

Server Update

For eRAD RIS

Version 3.0











Build 3.2017.6

Update 3.2017.6.7

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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 2017.6.6.

NEW FEATURES

FEATURE # 19217 - GE PACS IW INTEGRATION CAN NOW LOAD IMAGES USING ACCESSION NUMBER, IN ADDITION TO PREVIOUS METHOD OF NCD STUDY ID

Previously, the GE PACS IW integration passed the NCD Study ID to load images. Because this method of launching studies sometimes requires customers' PACS vendors to support a custom trigger, it is necessary to provide an alternative option for launching studies. Therefore, eRAD RIS can now support integration via Accession number.

By default, the existing NCD integration will be in place as before. To move to the new Accession number integration, a new property, **UseAccessions**, must be configured in the PACS Server look-up table. The following should be entered in the Config Options column:

```
<config>
```

```
<UseAccessions>True</UseAccessions>
```

```
</config>
```

If this new **UseAccessions** property is set to True using the above configuration, accession numbers will be utilized for PACS IW Show Study and Append Images calls. The method will be used for all PACS IW calls, including calls from the Dictation screen and View Images in the Patient Folder.

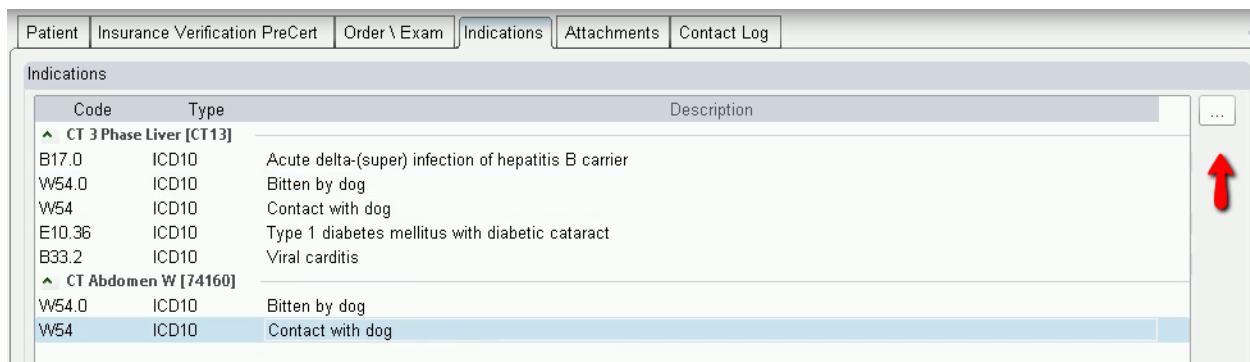
If the **UseAccessions** property is not configured, RIS will default to setting this property as False, which means that the previous method of launching studies using external ID/NCD will be utilized.

FEATURE # 19868 – VIEW/EDIT ICD CODES FROM THE IVT SCREEN

For South African workflow, it is critical to be able to view and edit indication codes from the IVT screen. eRAD RIS can now display an Indications tab on the IVT screen under certain conditions. This is likely a useful feature for many customers, not just South African installations.

Because ICDs are stored at the study level, items on the IVT worklist that are in Ordered status will not display the new Indications tab. The study must have been scheduled to enable access to the new tab.

The new Indications tab is available on the IVT screen as shown in the following image.



Code	Type	Description
▲ CT 3 Phase Liver [CT13]		
B17.0	ICD10	Acute delta-(super) infection of hepatitis B carrier
W54.0	ICD10	Bitten by dog
W54	ICD10	Contact with dog
E10.36	ICD10	Type 1 diabetes mellitus with diabetic cataract
B33.2	ICD10	Viral carditis
▲ CT Abdomen W [74160]		
W54.0	ICD10	Bitten by dog
W54	ICD10	Contact with dog

As demonstrated above, if there is more than one study on the order, multiple sections will be included for each study.

In addition to viewing indications that have already been associated, the IVT user can also edit or add entries. To do so, the user can click the “...” button (as is done today on the View/Edit screen) or double click the entry they wish to edit. It is also possible to choose Edit from the right-click context menu. Any of these options will open the existing ICD Codes pop-up window for the selected study (i.e. the study that the highlighted row belongs to).

The screenshot shows a window titled "ICD Codes" with a search interface. At the top, there's a "Reason for exam" field containing "Chest pain". Below it is a "Search for ICD" section with a text input field containing "chest pain", a "Search" button, and three checkboxes: "ICD10" (checked), "ICD9", and "SNOMED".

The "Search results" section contains a table with the following data:

Code	Type	Description
R07	ICD10	Pain in throat and chest
R07.1	ICD10	Chest pain on breathing
R07.8	ICD10	Other chest pain
R07.89	ICD10	Other chest pain
R07.9	ICD10	Chest pain, unspecified

Below the search results is a "Selected codes" section with another table:

Code	Type	Description
G54.6	ICD10	Phantom limb syndrome with pain
F45.42	ICD10	Pain disorder with related psychological factors
G89	ICD10	Pain, not elsewhere classified

An "OK" button is located at the bottom right of the window.

From this screen, associated ICD codes can be removed and new ICDs can be searched and added.

It is also possible to delete ICDs from the main Indications tab. In addition, if there are common ICDs between multiple studies on the order, the user can multi-select ICDs from one study and copy them by choosing Copy from the right-click menu. Then right-clicking the second study will provide a Paste option so the common ICDs can easily be applied to the second study. (Keyboard shortcuts can also be utilized.)

The screenshot shows a table titled "Indications" with columns "Code", "Type", and "Description". The table contains several rows of ICD codes and descriptions. A right-click context menu is open over the "Copy" option, which is highlighted with a yellow circle.

Code	Type	Description
CT 3 Phase Liver [CT13]		
B17.0	ICD10	Acute delta-(super) infection of hepatitis B carrier
W54.0	ICD10	Bitten by dog
W54	ICD10	Contact with dog
E10.36	ICD10	Type 1 diabetes
B33.2	ICD10	Viral carditis
CT Abdomen W [74160]		

When pasting ICDs to another study, any duplicate ICDs that already exist for the destination study will be ignored.

RESOLVED ITEMS

Redmine # for 2017.6.7	Subject
20807	When the System Configuration setting RadMustProvideIcdCode is set to True, the requirement will not be enforced until the study reaches Signed or Tentatively Signed status. This will address an issue in which staff working the Problem WL were forced to enter Diagnostic Indications when working a problem case.
20776	Standard RIS Users without Provider Portal access strings will not be able to access the Provider Portal.
20999	If a patient has scanned documents with a Scan Type that is now set as inactive, the description will still be displayed in the Attachments grid for the previously scanned documents.
20745	Resolved an issue where Patient Merges were improperly removing email address and security questions for patients with Patient Portal accounts.
20555	Previously, it was possible for Inbound Documents to be picked up before they are done being written to the file system, resulting in 0 byte files. To prevent this, a delay has been added and RIS will check to be sure that the file has not been modified in the past 2 seconds prior to processing the item. Files with 0 bytes are no longer processed.
20399	Resolved event registration issues that could cause an inadvertent change to an alternate MRN issuer.
21013	Resolved an issue in which the Finalized Date column was not populating in the UM Portal.
20668	On the Exam Details page in the UM Portal, the original appointment is no longer displayed in addition to the new appointment after an order has been rescheduled.
20563	Resolved an error that could occur when viewing the Appointments Page in the Patient Portal.

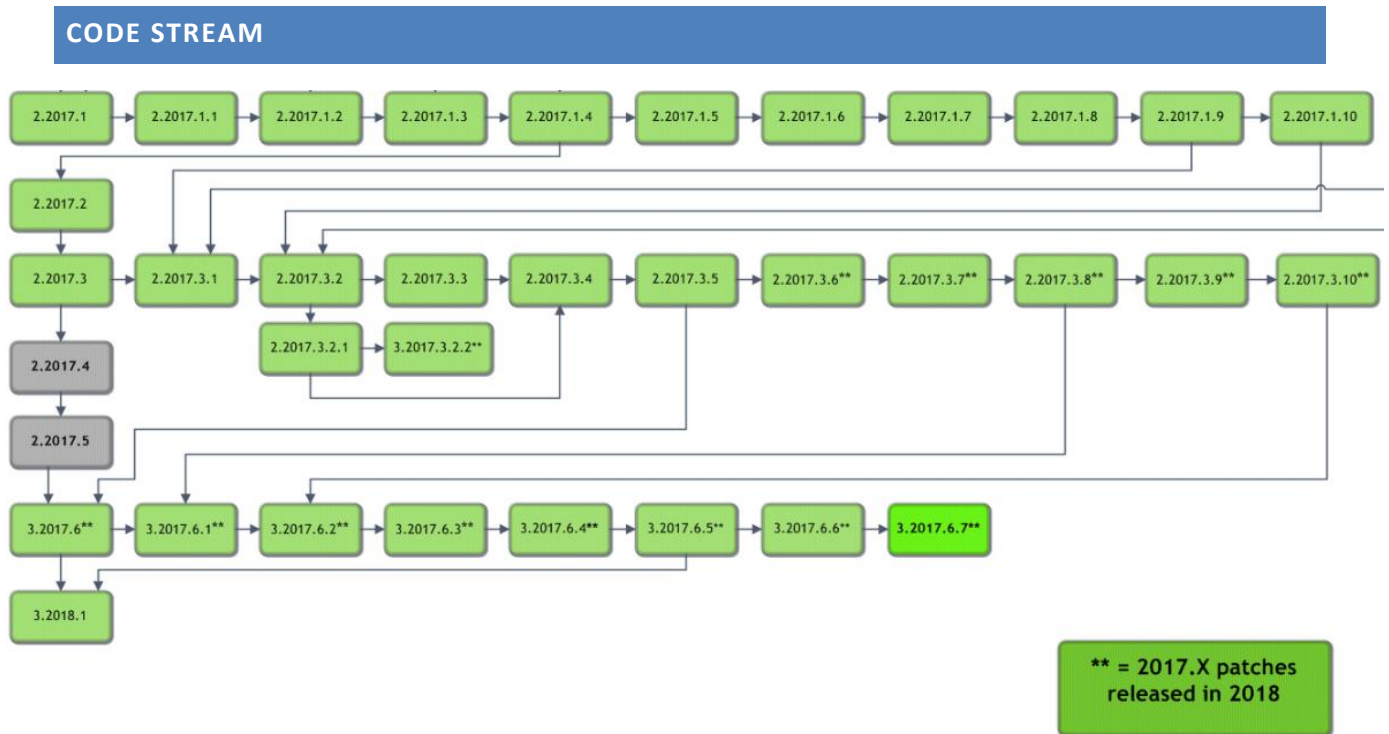
The following fixes from 2018.2 were pulled into this patch for early release.

Redmine # for 2017.6.7	Redmine # for 2018.2	Subject
20628	19793	Made changes to threads for PACS Caching process to include try/catch blocks to handle exceptions without causing core service crash.
20627	19791	Made a change to prevent situations where multiple primary insurers could be created, causing duplicate visit key values, which could lead to a core

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		service crash (related to above ticket).
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**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
2017.1	-	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	2.17.1.0.00000		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	2.17.1.0.00000		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	2.17.1.0.00000		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	2.17.1.0.00000		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	2.17.1.0.00000		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	2.17.1.0.00000		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	2.17.1.0.00000		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	2.17.1.0.00000		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	2.17.1.0.00000		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	2.17.1.0.00000		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	2.17.1.0.00000		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	2.2	2.17.3.2.1 (3GB)	2.17.3.0	2.17.3.2.2	2.17.3.2.00898348	2.17.3.2	2.17.3.2.913898	2.17.3.2.913899	2.17.3.1.856171	Web Services 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
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
2018.1	-	3.18.1.0 (3GB)	3.18.1.0	3.18.1.0	3.17.6.4.01187509	3.18.1.0	3.18.1.0.1229289	3.18.1.0.1229290	3.18.1.0.1229290	Full version release

INSTALLING

CLIENT/GUI

Copy and replace the current rRIS...zip file with the eRAD_rRIS_2017.6.7.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...

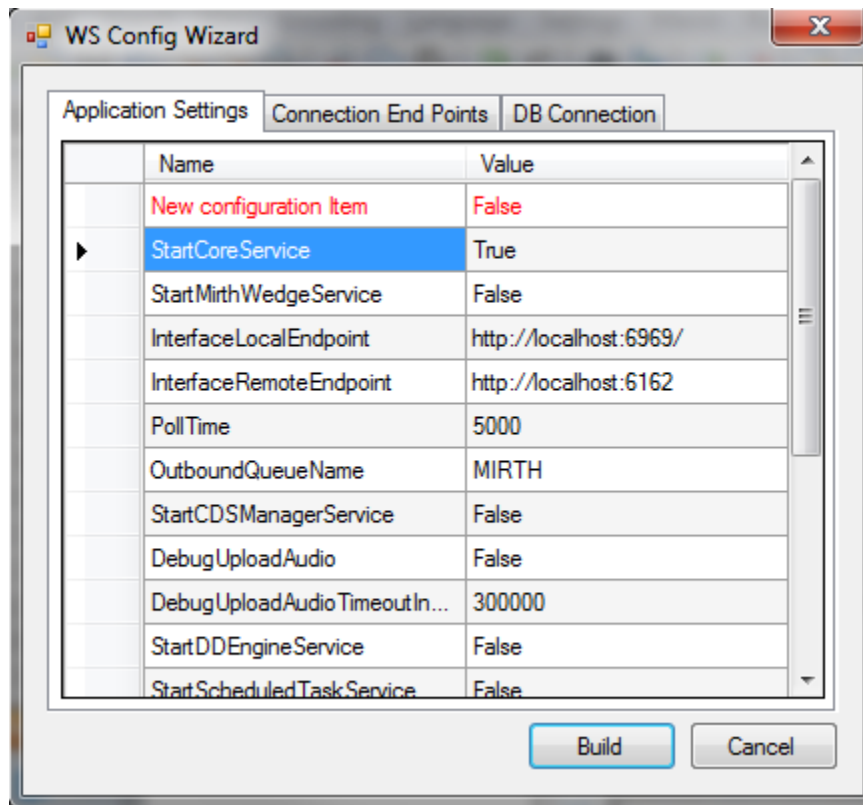
Services Configuration Wizard

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.

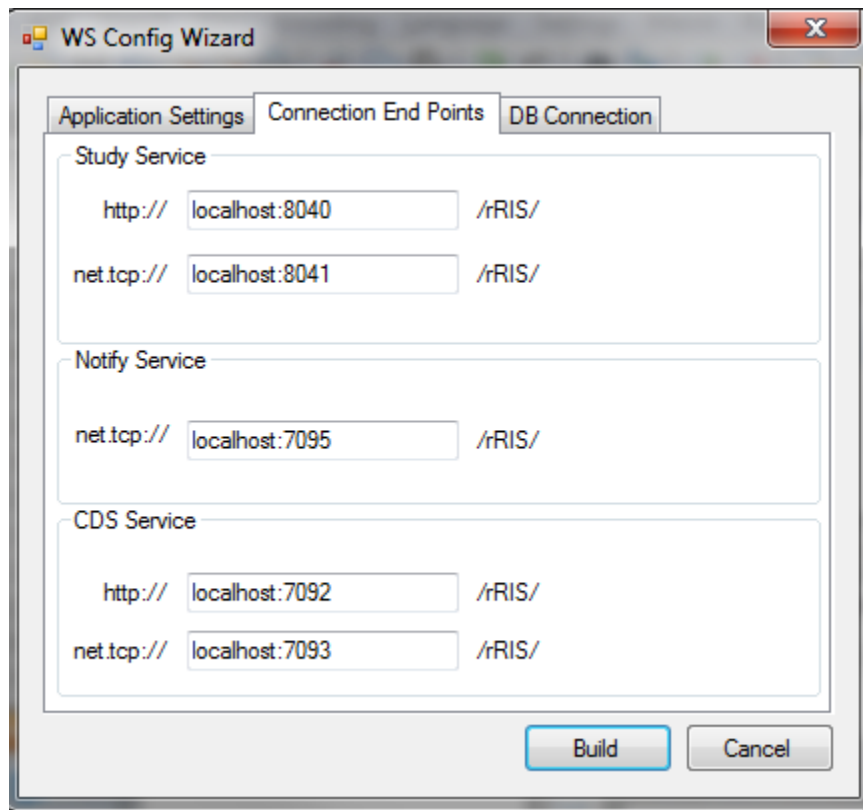
On the install of a new service, all files will be copied to the appropriate locations on the server (no configurations will be over written). If instructed or to confirm no new configurations have been added the user can run the new application "ServicesConfigWizard.exe"

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.



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

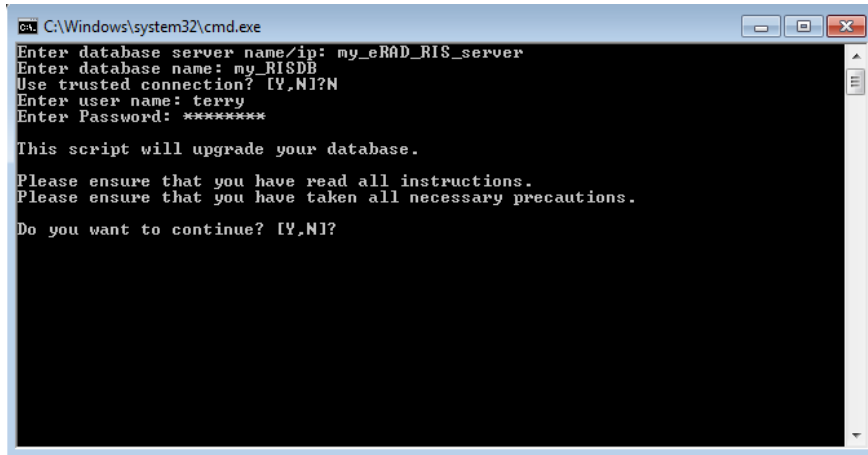
Always run the upgrade scripts in a test environment of the actual database to make sure they run cleanly. If any errors occur please contact development.

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