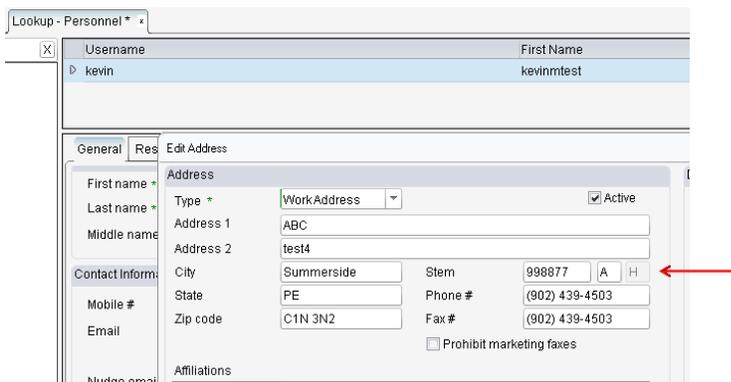
WHO IS AFFECTED

Build 2017.6 installs. This server update must be applied to 2017.6.1

NEW FEATURES

FEATURE #19746 – AUTO-CALCULATE AUSTRALIAN STEM CHECKSUM ON EDIT ADDRESS SCREEN

In Australia, each referring provider has a Stem + Location code for each address from which they practice. A checksum is calculated from this code to allow a RIS administrator to verify that the code is accurate. To support this need, the Location Character field on the Edit Address screen in the Personnel editor has been replaced with a more robust *Stem* field, which contains an area for the stem, followed by an area to enter the Location code.



The screenshot shows the 'Edit Address' screen in the Personnel editor. The 'Stem' field is highlighted with a red arrow. The 'Stem' field is split into three parts: '998877', 'A', and 'H'. The 'Location Character' field has been replaced by the 'Stem' field.

If an NPI number is entered for the referring physician, the NPI will be prepopulated to the Stem field, though this can be changed if needed. Once the user enters the location character, RIS will automatically calculate the checksum and display it in the third field, as shown above. The checksum cannot be edited.

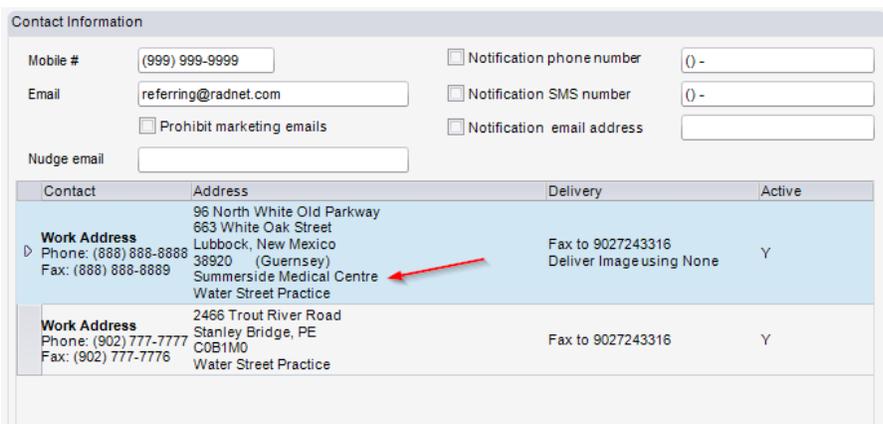
The logic for the checksum is documented here: <http://www.clearwater.com.au/code/provider>

Because this workflow is probably not applicable for customers outside of Australia, there is an access string to control whether these fields are visible for the user. This is a pre-existing custom visibility access string, named *Custom.Visibility.Data.Personnel.I_person_address.location_character*.

FEATURE #19745 – REFERRING PRACTICE NAME(S) ARE NOW VISIBLE IN ADDRESS LIST ON THE PERSONNEL SCREEN

The Personnel editor has a General tab that displays a list of addresses that are associated to a referring physician. Each address can be associated with one or more Referring Practices. In markets where Referring Practices are the primary means of distinguishing between offices, it is particularly helpful to include this information on the summary grid.

Referring Practices are now listed at the bottom of the Address cell for each row in the Personnel editor’s addresses grid.



FEATURE #19994 / 18698 – ABILITY TO CONFIGURE WHETHER PLAN LEVEL DEDUCTIBLE WILL BE USED IN AMOUNT TO COLLECT CALCULATION

This feature was originally introduced in version 2017.3.10, as Feature #18698, and it is now added to the 2017.6 code stream.

When using automated Eligibility workflow, problems can sometimes arise due to differences in how payers return plan information related to the patient’s financial responsibility. These differences often require administrators to use the **Eligibility Limit Payment** table to configure exceptions to accommodate for these differences. The Eligibility Limit Payment table has been enhanced to allow for configuration related to variation in how deductible amounts are returned.

Many payers will return deductible amounts in the general plan section of the coverage, Plan Maximums and Deductibles; then if there are specific deductible conditions for X-ray/MRI, these will be specified in the service type section. If the service type section does not contain a more specific deductible, the plan deductible applies.

However, there are other payers who are an exception to this rule. For these payers, the deductible does not apply if it is not specifically listed in the service type section. For these payers, eRAD RIS should ignore the Plan-level deductible.

A new column, **Use Plan Deductible Flag**, has been added to the Eligibility Limit Payment table.



This setting is configurable by Payer ID or by Carrier Code. When Use Plan Deductible is set to Y (for Yes), the Plan-level deductible will be used for the Amount to Collect calculation, if no specific service type deductible is specified. For any payers that are exceptions to this standard approach, the column’s value can be set to N (for No). With this configuration, if the payer does not list the deductible in the service type section, no deductible will be applied when calculating the payment.

The Amount to Collect – Details screen will list \$0.00 for the Remaining Deductible. As with other Eligibility Limit Payment settings, a notation will indicate that the information in the return was adjusted.

The screenshot shows a dialog box titled "Amount to Collect - Details". It contains a table of CPT codes and their associated costs, along with various insurance-related fields. The "Estimated visit cost" is set to \$43,404.68. The "Remaining Deductible" is \$0.00. The "Amount to collect" is \$0.00. A note at the bottom states: "*** An adjustment was made based on the modality and carrier." The "Cancel" button is highlighted with a yellow circle.

CPT	Units	Usual & Custom...	Actual Rate	Total
3120F - 12-LEAD ECG PERFORME...	1			
4165F - 3-DIMENSIONAL CONFOR...	1			
4559F - 1BODY TEMP MEAS>=35.5...	1			
54328 - 1 STAGE DSTL HYPOSPADI...	1			
70482 - CT ORBIT SELLA/POST FO...	100		430.17	43017.00

Estimated visit cost: Override

Co-pay ***: Co-pay portion:

Remaining Deductible ***: Deductible portion:

Co-insurance ***: Co-insurance portion:

Amount to collect:

*** An adjustment was made based on the modality and carrier.

OK Cancel

RESOLVED ITEMS

eRAD RIS

Redmine #	Subject
19877	When a patient has multiple exams and a scenario where the patient financial responsibility is different for the two exams (such as CT vs XR), the Amount to Collect will now display accurately when View/Edit is opened after the exam is performed, regardless of which study is opened. Previously, the amount could change depending on which study was used for the View/Edit (the less expensive modality would display a smaller Amount to Collect, for example).
18569	Resolved an object reference error that could occur when adding a Patient Alert with a custom worklist Icon.
19892	When checking for existing MRNs for Issuers with Mod10PrePad Identity Validation Type, the leading zeros will be added prior to the check, ensuring that a duplicate MRN cannot be created.
19845	Changed the color of the checkmark when acknowledging a Critical Result in dark theme to improve visibility.
19804	Resolved an object reference error that occurred when saving or deleting custom views in the Appointment Book.
19946	For patients with a suffix or prefix in their name, the legacy outbound container previously contained the Description only. The Suffix and Prefix codes are now also included, as some downstream applications require the code to match with their own data.
19885	Resolved an issue that caused a "Billing codes are required" warning when registering studies that were scheduled from an existing cancelled study, if a validation rule was configured to require Billing Codes. Billing Codes are no longer being deactivated at the time of cancellation/rescheduling.
19879	Adjusted the layout of the Organization screen to ensure that action buttons are always visible.
19838	Improved the performance of several queries that could cause deadlock errors during data

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

	migration due to unnecessary table scans when using SQL Server 2014 or newer.
19798	Users will no longer see a temporary duplication of external EMR MRNs when scheduling a Walk In from the Existing Order prompt.
19797	Users will no longer see a duplicate external Issuer in the MRN grid when RIS prompts to choose a system MRN for unmatched EMR orders.

Provider Portal

Redmine #	Subject
19861	Report Download button in Provider Portal is now correctly downloading the report.

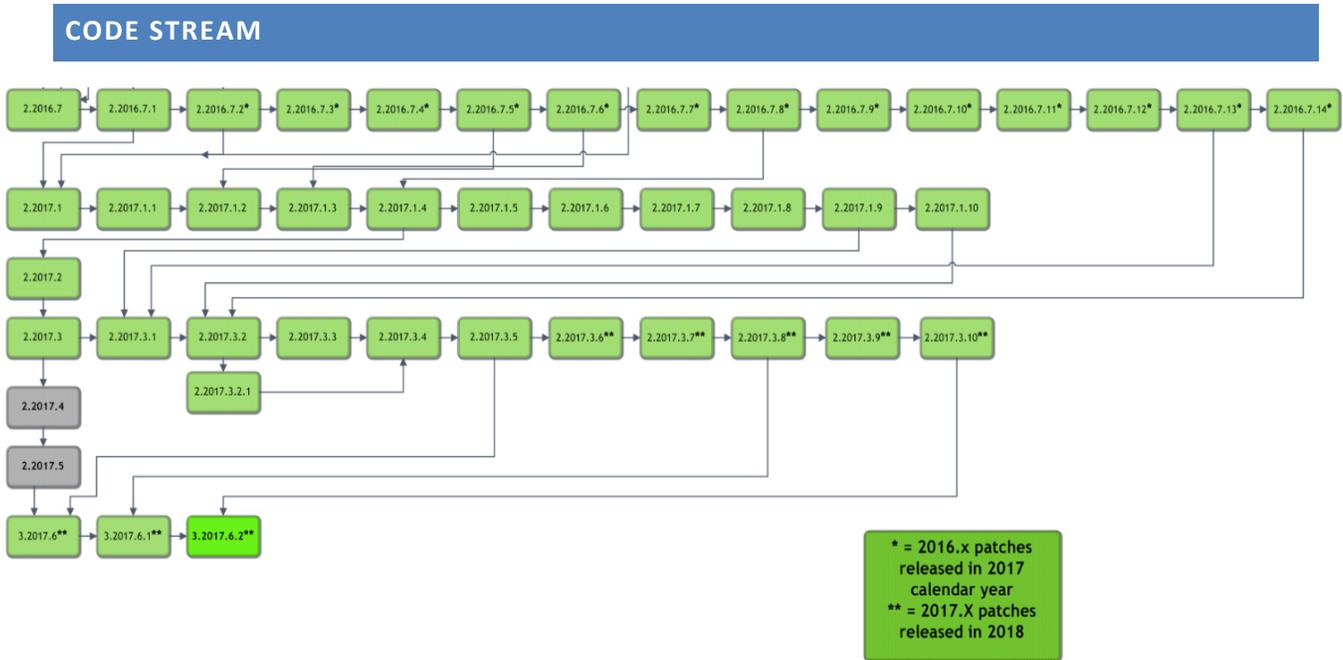
The following items were developed for future or previous RIS versions. These items have been added to this patch release to allow for upgrade to the 2017.6.X version

Redmine #	Subject	Original Resolved Version
19924	All Carrier codes are once again expanded in outbound messages, which resolves issues experienced with PowerScribe and Billing.	2.2017.3.9
19988	When a patient has multiple exams and a scenario where the patient financial responsibility is different for the two exams (such as CT vs XR), the Amount to Collect will now display accurately when View/Edit is opened after the exam is performed, regardless of which study is opened. Previously, the amount could change depending on which study was used for the View/Edit (the less expensive modality would display a smaller Amount to Collect, for	2.2017.3.10

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

	example).	
19990	It is now possible to add new alternate MRNs for a patient who has multiple MRNs from the same Issuer. Previously, this caused an error and prevented new MRNs from being added.	2.2017.3.10
19866	'Schedule From' is now correctly selecting the insurance used in the source order.	3.2018.1
19846	Open worklists are immediately updated with a save action in the reporting screens, even if the patient was not previously on the open worklist. This resolves an issue where a patient who was not previously present on an open worklist would not appear until the next refresh interval.	3.2018.2
19992	When a partial worklist refresh occurs to update a specific patient's information after a save, RIS is no longer requesting an unnecessary count of the items on the worklist, which reduces the number of database calls.	2.2017.3.10
19986	Resolved an issue that caused a "Billing codes are required" warning when registering studies that were scheduled from an existing cancelled study, if a validation rule was configured to require Billing Codes. Billing Codes are no longer being deactivated at the time of cancellation/rescheduling.	2.2017.3.10
19831	Updated ExternalActionContainer schema to reflect changes to the Procedure General Description nodes.	3.2018.1



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
2016.7	-	2.16.7.0 (3GB)	2.16.7.0	2.16.7.0	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		Full version release
2016.7	1	2.16.7.1 (3GB)	2.16.7.0	2.16.7.1	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	2	2.16.7.2 (3GB)	2.16.7.0	2.16.7.2	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	3	2.16.7.3 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	4	2.16.7.4 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	5	2.16.7.5 (3GB)	2.16.7.0	2.16.7.3	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI
2016.7	6	2.16.7.6 (3GB)	2.16.7.0	2.16.7.6	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	7	2.16.7.7 (3GB)	2.16.7.0	2.16.7.7	2.16.7.0.00490835	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and Web Service updates
2016.7	8	2.16.7.8 (3GB)	2.16.7.0	2.16.7.7	2.16.7.8.00683507	2.16.7.0	1.16.7.0.493031	2.16.7.0.493008		GUI and DB updates
2016.7	9	2.16.7.9 (3GB)	2.16.7.0	2.16.7.9	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Services, DB updates and UM Portal
2016.7	10	2.16.7.10 (3GB)	2.16.7.0	2.16.7.10	2.16.7.9.00715012	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI and Web Service updates
2016.7	11	2.16.7.11 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI, Web Service and DB updates
2016.7	12	2.16.7.12 (3GB)	2.16.7.0	2.16.7.11	2.16.7.11.00761267	2.16.7.0	1.16.7.0.493031	2.16.7.9.723457		GUI
2016.7	13	2.16.7.13 (3GB)	2.16.7.0	2.16.7.13	2.16.7.13.00823274	2.16.7.0	2.16.7.13.805715	2.16.7.13.805717		GUI, Web Service, DB, Patient and UM Portal updates
2016.7	14	2.16.7.14 (3GB)	2.16.7.0	2.16.7.14	2.16.7.14.00882220	2.16.7.0	2.16.7.14.897644	2.16.7.14.897646		GUI, Web Service, DB, Patient and UM Portal updates
2017.1	-	2.17.1.0 (3GB)	2.17.1.0	2.17.1.0	2.17.1.0.00559886	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		Full Version Release
2017.1	1	2.17.1.1 (3GB)	2.17.1.0	2.17.1.1	2.17.1.1.00589952	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	2	2.17.1.2 (3GB)	2.17.1.0	2.17.1.2	2.17.1.2.00621962	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	3	2.17.1.3 (3GB)	2.17.1.0	2.17.1.3	2.17.1.3.00640480	2.17.1.0	2.17.1.0.572290	2.17.1.0.000000		GUI, Web Service and DB updates
2017.1	4	2.17.1.4 (3GB)	2.17.1.0	2.17.1.4	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI, Web Service, DB and Patient Portal updates
2017.1	5	2.17.1.4 (3GB)	2.17.1.0	2.17.1.5	2.17.1.4.00692239	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		Web Service
2017.1	6	2.17.1.6 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and DB Updates
2017.1	7	2.17.1.7 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	8	2.17.1.8 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	9	2.17.1.9 (3GB)	2.17.1.0	2.17.1.5	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI update
2017.1	10	2.17.1.10 (3GB)	2.17.1.0	2.17.1.10	2.17.1.6.00745281	2.17.1.0	2.17.1.4.701924	2.17.1.0.000000		GUI and Web Service update
2017.2	-	2.17.2.0 (3GB)	2.17.2.0	2.17.2.0	2.17.2.0.00695782	2.17.2.0	2.17.2.0.702238	2.17.2.0.702213	2.17.2.0.702226	Full Version Release. First release of Provider Portal
2017.3	-	2.17.3.0 (3GB)	2.17.3.0	2.17.3.0	2.17.3.0.00764112	2.17.3.0	2.17.3.0.321	2.17.3.0.321	2.17.3.0.321	Full Version Release. Including Patient, Provider and UM Portals
2017.3	1	2.17.3.1 (3GB)	2.17.3.0	2.17.3.1	2.17.3.1.00846328	2.17.3.1	2.17.3.1.853299	2.17.3.1.853301	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2	2.17.3.2 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	2.1	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	GUI Only
2017.3	3	2.17.3.3 (3GB)	2.17.3.0	2.17.3.3	2.17.3.3.00954008	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service, DB. Including Patient, Provider and UM Portals
2017.3	4	2.17.3.4 (3GB)	2.17.3.0	2.17.3.4	2.17.3.4.00987562	2.17.3.2	2.17.3.3.962869	2.17.3.3.962870	2.17.3.3.962870	GUI, Web Service and DB
2017.3	5	2.17.3.5 (3GB)	2.17.3.0	2.17.3.5	2.17.3.5.01023250	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB, Patient Portal, Referring Portal, UM Portal
2017.3	6	2.17.3.6 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service, DB,
2017.3	7	2.17.3.7 (3GB)	2.17.3.0	2.17.3.6	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI
2017.3	8	2.17.3.8 (3GB)	2.17.3.0	2.17.3.8	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI and Web Service
2017.3	9	2.17.3.8 (3GB)	2.17.3.0	2.17.3.9	2.17.3.6.01065114	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	Web Service
2017.3	10	2.17.3.10 (3GB)	2.17.3.0	2.17.3.10	2.17.3.10.01125764	2.17.3.2	2.17.3.5.1023087	2.17.3.5.1025862	2.17.3.5.1023087	GUI, Web Service and DB updates
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

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

INSTALLING

CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD_rRIS_2017.6.2.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 are (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.

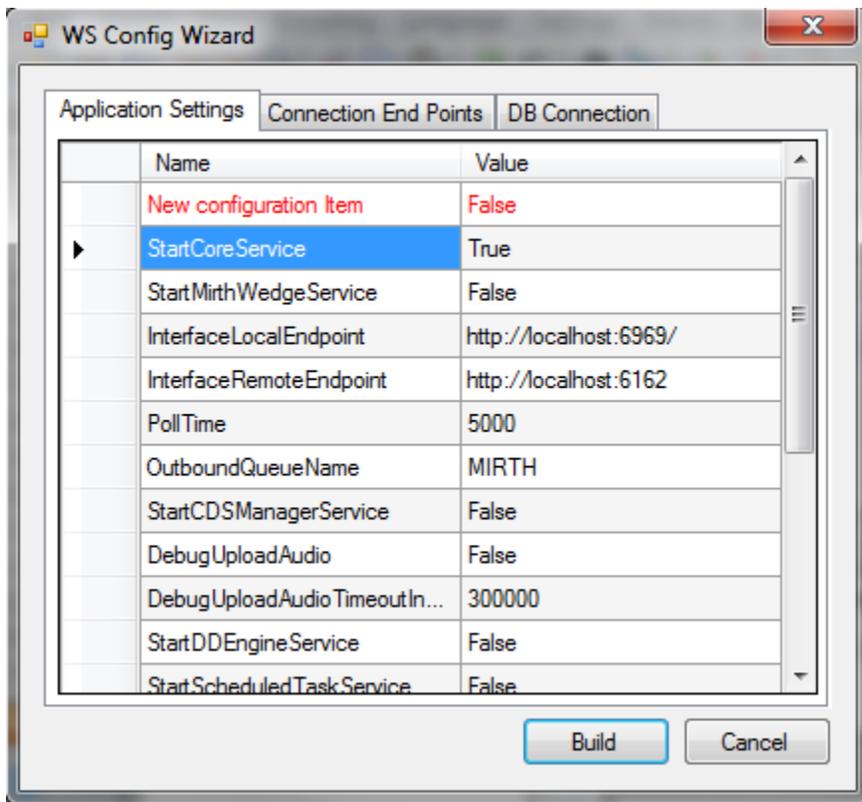
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application “ServicesConfigWizard.exe”

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:

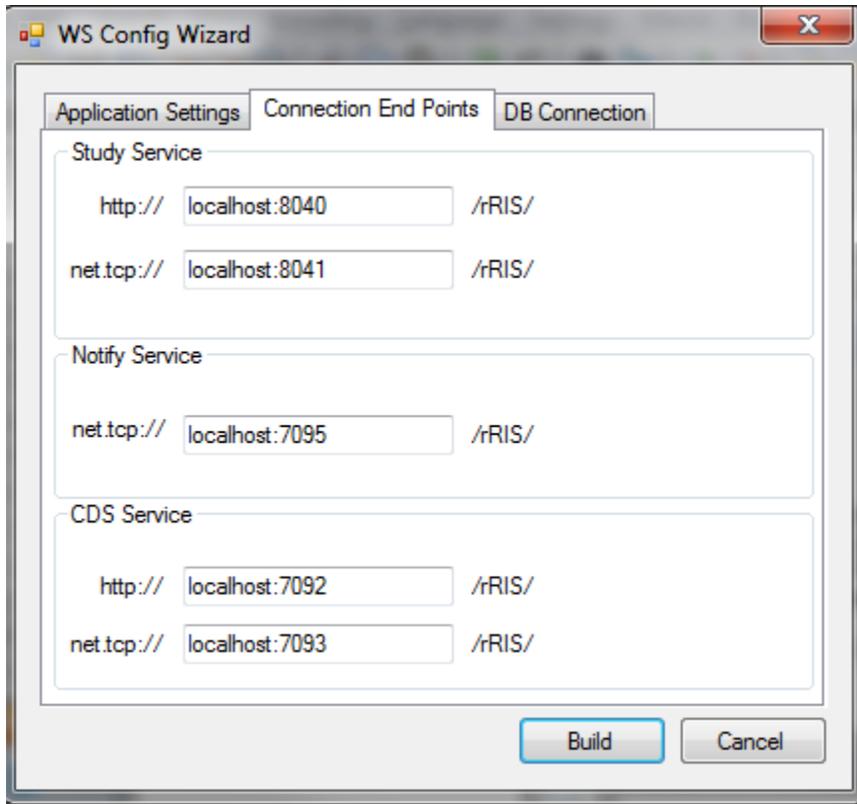
Application Settings: all existing configuration value will be displayed, if there are any new configuration entries they will be displayed in red.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.



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.

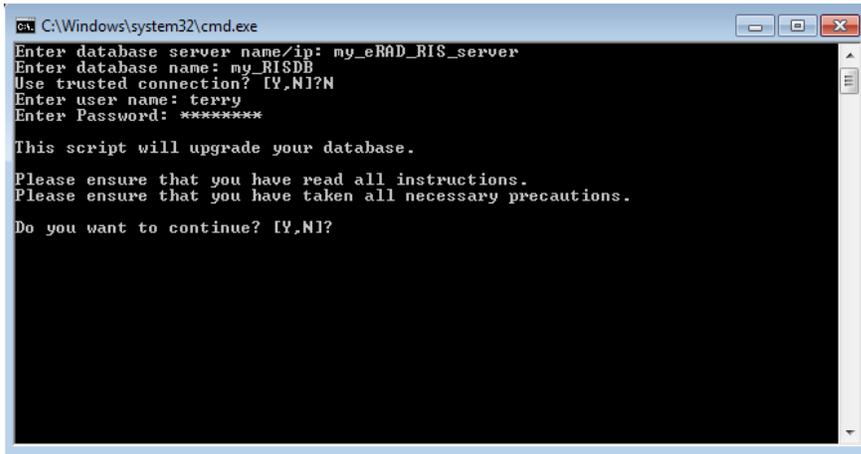
- 1) From the upgrade folder, double click the “RunUpgrade.bat” command file.
- 2) Enter the server name, database name and authentication credentials to the database. You have 2 choices for authentication credentials.

No part of this material may be published, reproduced, stored in a retrieval system, or transmitted

in any form or by any means without the prior written permission from eRAD.

- 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