**ADT Soarian Personupdt to Cerner Reqs**

**1.0**

**Prepared By: Rich Allison**

**Date: 3/5/2018**

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# **Document Control**

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

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## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 3/5/2018 | Rich Allison | Originally Created |
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|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

This document outlines the contents and logic of the Soarian ADT Person Updates to Cerner translation interface.

## 1.2 Project Scope

Updated the Soarian ADT Person Updates interface with new phone number, email and consent flag logic.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

MLLP – Minimum Lower Layer Protocol for messaging framing a HL7 message.

### 1.3.2 Glossary

## 1.4 Document References

# 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.2017.1.0 | ADT\_A31 Soarian to Cerner ADT message Filters  ADT\_A31 Soarian to Healthint ADT message Filters  ADT\_A28 Soarian to Healthint ADT message Filters  tpsHl7ChangeData | Block EVN.5 Operator ID that contains “HEALTHI”  Block EVN.5 Operator ID that contains “BMG or BMG1”  Block PV1.10 Hospital Service that contains “Z01”  Send EVN.5 Only if Operator ID contains “HEALTHI”  Block PV1.10 Hospital Service that contains “Z01”  Send EVN.5 Only if Operator ID contains “HEALTHI”  Block PV1.10 Hospital Service that contains “Z01”  Replace MSH.8.1 to “A31” from “A28”  Replace EVN.1 to “A31” from “A28” |

## 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.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. This includes: TCP/IP, FTP, Web Services, etc.

### 3.3.1 Inbound to the BayCare Cloverleaf

|  |  |
| --- | --- |
| 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

|  |  |
| --- | --- |
| 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

|  |  |
| --- | --- |
| 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

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

EVN

PID

ZPT

OBX

*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** |
| ADT\_A28 | Add person information |
| ADT\_A31 | Update person information |
|  |  |

### 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 2.6/Cerner ADT\_A01

FIlters:

tpsAdvHL7Filter (adt\_cer\_out):

{{PATH {EVN:5}} {VALUE {HEALTHI\*}} {MATCHDISP KILL} {NOMATCHDISP CONTINUE} {GLOB {1}}}

{{PATH {PV1:10}} {VALUE {{Z01}}} {MATCHDISP KILL} {NOMATCHDISP CONTINUE}}

{{PATH {EVN:5.0}} {VALUE {{ BMG BMG1 }}} {MATCHDISP KILL} {NOMATCHDISP CONTINUE}}

tpsAdvHL7Filter (adt\_healthint\_out):

{{PATH {EVN:5}} {VALUE {{\*HEALTHI\*}}} {MATCHDISP CONTINUE} {NOMATCHDISP KILL} {GLOB {1}}}

{{PATH {PV1:10}} {VALUE {{Z01}}} {MATCHDISP KILL} {NOMATCHDISP CONTINUE}}

tpsHL7ChangeData (adt\_healthint\_out):

{DEBUG 0} {CRITERIA {

{{SOURCEPATH MSH:8.1} {REPLACEVALUE {{A31}}}}

{{SOURCEPATH EVN:1} {REPLACEVALUE {A31}}}

}}

Xlates:

soarf\_cerner\_adt\_persupdt.xlt

TCL Scripts:

None

Tables:

None

### 4.1.4 Cloverleaf Site Location

cerner\_adt\_siu\_bar\_5

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Notes** |
| --- | --- | --- | --- |
| Message header | MSH | Y | PATHCOPY the MSH |
| Sending Application | MSH.3 |  | COPY “SOARIAN” to MSH.3 |
| Sending Facility | MSH.4 |  | COPY “BAYCARE” to MSH.4 |
| Receiving Application | MSH.5 |  | COPY “HNAM” to MSH.5 |
| Receiving Facility | MSH.6 |  | IF MSH.4 eq “BOI”  ITERATE on PV2.23  IF PV2.23.5 eq “900000”  Send PV2.23.2 🡪 soarf\_boi\_org\_codes.tbl   * MSH.6   ELSE COPY MSH.4 to MSH.6  IF MSH.6 eq “XXX COPY @null to MSH.6 |
| Version ID | MSH.12 |  | COPY “2.6” to MSH.12 |
| Continuation Pointer | MSH.14 |  | COPY @null to MSH.14 |
| Event Segment | EVN | Y |  |
| Event Type Code | EVN.1 |  | COPY EVN.1 to EVN.1 |
| Recorded Date/Time | EVN.2 |  | COPY EVN.2 to EVN.2 |
| Date/Time Planned Event | EVN.3 |  | COPY EVN.3 to EVN.3 |
| Patient Identification | PID | Y |  |
| Set ID | PID.1 |  | COPY PID.1 to PID.1 |
| Patient ID | PID.2 |  | cmrn…  COPY PID.2.0 to PID.2.0  TCL: set cpiin [lindex $xlateInVals 0]  set xlateOutVals [list [string trimleft $cpiin "0"]]  COPY “BCCPI” to PID.2.4 |
| Patient Identifier List | PID.3 |  | historical cmrn...  COPY PID.2.0 to PID.3(0).0  TCL: set cpiin [lindex $xlateInVals 0]  set xlateOutVals [list [string trimleft $cpiin "0"]]  COPY “CPI” to PID.3(0).4  mrn…  COPY PID.3.0 to PID.3(1).0  COPY “BCMRN” to PID.3(1).4 |
| Patient Name – Family | PID.5.0 |  | COPY PID.5.0 to PID.5.0 |
| Patient Name – Given | PID.5.1 |  | COPY PID.5.1 to PID.5.1 |
| Patient Name – Second Given | PID.5.2 |  | COPY PID.5.2 to PID.5.2 |
| Patient Name – Suffix | PID.5.3 |  | COPY PID.5.3 to PID.5.3 |
| Date/Time of Birth | PID.7 |  | COPY PID.7 to PID.7 |
| Sex | PID.8 |  | COPY PID.8 to PID.8 |
| Race | PID.10 |  | COPY PID.10 to PID.10 |
| Patient Address – Street Address | PID.11.0 |  | COPY PID.11.0 to PID.11.0 |
| Patient Address – Other Designation | PID.11.1 |  | If the 2nd line of address is null copy in ""…  IF PID.11.1 ne @null  COPY PID.11.1 to PID.11.1  ELSE  COPY “” to PID.11.1 |
| Patient Address – City | PID.11.2 |  | COPY PID.11.2 to PID.11.2 |
| Patient Address – State | PID.11.3 |  | COPY PID.11.3 to PID.11.3 |
| Patient Address – Zip Code | PID.11.4 |  | COPY PID.11.4 to PID.11.4 |
| Patient Phone Numbers – Cell Phone, Primary Home Phone and Preferred Phone number only | PID.13 |  | Find and save the preferred phone nbr (tagged as Pref by Soarian).  Concatenate the phone use code and equipment type; include only ORNCP (Cell) and PRNPH (Home).  Format the phone numbers ((444)444-4444^^PRN).  Add the preferred phone nbr to the end of the phone nbr list and tag as PREF.  Find and save the email address (tagged as NET) |
| Email Address | PID.11  PID.13 |  | IF @email ne @null  COPY “HOME” to PID.11(0).6  Convert the Email Address to lower case and  COPY @email to PID.11(1).0  COPY “EMAIL” to PID.11(1).6  COPY “NET” to PID.13(%9).1  COPY “EMAIL” to PID.13(%9).2  COPY @email to PID.13(%9).3  If BMG echo, remove the email address, another patient portal repeat notification issue...  IF EVN.5 eq “BMG” or EVN.5 eq “BMG1”  COPY @null to PID.11(1).0  COPY @null to PID.11(1).6  COPY @null to PID.13(%9).1  COPY @null to PID.13(%9).2  COPY @null to PID.13(%9).3 |
| Primary Language | PID.15 |  | COPY PID.15 to PID.15 |
| Marital Status | PID.16 |  | COPY PID.16 to PID.16 |
| Religion | PID.17 |  | COPY PID.17 to PID.17 |
| SSN | PID.19 |  | Trim the Leading “0”  COPY PID.19 to PID.19 |
| Mother’s Identifier  Multiple Birth Indicator  Birth Order | PID.21  PID.24  PID.25 |  | IF PID.21.0 ne @null  ITERATE on PID.21  IF PID.21.4 eq “VCD”  COPY PID.21.0 to PID.21.0  COPY PID.24 to PID.24  COPY PID.25 to PID.25 |
| Ethnic Group | PID.22 |  | COPY PID.22 to PID.22 |
| Consent flag logic… | ZPT |  | ITERATE on the ZPT segment: |
| Patient Alert Category Code  Patient Alert Value  Patient Alert Original Start Date  Patient Alert Original Stop Date  Patient Alert Change to Stop Date  Patient Alert Action Code | ZPT.1.0  ZPT.2.0  ZPT.3  ZPT.5  ZPT.6  ZPT.7 |  | IF 2(0).ZPT(%s3).1.0 eq “HIE”  IF 2(0).ZPT(%s3).2.0 eq “Consent Obtained”  or 2(0).ZPT(%s3).2.0 eq “Consent Revoked”  and 2(0).ZPT(%s3).3 ne @null  and 2(0).ZPT(%s3).5 eq @null  and 2(0).ZPT(%s3).6 eq @null  and 2(0).ZPT(%s3).7 eq @null |
| Fix HIE Date…  Patient Alert Original Start Date  Concat Date/Time of Message | ZPT.3  MSH.7 |  | COPY 2(0).ZPT(%3).3 and concat MSH.7 to @HIEdate |  | COPY ZPT(%5).3 and MSH.7 to @HIEdate |
| optin/optout flag… | OBX.1  OBX.2  OBX.3  OBX.5 |  | IF 2(0).ZPT(%3).2.0 eq “Consent Obtained”  COPY @TXsetid to 0(0).OBX(%s9).1.0  COPY “CE” to 0(0).OBX(%9).2.0  COPY “CIE” to 0(0).OBX(%9).3.0  COPY =Y to 0(0).OBX(%9).5.0  ELSE  IF 2(0).ZPT(%3).2.0 eq “Consent Revoked”  COPY @TXsetid to 0(0).OBX(%s9).1.0  COPY “CE” to 0(0).OBX(%9).2.0  COPY “CIE” to 0(0).OBX(%9).3.0  COPY =N to 0(0).OBX(%9).5.0  Add 1 to $%s9  Add 1 to @TXsetid  note: values consent pending/declined are ignored so that the cerner default is not changed |
| Additional changes for Healthint… |  |  | COPY EVN.5 string range 0 to 6 returns “HEALTHI” to @hi  COPY EVN.5 string range 7 to end returns  a number (ie. 40035391) @hinum  IF @hi eq “HEALTHI”  COPY “HEALTHI” to EVN.5.0  COPY “HI” to MSH.3  COPY “HI” to MSH.6  COPY “HI MRN” to PID.3.1.4  COPY @hinum to PID.3.1.0 |
|  |  |  | MSH|^~\&|HI|BAYCARE|HNAM|HI|201802091504||ADT^A31|81a3426b-79f0-4bd4-8964-328a837967eb|P|2.6  EVN|A31|201802091504|||HEALTHI  PID|1|810017001^^^^BCCPI|810017001^^^^CPI~40035391^^^^HI MRN||GILMOUR^DAVID^MATTHEWS||19700504|M|||2482 Black Stallion Road^""^Lakeside Park^KY^41017 |
|  |  |  |  |
|  |  |  |  |

## 4.3 Sample Message

Cerner

Inbound:

MSH|^~\&|SOARF|XXX|||201802071427||ADT^A31|b3b0607a-8922-425c-907a-5035f81d77cd|P|2.7||1

EVN|A31|201802071427||SA|b085712|201802071424|""

PID|1|810006227^^^900000^PN|7000007184^^^BCHS^MR||NISSAN^BROOKE^^^^^L^^^20160822||19580101|F||White|||^PRN^PH^^1^727^5555555^^Pref||EN|D||^^^XXX||||Unknown||||||||N|||201712011131

PV1|1|N|||||||||||||||||||||||||||||||||||||||||||||||||V

IN1|1|1394^Homeless Uninsured|433^^^900000^XX^^20120228|Uninsured^L^433^^^900000^XX|3986 Tampa Rd^^Oldsmar^FL^34677^USA^M^^^^HCS-M~2995 Drew Street^ATTN: CBO^Clearwater^FL^33759^USA^M^^^^HCS-M||^NET^^^^^^^HCS-M|5565632|Homeless Uninsured|||||||NISSAN^BROOKE^^^^^L^^^20160822|6|19580101||||||||||||||||||155255|||||||F||||||810006227^^^900000^PN^^20160822~7000007184^^^504^MR^^20160822

IN2|||||||||||||||||||||||||99999|GENE||||||||EN||||||||Unknown|D||||||||||||||||||||^PRN^PH^^1^727^5555555^^Pref||||||||White|6

ZIN||||||||||||||||||||||||||||||||||||||||||||||||||||^^policyPlanName^policyPlanName^Homeless Uninsured||||||1394^^^900000^HPI^20130613~Fin Assist^^^183^NHPI^20140313

IN1|2|238^BC Federal|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 121213^Dallas^TX^753121213^USA^M^^^^HRefund~Overpayment Receipt Dept 1213^PO Box 121214^Dallas^TX^753121213^USA^M^^^^HRefund|Florida Blue^^^^^^^Florida Blue|^WPN^PH^^0^800^3332227^^Phone||BC Federal|||||||NISSAN^BROOKE^^^^^L^^^20160822|6|19580101||||||||||||||||||R12345685|||||||F||||||810006227^^^900000^PN^^20160822~7000007184^^^504^MR^^20160822

IN2|||||||||||||||||||||||||99999|0002||||||||EN||||||||Unknown|D||||||||||||||||||||^PRN^PH^^1^727^5555555^^Pref||||||||White|6

ZIN||||||||||||||||||||||||||||||||||||||||||||||||||||^^policyPlanName^policyPlanName^BC Federal||||||238^^^900000^HPI^20130610~PPO^^^183^NHPI^20140313

ZPV|||||||||||||||||||||||||||||||||||||||||||||||||""|HHLAR0IS175

ZID|810006227^^^900000^PN^^20160822~7000007184^^^504^MR^^20160822

Outbound:

MSH|^~\&|SOARIAN|BAYCARE|HNAM||201802071427||ADT^A31|b3b0607a-8922-425c-907a-5035f81d77cd|P|2.6

EVN|A31|201802071427|||b085712

PID|1|810006227^^^^BCCPI|810006227^^^^CPI~7000007184^^^^BCMRN||NISSAN^BROOKE||19580101|F||White|^""||(727)555-5555^^PRN~(727)555-5555^^PREF||EN|D||||||Unknown

Heaithint

Inbound:

MSH|^~\&|SOARF|XXX|||201802091504||ADT^A28|81a3426b-79f0-4bd4-8964-328a837967eb|P|2.7||1

EVN|A28|201802091504||RPN|HEALTHI40035391|201802091504|HealtheIntentF0A5

PID|1|810017001^^^900000^PN|||GILMOUR^DAVID^MATTHEWS^^^^L^^^20180209||19700504|M|||2482 Black Stallion Road^""^Lakeside Park^KY^41017^USA^M^""^""^^^20180209|||||||^^^XXX||||||||||||N

PV1|1|N|||||||||||||||||||||||||||||||||||||||||||||||||V

ZPV|||||||||||||||||||||||||||||||||||||||||||||||||""|UNKNOWN

ZID|40035391^^^30190^PN^^20180209~810017001^^^900000^PN^^20180209

Outbound:

MSH|^~\&|HI|BAYCARE|HNAM|HI|201802091504||ADT^A31|81a3426b-79f0-4bd4-8964-328a837967eb|P|2.6

EVN|A31|201802091504|||HEALTHI

PID|1|810017001^^^^BCCPI|810017001^^^^CPI~40035391^^^^HI MRN||GILMOUR^DAVID^MATTHEWS||19700504|M|||2482 Black Stallion Road^""^Lakeside Park^KY^41017

# 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** |
|  |  |  |  |
| Cerner\_adt\_siu\_bar\_p | 24/7 | Primary: Contact the Cerner Interface oncall group | INTERFACE DESCRIPTION:  Soarian ADT to Cerner  Connection adt\_cer\_out |
| Cerner\_adt\_siu\_bar\_p | Mon - Fri 8am - 5pm | Primary: IS Population health on call group | INTERFACE DESCRIPTION: Population Health CPI fetch  Connection adt\_healthint\_out |

# 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