**Results from Xcelera to Optum CAC Requirements**

**Version 1.1**

**Prepared By: Tiffany Bohall**

**Date: 5/23/2018**

[Document Control 3](#_Toc514940857)

[Resources: (include Project Team Members, Liaisons, Vendor Contacts, etc.) 3](#_Toc514940858)

[Project Distribution List 3](#_Toc514940859)

[Document Version Control 3](#_Toc514940860)

[1. Introduction 4](#_Toc514940861)

[1.1 Purpose 4](#_Toc514940862)

[1.2 Project Scope 4](#_Toc514940863)

[1.3 Terminology Standards 4](#_Toc514940864)

[1.3.1 Acronyms 4](#_Toc514940865)

[1.3.2 Glossary 4](#_Toc514940866)

[1.4 Document References –N/A 4](#_Toc514940867)

[2. Diagram 5](#_Toc514940868)

[3. Requirements 6](#_Toc514940869)

[3.1 Functional Requirements 6](#_Toc514940870)

[3.2 Non-Functional Requirements –N/A 6](#_Toc514940871)

[3.3 Messaging Protocols 7](#_Toc514940872)

[3.3.1 Inbound to the BayCare Cloverleaf 7](#_Toc514940873)

[3.3.2 Outbound to the BayCare Cloverleaf –N/A 7](#_Toc514940874)

[3.3.3 Inbound to the Vendor –N/A 7](#_Toc514940875)

[3.3.4 Outbound to the Vendor 7](#_Toc514940876)

[4. HL7 Messaging 8](#_Toc514940877)

[4.1 Messaging Format 8](#_Toc514940878)

[4.1.1 Segments 8](#_Toc514940879)

[4.1*.*2 Messaging Event Types 8](#_Toc514940880)

[4.1*.*3 Cloverleaf Configuration Files 8](#_Toc514940881)

[4.1.4 Cloverleaf Site Location 9](#_Toc514940882)

[4.2 Data Transformation Requirements 9](#_Toc514940883)

[4.3 Sample Message 11](#_Toc514940884)

[5. Alerts 14](#_Toc514940885)

[Appendix A: Risks and Concerns –N/A 14](#_Toc514940886)

[Appendix B: Issues List –N/A 15](#_Toc514940887)

# **Document Control**

## Resources: (include Project Team Members, Liaisons, Vendor Contacts, etc.)

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|  |  |  |

## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 12/19/2017 | Tiffany Bohall | Originally Created |
| V1.1 | 5/23/18 | Tiffany Bohall | Updated filters |
|  |  |  |  |
|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

The purpose of this interface requirements document is to define the HL7 requirements from Xcelera Cardiology to Optum CAC.

## 1.2 Project Scope

The scope of the integration that is defined in this Integration Development Build Book (IDBB), particularly this IDBB defines only part of the system. There are multiple other interfaces that are documented elsewhere, including but not limited to ADT from Soarian, results, MDOC and labs from Cerner, as well as BAR transactions, and Muse EKG and Regiology results.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

CAC = Computer Assisted Coding

### 1.3.2 Glossary

List the terms that require definition with respect to Cloverleaf and the product whose requirements are defined in this document. The definitions are specific to this document and may not be identical to the definitions of these terms in common use.

## 1.4 Document References –N/A

List all documents or Web addresses to which this IDBB refers; provide enough information so that the reader can access a copy of each reference. Include the title, author, version number, date, and source or location.

# 2. Diagram

Provide a solution diagram that depicts the integration of components specified in this IDBB. This diagram must include the data flow for the interfaces (source and target).

# 3. Requirements

## 3.1 Functional Requirements

Provide detail for the below functional requirements. The message transformation requirements for the components defined in this specification should be specified in section 4.2 of this document.

|  |  |  |
| --- | --- | --- |
| **Cloverleaf** |  |  |
| **Number** | **Requirement Name** | **Requirement Description** |
| FR.2017.12.19 | Passing Xcelera results only | Since Xcelera’s inbound connection includes results from Xper, there is a tpsAdvHL7Filter that passes transactions with XCELERA in MSH.3 only. |
| FR.2017.12.19.2 | Suppressing certain locations: MDC and BOI | Optum does not want any results from MPMDC location so there is a filter to suppress transactions if MDCDC, MDCDM, MDCDN, MDCDN and BOI are in MSH.5. |
| FR.2018.05.23. | Suppressing BMG | Optum does not want any results from BMG locations to there is a filter to suppress transactions if BMGFN is in PID.18.4. |

## 3.2 Non-Functional Requirements –N/A

Provide concise detail for the below non-functional requirements. This would include external table ownership, hours of support, etc. The below requirements must be evaluated for every project.

|  |  |  |
| --- | --- | --- |
| **Cloverleaf** |  |  |
| **Number** | **Requirement Name** | **Requirement Description** |
| NFR.20XX.1.0 | Click here to enter text. | Click here to enter text. |

## 3.3 Messaging Protocols

Below are listed the details for the messaging protocols that will be leveraged for this integration. This includes: TCP/IP, FTP, Web Services, etc.

### 3.3.1 Inbound to the BayCare Cloverleaf

|  |  |
| --- | --- |
| FTP |  |
| MLLP Socket Connection (TCP/IP) |  |
| Local File Drop by Midrange Team |  |
| Other | Click here to enter text. |

### 3.3.2 Outbound to the BayCare Cloverleaf –N/A

|  |  |
| --- | --- |
| FTP |  |
| MLLP Socket Connection (TCP/IP) |  |
| Local File Drop by Midrange Team |  |
| Other | Click here to enter text. |

### 3.3.3 Inbound to the Vendor –N/A

|  |  |
| --- | --- |
| FTP |  |
| MLLP Socket Connection (TCP/IP) |  |
| Local File Drop by Midrange Team |  |
| Other | Click here to enter text. |

### 3.3.4 Outbound to the Vendor

|  |  |
| --- | --- |
| FTP |  |
| MLLP Socket Connection (TCP/IP) |  |
| Local File Drop by Midrange Team |  |
| Other | Click here to enter text. |

# 4. HL7 Messaging

## 4.1 Messaging Format

HL7 2.3, Cerner\_emr ORU\_R01

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

PID

[ORC]

OBR

[OBX]

*Message Construction Notes:*

*[Square Brackets] – Optional*

*{Curly Brackets} – Repeatable*

*MSH – Message Header*

*EVN – Event segment*

*PID – Patient ID segment*

*PV1 – Patient Visit segment*

*ORC – Common Order segment*

*IN1 – Insurance segment*

*[{ – Start of optional, repeatable group*

*}] – End of optional, repeatable group*

### 4.1*.*2 Messaging Event Types

Below are the messages types necessary for this integration

|  |  |
| --- | --- |
| **Event Type** | **Description** |
| ORU\_R01 | Result |
|  |  |
|  |  |

### 4.1*.*3 Cloverleaf Configuration Files

The translation file is called xcelera\_optum\_oru.xlt

### 4.1.4 Cloverleaf Site Location

Cloverleaf site: optum for test and prod.

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Notes** |
| --- | --- | --- | --- |
| Message header segment | MSH | Y | Pathcopy entire segment |
| Sending application | MSH.3 | Y | Hard coding ‘PHILIPS XCELERA’ |
| Sending facility | MSH.4 | Y | Copy |
| Receiving facility | MSH.5 | N | Hard coding ‘OPTUM’ |
| Receiving facility | MSH.6 | Y | Copy from MSH.5 |
| Version ID | MSH.12 | Y | copy |
| Patient ID (internal) | PID.3.0  PID.3.4 | Y | Copy  Hard coding ‘BCCPI’ |
| Patient name | PID.5 | Y | Pathcopy entire segment |
| Date/time of birth | PID.7 | Y | Copy with TCL logic that removes the time and only sends the format 00000000 |
| Sex | PID.8 | Y | Copy |
| Patient Account Number | PID.18.0  PID.18.4 | Y | Copy  Hard coding ‘BCFN’ |
| Order control | ORC.1 | Y | Hard coding ‘RE’ |
| Placer order number | ORC.2 | N | Copy from OR.3 |
| Filler order number | ORC.3 | N | copy |
| Set ID | OBR.1 | N | copy |
| Placer order number | OBR.2 | N | copy |
| Filler order number | OBR.3 | N | copy |
| Universal service identifier | OBR.4 | N | Copy from OBR.4.1 |
| Observation date/time | OBR.7 | N | Copy with TCL logic that removes the time and only sends the format 00000000 |
| Results report/status change | OBR.22 | N | Copy with TCL logic that removes the time and only sends the format 00000000 |
| Diagnostic serv sect ID | OBR.24 | N | Hard coding ‘MDOC’ |
| Result status | OBR.25 | Y | copy |
| Primcipal result interpreter | OBR.32 | Y | If OBR.32.0 is not null, copy |
| Observation/result segment | OBX | Y | Set variable for the presence of startimage. If OBX.5 =STARTIMAGE, pathcopy entire OBX segment. Hardcode “Images have been removed”, hard code “TX” in OBX.2, copy OBR.4.1 to OBX.3.0, copy OBX.4, copy the output of OBR.25 into OBX.11 and copy the output of OBR.22 to OBX.14.  If STARTIMAGE variable is not valued, hard code “TX” in OBX.2, copy OBR.4.1 to OBX.3.0, copy OBX.4, if OBX.3.1 does not = ‘FINDINGS’, copy OBX.5, copy OBX.11 and copy the output of OBR.22 to OBX.14. |

## 4.3 Sample Message

**INBOUND FROM XCELERA:**

MSH|^~\&|XCELERA|XCELERA|BRM|BRM|20171220135644||ORU^R01|e6cbd09620171220135644814|P|2.3||||||8859/1

PID|||810015950^^^BRM||PMMCTEST^SIX||19660606000000|F|||852 PMMC Roundabout^^Clearwater^FL^33760|||||||6000035860

PV1||I|ADMH ADMX 04 BRM||||||||||||||||||||||||||||||||||||BRM

ORC|RE||11770086383||CM||||20171220133715|||MS003695^Hobson^Jonathan^D

OBR|1|11770086383|2519|^TEE^TEE|||20171220133715|20171220135504||||||||MS003695^Hobson^Jonathan^D||11770086383||2||20171220135622||CUS|C||||||test HIM|^Hepp^Mark|^20171220133715^20171220135504

ZDS|1.3.46.670589.52.2.551502.20171220.5132541.4944.10438

OBX|1|TX|DefaultObservationID|1|||||||F

OBX|2|TX|DefaultObservationID|1| Version 2||||||F

OBX|3|TX|DefaultObservationID|1| 2200 Osprey Blvd.||||||F

OBX|4|TX|DefaultObservationID|1| Bartow, FL 33830||||||F

OBX|5|TX|DefaultObservationID|1| Phone (863) 519-1550||||||F

OBX|6|TX|DefaultObservationID|1| Fax (863)519-1466||||||F

OBX|7|TX|DefaultObservationID|1|||||||F

OBX|8|TX|DefaultObservationID|1| Transesophageal||||||F

OBX|9|TX|DefaultObservationID|1|Name: PMMCTEST, SIX Age: 51 yrs Patient Location:ADMH ADMX 04 BRM||||||F

OBX|10|TX|DefaultObservationID|1|Study Date: 12/20/2017 01:37 PM DOB: 06/06/1966 Height:56 in||||||F

OBX|11|TX|DefaultObservationID|1|MRN:810015950 Gender:Female Weight:150 lb||||||F

OBX|12|TX|DefaultObservationID|1|Echo #:||||||F

OBX|13|TX|DefaultObservationID|1|Reason For Study: test HIM HR: 100 bpm||||||F

OBX|14|TX|DefaultObservationID|1| BSA: 1.6 m2||||||F

OBX|15|TX|DefaultObservationID|1| BP:120/80 mmHg||||||F

OBX|16|TX|DefaultObservationID|1|History: CHF||||||F

OBX|17|TX|DefaultObservationID|1|Ordering Physician:Hobson, Jonathan||||||F

OBX|18|TX|DefaultObservationID|1|Referring Physician:(no||||||F

OBX|19|TX|DefaultObservationID|1|||||||F

OBX|20|TX|DefaultObservationID|1|Procedure The oropharynx was anesthesized with Exatacaine spray.||||||F

OBX|21|TX|DefaultObservationID|1|Complications There was evidence of bleeding during the exam, the source was thought to be 12.||||||F

OBX|22|TX|DefaultObservationID|1|||||||F

OBX|23|TX|DefaultObservationID|1|Findings||||||F

OBX|24|TX|DefaultObservationID|1|||||||F

OBX|25|TX|DefaultObservationID|1|Right Ventricle The right ventricle is not well visualized.||||||F

OBX|26|TX|DefaultObservationID|1|||||||F

OBX|27|TX|DefaultObservationID|1|STARTIMAGE||||||F

OBX|28|TX|DefaultObservationID|1|||||||F

OBX|29|TX|DefaultObservationID|1|||||||F

OBX|30|TX|DefaultObservationID|1|ENDIMAGE||||||F

OBX|31|TX|DefaultObservationID|1|STARTIMAGE||||||F

OBX|32|TX|DefaultObservationID|1|||||||F

OBX|33|TX|DefaultObservationID|1|ENDIMAGE||||||F

OBX|34|TX|DefaultObservationID|1|Interpretation Summary||||||F

OBX|35|TX|DefaultObservationID|1|A 2D transesophageal echocardiogram with color flow Doppler was performed.||||||F

OBX|36|TX|DefaultObservationID|1|||||||F

OBX|37|TX|DefaultObservationID|1|Reading Physician:Mark Hepp 12/20/2017 01:56 PM||||||F

OBX|38|TX|DefaultObservationID|1|||||||F

OBX|39|ED|FIND^FINDINGS^LB|2|DOC^Application^PDF^Base64^JVBERi0xLjQNCiWxsrO0DQolQ3JlYXRlZCBieSBXbnYvRVAgUERGIFRvb2xz ***\*\*\*Remaining PDF encoding has been removed\*\*\****

**OUTBOUND TO OPTUM/CAC:**

MSH|^~\&|PHILIPS XCELERA|XCELERA|OPTUM|BRM|20171220135644||ORU^R01|e6cbd096201712201356|P|2.3||||||8859/1

PID|||810015950^^^^BCCPI||PMMCTEST^SIX||19660606|F||||||||||6000035860^^^^BCFN

ORC|RE|11770086383|11770086383

OBR|1|11770086383|11770086383|TEE|||201712201337|||||||||||||||201712201356||MDOC|C

OBX|1|TX|TEE|1|||||||F|||201712201356

OBX|2|TX|TEE|1| Version 2||||||F|||201712201356

OBX|3|TX|TEE|1| 2200 Osprey Blvd.||||||F|||201712201356

OBX|4|TX|TEE|1| Bartow, FL 33830||||||F|||201712201356

OBX|5|TX|TEE|1| Phone (863) 519-1550||||||F|||201712201356

OBX|6|TX|TEE|1| Fax (863)519-1466||||||F|||201712201356

OBX|7|TX|TEE|1|||||||F|||201712201356

OBX|8|TX|TEE|1| Transesophageal||||||F|||201712201356

OBX|9|TX|TEE|1|Name: PMMCTEST, SIX Age: 51 yrs Patient Location:ADMH ADMX 04 BRM||||||F|||201712201356

OBX|10|TX|TEE|1|Study Date: 12/20/2017 01:37 PM DOB: 06/06/1966 Height:56 in||||||F|||201712201356

OBX|11|TX|TEE|1|MRN:810015950 Gender:Female Weight:150 lb||||||F|||201712201356

OBX|12|TX|TEE|1|Echo #:||||||F|||201712201356

OBX|13|TX|TEE|1|Reason For Study: test HIM HR: 100 bpm||||||F|||201712201356

OBX|14|TX|TEE|1| BSA: 1.6 m2||||||F|||201712201356

OBX|15|TX|TEE|1| BP:120/80 mmHg||||||F|||201712201356

OBX|16|TX|TEE|1|History: CHF||||||F|||201712201356

OBX|17|TX|TEE|1|Ordering Physician:Hobson, Jonathan||||||F|||201712201356

OBX|18|TX|TEE|1|Referring Physician:(no||||||F|||201712201356

OBX|19|TX|TEE|1|||||||F|||201712201356

OBX|20|TX|TEE|1|Procedure The oropharynx was anesthesized with Exatacaine spray.||||||F|||201712201356

OBX|21|TX|TEE|1|Complications There was evidence of bleeding during the exam, the source was thought to be 12.||||||F|||201712201356

OBX|22|TX|TEE|1|||||||F|||201712201356

OBX|23|TX|TEE|1|Findings||||||F|||201712201356

OBX|24|TX|TEE|1|||||||F|||201712201356

OBX|25|TX|TEE|1|Right Ventricle The right ventricle is not well visualized.||||||F|||201712201356

OBX|26|TX|TEE|1|||||||F|||201712201356

OBX|27|TX|TEE|1|Images have been removed||||||C|||201712201356

OBX|28|TX|TEE|1|Images have been removed||||||C|||201712201356

OBX|29|TX|TEE|1|Interpretation Summary||||||F|||201712201356

OBX|30|TX|TEE|1|A 2D transesophageal echocardiogram with color flow Doppler was performed.||||||F|||201712201356

OBX|31|TX|TEE|1|||||||F|||201712201356

OBX|32|TX|TEE|1|Reading Physician:Mark Hepp 12/20/2017 01:56 PM||||||F|||201712201356

OBX|33|TX|TEE|1|||||||F|||201712201356

OBX|34|TX|TEE|2|||||||F|||201712201356

# 5. Alerts

Are you going to need alerting on this connection?

|  |  |
| --- | --- |
| Yes |  |
| No |  |

If the answer is yes, please complete the table below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Site Name** | **Hours of Support** | **Distribution Group** | **Comments** |
|  |  |  |  |
| Optum | Mon- Fri, 7am-5pm | None, individual emails include the IS HIM team: Tammy Urchick, Janet Rushkowski, Jacqui Scott, Andrew Bowers and Andrea Milton | An interface alert will trigger if the outbound que depth is equal or greater than 500 messages for more than 10 minutes. |

# Appendix A: Risks and Concerns –N/A

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Name** |  |  | | |  |  |  |  |
| **Number** | **Risk / Concern** | **Comment** | **Mitigation** | | |  |  |  |
| RC.2013.1.0 |  |  | |  | |  |  |  |

# Appendix B: Issues List –N/A

This is a dynamic list of the open issues related to the IDBB that remain to be solved, including but not limited to TBDs, pending decisions, information needed, conflict awaiting resolution, and the like.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Name** |  |  | | |  |  |  |  |
| **Number** | **Issue** | **Comment** | **Fix** | | |  |  |  |
| I.2013.1.0 |  |  | |  | |  |  |  |

* End of document