**ORU\_Xcelera\_BayCare Community App Requirements**

**Version 1.0**

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# **Document Control**

## Resources

|  |  |  |
| --- | --- | --- |
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## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 4/21/2017 | Lois Whitley | Originally Created |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to define the Results (ORU) interface from Xcelera to the BayCare Community Application (also known as Uniphy, Practice Unite, Futura and Physician Mobility).

## 1.2 Project Scope

The scope of this project is to develop an interface between Xcelera and the BayCare Community Application. The ORU feed is a raw feed from the cardiology site in Cloverleaf to the healthgrid site for all facilities, and then a raw feed from the healthgrid site to the Community Application (Uniphy). A filter is in place to only send Xcelera results from the cardiology; no Xper results are sent. Only Final results are being sent by Xcelera.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

ORU – Observation Result

### 1.3.2 Glossary

Uniphy Health – vendor

Practice Unite – software

BayCare Community Application – application name used in Apple Store and Google Play

BayCare Community App – SFB Pilot – full project name in Clarity

## 1.4 Document References

* PD2016IF06\_BAYCARE\_ResultsSpec\_V10 – Results Interface Specification

# 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.20XX.1.0 | Click here to enter text. | Click here to enter text. |

## 3.2 Non-Functional Requirements

Provide concise detail for the below non-functional requirements. 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. Please see the reference document located on the Integration SharePoint server: <insert link to document here>

### 3.3.1 Inbound to the BayCare Cloverleaf

* Click here to enter text.

### 3.3.2 Outbound to the BayCare Cloverleaf

* Click here to enter text.

### 3.3.3 Inbound to the Vendor

* Click here to enter text.

### 3.3.4 Outbound to the Vendor

* Click here to enter text.

### 3.3.5 Inbound to the BayCare Cerner

Test

Port Number: Click here to enter text.

IP Address: Click here to enter text.

Prod

Port Number: Click here to enter text.

IP Address: Click here to enter text.

### 3.3.6 Outbound to the BayCare Cerner

Test

Port Number: Click here to enter text.

IP Address: Click here to enter text.

Prod

Port Number: Click here to enter text.

IP Address: Click here to enter text.

# 4. HL7 Messaging

## 4.1 Messaging Format

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

PID

PV1

ORC

OBR

ZDS

OBX

*Message Construction Notes:*

*MSH – Message Header*

*PID – Patient ID segment*

*PV1 – Patient Visit segment*

*ORC – Common Order segment*

*OBR – Observation Request segment*

*ZDS – Document Endorsement segment*

*OBX – Observation segment*

### 4.1*.*2 Messaging Event Types

Below are the messages types necessary for this integration

| **Event Type** | **Description** |
| --- | --- |
| R01 | ORU/ACK - Unsolicited transmission of an observation |

### 4.1*.*3 Cloverleaf Configuration Files

Xcelera Results (ORU\_R01).

Raw feed from the cardiology\_3\_p site (all facilties).

Raw feed outbound from the hlthgrid\_27\_p site to Uniphy.

Filters: Only send Xcelera results from the cardiology site, no Xper. Only Finals are being sent by Xcelera.

### 4.1.4 Cloverleaf Site Location

hlthgrid\_27\_p

## 4.2 Data Transformation Requirements – N/A – raw feed

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Data Type** | **Length** | **Notes** |
| --- | --- | --- | --- | --- | --- |
| Message Header Segment | MSH |  |  |  |  |
| Sending Application | MSH.3 |  |  |  | XCELERA |
| Sending Facility | MSH.4 |  |  |  |  |
| Receiving Application | MSH.5 |  |  |  |  |
| Receiving Facility | MSH.6 |  |  |  |  |
| Date/Time of Message | MSH.7 |  |  |  |  |
| Message Type | MSH.9 |  |  |  | ORU^R01 |
| Patient ID | PID |  |  |  |  |
| Patient ID (Internal) | PID.3 |  |  |  |  |
| Patient Name | PID.5 |  |  |  | 5.1 – Last Name; 5.2 – First Name |
| Date of Birth | PID.7 |  |  |  | YYYYMMDD |
| Gender | PID.8 |  |  |  |  |
| Patient Address | PID.11 |  |  |  |  |
| Phone Number | PID.13 |  |  |  |  |
| Patient Account Number | PID.18 |  |  |  |  |
| Social Security Number | PID.19 |  |  |  |  |
| Patient Visit | PV1 |  |  |  |  |
| Patient Class | PV1.2 |  |  |  |  |
| Assigned Patient Location | PV1.3 |  |  |  | Current Assigned Bed Location |
| Servicing Facility | PV1.39 |  |  |  |  |
| Common Order | ORC |  |  |  |  |
| Order Control | ORC.1 |  |  |  |  |
| Filler Order Number | ORC.3 |  |  |  |  |
| Order Status | ORC.5 |  |  |  |  |
| Date/Time of Transaction | ORC.9 |  |  |  |  |
| Ordering Provider | ORC.12 |  |  |  |  |
| Observation Request | OBR |  |  |  |  |
| Set ID | OBR.1 |  |  |  |  |
| Placer Order Number | OBR.2 |  |  |  |  |
| Filler Order Number | OBR.3 |  |  |  |  |
| Universal Service ID | OBR.4 |  |  |  | i.e. ^Adult^Adult |
| Observation Date/Time | OBR.7 |  |  |  |  |
| Observation End Date/Time | OBR.8 |  |  |  |  |
| Ordering Provider | OBR.16 |  |  |  |  |
| Placer Field | OBR.18 |  |  |  |  |
| Filler Field | OBR.20 |  |  |  |  |
| Results Report/Status Change – Date/Time | OBR.22 |  |  |  |  |
| Diagnostic Service Section ID | OBR.24 |  |  |  |  |
| Result Status | OBR.25 |  |  |  |  |
| Reason for Study | OBR.31 |  |  |  |  |
| Principal Result Interpreter | OBR.32 |  |  |  |  |
| Assistant Result Interpreter | OBR.33 |  |  |  |  |
| Technician | OBR.34 |  |  |  |  |
| Transcriptionist | OBR.35 |  |  |  |  |
| Scheduled Date/Time | OBR.36 |  |  |  |  |
| Document Endorsements | ZDS |  |  |  | If OBR.16.1 does not = null, hard code “R” in ZDS.1.0. Copy OBR.16.0 into ZDS.2.0, OBR.16.1 into ZDS.2.1, OBR.16.2 into ZDS.2.2, hard code “BayCare Dr Number” into ZDS.2.12, copy output of OBR.22 into ZDS.3.0 and hard code “E” into ZDS.4.0 outbound.  \*\*\*Populating the ordering provider into ZDS segment which will route to the physician’s message center in Cerner.\*\*\* |
| Action Code | ZDS.1 |  |  |  |  |
| Clinical Staff | ZDS.2 |  |  |  |  |
| Action Date/Time | ZDS.3 |  |  |  |  |
| Action Status | ZDS.4 |  |  |  |  |
| Observation | OBX |  |  |  | May repeat for multipart, single answer results |
| Set ID | OBX.1 |  |  |  |  |
| Value Type | OBX.2 |  |  |  |  |
| Observation Identifier | OBX.3 |  |  |  |  |
| Observation Sub-ID | OBX.4 |  |  |  |  |
| Observation Value | OBX.5 |  |  |  |  |
| Observation Result Status | OBX.11 |  |  |  |  |

## 4.3 Sample Message

MSH|^~\&|XCELERA|XCELERA|SFB|SFB|20170415173415||ORU^R01|de1262d320170413083912029|P|2.3||||||8859/1

PID|||534442805^^^SFB||SCHILK^LEA||19460513|F|||6754 BROOKS LN^^MOFFETT FIELD^AZ^01347||(821)-249-6675|||||4576083471

PV1||E|ERDFH SFB||||||||||||||||||||||||||||||||||||SFB

ORC|RE||11050516543||CM||||20170415004318|||LS033524^ZAMZAM^GLENNIS^DEANA

OBR|1|11050516543|538924|^Adult^Adult|||20170415004318|20170415173358||||||||LS033524^ZAMZAM^GLENNIS^DEANA||11050516543||1||20170415173357||CUS|F||||||murmur|IE378284^SAMMON^ASHLEE^^MD|463&SAMMON&ASHLEE&&MD|268&ALINA&TENNIE&&RCS

ZDS|1.3.46.670589.52.2.64123573.20170412.5123413.4946.14178

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

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

OBX|3|TX|DefaultObservationID|1|||||||F

OBX|4|TX|DefaultObservationID|1| 301 N. Alexander St.||||||F

OBX|5|TX|DefaultObservationID|1| Plant City, Fl. 01347||||||F

OBX|6|TX|DefaultObservationID|1| Phone (813)757-1200||||||F

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

OBX|8|TX|DefaultObservationID|1| Echocardiogram||||||F

OBX|9|TX|DefaultObservationID|1|Name: SCHILK, LEA Age: 41 yrs Patient Location:ERDFH SFB||||||F

OBX|10|TX|DefaultObservationID|1|Study Date: 04/15/2017 03:48 PM DOB: 11/10/1975||||||F

OBX|11|TX|DefaultObservationID|1|CPI #:000001507 Gender:Female||||||F

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

OBX|13|TX|DefaultObservationID|1|Reason For Study: murmur||||||F

OBX|14|TX|DefaultObservationID|1|Ordering Physician:ZAMZAM, GLENNIS||||||F

OBX|15|TX|DefaultObservationID|1|Performed By:TENNIE ALINA, RCS||||||F

OBX|16|TX|DefaultObservationID|1|||||||F

OBX|17|TX|DefaultObservationID|1|Measurements with Normals||||||F

OBX|18|TX|DefaultObservationID|1| AoRootDiam: (2.0-3.7 cm) IVSd: 0.93 cm (0.7-1.1 cm)||||||F

OBX|19|TX|DefaultObservationID|1| ACS: (1.6-2.6 cm) LVIDd: 5.0 cm (3.5-5.6 cm)||||||F

OBX|20|TX|DefaultObservationID|1| LA dimension: (1.9-4.0 cm) LVIDs: 3.2 cm (3.5-5.6 cm)||||||F

OBX|21|TX|DefaultObservationID|1|LVPWd: 0.91 cm (0.7-1.1 cm) RVDd: (0.7-2.3 cm)||||||F

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

OBX|23|TX|DefaultObservationID|1|MMode/2D Measurements \T\ Calculations||||||F

OBX|24|TX|DefaultObservationID|1|FS: 36.4 %||||||F

OBX|25|TX|DefaultObservationID|1|EDV(Teich): 120.5 ml||||||F

OBX|26|TX|DefaultObservationID|1|ESV(Teich): 41.2 ml||||||F

OBX|27|TX|DefaultObservationID|1|EF (est.): 65.8 %||||||F

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

OBX|29|TX|DefaultObservationID|1|Doppler Measurements \T\ Calculations||||||F

OBX|30|TX|DefaultObservationID|1|MV E max vel: 78.7 cm/sec MV dec slope: 590.3 cm/sec2||||||F

OBX|31|TX|DefaultObservationID|1|MV A max vel: 38.2 cm/sec MV dec time: 0.13 sec||||||F

OBX|32|TX|DefaultObservationID|1|MV E/A: 2.1||||||F

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

OBX|34|TX|DefaultObservationID|1| \_\_\_\_\_\_\_||||||F

OBX|35|TX|DefaultObservationID|1|Ao V2 max: 129.7 cm/sec LV V1 max PG: 1.7 mmHg||||||F

OBX|36|TX|DefaultObservationID|1|Ao max PG: 6.7 mmHg LV V1 max: 65.7 cm/sec||||||F

OBX|37|TX|DefaultObservationID|1|||||||F

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

OBX|39|TX|DefaultObservationID|1|Left Ventricle There is no thrombus. There is normal left ventricular wall thickness. Left ventricular size||||||F

OBX|40|TX|DefaultObservationID|1|and function appears normal. Ejection Fraction = 60-65%. No regional wall motion abnormalities noted.||||||F

OBX|41|TX|DefaultObservationID|1|Right Ventricle The right ventricle is normal size. The right ventricular systolic function is normal.||||||F

OBX|42|TX|DefaultObservationID|1|Atria The left atrial size is normal. Right atrial size is normal. The interatrial septum is intact with no||||||F

OBX|43|TX|DefaultObservationID|1|evidence for an atrial septal defect. The inferior vena cava appeared normal.||||||F

OBX|44|TX|DefaultObservationID|1|Mitral Valve The mitral valve leaflets appear normal. There is no evidence of stenosis, fluttering, or||||||F

OBX|45|TX|DefaultObservationID|1|prolapse. There is no mitral valve stenosis. There is no mitral regurgitation noted.||||||F

OBX|46|TX|DefaultObservationID|1|Tricuspid Valve The tricuspid valve is normal. No tricuspid regurgitation.||||||F

OBX|47|TX|DefaultObservationID|1|Aortic Valve The aortic valve is trileaflet. The aortic valve opens well. No hemodynamically significant||||||F

OBX|48|TX|DefaultObservationID|1|valvular aortic stenosis. No aortic regurgitation is present.||||||F

OBX|49|TX|DefaultObservationID|1|Pulmonic Valve The pulmonic valve is not well visualized. There is no pulmonic valvular regurgitation.||||||F

OBX|50|TX|DefaultObservationID|1|Great Vessels The aortic root is normal size.||||||F

OBX|51|TX|DefaultObservationID|1|Pericardium/Pleural There is no pericardial effusion.||||||F

OBX|52|TX|DefaultObservationID|1|||||||F

OBX|53|TX|DefaultObservationID|1|||||||F

OBX|54|TX|DefaultObservationID|1|||||||F

OBX|55|TX|DefaultObservationID|1|Interpretation Summary||||||F

OBX|56|TX|DefaultObservationID|1|The study was technically adequate. This was essentially a normal study. Ejection Fraction = 60-65%.||||||F

OBX|57|TX|DefaultObservationID|1|||||||F

OBX|58|TX|DefaultObservationID|1|||||||F

OBX|59|TX|DefaultObservationID|1|Electronically signed by:ASHLEE SAMMON, MD 04/15/2017 08:38 AM||||||F

OBX|60|TX|DefaultObservationID|1|||||||F

OBX|61|ED|FIND^FINDINGS^LB|2|DOC^Application^PDF^Base64^ . . . multiple pages of encrypted code

# **5. Testing**

## 5.1. Unit Testing Scenarios

|  |  |
| --- | --- |
| **Scenario** | **Expected Result** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## 5.2 Integrated Testing Scenarios

|  |  |
| --- | --- |
| **Scenario** | **Expected Result** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## 5.3 Testing Approvals

|  |  |  |  |
| --- | --- | --- | --- |
| **Testing Phase** | **Date** | **Department** | **Team Member** |
| PH1.UNIT |  |  |  |
| PH1.INTEGRATED |  |  |  |

### 

## 5.4 Piloting

List the facilities and associated networks in scope for pilot testing.

## 5.5 Approvals

|  |  |  |  |
| --- | --- | --- | --- |
| **Testing Phase** | **Date** | **Department** | **Team Member** |
| PH1.0 |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 6. Deployment / Implementation Model

Provide the detail as to how to deploy the solution defined in the IDBB from both the BAYCARE and vendor perspective.

## 6.1 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** |
|  |  |  |  |
|  |  |  |  |

# Appendix A: Risks and Concerns

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

# Appendix B: Issues List

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