**ORU\_GE Centricity IDX\_Cerner Requirements**

**Version 1.4**

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# **Document Control**

## Resources

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## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 11/16/2016 | Lois Whitley | Originally Created |
| V1.1 | 11/16/16 | Art Schwartz | Updated Messaging Protocols |
| V1.2 | 5/30/17 | Lois Whitley | Updated Diagram |
| V1.3 | 5/31/17 | Jerome Starke | Added ZDS information to 4.2 |
| V1.4 | 6/22/17 | Art Schwartz | Added ZDS information Cloverleaf coding |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to outline the Results (ORU) interface requirements for Cerner from GE Centricity IDX (RIS).

## 1.2 Project Scope

Result Interface between RIS and Cerner

## 1.3 Terminology Standards

### 1.3.1 Acronyms

**ORU** – Observation Result/Unsolicited; this is a raw feed form Cerner PathNet or GE Centricity IDX (Radiology) – the same feed goes into Cloverleaf that comes out and goes to TheraDoc

**RIS** – Radiology Information System

### 1.3.2 Glossary

## 1.4 Document References

Click here to enter text.

# 2. Diagram

# 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 | Result messages greater than 4 days old are filtered. | 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>

TCPIP

### 3.3.1 Inbound to the BayCare Cloverleaf

### 3.3.2 Outbound to the Cerner.

Test

Port Number: 10030

IP Address: 159.140.43.200

Prod

Port Number: 10030

IP Address: 159.140.43.200

### 3.3.3 Inbound From BayCare RIS

Test

Port Number: 141797

IP Address: 10.5.250.203

Prod

Port Number: 20053

IP Address: 159.140.43.191

# 4. HL7 Messaging

## 4.1 Messaging Format

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

PID

PV1

ORC

OBR

OBX

ZDS

*Message Construction Notes:*

*[Square Brackets] – Optional*

*{Curly Brackets} – Repeatable*

*MSH – Message Header*

*PID – Patient ID segment*

*PV1 – Patient Visit segment*

*ORC – Common Order segment*

*OBR – Observation Request segment*

*OBX – Observation/Result 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 and supported by TheraDoc and Soarian.

|  |  |
| --- | --- |
| **Event Type** | **Description** |
| R01 | Unsolicited transmission of an observation message |
| R03 |  |

### 4.1*.*3 Cloverleaf Configuration Files

Idx\_cerner\_oru\_emr\_soar

### 4.1.4 Cloverleaf Site Location

Imaging\_12

## 4.2 Data Transformation Requirements

Results from RIS to Cerner.

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Data Type** | **Length** | **Notes** |
| --- | --- | --- | --- | --- | --- |
| Message Header | MSH |  |  |  | Pathcopy MSH |
| Sending Application | MSH.3 |  |  |  | IDX |
| Sending Facility | MSH.4 |  |  |  | BAYCARE |
| Receiving Application | MSH.5 |  |  |  |  |
| Date/Time of Message | MSH.7 |  |  |  |  |
| Message Type | MSH.9 |  |  |  | ORU^R01 |
| Message Control ID | MSH.10 |  |  |  |  |
| Patient Identification | PID |  |  |  |  |
| Set ID | PID.1 |  |  |  |  |
| Patient ID (Internal ID) | PID.3 |  |  |  | Copy from PID-2 to second iteration  Copy  Copy BCCPI to subfield 5 second iteration  If urgent care copy BMGMRN to fifth subfield first iteration else BCMRN |
| Alternate Patient ID | PID.4 |  |  |  | Check to see if urgent care facility |
| Patient Name | PID.5 |  |  |  | FamilyName^GivenName |
| Date/Time of Birth | PID.7 |  |  |  | YYYYMMDD; calculates current age of patient |
| Sex | PID.8 |  |  |  | M=Male  F=Female  U=Unknown |
| Patient Account Number | PID.18 |  |  |  |  |
| Social Security Number | PID.19 |  |  |  |  |
| Patient Visit | PV1 |  |  |  |  |
| Patient Class | PV1.2 |  |  |  | If Outpatient copy CC providers to ZDS segment |
| Common Order | ORC |  |  |  |  |
| Order Control | ORC.1 |  |  |  | RE |
| Placer Order Number | ORC.2 |  |  |  | Copy OBR-2 |
| Filler Order Number | ORC.3 |  |  |  | copy |
| Ordering Provider | ORC.12 |  |  |  | Copy, copy Baycare Dr Number to 13th sub field |
| Observation Request | OBR |  |  |  |  |
| Placer Order Number | OBR.2 |  |  |  |  |
| Filler Order Number | OBR.3 |  |  |  | Unique number to identify order |
| Result Status | OBR.25 |  |  |  | If ORC—5 = Y, copy “22” |
| Reason for Study | OBR.31 |  |  |  | copy |
| Principal Result Interpreter | OBR.32 |  |  |  | copy Baycare Dr Number to 13th sub field |
| Asst Result Interpreter | OBR.33 |  |  |  |  |
| Observation Result | OBX |  |  |  |  |
| Set ID | OBX.1 |  |  |  |  |
| Value Type | OBX.2 |  |  |  |  |
| Observation Identifier | OBX.3 |  |  |  | Identifier^Text^^Alternate Identifier^Alternate Text |
| Observation Value | OBX.5 |  |  |  | Value of OBX.5 of each OBX segment provides one line of text in the report |
| Observation Result Status | OBX.11 |  |  |  |  |
| Date/Time of Observation | OBX.14 |  |  |  |  |
| Document Endorsements/CC Provider | ZDS |  |  |  | If PV1;2 is Outpatient copy CC providers to ZDS segment. In Cerner, coding removes ZDS if the position of the personnel is one of the following:  Physician  Cardiologist  ED Physician  ED Physician Administrator  Physician Administrator  Radiologist  Physician Informaticist  Physician Assistant  Nurse Practitioner w PathNet  Nurse Practitioner  ED Physician Assistant Phase 2  ED Physician Assistant |
| Cloverleaf logic for ZDS | ZDS |  |  |  | ALL cloverleaf ZDS logic is dependent on Type is Outpatient and OBR – 28 is not NULL |
|  | ZDS-1 |  |  |  | Hard code “R” |
| Copy result to | ZDS-2 |  |  |  | Copy OBR28 to ZDS-2  (ID, last and first name sub fields)  Hard code “Baycare Dr Number” to ZDS-2.12 |
|  | ZDS-3 |  |  |  | Copy MSH-7 to ZDS-3  (Date/Time) |
|  | ZDs-4 |  |  |  | Hard code “E” |

## 4.3 Sample Message

**From RIS**

MSH|^~\&|IDX|BCSJH|||20170130085042||ORU^R01|360796834|P|2.3PID||810009221|7000011312^9^1^^^BCSJH||COROLLA^SANDY^^^^||19640330000000|F||||||||||6000026034^^^PV1||I|||||^UNASSIGNED^DOCTOR^^^^|||||||||||||||||||||||||||||||||||||20170130054800ORC|RE||40031440||N|||||||^UNASSIGNED^DOCTOR^^^^^^^^^OBR|1||40031440|DCHESTOUT^DX CHEST OUTSIDE IMAGES|||20161201000000||||||outside images|||^UNASSIGNED^DOCTOR^^^^||20170130085042||||20170130085042|||P||^^5^20170130060500^^|^~^~^~^~^|||||~|^TEMP^BC^^^^OBX|1|RP|DCHESTOUT&||http://pacstest.baycare.org/ami/html/webviewer.html?viewall&un=IDXRAD&pw=GOPACS&ris\_exam\_id=40031440OBX|1|FT|DCHESTOUT&||Interpretation pending. Preliminary images available for review.||||||P|||20170130085042

**To Cerner**

MSH|^~\&|IDX|BAYCARE|HNAM|SJH|201701300850||ORU^R01|360796834|P|2.3

PID|||7000011312^^^^BCMRN~810009221^^^^BCCPI||COROLLA^SANDY||19640330|F||||||||||6000026034^^^^BCFN

ORC|RE||40031440|||||||||^UNASSIGNED^DOCTOR^^^^^^^^^^BayCare Dr Number

OBR|||40031440|DCHESTOUT^DX CHEST OUTSIDE IMAGES|||20161201000000|||||||||^UNASSIGNED^DOCTOR^^^^^^^^^^BayCare Dr Number||||||20170130085042||RAD|P||^^^20170130060500|||||&&&&&&&&&&&&BayCare Dr Number

OBX|1|RP|DCHESTOUT||http://pacstest.baycare.org/ami/html/webviewer.html?viewall&un=IDXRAD&pw=GOPACS&ris\_exam\_id=40031440^URL^URL|||||||||||^^^^^^^^BAYCARE Dr Number

OBX|1|TX|DCHESTOUT||Accession #: 40031440 Exam Date/Time: 12/01/2016 00:00 Preliminary On: 01/30/2017 08:50

OBX|2|TX|DCHESTOUT||Images are available for review on line. No Interpretation will be associated to this image||||||P|||20170130085042||^^^^^^^^BAYCARE Dr Number

**Sample Inbound from RIS**

MSH|^~\&|IDX|BCSJH|||20170130085042||ORU^R01|360796834|P|2.3PID||810009221|7000011312^9^1^^^BCSJH||COROLLA^SANDY^^^^||19640330000000|F||||||||||6000026034^^^PV1||I|||||^UNASSIGNED^DOCTOR^^^^|||||||||||||||||||||||||||||||||||||20170130054800ORC|RE||40031440||N|||||||^UNASSIGNED^DOCTOR^^^^^^^^^OBR|1||40031440|DCHESTOUT^DX CHEST OUTSIDE IMAGES|||20161201000000||||||outside images|||^UNASSIGNED^DOCTOR^^^^||20170130085042||||20170130085042|||P||^^5^20170130060500^^|^~^~^~^~^|||||~|^TEMP^BC^^^^OBX|1|RP|DCHESTOUT&||http://pacstest.baycare.org/ami/html/webviewer.html?viewall&un=IDXRAD&pw=GOPACS&ris\_exam\_id=40031440OBX|1|FT|DCHESTOUT&||Interpretation pending. Preliminary images available for review.||||||P|||20170130085042

**Sample Outbound To Cerner**

MSH|^~\&|IDX|BAYCARE|HNAM|SJH|201701300850||ORU^R01|360796834|P|2.3

PID|||7000011312^^^^BCMRN~810009221^^^^BCCPI||COROLLA^SANDY||19640330|F||||||||||6000026034^^^^BCFN

ORC|RE||40031440|||||||||^UNASSIGNED^DOCTOR^^^^^^^^^^BayCare Dr Number

OBR|||40031440|DCHESTOUT^DX CHEST OUTSIDE IMAGES|||20161201000000|||||||||^UNASSIGNED^DOCTOR^^^^^^^^^^BayCare Dr Number||||||20170130085042||RAD|P||^^^20170130060500|||||&&&&&&&&&&&&BayCare Dr Number

OBX|1|RP|DCHESTOUT||http://pacstest.baycare.org/ami/html/webviewer.html?viewall&un=IDXRAD&pw=GOPACS&ris\_exam\_id=40031440^URL^URL|||||||||||^^^^^^^^BAYCARE Dr Number

OBX|1|TX|DCHESTOUT||Accession #: 40031440 Exam Date/Time: 12/01/2016 00:00 Preliminary On: 01/30/2017 08:50

OBX|2|TX|DCHESTOUT||Images are available for review on line. No Interpretation will be associated to this image||||||P|||20170130085042||^^^^^^^^BAYCARE Dr Number

# **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