**Soarian to Marbella ADT Requirements**

**Version 1.0**

**Prepared By: Levy Lazarre**

**Date: 7/17/2017**

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# **Document Control**

## Resources

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## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 7/17/17 | Levy Lazarre | Original document |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to describe the ADT Interface going from Soarian HIS to GetWellNetwork’s Marbella.

Marbella is an external application used by nurses to do patient rounds and for real-time data collection, auditing, and viewing using any mobile device (cloud-based solution).

## 1.2 Project Scope

The scope of this project is to automate the integration of the existing Marbella application with Soarian ADT via one-way HL7 interface. Currently the entry of patient demographics data in the application is manual and cumbersome.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

**ADT** – Admission, Discharge, Transfer: mainly demographic and patient location data

**HIS** – Health Information System, the source and keeper of patient demographic data

### 1.3.2 Glossary

**ADT Event** – Trigger event associated with a patient event: registration, admission, discharge, transfer, update…

## 1.4 Document References

1. Marbella ADT spec.docx

2. Marbella - ADT testing plan.xlsx

# 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.2017.1.0 | Prevent unneeded patients from going to Marbella | The users have determined that the following groups of patients must be sent to Marbella: hospital inpatients, outpatients, and ED; BayCare Outpatient Imaging (BOI) patients, and Behavioral Health inpatients. An advanced TCL filter is used to suppress Outreach Lab patients and Behavioral Health outpatients. |
| FR.2017.2.0 | Suppress updates (A08) after discharge | Only active patients are needed, so updates after discharge are excluded from the output by the same filter used above. |
| FR.2017.3.0 | Keep Marbella database uncluttered by purging outpatients. | BayCare Soarian does not send A03 (discharge messages) for regular outpatients. The Marbella engineers will put in place a purge program to remove outpatients from the database after a set number of days. |
| FR.2017.4.0 | Send patient identifiers in PID.3 | Several identifiers (MRN, CPI) may be sent in PID.3; users need to specify which one to use as the unique identifier. |
| FR2017.5.0 | Hard code the HL7 version to 2.3 | In MSH.12, hard code 2.3 as the value for HL7 version. |

## 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 From SOARIAN

* TCP MLLP Server Connection

### 3.3.2 Outbound to MARBELLA

* TCP MLLP Client Connection

# 4. HL7 Messaging

## 4.1 Messaging Format

### 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*

### 4.1*.*2 Messaging Event Types

Below are the messages types necessary for this integration

Supported ADT Events

|  |  |
| --- | --- |
| **Event Type** | **Description** |
| A01 | Admit a patient |
| A02 | Transfer a patient |
| A03 | Discharge a patient |
| A04 | Register a patient |
| A06 | Change outpatient to inpatient |
| A07 | Change inpatient to outpatient |
| A08 | Update patient information |
| A11 | Cancel patient admission |
| A12 | Cancel patient transfer |
| A13 | Cancel patient 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.

HL7 Variants: 2.6 Soarian

Xlate: soarf\_marbella\_adt.xlt

TCL Script: tpsAdvHL7Filter.tcl

### 4.1.4 Cloverleaf Site Location

Production = soarf\_adt\_ent\_18\_p

Test = soarf\_adt\_ent\_18

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required R/O/C** | **Data Type** | **Length** | **Notes** |
| --- | --- | --- | --- | --- | --- |
| **Message Header Segment** | MSH | R |  |  | PathCopy |
| Sending Application | MSH.3 | C |  |  | Hardcode “BAYCARE” |
| Receiving Application | MSH.5 | O |  |  | Hardcode “MARBELLA” |
| HL7 Version | MSH.12 | Y |  |  | Hardcode “2.3” |
| Event Segment | EVN | C |  |  | PathCopy |
| **Patient Identifier Segment** | PID | R |  |  |  |
| Patient ID (Internal) | PID.3 | R |  |  | Copy the MRN from PID.3 to the first repetition of PID.3 with the Identifier Type of “MRN” |
| Patient ID (External) | PID.2 | R |  |  | Copy the CPI from PID.2 to the second repetition of PID.3 with the Identifier Type of “CPI” |
| Patient Name | PID.5 | R |  |  | Copy Patient’s Last Name, First Name, Middle Name |
| Date of BirthP | PID.7 | O |  |  | Copy |
| Gender | PID.8 | O |  |  | Copy |
| Phone Number - Home | PID.13 | O |  |  | Copy |
| Primary Language | PID.15 | O |  |  | Copy |
| Patient Account Number | PID.18 | R |  |  | Copy (first component of PID.18) |
| Mother’s Identifier | PID.21 | O |  |  | Copy  For linking with newborns |
| **Patient Visit Segment** | PV1 | R |  |  |  |
| Patient Class | PV1.2 | O |  |  | Copy |
| Assigned Patient Location | PV1.3 | R |  |  | Copy |
| Admission Type | PV1.4 | O |  |  | Copy |
| Prior Patient Location | PV1.6 | O |  |  | Copy |
| Attending Physician | PV1.7 | O |  |  | Copy |
| Hospital Service | PV1.10 | O |  |  | Copy |
| Servicing Facility | PV1.39 | O |  |  | Copy |
| Account Status | PV1.41 | O |  |  | Copy |
| Admit Date/Time | PV1.44 | R |  |  | Copy |
| Discharge Date/Time | PV1.45 | O |  |  | Copy |

## 4.3 Sample Message

Inbound to Cloverleaf from Soarian:

MSH|^~\&|SOARF|Z0A5|||201707170903||ADT^A01|4662506f-ef62-481d-82e5-fcf9139f6ade|P|2.7||1

EVN|A01|201707170903||CI|rxc66472|201707170849|9050

PID|1||7000015365^^^504^MR^^20170717~810014304^^^900000^PN^^20170717||HEALTHGRID^TEST280^^^^^L^^^20170717||20050718|F||Asian|1234 MAIN STREET^""^Tampa^FL^33611^USA^M^^Hillsborough^^^20170717||^PRN^PH^^1^727^4674747^""^""~^ORN^CP^^1^813^4549694^""^""||EN|S|Catholic|6000033225^^^504^VCD^^20170717||||Non HIS or LAT||N|0|||||N|N

PD1||||||||N

PV1|1|I|JHTCC^JHE206^NE206A^9050|Elective|||064081^Gupta^Chhavi^^^^MD^^183^L^^^PRN^^^^20160712~9358^^^^^^^^900000^^^^DN~ME115872^^^^^^^^195^^^^LN~1003052945^^^^^^^^900004^^^^NPI~64081^^^^^^^^769^^^^PRN~64081^^^^^^^^777^^^^PRN~64081^^^^^^^^745^^^^PRN~64081^^^^^^^^779^^^^PRN~64081^^^^^^^^2127^^^^PRN~64081^^^^^^^^781^^^^PRN~64081^^^^^^^^748^^^^PRN~64081^^^^^^^^771^^^^PRN~64081^^^^^^^^783^^^^PRN~64081^^^^^^^^772^^^^PRN~64081^^^^^^^^737^^^^PRN~64081^^^^^^^^684^^^^PRN~64081^^^^^^^^1316^^^^PRN~64081^^^^^^^^775^^^^PRN~64081^^^^^^^^2077^^^^PRN~64081^^^^^^^^581^^^^PRN~64081^^^^^^^^1505^^^^PRN~64081^^^^^^^^757^^^^PRN~64081^^^^^^^^2078^^^^PRN~64081^^^^^^^^1325^^^^PRN~64081^^^^^^^^2076^^^^PRN~64081^^^^^^^^2075^^^^PRN~064081^^^^^^^^13280^^^^PRN~064081^^^^^^^^13281^^^^PRN|||SUR|||N|RP|||064081^Gupta^Chhavi^^^^MD^^183^L^^^PRN^^^^20160712~9358^^^^^^^^900000^^^^DN~ME115872^^^^^^^^195^^^^LN~1003052945^^^^^^^^900004^^^^NPI~64081^^^^^^^^769^^^^PRN~64081^^^^^^^^777^^^^PRN~64081^^^^^^^^745^^^^PRN~64081^^^^^^^^779^^^^PRN~64081^^^^^^^^2127^^^^PRN~64081^^^^^^^^781^^^^PRN~64081^^^^^^^^748^^^^PRN~64081^^^^^^^^771^^^^PRN~64081^^^^^^^^783^^^^PRN~64081^^^^^^^^772^^^^PRN~64081^^^^^^^^737^^^^PRN~64081^^^^^^^^684^^^^PRN~64081^^^^^^^^1316^^^^PRN~64081^^^^^^^^775^^^^PRN~64081^^^^^^^^2077^^^^PRN~64081^^^^^^^^581^^^^PRN~64081^^^^^^^^1505^^^^PRN~64081^^^^^^^^757^^^^PRN~64081^^^^^^^^2078^^^^PRN~64081^^^^^^^^1325^^^^PRN~64081^^^^^^^^2076^^^^PRN~64081^^^^^^^^2075^^^^PRN~064081^^^^^^^^13280^^^^PRN~064081^^^^^^^^13281^^^^PRN|IP|5103802952^^^504^VN^^20170717||||||||||||||||||||9050|||||201707170849|||||||V

PV2|||^HEALTHGRID TESTING||||~~~~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|301^No^PCP per pt^^^^MD^^900000^L^^^DN^^^^20140619~555555^^^^^^^^183^^^^PRN~55555^^^^^^^^1316^^^^PRN~55555^^^^^^^^1325^^^^PRN~55555^^^^^^^^581^^^^PRN~55555^^^^^^^^2077^^^^PRN~55555^^^^^^^^2076^^^^PRN~55555^^^^^^^^1505^^^^PRN~55555^^^^^^^^2078^^^^PRN~55555^^^^^^^^684^^^^PRN~55555^^^^^^^^737^^^^PRN|201707170851||||Phys

ROL||AD|AT|064081^Gupta^Chhavi^^^^MD^^183^L^^^PRN^^^^20160712~9358^^^^^^^^900000^^^^DN~ME115872^^^^^^^^195^^^^LN~1003052945^^^^^^^^900004^^^^NPI~64081^^^^^^^^769^^^^PRN~64081^^^^^^^^777^^^^PRN~64081^^^^^^^^745^^^^PRN~64081^^^^^^^^779^^^^PRN~64081^^^^^^^^2127^^^^PRN~64081^^^^^^^^781^^^^PRN~64081^^^^^^^^748^^^^PRN~64081^^^^^^^^771^^^^PRN~64081^^^^^^^^783^^^^PRN~64081^^^^^^^^772^^^^PRN~64081^^^^^^^^737^^^^PRN~64081^^^^^^^^684^^^^PRN~64081^^^^^^^^1316^^^^PRN~64081^^^^^^^^775^^^^PRN~64081^^^^^^^^2077^^^^PRN~64081^^^^^^^^581^^^^PRN~64081^^^^^^^^1505^^^^PRN~64081^^^^^^^^757^^^^PRN~64081^^^^^^^^2078^^^^PRN~64081^^^^^^^^1325^^^^PRN~64081^^^^^^^^2076^^^^PRN~64081^^^^^^^^2075^^^^PRN~064081^^^^^^^^13280^^^^PRN~064081^^^^^^^^13281^^^^PRN|201707170849||||Phys|||^WPN^PH^^0^813^3881732~^ORN^FX^^0^813^8649292

ROL||AD|AD|064081^Gupta^Chhavi^^^^MD^^183^L^^^PRN^^^^20160712~9358^^^^^^^^900000^^^^DN~ME115872^^^^^^^^195^^^^LN~1003052945^^^^^^^^900004^^^^NPI~64081^^^^^^^^769^^^^PRN~64081^^^^^^^^777^^^^PRN~64081^^^^^^^^745^^^^PRN~64081^^^^^^^^779^^^^PRN~64081^^^^^^^^2127^^^^PRN~64081^^^^^^^^781^^^^PRN~64081^^^^^^^^748^^^^PRN~64081^^^^^^^^771^^^^PRN~64081^^^^^^^^783^^^^PRN~64081^^^^^^^^772^^^^PRN~64081^^^^^^^^737^^^^PRN~64081^^^^^^^^684^^^^PRN~64081^^^^^^^^1316^^^^PRN~64081^^^^^^^^775^^^^PRN~64081^^^^^^^^2077^^^^PRN~64081^^^^^^^^581^^^^PRN~64081^^^^^^^^1505^^^^PRN~64081^^^^^^^^757^^^^PRN~64081^^^^^^^^2078^^^^PRN~64081^^^^^^^^1325^^^^PRN~64081^^^^^^^^2076^^^^PRN~64081^^^^^^^^2075^^^^PRN~064081^^^^^^^^13280^^^^PRN~064081^^^^^^^^13281^^^^PRN|201707170849||||Phys|||^WPN^PH^^0^813^3881732~^ORN^FX^^0^813^8649292

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|810014303^^^900000^PN^^20170717|HEALTHGRID^MOTHER^^^^^L^^^20170717||1234 MAIN STREET^""^Tampa^FL^33611^USA^M^""^Hillsborough^^^20170717|^PRN^PH^^1^727^4674747||19700101|F|P|3||||||||||||||N|||||||||||||||||||Non HIS or LAT|||||||||||Asian

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

ZPV||||||||||||||||||||||||||||||||||||||||||||||||AttributeDirty|""|BCBCE2REV1015LK|||||||||||^^mostCurrEncTypeCd^mostCurrEncTypeCd^IP||||||||5103802952^^No SCD^504^ZAVN^^20170717||201707170849||||||false|""|""

Outbound from Cloverleaf to Marbella:

MSH|^~\&|BAYCARE|SJH|MARBELLA||201707170903||ADT^A01|4662506f-ef62-481d-82e5-fcf9139f6ade|P|2.3||1

EVN|A01|201707170903||CI|rxc66472|201707170849|9050

PID|||7000015365^^^^MRN~810014304^^^^CPI||HEALTHGRID^TEST280||20050718|F|||||^PRN^PH^^1^727^4674747^""^""||EN|||6000033225

PV1||I|TCC^E206^A^SJH|Elective|||064081^Gupta^Chhavi^^^PRN^1003052945^NPI^64081^PRDOC^SJH|||SUR|||||||||||||||||||||||||||||9050|||||201707170849

Go Live Date for Marbella ADT interface: July 20, 2017

# Appendix A: Risks and Concerns

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Name** |  |  | | |  |  |  |  |
| **Number** | **Risk / Concern** | **Comment** | **Mitigation** | | |  |  |  |
| RC.2017.1.0 |  |  | |  | |  |  |  |

# 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** | | |  |  |  |
|  |  |  | |  | |  |  |  |

* End of document