**Muse ADT Requirements**

**Version 1.4**

**Prepared By: Tiffany Bohall**

**Date: 12/11/2017**

[Document Control 3](#_Toc498700422)

[Resources 3](#_Toc498700423)

[Project Distribution List – N/A 3](#_Toc498700424)

[Document Version Control 3](#_Toc498700425)

[1. Introduction 4](#_Toc498700426)

[1.1 Purpose 4](#_Toc498700427)

[1.2 Project Scope 4](#_Toc498700428)

[1.3 Terminology Standards 4](#_Toc498700429)

[1.3.1 Acronyms 4](#_Toc498700430)

[1.3.2 Glossary 4](#_Toc498700431)

[1.4 Document References 4](#_Toc498700432)

[*2.* Diagram 5](#_Toc498700433)

[3. Requirements 6](#_Toc498700434)

[3.1 Functional Requirements 6](#_Toc498700435)

[3.2 Non-Functional Requirements 6](#_Toc498700436)

[3.3 Messaging Protocols 6](#_Toc498700437)

[3.3.1 Inbound to the BayCare Cloverleaf N/A 6](#_Toc498700438)

[3.3.2 Outbound to the BayCare Cloverleaf –N/A 6](#_Toc498700439)

[3.3.3 Inbound to the Vendor –N/A 7](#_Toc498700440)

[3.3.4 Outbound to the Vendor 7](#_Toc498700441)

[3.3.5 Inbound to the BayCare Cerner –N/A 7](#_Toc498700442)

[3.3.6 Outbound to the BayCare Cerner –N/A 7](#_Toc498700443)

[4. HL7 Messaging 7](#_Toc498700444)

[4.1 Messaging Format 7](#_Toc498700445)

[4.1.1 Segments 7](#_Toc498700446)

[4.1*.*2 Messaging Event Types 8](#_Toc498700447)

[4.1*.*3 Cloverleaf Configuration Files 8](#_Toc498700448)

[4.1.4 Cloverleaf Site Location 8](#_Toc498700449)

[4.2 Data Transformation Requirements 9](#_Toc498700450)

[4.3 Sample Message 10](#_Toc498700451)

[5. Testing 11](#_Toc498700452)

[5.1. Unit Testing Scenarios –N/A 11](#_Toc498700453)

[5.2 Integrated Testing Scenarios –N/A 11](#_Toc498700454)

[5.3 Testing Approvals 11](#_Toc498700455)

[5.4 Piloting 12](#_Toc498700456)

[5.5 Approvals 12](#_Toc498700457)

[6. Deployment / Implementation Model 12](#_Toc498700458)

[Appendix A: Risks and Concerns 12](#_Toc498700459)

[Appendix B: Issues List 13](#_Toc498700460)

# **Document Control**

## Resources

|  |  |  |
| --- | --- | --- |
| **Name** | **Role** | **Email** |
| Bob O’Shea | BayCare IS Project Management | [Bob.O'Shea@baycare.org](mailto:Bob.O'Shea@baycare.org) |
| Rich Allison | BayCare IS, SR Integration Analyst | [Rich.Allison@baycare.org](mailto:Rich.Allison@baycare.org) |
| Tiffany Bohall | BayCare IS, Integration Analyst | <Tiffany.Bohall@baycare.org> |
| Rick Quackenbush | Liberty Solutions, SR Integration Consultant | [rquackenbush@libertysolutionsinc.com](mailto:rquackenbush@libertysolutionsinc.com) |
| Michael Flanary | BayCare IS, Cardiology Applications Lead | [Michael.Flanary@baycare.org](mailto:Michael.Flanary@baycare.org) |
| Shelly Martin | BayCare IS, Clinical Applications | <Shelly.Martin@baycare.org> |
| Chris Cobb | MUSE HL7 Integration Analyst | <Christopher.Cobb@med.ge.com> |

## Project Distribution List – N/A

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 11/18/2015 | Tiffany Bohall | Originally Created |
| V1.1 | 1/25/2016 | Tiffany Bohall | Updated Document References |
| V1.2 | 3/10/2016 | Tiffany Bohall | Added Visio diagram to section 2.0 |
| V1.3 | 9/13/2016 | Thomas Fredrickson | Updated CL site due to CL Rearchitecture |
| V1.4 | 12/11/2017 | Tiffany Bohall | Updated filter to the route which suppress all transactions from the Soarian BOI feed where MSH.3 is MDC. |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to provide the current configuration for the Soarian ADT interface outbound to Muse Cardiology. The intended audience would be anyone who wishes to know more about the current configurations as established in production.

## 1.2 Project Scope

The scope of the integration that is defined in this IDDB, outlines the ADT interface portion only. There is also an orders and results interface, which outlines those configurations.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

Define the acronyms and their associated definitions used in this document. The acronyms should be listed in alphabetical order.

### 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

List all documents or Web addresses to which this IDBB refers;

**On the Enterprise Integration Services SharePoint site: ORM and ORU requirements**

* Enterprise Integration Services team > Applications and Systems > Muse Cardiology > Muse\_ORM\_Requirements
* Enterprise Integration Services team > Applications and Systems > Muse Cardiology > Muse\_ORU\_Requirements

**MUSE v8 HL7 Reference Document:**

* Enterprise Integration Services team > Applications and Systems > Muse Cardiology > MUSE\_v8\_HL7Ref

# *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.2015.11.23 | filterHL7MessageNEW | Suppress any messages that do not have a value in PID.2 (CPI) because Muse cannot process messages without a CPI. |

## 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.2017.12.11 | filterHL7MessageNEW | Suppress all ADT messages from the BOI ADT connection with facility region code of X0J5 (SJH BOI) and MDC (MPMDC) |

## 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 N/A

* Click here to enter text.

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

* Click here to enter text.

### 3.3.3 Inbound to the Vendor –N/A

* Click here to enter text.

### 3.3.4 Outbound to the Vendor

**Test**

Port Number: 12010

IP Address: 10.44.143.233

**Prod**

Port Number: 11010

IP Address: 10.44.143.232:

### 3.3.5 Inbound to the BayCare Cerner –N/A

* Click here to enter text.

### 3.3.6 Outbound to the BayCare Cerner –N/A

* Click here to enter text.

# 4. HL7 Messaging

## 4.1 Messaging Format

HL7 2.6 Soarian ADT\_A01

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

EVN

PID

[PV1]

*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** |
| A01 | Admit an inpatient |
| A02 | Transfer patient |
| A03 | Discharge patient |
| A04 | Arrive an outpatient (also used for BOI) |
| A05 | Pre-admit a patient (also used for BOI) |
| A06 | Transfer patient, out to in |
| A07 | Transfer patient, in to out |
| A08 | Update patient information (also used for BOI) |
| A10 | Place an outpatient in a bed |
| A11 | Cancel admit |
| A13 | Cancel discharge |

### 4.1*.*3 Cloverleaf Configuration Files

Cloverleaf translation file: soarf\_muse\_adt

### 4.1.4 Cloverleaf Site Location

Cloverleaf site location: cardiology\_3\_p.

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Data Type** | **Length** | **Notes** |
| --- | --- | --- | --- | --- | --- |
| Field Separator | MSH.1 | Y | ST | 1 | Copy |
| Encoding Character | MSH.2 | Y | ST | 4 | Copy |
| Sending Facility | MSH.4 | Y | HD | 227 | Copy |
| Date/Time of message | MSH.7 | Y | DTM | 24 | Copy |
| Message Type | MSH.9 | Y | MSG | 15 | Copy |
| Message Control ID | MSH.10 | Y | ST | 199 | Copy |
| Processing ID | MSH.11 | Y | PT | 3 | Copy |
| Version ID | MSH.12 | Y | VID | 60 | Hard code “2.6” |
| EVN Segment | EVN | Y | Varies | Varies | Pathcopy the entire segment. |
| Patient Identifier List | PID.3 | Y | CX | 250 | Copy from PID.2.0 |
| Patient Name - Family | PID.5.0 | Y | XPN | 250 | Copy |
| Patient Name - First | PID.5.1 | Y | XPN | 250 | Copy |
| Date of Birth | PID.7 | Y | DTM | 24 | Copy |
| Administrative Sex | PID.8 | Y | IS | 1 | Copy |
| Patient Account Number | PID.18 | Y | CX | 250 | Copy |
| SSN Number – Patient | PID.19 | Y | ST | 16 | Copy |
| Patient Class | PV1.2 | N | IS | 1 | Copy. If EVN.1 = A05 and PV2.24 = Scheduled, copy “P” into PV1.2. |
| Assigned Patient Location | PV1.3 | Y | PL | 80 | Copy. If PV1.3 is not null, concatenate the campus ID with PV1.3 and copy the output outbound. Else, concatenate the campus ID with PV1.39 and copy the output outbound. This is done because Muse cannot process the duplicate nurse stations we have across facilities. If EVN.1 = A05 and EVN.4 = SE or EVN.4 = SEM and PV1.2 = I, concatenate the campus ID with PRAD and copy the output outbound. |
| Admit Date/Time | PV1.44 | N | DTM | 24 | Copy |
| Discharge Date/Time | PV1.45 | Y | DTM | 24 | Copy |

## 4.3 Sample Message

**OUTBOUND to MUSE:**

MSH|^~\&||**MDU**|||201511180900||ADT^A01|e797b044-a712-4f68-82e4-616ae8875913|P|2.6

EVN|A01|201511180900||CI|sgl50990|201511180855|9025

PID|||300146675||PURPLETEST^PATTI||19701117|F||||||||||6000009779

PV1||I|MDH3GD^P302^W^MDU|||||||||||||||||||||||||||||||||||||||||201511180855

MSH|^~\&||**BOI**|||201511161527||ADT^A05|9aabdec2-a08d-4348-a62a-7f7988b19660|P|2.6

EVN|A05|201511161527||SE|W0A5asyncuser|201511161527|SOARIANM0J5

PID|||300128579||DURILLATEST^MSPEND||19591231|F||||||||||6000009745

PV1||P|16305|||||||||||||||||||||||||||||||||||||||||201511161715

# **5. Testing**

## 5.1. Unit Testing Scenarios –N/A

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

## 5.2 Integrated Testing Scenarios –N/A

|  |  |
| --- | --- |
| **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.

# 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