

Department of Veterans Affairs
Bar Code Expansion – Positive Patient Identification

Version Description Document



July 2013
Version 1.0

Revision History

Date	Version	Description	Author
March 22, 2013	0.1	Initial Draft	[REDACTED]
June 17, 2013	.2	Revisions and release notes added	[REDACTED]
July 1, 2013	1.0	Completed release inventory (table 2) and make additions and corrections to the document.	[REDACTED]

Artifact Rationale

The Version Description Document (VDD) is the primary configuration control document used to track and control versions of software to be released to the operational environment. It is a summary of the features and contents for the software build. It identifies and describes the version of the software being delivered, including all changes to the software since the last VDD was issued. Every release of the software (including the initial release) shall be described by a VDD. Without this document, it would be nearly impossible to move an application or system from development to deployment reliably. Therefore the document is mandatory for each deployment.

The following project types are required to complete this artifact. Exceptions are outlined where needed throughout the document.

Activity	New Capability [A]	Feature Enhancement [B]
Field Deployment [1]	Yes	Yes
Cloud/Web Deployment [2]	Yes	Yes
Mobile Application [3]	Yes	Yes

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1. Scope

Increment II of the Bar Code Expansion - Positive Patient Identification (BCE-PPI) project seeks to integrate a Commercial-of-the-Shelf (COTS) Blood Administration product, developed by CareFusion/Microtech, with the Veterans Information Systems Technology Architecture (VistA) as well as the VistA Blood Establishment Computer System (VBECS). As part of this effort, the CareFusion/Microtech development team has developed a Veterans Affairs (VA)-specific version of the CareFusion Transfusion Verification (CFTV) application as an extension to the CareFusion Pyxis™ Patient Point of Care (PPOC) system creating a customized version of CFTV specific to the needs of the VA. This customization of the CareFusion Transfusion Verification application will allow transfusionists to reduce documentation effort and error by capturing transfusion information on a mobile handheld device (HHD) or a Windows client application based on matching barcodes. Both the CFTV HHD and the Windows CFTV client communicate with a CFTV server. The CFTV server will communicate with VISTA as the system of record for Vitals and with the VBECS application for blood product orders and transfusion status.

The deployment of BCE-PPI Increment II will require simultaneous release and installation of the specific versions of the components listed below:

1. VISTA

- **MJCF*1.0*0 package** release for HL7 communication with CareFusion Pyxis Server and CareFusion Management Console Access Control (VISTA Menus and Keys)
- **TIU Patch 281 –The filename for this patch is TIU_1_281.KID**
 - **CareFusion Application Server**
 - **CareFusion Pyxis Transfusion Verification Web Service Application 1.6.0.3 (.NET)** -Controls client application user interface, connects with VISTA RPC via SOAP web services, and performs direct SQL Server database operations.
 - **CareFusion Pyxis Specimen Collection Web Service Application 2.4.0.10 (.NET)**

The CareFusion Transfusion Verification software needs to have this package installed on the CareFusion server in order to function. (We are not aware of the exact dependencies at this time, nor are we aware of the minimum version required in order for the CFTV software to run properly. However, we know that the version which was tested at the pilot sites works and that it is the version being deployed.)
 - **CareFusion Interface Engine VA Custom Translation Package 1.2.17 (Java)** - Sends and processes HL7 messages to and from VISTA and VBECS, performs storage and retrieval operations on the SQL Server.
 - **CareFusion Management Console 7.5.0.7 (Java)** -Web Client for managing the interface Engine and Application configuration settings.

2. CareFusion Client Applications

- **CareFusion Transfusion Verification Client 2..3.1.2** for Windows Mobile 6.5 (Motorola MC75AO)
- **CareFusion Transfusion Verification Client 2.3.1.2** for Windows Desktop Operating Systems

3. CareFusion SQL Server Database Server and Databases

- Base Schema 5.4.1.0
- CFTV DB Schema 2.2.0.1

2. Version Description

The BCE-PPI Increment II project delivers the VA's Blood Administration Transfusion Verification product version 1.0 which consists of the following support:

1. The product components listed in Section 3 of this document.
2. All product documentation required for each release during the current increment.

Note: The product documentation for initial operating capability (IOC) may be modified during IOC. However, final, customer accepted versions of project documentation will be produced prior to IOC exit.

The locations of each software artifact for this release are listed in Section 4. The project's ClearCase repository is located at the following URL:

[http://\[REDACTED\]](http://[REDACTED])

Product documents for this release are also contained in this repository and in the official TSPR archive for the BCE-PPI project, which located at the following location:

[http://\[REDACTED\]](http://[REDACTED])

3. Change Request Reports

This project delivers the first initial release of this product. It does not deliver solutions stemming from preexisting change requests. However, in Table 1, we have included a summary of the change requests and outstanding issues resolved during or stemming from this release.

This Version Description Document (VDD) does not contain change record information for the VistA components in the release. That information is recorded separately in the VDD for the VistA patches specified above. Information on the VBECS change records for the version of VBECS which is compatible with this release is contained in the VBECS documents for that release of VBECS. Note that VBECS is not being released with this increment of BCE-PPI. However, it is important to specify which version of VBECS is compatible with this increment, and we have done that earlier in this document.

The BCE-PPI development team uses ClearQuest (CQ) to track issues and change requests. However, the process of entering Change Requests into ClearQuest is still in progress. Where a Change Request has been entered, into CQ, its CQ ID appears below the Change Request ID in parentheses.

Table 1: CareFusion COTS Change Requests for this release

Change Request ID (CQ ID)	Component Modified and Version	Summary	Issue Resolved or Change Completed
	CareFusion Interface Package 1.2.7	<ul style="list-style-type: none"> Resolve the issue of BTS HL7 messages not getting sent outbound for Rapid Infusion workflow. Interface to determine workflow utilized within application If Rapid Infusion, do not query for a patient reaction to the transfusion, as user is not prompted for such information during the Rapid process <p>For non-Rapid Infusion, logic remains as is</p>	Resolved
	CareFusion Interface Package 1.2.8	Request to modify the way CareFusion stores/sends patient's physical division code and transfusing order division code.	Resolved
	CareFusion Interface Package 1.2.9		Resolved
	CareFusion Interface Package 1.2.10	<ul style="list-style-type: none"> Provide a default transfused volume to VBECS, when the clinician does not enter a value or enters a 0 within Transfusion Verification. Interface to send a default value of "300" when the Transfused Volume is 0 or empty within the Transfusion Verification application and database Modify how the Ordering Division Code is stored within CareFusion, to prevent the display of such within the application. Store the Ordering Division Code via a placeholder database field, which is not utilized by the application. 	Resolved

Change Request ID (CQ ID)	Component Modified and Version	Summary	Issue Resolved or Change Completed
	CareFusion Interface Package 1.2.11	<ul style="list-style-type: none"> • Provide a default transfused volume to VistA, when the clinician does not enter a value or enters a 0 within Transfusion Verification Interface to send a default value of “300” via MDM messages, when the Transfused Volume is 0 or empty within the Transfusion Verification application and database. • Modify processing logic for A01 and A04 ADT Events. Upon receipt of an A01 or A04, for a patient that is already discharged within the CareFusion database, CareFusion to remove the discharge status • Change default text within MDM, when vitals are not recorded within Transfusion Verification. Send “Vital Sign Data available elsewhere in the record” via MDM, rather than current default text of “No Vitals Recorded For This Transfusion” when Vitals are not recorded within Transfusion Verification. 	Resolved
	CareFusion Interface Package 1.2.12	<ul style="list-style-type: none"> • Support repeating instances of PID-10 via ADT messages from VistA.. CareFusion Interface Engine has been modified to allow repeating instances of PID-10 to ensure ADT messages containing repeating HL7 PID-10 are supported by CareFusion interface processing logic. 	Resolved
	CareFusion Interface Package 1.2.13	<ul style="list-style-type: none"> • Provide the initial transfusion start date/time via BTX-16 within the BTS HL7 messages to VBECS, for transfusions that have been stopped and re-started. • Provide the Restarted Date/Time and Restarted By titles and information via the TIU notes, for transfusions that have been stopped and re-started. 	Resolved
	CareFusion Interface Package 1.2.14	<ul style="list-style-type: none"> • Unit ID (BPX-5) to ISBT 128 or Codabar , based upon the value received in the HL7 • Product Code (BPX-6) to ISBT 128 or Codabar, based upon the value received in the HL7 	Resolved

Change Request ID (CQ ID)	Component Modified and Version	Summary	Issue Resolved or Change Completed
	CareFusion Interface Package 1.2.15	<ul style="list-style-type: none"> Unit ID (BPX-5) to ISBT 128 or Codabar , based upon the value received in the HL7 Product Code (BPX-6) to ISBT 128 or Codabar, based upon the value received in the HL7 Send a separate OBX segment per data element within the outbound TIU notes sent to VistA 	Resolved
	CareFusion Interface Package 1.2.16	<ul style="list-style-type: none"> Unit ID (BPX-5) to ISBT 128 or Codabar , based upon the value received in the HL7 Product Code (BPX-6) to ISBT 128 or Codabar, based upon the value received in the HL7 Send a separate OBX segment per data element within the outbound TIU notes sent to VistA 	Resolved
	CareFusion Interface Package 1.2.17	<ul style="list-style-type: none"> Unit ID (BPX-5) to ISBT 128 or Codabar , based upon the value received in the HL7 Product Code (BPX-6) to ISBT 128 or Codabar, based upon the value received in the HL7 <p>Send a separate OBX segment per data element within the outbound TIU notes sent to VistA</p>	Resolved
BCE00000226	Allow Celsius and Fahrenheit Units in the CF Application	<ul style="list-style-type: none"> Temperature is recorded incorrectly in Fahrenheit in PRS/Reports/Vitals Cumulative when TV set to Celsius. The BCRO team is recommending that all sites configure CareFusion Management Console to limit temperature entry into the Transfusion Verification application to Fahrenheit only in order allow for correct display within CPRS/VistA Vitals and the TIU note. The BRCO team has determined to proceed without a change to the software at the present time and consider a future change to the CareFusion interface. A future change would require CareFusion to implement a code modification to perform a conversion before sending the value to the Vitals package. 	Subsequent Increment

Change Request ID (CQ ID)	Component Modified and Version	Summary	Issue Resolved or Change Completed
BCE00000227	E-Sig—Full Name and Credential of Transfusionist	<ul style="list-style-type: none"> This is an enhancement request to include the full name of the transfusionist in the TIU Note, CPRS, and in all other applicable locations. 	Subsequent Increment
BCE00000228	Modify the CareFusion Interface to use Transient TCP/IP Listeners	<ul style="list-style-type: none"> The CareFusion application uses persistent socket connections as opposed to transient socket connections. 	Subsequent Increment
BCE00000243	Modify VistA to Make TIU Note Identification Information Available	<ul style="list-style-type: none"> Additional TIU notes being created for same transfusion instead of adding addendum to the original when using the Menu Item, “Edit Transfusion Record”. 	Subsequent Increment
BCE00000244	Change to CareFusion TV to Force Users to Enter the Volume Infused in Rapid mode	<ul style="list-style-type: none"> Change CareFusion TV to force users to enter the volume infused in Rapid mode. 	Subsequent Increment
BCE00000245	Display Blood Units When Patient is in Outpatient Status	<ul style="list-style-type: none"> Units are not showing up on the Nursing Unit List screen when the patient is in an Outpatient status. 	Subsequent Increment

4. Release Inventory

4.1. Packaging and Naming Conventions for the CareFusion Baseline Release

Table 2 below lists inventory (bill of materials) for this release and requires some explanation because CareFusion release packaging installation procedure is complex. The baseline CareFusion release is packaged as two zip files. The master zip file, which is named **VATIMSinstall.zip** contains a number of other compressed files including Microsoft System Installation files (msi files) and another zip file named **carefusion.zip**.

A second zip file is used to install a collection of web services which are required to support the CareFusion web application and its clients. This file is named **VA.zip**.

The procedure for installing the components supplied by CareFusion on a CareFusion application server using the two master release files just described is outlined in the BCE-PPI CareFusion Application Installation Guide.

Note: The Application Server Installation Guide is not supplied by CareFusion. CareFusion will not supply an installation guide and has stated repeatedly that all installation and configuration information was proprietary. (In order to make installation and support possible under these conditions CareFusion made that additional claim that all installation and support was to be performed by CareFusion personnel as a part of an ongoing support contract.)

Needless to say, it is impossible to square the position CareFusion has taken with VA standards for software releases, software installation and long-term software support. It is also impossible to square CareFusion's positions with the preparation of required PMAS documentation including the VDD.

In order to move BCE-PPI increment II forward under very difficult circumstances, the SDE and PD members of the VA core team collaborated to produce two informal installation guides. One of these guides is the CareFusion Application Server Installation Guide and the second is the CareFusion Database Server Installation Guide. Neither of these documents are formal PMAS deliverables.

4.2. Packaging and Naming Conventions for Updates to the CareFusion Interface Engine

CareFusion also has a potentially confusing naming convention for releasing components. For example, all of the updates (patch releases) for the Interface Engine are named **va.zip**. It is crucial to construct a directory structure on the CareFusion application server which has subdirectories with version numbers corresponding to the CareFusion release number for the Interface Engine update. The screen shots below (from the BCE-PPI development server) provide an example of how CareFusion Interface Engine Updates should be stored.

The first screen shot shows that each version subdirectory contains the java updates to the Interface Engine proper in a zip file named **va.zip**. The example shows the **va.zip** file for version 1.2.17 of the Interface Engine which is stored in a directory of the same name.

The second screen shot shows that each version subdirectory also contains an SQL subdirectory. The SQL subdirectory contains the SQL scripts required to make the CareFusion databases compatible with the new version of the interface package.

Figure 1 – Version-Aware Directory Structure for Receiving Interface Engine Updates

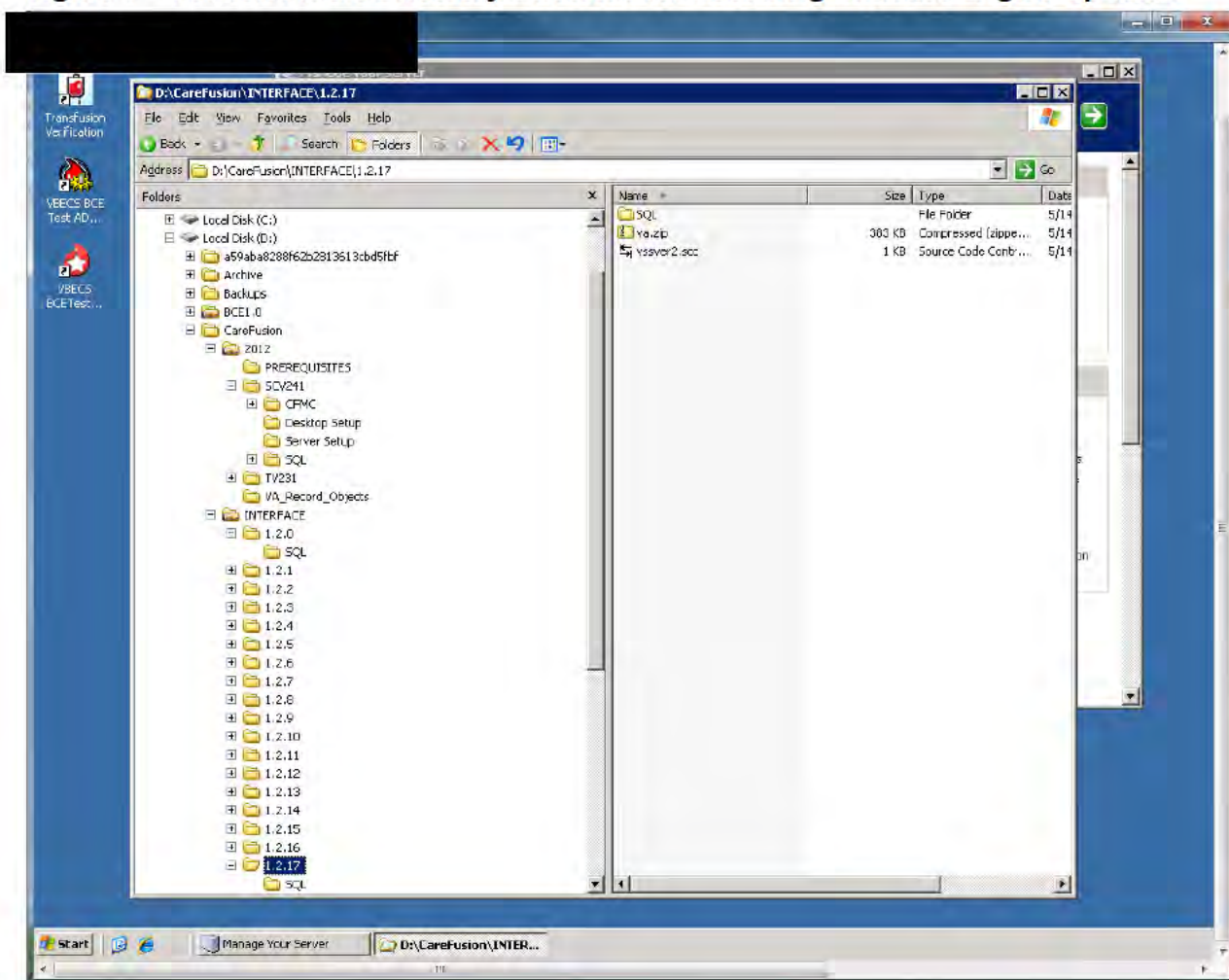
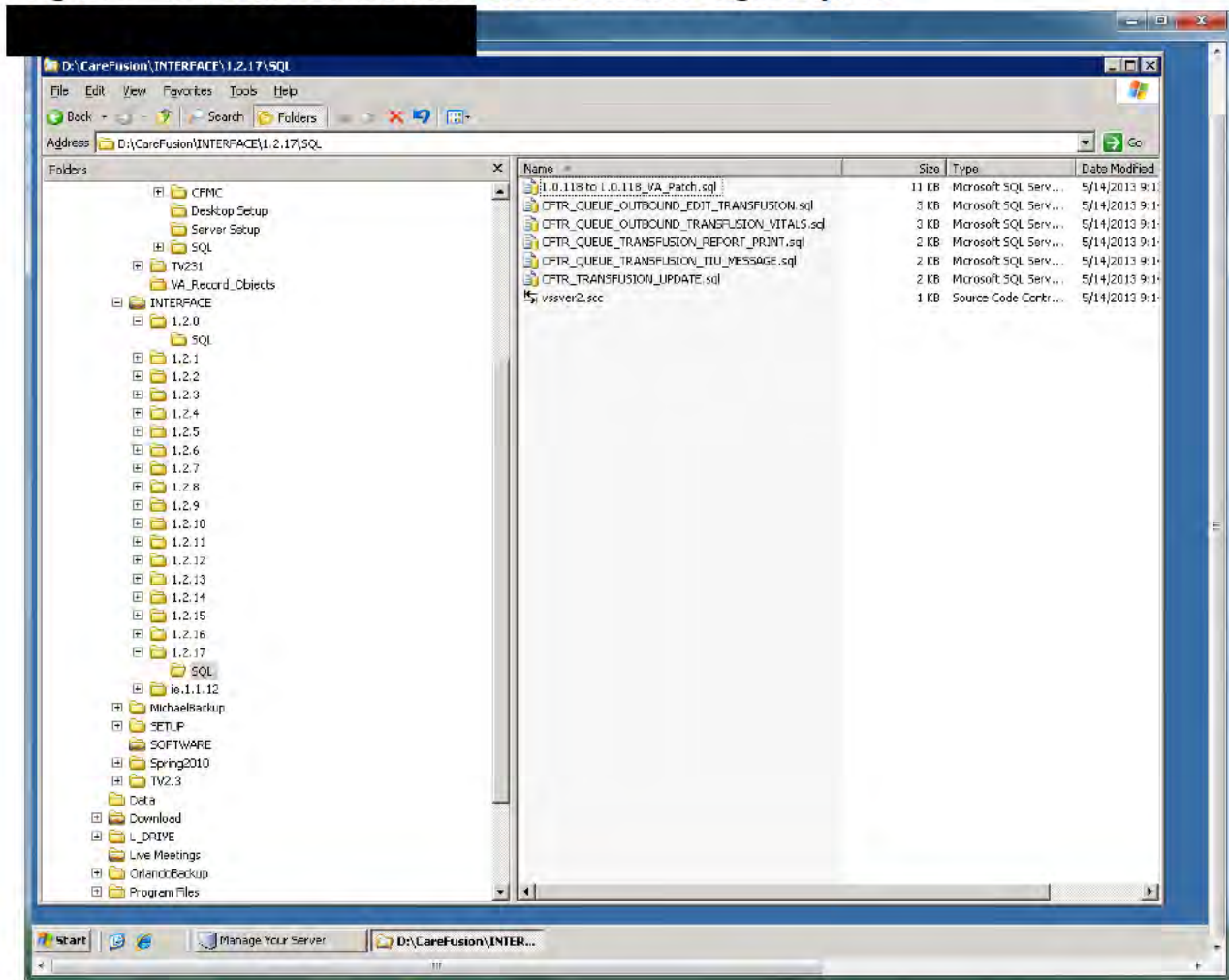


Figure 2 – SQL Files Associated with an Interface Engine Update



4.3. BCE-PPI Increment 2 Release Bill of Materials

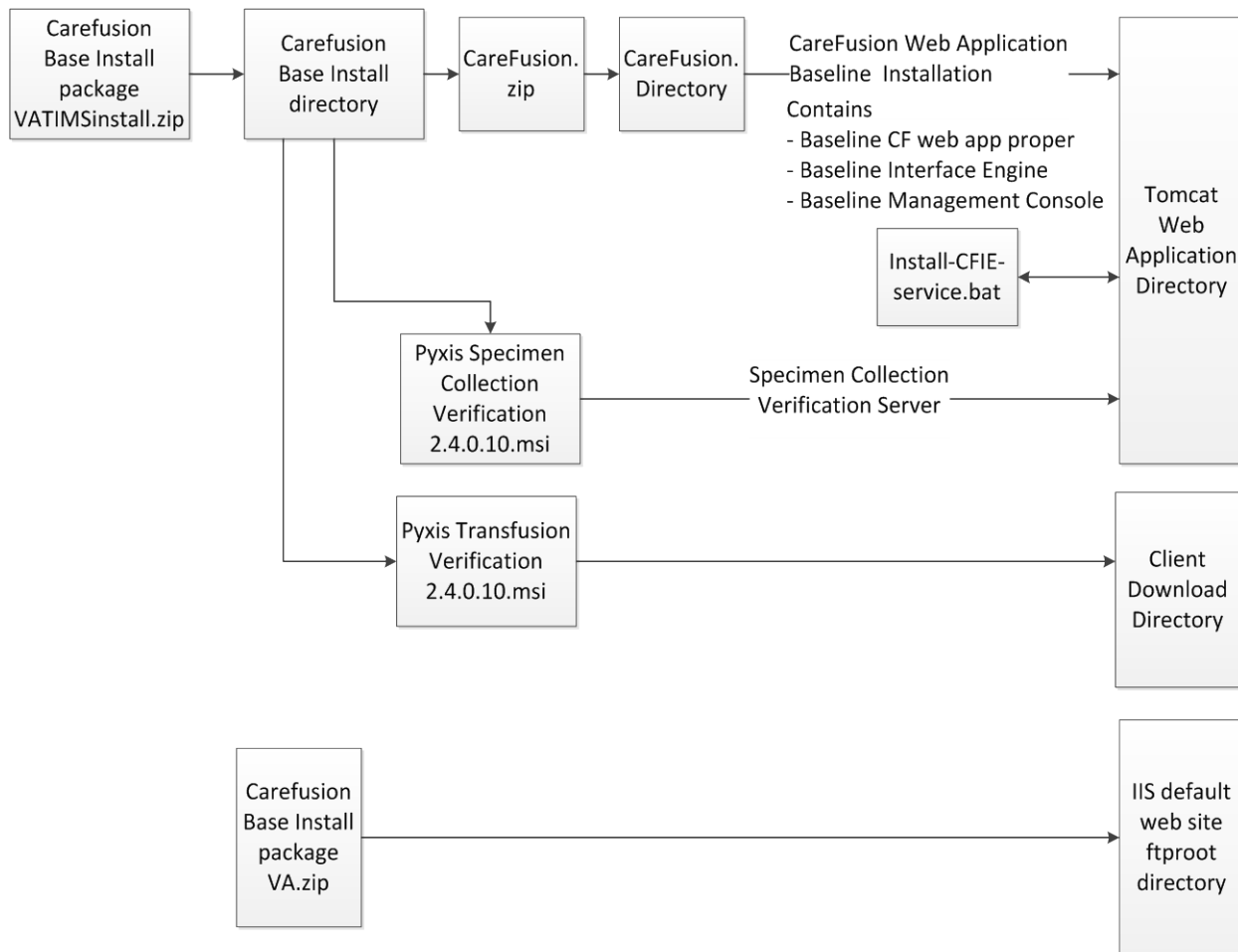
Because the relationship between what CareFusion actually releases and what needs to be installed on a server is somewhat involved, it is important to have an overview in mind when assessing releases, performing installations, and verifying test server integrity. Figure 3 below provides the necessary overview; it was prepared by referencing the informal CareFusion Application Server Installation Guide referred to above.

For a baseline installation, CareFusion releases two zip files to the VA, namely VATIMInstall.zip and VA.zip. In essence VATIMInstall provides all of the files that go into the CareFusion web application directory (normally c:\java\tomcatN.NN\webapps\carefusion where X.XX is the version number of Tomcat in use for production or testing. The distribution VA.zip (which must be carefully distinguished from a myriad of other files with that filename in a CareFusion installation) provides the files that go into the ftproot directory of the IIS default web site.

VATIMInstall.zip is a compressed file containing a lot of other compressed files as the figure below shows. A key point to note is that the Transfusion Verification web application requires that the Specimen Collection web application be installed before it will function correctly. We are not

aware of the exact nature of the dependency between CFTV and CFSCV and as usual CareFusion has classified the nature of the dependency as proprietary information. For present purposes it is enough to know the Pyxis Specimen Collection Verification 2.4.0.10 msi is included in the overall installation package and that it must be installed as per the installation guide in order for CFTV to function.

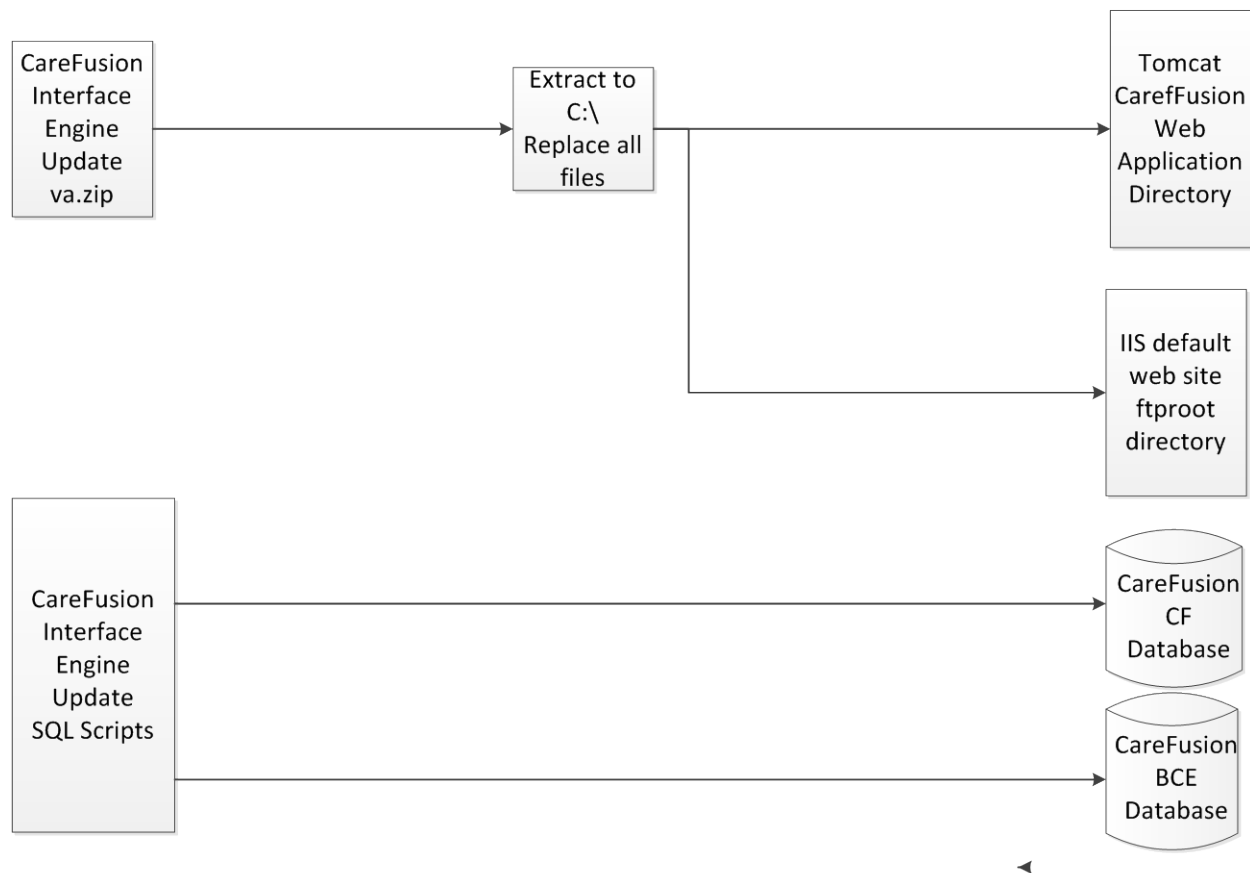
Figure 3 – CareFusion Release Package Components and Relationships



Once a baseline system is installed it must be updated to the currently supported version. As of this writing the only updates to the CareFusion baseline system have been to the Interface Engine. This stands to reason as interfacing is the heart and soul of a COTS product implementation. With that said, it should be noted that there have been a lot of updates to the interface Engine--17 in all as of this writing. It is also extremely important to understand that Interface Engine Updates are *not* cumulative. Each of the 17 updates must be applied in sequence starting with version 1.2.11. (Strictly speaking this may not be true. It may be that the modifications to the java routines that run as part of Tomcat are cumulative. However, since the SQL updates to the CareFusion databases that accompany the java updates are known not to be cumulative, it is simpler and easier to treat the full set of Interface Engine updates as a set of 17 updates that must be applied in sequence.

The figure below illustrates the process used to apply an Interface Engine update.

Figure 4 – Installing a CareFusion Interface Engine Update



As mentioned earlier, table 2 shows the inventory for this release. Definitions for the terms used in table 2 are as follows:

- **Component** – Distinct software component or module that requires separate deployment procedure.
- **Description** - Description of component.
- **Target System** – System where component will be deployed.
- **Method of Delivery** – File (executable or non-executable) that contains necessary subcomponents to deploy a component.
- **Recipient** – Responsible party for deployment of component
- **Location** – Location where deployment files (executable or non-executable) will be kept as repository for future deployment. This would preferably be a gold copy of the software components.

Table 2: Inventory of Release Components

#	Release Component	Description	Target System	Method of Delivery	Recipient	Location
VistA Patch Packages						
1	MJCF_1_0_B9.KID	Vista KIDS build for BCE VISTA HL7 components	Facility VistaA Server	MJCF_1_0.KID	Regional Application Service Line VistA	Anonymous .Software Directory
2	TIU*1.0*281	Text Integration Utility patch 281 Facilitates the creation of TIU notes into CPRS	Facility VistA Server	TIU_1_281.KID	Regional Application Service Line VistA	Anonymous Software Directory
Application Server Baseline Installation Components Release by CareFusion						
3	VATIMSinstall.zip	Carefusion baseline master installation file for CF web application	Facility VistA Server	Timestamped version of VATIMSInstall.zip	Regional Application Service Line COTS	Regional BCE-PPI FTP Site
4	VA.zip	Carefusion baseline master installation file for CF web servoces	Facility VistA Server	Timestamped version of VA.zip	Regional Application Service Line COTS	Regional BCE-PPI FTP Site
Application Server Baseline Installation Components Extracted from VATMSInstall						
5	CareFusion Server Baseline	Installation file for CF Transfusion Verification (Java Web Application)	COTS Application Server	carefusion.zip (extracted from VATIMSinstall.zip)	Regional Application Service Line COTS	Regional BCE-PPI FTP Site

6	WBCServices.1.6.0.3	CF Transfusion Verification Web Service Application	COTS Application Server	WBCServices.1.6.0.3.exe	Regional Application Service Line COTS	BCE-PPI FTP Site
7	Pyxis Specimen Collection Verification 2.4.0.10.msi	CF Specimen Collection Web Service Application	COTS Application Server	WCCService (version 2.4.0.10)	Regional Application Service Line COTS	BCE-PPI FTP Site
Client Installation Packages						
8	Pyxis TransfusionVerification .2.3.1.2 (Desktop)	CF Transfusion Verification Desktop Client Application	Local Desktop Computer Clients	Pyxis_Transfusion_Verification.2.3.1.2.msi	Facility IRM Support	Anonymous. Software Directory
9	Pyxis TransfusionVerification .2.3.1.2 (PDA)	CF Transfusion Verification PDA Client Application installed on the handheld devices.	Handheld PDA Device Clients	Transfusion.2.3.1.2.MC70_MC75.CAB	Regional Application Service Line COTS	COTS Application Server FTPROOT
Updates to the CareFusion HL7 Interface Engine						
10	CFTV Interface VA Translation Package 1.2.1 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
11	CFTV Interface VA Translation Package 1.2.2 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
12	CFTV Interface VA Translation Package 1.2.3 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site

13	CFTV Interface VA Translation Package 1.2.4 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
14	CFTV Interface VA Translation Package 1.2.5 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
15	CFTV Interface VA Translation Package 1.2.6 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
16	CFTV Interface VA Translation Package 1.2.7 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
17	CFTV Interface VA Translation Package 1.2.8 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
18	CFTV Interface VA Translation Package 1.2.9 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
19	CFTV Interface VA Translation Package 1.2.10 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
20	CFTV Interface VA Translation Package 1.2.11 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site

21	CFTV Interface VA Translation Package 1.2.12 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
22	CFTV Interface VA Translation Package 1.2.13 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
23	CFTV Interface VA Translation Package 1.2.14 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
24	CFTV Interface VA Translation Package 1.2.15 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
25	CFTV Interface VA Translation Package 1.2.16 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
26	CFTV Interface VA Translation Package 1.2.17 (apply as an update)	CF Transfusion Verification HL7 Interface Package	COTS Application Server	va.zip SQL scripts	Regional Application Service Line COTS	BCE-PPI FTP Site
CareFusion Database Server Components						
27	CF Database – CFTV DB Schema 2.2.0.1	CareFusion Base Database	COTS SQL Server	CF.bak (Will be replaced with database creation script when available) First restoration of CF.bak creates this database	Region DBA	BCE-PPI FTP Site

28	BCE Database – Base Schema 5.4.1.0	CareFusion Base Database	COTS SQL Server	CF.bak (Will be replaced with database creation script when available.) Second restoration of CF.bak creates this database.	Region DBA	BCE-PPI FTP Site
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4.4. Electronic Media Released

See Table 2. No CDs or other electronic media are released with this product. All CareFusion components will be released to the FTP server for the region where they are being deployed.

VistA packages will be released following the normal procedure for VistA patches.

5. Release and Deployment Procedure

The procedure for installing the CareFusion executables on a server is labor-intensive and requires a lot of product-specific expertise. CareFusion's position is that CareFusion support is required for installation of their software for each site. In order to avoid the long lead times for deployment and the support risks associated with manually installing executables under these restrictions, the BCE-PPI Project Team has elected to deploy CareFusion software to the test sites using a 'gold VM' process.

After the successful conclusion of IOC testing, one of the VM's sites will be selected as the gold VM. The designated VM will be copied using VMWare. During deployment, copies of the gold VM image will be transferred to the regions and the IT staff in each region will be responsible for installing the gold VM image onto the virtual machines for that site.

Rather than supplying additional details in this document, which deals specifically with releases, we think it is best to leave the process of configuring and deploying a gold VM image up to the regions. Each region has an efficient and familiar process (with resources) already in place which we shall not define in this document.

However, there are some considerations which should be mentioned here.

1. The key question with regard to the gold image is to what extent that image can be customized before cloning and subsequent deployment. This will reduce post-deployment configuration to a minimum.
2. The SQL servers have to be created on a server-by-server basis. A VM with the appropriate specifications will be built and readily deployed. In addition, the CareFusion database will need to be installed in its entirety once that was done.

Note: On a prior version of BCE SQL systems, SDE created a silent install script that installed SQL, but it was only a database installation using the SQL to create a generic database. It imposed no site-specific customization. This silent install approach will be something the team shall consider in the future. SDE expertise on MS SQL systems is somewhat limited, and there are no doubt more knowledgeable regional SQL resources that could assist us in this effort. The feasibility of scripting a silent install for the CF application server needs to be investigated as well. It may present more difficulty than the SQL server because there are numerous post install configurations to be made which the vendor is in charge of. It remains to be demonstrated that an image with all of the BCE applications already installed could be deployed and simply configured post-deployment. If it turns out to be possible, the process would have to be documented. The documented procedure will list what post-install steps VA personnel should do and what post-install steps CareFusion would be required to perform.

6. Associated Supporting Documentation

Table 3 lists the support documents that are associated with this deliverable:

Table 3: Associated Supporting Documentation

Document Name	Revision	Date
Pyxis® Transfusion Verification Frequently Asked Questions (Transfusion_Frequently_Asked_Questions.pdf)		December 13, 2010
Pyxis® Transfusion Verification Quick Reference Guide (Transfusion_Quick_Reference_Guide.pdf)		2011
Pyxis® Point of Care Verification MC75AO Handheld Scanner PowerPoint™ presentation		2009
Pyxis® Transfusion Verification User Guide Enterprise Digital Assistant (MJCF_Pyxis_TV_User_Guide_EDA.pdf)	2.3	March 2013
Pyxis® Transfusion Verification User Guide (MJCF_Pyxis_TV_User_Guide_Desktop.pdf)	2.3	March 2013
BCE-PPI Installation Guide for Transfusion Verification (MJCF_1_0_Installation_Guide.doc)	1.0	March 2013
BCE-PPI Technical Manual (MJCF_1_0_Technical_Manual.doc)	1.0	May 2013
Version Description Document (BCE-PPI_TV_VDD.doc)	1.0	May 23, 2013

7. Certification

The Configuration Manager for this release certifies that the contents of the packaged release defined by this VDD consist of artifacts archived in the CM environment for *Bar Code Expansion (BCE) Positive Patient Identification Increment II Transfusion Verification®* as recorded in CM repository on June 25, 2013.

The status of all change requests and code change requests listed in this document in the Change Record Reports section have been verified and are consistent with what is reported here.

Signed

Date

The artifacts for this release were extracted from the BCE4 server. CareFusion releases software directly to that server. From BCE4, software is deployed directly to the test servers in the field.

There is some controversy as to whether certification of the

Appendix A. Release Notes

A.1. Introduction

The BCE-PPI Blood Administration – Increment 2 project is the 2nd increment in the larger BCE-PPI project. Increment 2 is an effort to make blood product administration more accurate by requiring clinicians to perform actions at the point of care using barcodes and automated technology to read barcodes. The main purpose of Increment 2 is to reduce errors associated with inaccurate patient / blood product matches at the point of care by matching the patient barcode with the blood product barcode.

A.1. Purpose

These release notes cover the new features provided to *Bar Code Expansion (BCE) Positive Patient Identification Increment II Transfusion Verification®* users in this release. All other documents referenced herein can be found at

<http://>

A.2. Audience

This document targets users (clinicians) and administrators of the *Bar Code Expansion (BCE) Positive Patient Identification Increment II Transfusion Verification®* product.

A.2. This Release

The following sections provide, in brief, the new features and functions added to *Bar Code Expansion (BCE) Positive Patient Identification Increment II Transfusion Verification®*.

A.3. Features and Functionality

The following table lists the new features added in the *Bar Code Expansion (BCE) Positive Patient Identification Increment II Transfusion Verification®* release.

Table 2: New *Bar Code Expansion (BCE) Positive Patient Identification Increment II Transfusion Verification®* Features

Features
Provide positive patient identification at the Blood Administration Point of Care through the use bar code scanning technology ensuring clinicians have the correct patient.
Provide positive patient matching between patient and blood transfusion products through bar code scanning technology reducing additional care due adverse reaction incident.
Allow clinicians to record patient vitals signs at the blood administration point of care reducing the workload on clinicians by not having to use separate systems.
Update VISTA patient record upon completion of the patient blood administration episode with a blood transfusion record form reducing clinician workload and clerical errors.
Update VBECS with blood unit status upon completion of blood administration episode clinician workload and clerical errors.
Provide Nurse Managers and other clinical administrative staff report capabilities for auditing and reporting purposes reducing clerical errors.

A.3. Upgrades

This is the initial release of this product.

A.4. Known Issues

There are no Severity 1 or 2 issues.

A.5. Product Documentation

See Table 3 (Section 5: Associated Supporting Documentation) for a list of product documents that apply to this release

These documents are located on the BCE-PPI project's TSPR site:

<http://>

A.6. Interface Engine Updates File and Checksum Details

This appendix contains the file and checksum information for each of the Interface Engine Updates supplied by CareFusion as of this writing. The entries were automatically generated. Each entry is a pipe-separated line containing the fully qualified file name, the MD5 checksum, the file creation date and the file size in bytes.

A.6.1. Version 1.2.0

"C:\CareFusion\INTERFACE\1.2.0\va-settings.xml" | 5D9272C84710E1127AB0A0C5601CB451 | 6/29/2013 4:57:52 PM | 2371
"C:\CareFusion\INTERFACE\1.2.0\va.zip" | 24358D479BDB112894468BB5D0291ABE | 6/29/2013 4:57:54 PM | 699060
"C:\CareFusion\INTERFACE\1.2.0\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:58:16 PM | 10968
"C:\CareFusion\INTERFACE\1.2.0\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | E4CDED30234FEDCDE6C71410D8F3704A | 6/29/2013 4:58:18 PM | 218
"C:\CareFusion\INTERFACE\1.2.0\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:58:20 PM | 1455
"C:\CareFusion\INTERFACE\1.2.0\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | C3185FB2080C6502C549ED57DCBFB142 | 6/29/2013 4:58:21 PM | 1326
"C:\CareFusion\INTERFACE\1.2.0\SQL\CFTR_TRANSFUSION_UPDATE.sql" | B44E972EE3E37E47B35CCC8DE7788350 | 6/29/2013 4:58:23 PM | 1484

A.6.2. Version 1.2.1

"C:\CareFusion\INTERFACE\1.2.1\va-settings.xml" | 5D9272C84710E1127AB0A0C5601CB451 | 6/29/2013 4:52:10 PM | 2371
"C:\CareFusion\INTERFACE\1.2.1\va.zip" | D3FE8BCD995DCCF75BDCEBCE171CA30A | 6/29/2013 4:52:12 PM | 699915
"C:\CareFusion\INTERFACE\1.2.1\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:57:40 PM | 10968
"C:\CareFusion\INTERFACE\1.2.1\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | E4CDED30234FEDCDE6C71410D8F3704A | 6/29/2013 4:57:43 PM | 218
"C:\CareFusion\INTERFACE\1.2.1\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:57:44 PM | 1455
"C:\CareFusion\INTERFACE\1.2.1\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | C3185FB2080C6502C549ED57DCBFB142 | 6/29/2013 4:57:46 PM | 1326
"C:\CareFusion\INTERFACE\1.2.1\SQL\CFTR_TRANSFUSION_UPDATE.sql" | B44E972EE3E37E47B35CCC8DE7788350 | 6/29/2013 4:57:48 PM | 1484

A.6.3. Version 1.2.2

"C:\CareFusion\INTERFACE\1.2.2\va.zip" | BEF233AD5F703AF076A60C7BE7A4ECD9 | 6/29/2013 4:48:11 PM | 388405
"C:\CareFusion\INTERFACE\1.2.2\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:48:22 PM | 10968

"C:\CareFusion\INTERFACE\1.2.2\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | E4CDED30234FEDCDE6C71410D8F3704A | 6/29/2013 4:48:24 PM | 218
"C:\CareFusion\INTERFACE\1.2.2\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:48:26 PM | 1455
"C:\CareFusion\INTERFACE\1.2.2\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | C3185FB2080C6502C549ED57DCBFB142 | 6/29/2013 4:48:28 PM | 1326
"C:\CareFusion\INTERFACE\1.2.2\SQL\CFTR_TRANSFUSION_UPDATE.sql" | B44E972EE3E37E47B35CCC8DE7788350 | 6/29/2013 4:48:30 PM | 1484

A.6.4. Version 1.2.3

"C:\CareFusion\INTERFACE\1.2.3\va.zip" | C6B9630380D8973A41E68FB846FBCCC5 | 6/29/2013 4:47:47 PM | 388178
"C:\CareFusion\INTERFACE\1.2.3\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:47:59 PM | 10968
"C:\CareFusion\INTERFACE\1.2.3\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | E4CDED30234FEDCDE6C71410D8F3704A | 6/29/2013 4:48:01 PM | 218
"C:\CareFusion\INTERFACE\1.2.3\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:48:03 PM | 1455
"C:\CareFusion\INTERFACE\1.2.3\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | C3185FB2080C6502C549ED57DCBFB142 | 6/29/2013 4:48:05 PM | 1326
"C:\CareFusion\INTERFACE\1.2.3\SQL\CFTR_TRANSFUSION_UPDATE.sql" | B44E972EE3E37E47B35CCC8DE7788350 | 6/29/2013 4:48:06 PM | 1484

A.6.5. Version 1.2.4

"C:\CareFusion\INTERFACE\1.2.4\va.zip" | 98E97588C002D6A00FCA5C97EE188941 | 6/29/2013 4:47:21 PM | 389171
"C:\CareFusion\INTERFACE\1.2.4\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:47:32 PM | 10968
"C:\CareFusion\INTERFACE\1.2.4\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | E4CDED30234FEDCDE6C71410D8F3704A | 6/29/2013 4:47:34 PM | 218
"C:\CareFusion\INTERFACE\1.2.4\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:47:36 PM | 1455
"C:\CareFusion\INTERFACE\1.2.4\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | C3185FB2080C6502C549ED57DCBFB142 | 6/29/2013 4:47:38 PM | 1326
"C:\CareFusion\INTERFACE\1.2.4\SQL\CFTR_TRANSFUSION_UPDATE.sql" | B44E972EE3E37E47B35CCC8DE7788350 | 6/29/2013 4:47:40 PM | 1484

A.6.6. Version 1.2.5

"C:\CareFusion\INTERFACE\1.2.5\va.zip" | 4A3D90D5DC567A11D21507DD835D5033 | 6/29/2013 4:42:28 PM | 383595
"C:\CareFusion\INTERFACE\1.2.5\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:47:08 PM | 10968
"C:\CareFusion\INTERFACE\1.2.5\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | E4CDED30234FEDCDE6C71410D8F3704A | 6/29/2013 4:47:10 PM | 218
"C:\CareFusion\INTERFACE\1.2.5\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:47:12 PM | 1455
"C:\CareFusion\INTERFACE\1.2.5\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | C3185FB2080C6502C549ED57DCBFB142 | 6/29/2013 4:47:14 PM | 1326

"C:\CareFusion\INTERFACE\1.2.5\SQL\CFTR_TRANSFUSION_UPDATE.sql" |
B44E972EE3E37E47B35CCC8DE7788350 | 6/29/2013 4:47:16 PM | 1484

A.6.7. Version 1.2.6

"C:\CareFusion\INTERFACE\1.2.6\va.zip" | A08CB2B90A7054A60AFC43F9C90F088E | 6/29/2013
4:42:04 PM | 381429

"C:\CareFusion\INTERFACE\1.2.6\SQL\1.0.118 to 1.0.118_VA_Patch.sql" |
337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:42:16 PM | 10968

"C:\CareFusion\INTERFACE\1.2.6\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" |
E4CDED30234FEDCDE6C71410D8F3704A | 6/29/2013 4:42:18 PM | 218

"C:\CareFusion\INTERFACE\1.2.6\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" |
6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:42:19 PM | 1455

"C:\CareFusion\INTERFACE\1.2.6\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" |
C3185FB2080C6502C549ED57DCBFB142 | 6/29/2013 4:42:21 PM | 1326

"C:\CareFusion\INTERFACE\1.2.6\SQL\CFTR_TRANSFUSION_UPDATE.sql" |
B44E972EE3E37E47B35CCC8DE7788350 | 6/29/2013 4:42:23 PM | 1484

A.6.8. Version 1.2.7

"C:\CareFusion\INTERFACE\1.2.7\va.zip" | 3617166794C00724198712AA108AE6B3 | 6/29/2013
4:41:38 PM | 381493

"C:\CareFusion\INTERFACE\1.2.7\SQL\1.0.118 to 1.0.118_VA_Patch.sql" |
337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:41:49 PM | 10968

"C:\CareFusion\INTERFACE\1.2.7\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" |
E4CDED30234FEDCDE6C71410D8F3704A | 6/29/2013 4:41:51 PM | 218

"C:\CareFusion\INTERFACE\1.2.7\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" |
6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:41:53 PM | 1455

"C:\CareFusion\INTERFACE\1.2.7\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" |
C3185FB2080C6502C549ED57DCBFB142 | 6/29/2013 4:41:55 PM | 1326

"C:\CareFusion\INTERFACE\1.2.7\SQL\CFTR_TRANSFUSION_UPDATE.sql" |
B44E972EE3E37E47B35CCC8DE7788350 | 6/29/2013 4:41:57 PM | 1484

A.6.9. Version 1.2.8

"C:\CareFusion\INTERFACE\1.2.8\va.zip" | EA8E4AD1EF1BDED8DA2CD86DE969AFE1 | 6/29/2013
4:41:13 PM | 385099

"C:\CareFusion\INTERFACE\1.2.8\SQL\1.0.118 to 1.0.118_VA_Patch.sql" |
337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:41:24 PM | 10968

"C:\CareFusion\INTERFACE\1.2.8\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" |
E4CDED30234FEDCDE6C71410D8F3704A | 6/29/2013 4:41:26 PM | 218

"C:\CareFusion\INTERFACE\1.2.8\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" |
6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:41:28 PM | 1455

"C:\CareFusion\INTERFACE\1.2.8\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" |
C3185FB2080C6502C549ED57DCBFB142 | 6/29/2013 4:41:30 PM | 1326

"C:\CareFusion\INTERFACE\1.2.8\SQL\CFTR_TRANSFUSION_UPDATE.sql" |
B44E972EE3E37E47B35CCC8DE7788350 | 6/29/2013 4:41:33 PM | 1484

A.6.10. Version 1.2.9

"C:\CareFusion\INTERFACE\1.2.9\va.zip" | 5F5D888CBDB47776EAEF10896DD9220E | 6/29/2013
4:40:44 PM | 386341

"C:\CareFusion\INTERFACE\1.2.9\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:40:58 PM | 10968
 "C:\CareFusion\INTERFACE\1.2.9\SQL\CFTR_QUEUE_OUTBOUND_EDIT_TRANSFUSION.sql" | 1105EAB04D15B27CDF264A3F88D46877 | 6/29/2013 4:41:00 PM | 2714
 "C:\CareFusion\INTERFACE\1.2.9\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | E4CDED30234FEDCDE6C71410D8F3704A | 6/29/2013 4:41:02 PM | 218
 "C:\CareFusion\INTERFACE\1.2.9\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:41:04 PM | 1455
 "C:\CareFusion\INTERFACE\1.2.9\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | C3185FB2080C6502C549ED57DCBFB142 | 6/29/2013 4:41:06 PM | 1326
 "C:\CareFusion\INTERFACE\1.2.9\SQL\CFTR_TRANSFUSION_UPDATE.sql" | B44E972EE3E37E47B35CCC8DE7788350 | 6/29/2013 4:41:08 PM | 1484

A.6.11. Version 1.2.10

"C:\CareFusion\INTERFACE\1.2.10\va.zip" | D17C4F2C2C6BF78F8C96DA4F05455C62 | 6/29/2013 4:51:43 PM | 383409
 "C:\CareFusion\INTERFACE\1.2.10\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:51:56 PM | 10968
 "C:\CareFusion\INTERFACE\1.2.10\SQL\CFTR_QUEUE_OUTBOUND_EDIT_TRANSFUSION.sql" | 1105EAB04D15B27CDF264A3F88D46877 | 6/29/2013 4:51:58 PM | 2714
 "C:\CareFusion\INTERFACE\1.2.10\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | 1B2077665F903D3011BA143693F3B6E1 | 6/29/2013 4:52:00 PM | 2355
 "C:\CareFusion\INTERFACE\1.2.10\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:52:02 PM | 1455
 "C:\CareFusion\INTERFACE\1.2.10\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | 5D333DBEF7A8D81462B874D6D4979A44 | 6/29/2013 4:52:04 PM | 1499
 "C:\CareFusion\INTERFACE\1.2.10\SQL\CFTR_TRANSFUSION_UPDATE.sql" | 4CA752F041C6E07BEA9293274A6A0E6B | 6/29/2013 4:52:06 PM | 1658

A.6.12. Version 1.2.11

"C:\CareFusion\INTERFACE\1.2.11\va.zip" | A06FD87640EF53290BA29CBEEBB9045D | 6/29/2013 4:51:18 PM | 387398
 "C:\CareFusion\INTERFACE\1.2.11\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:51:29 PM | 10968
 "C:\CareFusion\INTERFACE\1.2.11\SQL\CFTR_QUEUE_OUTBOUND_EDIT_TRANSFUSION.sql" | 1105EAB04D15B27CDF264A3F88D46877 | 6/29/2013 4:51:31 PM | 2714
 "C:\CareFusion\INTERFACE\1.2.11\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | 1B2077665F903D3011BA143693F3B6E1 | 6/29/2013 4:51:33 PM | 2355
 "C:\CareFusion\INTERFACE\1.2.11\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:51:35 PM | 1455
 "C:\CareFusion\INTERFACE\1.2.11\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | 5D333DBEF7A8D81462B874D6D4979A44 | 6/29/2013 4:51:37 PM | 1499
 "C:\CareFusion\INTERFACE\1.2.11\SQL\CFTR_TRANSFUSION_UPDATE.sql" | 4CA752F041C6E07BEA9293274A6A0E6B | 6/29/2013 4:51:38 PM | 1658

A.6.13. Version 1.2.12

"C:\CareFusion\INTERFACE\1.2.12\va.zip" | C2BC964C8B833E48DA28420BF67BA9B8 | 6/29/2013 4:50:49 PM | 387451

"C:\CareFusion\INTERFACE\1.2.12\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:51:00 PM | 10968
 "C:\CareFusion\INTERFACE\1.2.12\SQL\CFTR_QUEUE_OUTBOUND_EDIT_TRANSFUSION.sql" | 1105EAB04D15B27CDF264A3F88D46877 | 6/29/2013 4:51:02 PM | 2714
 "C:\CareFusion\INTERFACE\1.2.12\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | 1B2077665F903D3011BA143693F3B6E1 | 6/29/2013 4:51:04 PM | 2355
 "C:\CareFusion\INTERFACE\1.2.12\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:51:07 PM | 1455
 "C:\CareFusion\INTERFACE\1.2.12\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | 5D333DBEF7A8D81462B874D6D4979A44 | 6/29/2013 4:51:11 PM | 1499
 "C:\CareFusion\INTERFACE\1.2.12\SQL\CFTR_TRANSFUSION_UPDATE.sql" | 4CA752F041C6E07BEA9293274A6A0E6B | 6/29/2013 4:51:13 PM | 1658

A.6.14. Version 1.2.13

"C:\CareFusion\INTERFACE\1.2.13\va.zip" | 9B32D499A6467BFD0E8622F9CD7A3CF9 | 6/29/2013 4:50:23 PM | 388004
 "C:\CareFusion\INTERFACE\1.2.13\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:50:35 PM | 10968
 "C:\CareFusion\INTERFACE\1.2.13\SQL\CFTR_QUEUE_OUTBOUND_EDIT_TRANSFUSION.sql" | 1105EAB04D15B27CDF264A3F88D46877 | 6/29/2013 4:50:37 PM | 2714
 "C:\CareFusion\INTERFACE\1.2.13\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | 1B2077665F903D3011BA143693F3B6E1 | 6/29/2013 4:50:39 PM | 2355
 "C:\CareFusion\INTERFACE\1.2.13\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:50:41 PM | 1455
 "C:\CareFusion\INTERFACE\1.2.13\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | 5D333DBEF7A8D81462B874D6D4979A44 | 6/29/2013 4:50:43 PM | 1499
 "C:\CareFusion\INTERFACE\1.2.13\SQL\CFTR_TRANSFUSION_UPDATE.sql" | 4CA752F041C6E07BEA9293274A6A0E6B | 6/29/2013 4:50:44 PM | 1658

A.6.15. Version 1.2.14

"C:\CareFusion\INTERFACE\1.2.14\va.zip" | 1404D75CDC50F09EE8CBEDA9D6FBA35A | 6/29/2013 4:49:55 PM | 387872
 "C:\CareFusion\INTERFACE\1.2.14\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:50:10 PM | 10968
 "C:\CareFusion\INTERFACE\1.2.14\SQL\CFTR_QUEUE_OUTBOUND_EDIT_TRANSFUSION.sql" | 1105EAB04D15B27CDF264A3F88D46877 | 6/29/2013 4:50:12 PM | 2714
 "C:\CareFusion\INTERFACE\1.2.14\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | 1B2077665F903D3011BA143693F3B6E1 | 6/29/2013 4:50:13 PM | 2355
 "C:\CareFusion\INTERFACE\1.2.14\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:50:15 PM | 1455
 "C:\CareFusion\INTERFACE\1.2.14\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | 5D333DBEF7A8D81462B874D6D4979A44 | 6/29/2013 4:50:17 PM | 1499
 "C:\CareFusion\INTERFACE\1.2.14\SQL\CFTR_TRANSFUSION_UPDATE.sql" | 4CA752F041C6E07BEA9293274A6A0E6B | 6/29/2013 4:50:19 PM | 1658

A.6.16. Version 1.2.15

"C:\CareFusion\INTERFACE\1.2.15\va.zip" | 7DA00EE04AF0E9B7D895C07E523D7B21 | 6/29/2013 4:49:29 PM | 391480

"C:\CareFusion\INTERFACE\1.2.15\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:49:41 PM | 10968
 "C:\CareFusion\INTERFACE\1.2.15\SQL\CFTR_QUEUE_OUTBOUND_EDIT_TRANSFUSION.sql" | 1105EAB04D15B27CDF264A3F88D46877 | 6/29/2013 4:49:43 PM | 2714
 "C:\CareFusion\INTERFACE\1.2.15\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | 1B2077665F903D3011BA143693F3B6E1 | 6/29/2013 4:49:45 PM | 2355
 "C:\CareFusion\INTERFACE\1.2.15\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:49:47 PM | 1455
 "C:\CareFusion\INTERFACE\1.2.15\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | 5D333DBEF7A8D81462B874D6D4979A44 | 6/29/2013 4:49:49 PM | 1499
 "C:\CareFusion\INTERFACE\1.2.15\SQL\CFTR_TRANSFUSION_UPDATE.sql" | 4CA752F041C6E07BEA9293274A6A0E6B | 6/29/2013 4:49:50 PM | 1658

A.6.17. Version 1.2.16

"C:\CareFusion\INTERFACE\1.2.16\va.zip" | 732C517471FC16EE37AAE7AF719BB2FB | 6/29/2013 4:49:03 PM | 391602
 "C:\CareFusion\INTERFACE\1.2.16\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:49:15 PM | 10968
 "C:\CareFusion\INTERFACE\1.2.16\SQL\CFTR_QUEUE_OUTBOUND_EDIT_TRANSFUSION.sql" | 1105EAB04D15B27CDF264A3F88D46877 | 6/29/2013 4:49:17 PM | 2714
 "C:\CareFusion\INTERFACE\1.2.16\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | 1B2077665F903D3011BA143693F3B6E1 | 6/29/2013 4:49:19 PM | 2355
 "C:\CareFusion\INTERFACE\1.2.16\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:49:21 PM | 1455
 "C:\CareFusion\INTERFACE\1.2.16\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | 5D333DBEF7A8D81462B874D6D4979A44 | 6/29/2013 4:49:23 PM | 1499
 "C:\CareFusion\INTERFACE\1.2.16\SQL\CFTR_TRANSFUSION_UPDATE.sql" | 4CA752F041C6E07BEA9293274A6A0E6B | 6/29/2013 4:49:24 PM | 1658

A.6.18. Version 1.2.17

"C:\CareFusion\INTERFACE\1.2.17\va.zip" | F8268707DA3E6CC7032823DC2CE93C88 | 6/29/2013 4:48:35 PM | 391605
 "C:\CareFusion\INTERFACE\1.2.17\SQL\1.0.118 to 1.0.118_VA_Patch.sql" | 337DEA6A56F07F21216FA48249912296 | 6/29/2013 4:48:47 PM | 10968
 "C:\CareFusion\INTERFACE\1.2.17\SQL\CFTR_QUEUE_OUTBOUND_EDIT_TRANSFUSION.sql" | 1105EAB04D15B27CDF264A3F88D46877 | 6/29/2013 4:48:49 PM | 2714
 "C:\CareFusion\INTERFACE\1.2.17\SQL\CFTR_QUEUE_OUTBOUND_TRANSFUSION_VITALS.sql" | 1B2077665F903D3011BA143693F3B6E1 | 6/29/2013 4:48:53 PM | 2355
 "C:\CareFusion\INTERFACE\1.2.17\SQL\CFTR_QUEUE_TRANSFUSION_REPORT_PRINT.sql" | 6587E5DA29D45B7866B211F4CFD075C4 | 6/29/2013 4:48:55 PM | 1455
 "C:\CareFusion\INTERFACE\1.2.17\SQL\CFTR_QUEUE_TRANSFUSION_TIU_MESSAGE.sql" | 5D333DBEF7A8D81462B874D6D4979A44 | 6/29/2013 4:48:57 PM | 1499
 "C:\CareFusion\INTERFACE\1.2.17\SQL\CFTR_TRANSFUSION_UPDATE.sql" | 4CA752F041C6E07BEA9293274A6A0E6B | 6/29/2013 4:48:59 PM | 1658

A.7. CareFusion Base Install File and Checksum Details

As table 2 above shows, all of the installation files for the CareFusion Application Server can be obtained by expanding the compressed files CareFusion distributes for a baseline installation, namely

VATIMSIInstall.zip and VA.zip. In addition the file CF.bak is required in order to create the CF and BCE databases.

Filename	MD5 Checksum	File creation date	File size (bytes)
VATIMSIInstall.zip	B8B32F3CCA228A39A911B0506E956F22	12/06/2012 01:51 PM	220,728,233
VA.zip	AA35CA1BBB5DF0AC3C20C939A8DBA1CC	07/01/2013 03:41 PM	5,773,141
CF.bak	D27604812DAB3BA16BB61671B0871826	02/09/2012 07:40 AM	13,715,968

Note: VA.zip reconstructed from c:\inetpub\ftproot on the BCE4 development\SQA server.

A.8. VistA Patch File and Checksum Details

A.9.

Filename	MD5 Checksum	File creation date	File size (bytes)
MJCF_1_0.KID	21BF533AD3D9674C5F47237CA4159933	07/01/2013 03:12 PM	66,827
TIU_1_281.KID	B906FEE85CB181F58030819B9098791B	07/01/2013 03:12 PM	22,767