**ADT from Sorian to Glucose Monitor Requirements**

**Version 1.1**

**Prepared By: Tiffany Bohall & Rich Allison**

**Date: 5/7/2018**

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# **Document Control**

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

|  |  |  |
| --- | --- | --- |
| **Name** | **Role** | **Email** |
| Tiffany Bohall | BayCare IS, Integration Analyst | Tiffany.Bohall@baycare.org |
| Kathy Kremer | BayCare IS, SR Systems Analyst | Betty.Kremer@baycare.org |
| Rich Allison | BayCare IS, Integration Analyst | rich.allison@baycare.org |
|  |  |  |
|  |  |  |
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## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 5/2/2018 | Tiffany Bohall | Originally Created |
| V1.1 | 5/7/2018 | Rich Allison | Completed |
|  |  |  |  |
|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to capture the HL7 integration requirements defined between Soarian and Glucose Monitor.

## 1.2 Project Scope

ADT is sent to populate the Glucose application with patient encounter and demographic details.

The current meters are used as follows:

* Select patient test on meter
* Enter Operator code
* Scan patient armband for patient information (this is where PPID comes in which is obtained from the TrueID server that contains the ADT information)
* Run glucose test
* When complete, dock at a designated PC running Data Repeater (Abbbott communication software which runs in background mode and transmits result to the Precision Web server)
* Precision Web servers upload the result information, write to PWeb Database and put in an output queue for the Telcor server
* Telcor server checks the PWeb server for any outstanding results and transmits them over to itself
* Telcor server validates patient information with its ADT database, selects appropriate Ordering Group and sends results to Cerner
* Cerner validates patient information and outputs the results into the patient EMR
* Acknowledgements are sent from Cerner back to Telcor and Telcor back to PWeb

## 1.3 Terminology Standards

### 1.3.1 Acronyms

ADT – Admission, discharge and transfer transactions

### 1.3.2 Glossary –N/A

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



# 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.2018.05.02.01 | Suppress PSI transactions | tpsAdvHL7Filter that suppress transactions if the hospital service is “PSI” |
| FR.2018.05.02.02 | Suppress Behavioral Health | tpsAdvHL7Filter that suppress transactions with an MSH.3 facility location of SIP, CRC, BHO, WBH, BLM |

## 3.2 Non-Functional Requirements

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.2018.05.02 | Suppress A08 updates with a discharge date | tpsAdvHL7Filter that suppress transactions if the event type is A08 and the is a value in discharge date/time field. |

## 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 –N/A

|  |  |
| --- | --- |
| 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 2.6, 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 | Inpatient arrival |
| A02 | Transfer patient |
| A03 | Discharge patient |
| A04 | Outpatient arrival |
| A05 | Preadmit patient |
| A06 | Patient transfer –out to in |
| A07 | Patient transfer –in to out |
| A08 | Patient update |
| A10 | Patient Arriving |
| A11 | Cancel Admit |
| A13 | Cancel Discharge |

### 4.1*.*3 Cloverleaf Configuration Files

For each HL7 interface specified in Section 2 of this document, identify the Cloverleaf Configuration Files: Variants, TCL Scripts, Xlates, etc.

Variants:

HL7 2.6/Soarian ADT\_A01

HL7 2.3/sms ADT\_A01

TCL Scripts:

tpsAdvHL7Filter…

{ADVFLTR {

{{PATH {PV1:10}} {VALUE {{PSI}}} {MATCHDISP KILL} {NOMATCHDISP CONTINUE}}

{{PATH {PV1:45 MSH:8.1}} {VALUE { {2\*} {A08}}} {LOGICAL {&&}} {GLOB {1}} {MATCHDISP KILL} {NOMATCHDISP CONTINUE}}

}

}

{DEBUG 0}

Xlates:

soarf\_glucoMon\_adt.xlt

Tables:

None

### 4.1.4 Cloverleaf Site Location

Cloverleaf site locations for interfaces.

soarf\_adt\_ent\_18\_p

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Notes** |
| --- | --- | --- | --- |
| Message Header | MSH | Y | Split the segment on the field delimiter |
| MSH Segment | Varies |  | PATHCOPY the MSH segment |
| Sending Application | MSH.3 |  | COPY “BAYCARE” |
|  |  |  | Convert A09 to an A03 and populating discharge date and time into PV1.45.  IF MSH.9.[1] eq =A09  COPY A03 to MSH.9.[1]  COPY A03 to EVN.1  COPY MSH.7 to PV1.45  \* This is dead code since Soarian does not send A09’s |
| Event Segment | EVN | Y | Split the segment on the field delimiter |
| EVN Segment | Varies |  | PATHCOPY the EVN segment |
| Patient Identification | PID | Y | Split the segment on the field delimiter |
| Patient Identifier List | PID.3 |  | PATHCOPY the Patient Identifier List |
| Patient Name | PID.5 |  | Family, Given, and Second and Further Name  COPY PID.5.[0] to PID.5.[0]  COPY PID.5.[1] to PID.5.[1]  COPY PID.5.[2] to PID.5.[2] |
| Name Representation Code | PID.7 |  | COPY PID.7 to PID.7 |
| Name Context | PID.8 |  | COPY PID.8 to PID.8 |
| Patient Account Number | PID.18 |  | PATHCOPY the Patient Account Number |
| Patient Visit | PV1 | Y | Split the segment on the field delimiter |
| Patient Class | PV1.2 |  | COPY PV1.2 to PV1.2 |
| Assigned Patient Location | PV1.3 |  | COPY PV1.3.[0] to PV1.3.[0]  COPY PV1.3.[1] to PV1.3.[1]  COPY PV1.3.[2] to PV1.3.[2]  COPY MSH.4 (sending facility) to PV1.3.[3] |
| Attending Doctor | PV1.7 |  | COPY PV1.7 to PV1.7 |
| Admitting Doctor | PV1.17 | Y | COPY PV1.17 to PV1.17 |
| Admit Date/Time | PV1.44 | Y | COPY PV1.44 to PV1.44 |
| Discharge Date/Time | PV1.45 | Y | IF PV1.45 is not equal @null  COPY PV1.45 to PV1.45  remove discharge date from cancel discharge...  IF MSH.9.1 eq A13  COPY “” to PV1.45 |

## 4.3 Sample Message

**Inbound:**

MSH|^~\&|SOARF|SJH|||201805070822||ADT^A01|61e01873-d4ff-43f5-b57c-a56efd2e540b|P|2.7||1

EVN|A01|201805070822||CI|ejm55443|201805070820|9050

PID|1|810018094^^^900000^PN|7000017563^^^BCHS^MR||TESTING^JOSEPH^^^^^L^^^20180504||19530615|M||White|598 N ELM ST^""^Plant City^FL^33566^USA^M^^Hillsborough^^^20180507||^PRN^PH^^1^813^4587799||EN|M|Baptist|6000037611^^^BCHS^VCD^^20180504||||Non HIS or LAT||N|0|||||N|N

PD1||||||||N

PV1|1|I|4W^B428^A^SJH|Elective|||007046^Patrick^Brian^Alexander^^PRN^1821037128^NPI^80133^PRDOC^SJH^^^^onecall^Z0A5|||MED|||N|RP|||007046^Patrick^Brian^Alexander^^PRN^1821037128^NPI^80133^PRDOC^SJH|I|5103808213^^^504^VN^^20180504|BS|||||||||||||||||||9050|||||201805070820|||||||V

PV2|||^TEST||||~~~~false||||||0||N||||||N||JH Inpatient^L^2148^^^900000^XX~^^1881632818^^^900004^NPI~^^ST JOSEPHS HOSPITAL^^^439^NOAName|Checked in|||||||N|||||N||||Acute

ROL||AD|PP|005481^Jones^Cheryl^Ann^^PRN^1831127380^NPI^77599^PRDOC^SJH|201805070822||||Phys

ROL||UP|AT|007046^Patrick^Brian^Alexander^^^MD^^183^L^^^PRN^^^^20160322~2240^^^^^^^^900000^^^^DN~ME92778^^^^^^^^195^^^^LN~1821037128^^^^^^^^900004^^^^NPI~02642^^^^^^^^769^^^^PRN~80133^^^^^^^^777^^^^PRN~R9140^^^^^^^^745^^^^PRN~80133^^^^^^^^779^^^^PRN~80133^^^^^^^^2127^^^^PRN~80133^^^^^^^^781^^^^PRN~R9140^^^^^^^^748^^^^PRN~02642^^^^^^^^771^^^^PRN~80133^^^^^^^^783^^^^PRN~02642^^^^^^^^772^^^^PRN~02642^^^^^^^^1316^^^^PRN~1^^^^^^^^2134^^^^PRN~02642^^^^^^^^775^^^^PRN~80133^^^^^^^^2077^^^^PRN~R9140^^^^^^^^757^^^^PRN~80133^^^^^^^^2078^^^^PRN~02642^^^^^^^^1325^^^^PRN~80133^^^^^^^^2076^^^^PRN~02642^^^^^^^^737^^^^PRN~02642^^^^^^^^684^^^^PRN~80133^^^^^^^^2075^^^^PRN~02642^^^^^^^^581^^^^PRN~09140^^^^^^^^1505^^^^PRN~007046^^^^^^^^13280^^^^PRN~007046^^^^^^^^13281^^^^PRN~007046^^^^^^^^64837^^^^PRN|201805070820||||Phys|||^WPN^PH^^0^863^6464000~^WPN^PH^^0^727^4472962~^ORN^FX^^0^863^9040398

ROL||UP|AD|007046^Patrick^Brian^Alexander^^^MD^^183^L^^^PRN^^^^20160322~2240^^^^^^^^900000^^^^DN~ME92778^^^^^^^^195^^^^LN~1821037128^^^^^^^^900004^^^^NPI~02642^^^^^^^^769^^^^PRN~80133^^^^^^^^777^^^^PRN~R9140^^^^^^^^745^^^^PRN~80133^^^^^^^^779^^^^PRN~80133^^^^^^^^2127^^^^PRN~80133^^^^^^^^781^^^^PRN~R9140^^^^^^^^748^^^^PRN~02642^^^^^^^^771^^^^PRN~80133^^^^^^^^783^^^^PRN~02642^^^^^^^^772^^^^PRN~02642^^^^^^^^1316^^^^PRN~1^^^^^^^^2134^^^^PRN~02642^^^^^^^^775^^^^PRN~80133^^^^^^^^2077^^^^PRN~R9140^^^^^^^^757^^^^PRN~80133^^^^^^^^2078^^^^PRN~02642^^^^^^^^1325^^^^PRN~80133^^^^^^^^2076^^^^PRN~02642^^^^^^^^737^^^^PRN~02642^^^^^^^^684^^^^PRN~80133^^^^^^^^2075^^^^PRN~02642^^^^^^^^581^^^^PRN~09140^^^^^^^^1505^^^^PRN~007046^^^^^^^^13280^^^^PRN~007046^^^^^^^^13281^^^^PRN~007046^^^^^^^^64837^^^^PRN|201805070820||||Phys|||^WPN^PH^^0^863^6464000~^WPN^PH^^0^727^4472962~^ORN^FX^^0^863^9040398

OBX|1|CE|AdditionalData1^^LSFUSERDATAE||N||||||R

OBX|2|NM|9272-6^Apgar 1^LN||0

OBX|3|NM|9274-2^Apgar 5^LN||0

GT1|1|7000017563^^^504^MR^^20180504~810018094^^^900000^PN^^20180504|TESTING^JOSEPH^^^^^L^^^20180504||598 N ELM ST^""^Plant City^FL^33566^USA^M^^Hillsborough^^^20180507|^PRN^PH^^1^813^4587799||19530615|M|P|6||||||||||||||N|||||M||||||EN|||||Baptist|||Non HIS or LAT|||||||||||White

IN1|1|249^BC PPC|413^^^900000^XX^^20120228~592015694^^^900001^TX^^20140328~FLC00000^^^184^CRI^^20140328|Blue Cross^L^413^^^900000^XX|PO BOX 1798^^JACKSONVILLE^FL^32231^USA^M^^^^POLCS-M~Overpayment Receipt Dept 1213^PO Box 121214^Dallas^TX^753121213^USA^M^^^^HRefund|^^^^^^^POLCS-M~Florida Blue^^^^^^^HRefund|^WPN^PH^^0^800^3456784^^POLCS-M||BC PPC||||||Health|TESTING^JOSEPH^^^^^L^^^20180504|6|19530615|598 N ELM ST^""^Plant City^FL^33566^USA^M^^Hillsborough|||1||||||||||||||XJH5448788971|||||||M||false||||7000017563^^^504^MR^^20180504~810018094^^^900000^PN^^20180504

IN2|||||||||||||||||||||||||99999|0002||||||||EN|||||Baptist|||Non HIS or LAT|M||||||||||||||||||||^PRN^PH^^1^813^4587799||||||||White|6

ZIN||||||||||||||||||||||||||||||||||||||||||||||||||||^^policyPlanName^policyPlanName^BC PPC||||||249^^^900000^HPI^20130610~PPO^^^183^NHPI^20140313

PDA||||||N|||N

ZPV||||||||||||||||||||||||||||||||||||||||||||||||AttributeDirty|""|BCBCE2MMS1096LK|||||||||||^^mostCurrEncTypeCd^mostCurrEncTypeCd^IP||||||||5103808213^^No SCD^504^ZAVN^^20180504||201805070820

ZID|7000017563^^^504^MR^^20180504~810018094^^^900000^PN^^20180504

**Outbound…**

MSH|^~\&|BAYCARE|SJH|||201805070822||ADT^A01|61e01873-d4ff-43f5-b|P|2.7||1

EVN|A01|201805070822||CI|ejm55443|201805070820

PID|||7000017563^^^BCHS^MR||TESTING^JOSEPH||19530615|M||||||||||6000037611^^^BCHS^VCD^^20180504

PV1||I|4W^B428^A^SJH||||007046^Patrick||||||||||007046^Patrick|||||||||||||||||||||||||||201805070820

# 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** |
|  |  |  |  |
| soarf\_adt\_ent\_p | 24/7 | Primary: Cerner Pathnet Lab on call group  Secondary: Betty (Kathy) Kremer  Ph: 727-281-9368  Third: Abbott Diabetes Care Customer Support #: 877-529-7185 | ADT (Admission, discharges and Transfers) from SOARIAN to Glucose Monitor (glucose drip)  IP: 10.44.111.203  Port: 4001 |

# 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