**ADT from Soarian to eCare**

**2.0**

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# **Document Control**

## Resources

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## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 11/22/2016 | Lois Whitley | Originally Created |
| V1.1 | 12/21/2016 | Tom Fredrickson | Updated Cloverleaf Technical Information |
| V2.0 | 8/16/2019 | Lois Whitley | Updated to new Template Format |
|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to outline the Admission, Discharge and Transfer (ADT) interface requirements for the Philips eCareManager application (also known as Virtual ICU and eCare – formerly known as eICU) from Soarian.

## 1.2 Project Scope

The eCare program includes the Philips eCareManager application which gathers demographic, lab result, pharmacy order, charting, and vital sign information for all inpatients, ED, and outpatients in a bed.

Integration for the eCareManager (eCare) application includes an ADT interface from Soarian, ADT interface from Cerner for Heights and Weights, Orders from the Cerner PharmNet (Pharmacy) system, results from Cerner PathNet (Lab), and CCL flow sheet results from Cerner.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

ADT – Admission, Discharge and Transfer Message

eCare – electronic intensive care unit; critical care telehealth program

### 1.3.2 Glossary

eCareManager – Enterprise Telehealth Software suite

Philips – vendor name

## 1.4 Document References

3.9 Patient Admin Inbound Interface Specification

eICU Integration Roadmap

# 2. Diagram

eCareManager IPC Interface patient Cache

eCareManager

Database

TCP/IP

TCP/IP

Orion Rhapsody Interface Gateway for eCareManager

Soarian ADT

adt\_soarf\_in\_xi\*\*

Cloverleaf

adt\_eicu\_out

# 3. Core Requirements

## 3.1 Cloverleaf 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** | **Description** |
| FR.2016.1.0 | Route Filter | There is a route wild card used to limit messages to a select type as denoted by ADT\_A(0[1-8]|1[13]) which only A01-A08 and A11 and A13. |
| FR.2016.2.0 | Facility filter | There is a facility filter for limiting messages to just those facilities that have implemented eCare beds. This includes the following:  MSH-5.1 = one of the following: MCS MDU MPH NBY SAH SFB SJN SJS BAH SJH BRM WHH. |
| FR.2016.3.0 | Filter unwanted transactions from eCare | Transactions >=4 days post-discharge.  Outpatients not in a bed.  Pediatric patients. |
| FR.2016.4.0 | HL7 message type conversion | Convert A02 and A04 to A08, A06 to A01 and A07 to A03. Converting A04's in a bed, whether ERD or OSV status, into an A08 to be admitted to the eCare application. |
| FR.2016.5.0 | PID changes... | Move PID:3 to PID:2 Move PID:18 to PID:3 |
| FR.2016.6.0 | A01 transition admit date/time | Pulling the date and time on an A01, from ZPV.70 (if not null) to account for transition admit date/time. |
|  |  |  |
|  |  |  |

## 3.2 Cerner FSI Functional Requirements

|  |  |  |
| --- | --- | --- |
| **Cerner FSI** | | |
| **Number** | **Requirement Name** | **Description** |
| FR.20XX.1.0 |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## 3.3 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.

|  |  |  |
| --- | --- | --- |
| **Number** | **Requirement Name** | **Description** |
| NFR.20XX.1.0 |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## 3.4 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.

### 3.4.1 Inbound from Soarian to Cloverleaf

* Site: eicu\_9\_p Thread: adt\_soarf\_in\_xi13, adt\_soarf\_in\_xi14

### 3.4.2 Outbound to eICU

* Site: eicu\_9\_p Thread: adt\_eicu\_out

### 3.4.3 Inbound from Soarian to Cloverleaf

Test

IP Address: 10.5.250.203

Port Number: 23223, 23211

Prod

IP Address: 10.5.250.201

Port Number: 23223, 23211

### 3.4.4 Outbound to eICU

Test

IP Address: 10.44.110.109

Port Number: 10001

Prod

IP Address: 10.44.110.77

Port Number: 10001

### 3.4.5 Protocol From or to Vendor

|  |  |
| --- | --- |
| FTP |  |
| MLLP Socket Connection (TCP/IP) |  |
| Local File Drop by Midrange Team |  |
| Other | Click here to enter text. |

### 3.4.6 FSI Comm Server Names

|  |  |
| --- | --- |
| Names | Click here to enter text. |

# 4. HL7 Messaging

## 4.1 Messaging Format

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

PID

PV1

*Message Construction Notes:*

*[Square Brackets] – Optional*

*{Curly Brackets} – Repeatable*

*MSH – Message Header*

*PID – Patient ID segment*

*PV1 – Patient Visit 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 a Patient |
| A03 | Discharge/End Visit |
| A04 | Register a Patient |
| A05 | Pre-Admit a Patient |
| A08 | Update Patient Information |
| A11 | Cancel Admit / Visit Notification |
| A13 | Cancel Discharge / End visit |

### 4.1*.*3 Cloverleaf Configuration Files

tpsAdvHL7Filter.tcl

tpsFilterEICU.tcl

soarf\_eicu\_adt.xlt

### 4.1.4 Cloverleaf Site Location

eicu\_9

### 4.1.5 Cerner FSI Impacted Scripts

## 4.2 Data Transformation Requirements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Data Type** | **Length** | **Notes** |
| Message Header | MSH |  |  |  |  |
| Sending Application | MSH.3 |  |  |  | BCHS\_ADT; used to identify the ADT system that produced the message - required |
| Sending Facility | MSH.4 |  |  |  | \*\*\*\_SOARIAN |
| Receiving Application | MSH.5 |  |  |  | eICU |
| Date/Time of Message | MSH.7 |  |  |  | YYYYMMDDHHMMSS |
| Message Type | MSH.9 |  |  |  | i.e ADT^A01, ADT^A08  used to filter and process messages based on message type and trigger event |
| Message Control ID | MSH.10 |  |  |  | Unique identifier for the message |
| Patient Identification | PID |  |  |  |  |
| Patient ID (External ID) | PID.2 |  |  |  | Primary identifier that clinicians use to most commonly refer to patient (CPI) |
| Patient ID (Internal ID) | PID.3 |  |  |  | Unique for instance of care (FIN#) |
| Patient Name | PID.5 |  |  |  | FamilyName^GivenName |
| Date/Time of Birth | PID.7 |  |  |  | YYYYMMDD |
| Sex | PID.8 |  |  |  | M=Male  F=Female  U=Unknown |
| Race | PID.10 |  |  |  |  |
| Patient Address | PID.11 |  |  |  |  |
| Phone Number - Home | PID.13 |  |  |  |  |
| Marital Status | PID.16 |  |  |  |  |
| Patient Account Number | PID.18 |  |  |  |  |
| Patient Visit | PV1 |  |  |  |  |
| Discharge Disposition | PV1.36 |  |  |  | Required for A03 (Discharge) |
| Admit Date/Time | PV1.44 |  |  |  | Required for A01 (Admit) |

## 4.3 Sample Message

### 4.3.1 Inbound to Cloverleaf

MSH|^~\&|SOARF|SJS|||201908160958||ADT^A02|e31f0573-5cd0-4377-a21d-0d5a5e9c3e86|P|2.7||2

EVN|A02|201908160958||XFR|b136341|201908160954|9072

PID|1|810123887^^^900000^PN|7000111754^^^BCHS^MR||SJSERH^TEST^^^^^L^^^20190815||19910730|F||NR|123 MAIN ST^^Saint Petersburg^FL^33709^USA^M^^Pinellas^^^20190815||^PRN^PH^^1^555^5555555^^Pref||EN|S|Unknown|6000145203^^^BCHS^VCD^^20190815|123412341|||Unknown||N|0|||||N|N

PD1||||||||N

PV1|1|I|ERH^ERH^31^SJS|Elective||ERH^ERH^T1^SJS|055144^Cimino^Patrick^Thomas^II^PRN^1962540997^NPI|||MED|||N|RP|||055144^Cimino^Patrick^Thomas^II^PRN^1962540997^NPI|I|5400058215^^^504^VN^^20190815|Self-pay|||||||||||||||||||9072|||||201908150941|||||||V

PV2|||^test||||~~~~false||||||0||N||||||N||JS Inpatient^L^2165^^^900000^XX~^^1881632818^^^900004^NPI~^^590774199^^^900001^TX~^^ST JOSEPHS HOSPITAL - SOUTH^^^439^NOAName|Checked in|||||||N|||||N||||Acute

ROL||UC|PP|555555^No^PCP per pt^^^PRN|201908150942||||Phys

ROL||UC|AT|1962540997^Cimino^Patrick^Thomas^II^^MD^^900004^L^^^NPI^^^^20170217~05091^^^^^^^^581^^^^PRN~05091^^^^^^^^2078^^^^PRN~05091^^^^^^^^2077^^^^PRN~05091^^^^^^^^2076^^^^PRN~05416^^^^^^^^1316^^^^PRN~05416^^^^^^^^1325^^^^PRN~05416^^^^^^^^684^^^^PRN~05416^^^^^^^^737^^^^PRN~05091^^^^^^^^1505^^^^PRN~1464^^^^^^^^900000^^^^DN~055144^^^^^^^^183^^^^PRN~ME46867^^^^^^^^195^^^^LN~05416^^^^^^^^769^^^^PRN~05091^^^^^^^^777^^^^PRN~05091^^^^^^^^745^^^^PRN~05091^^^^^^^^779^^^^PRN~05091^^^^^^^^2127^^^^PRN~05091^^^^^^^^781^^^^PRN~05091^^^^^^^^748^^^^PRN~05416^^^^^^^^771^^^^PRN~05091^^^^^^^^783^^^^PRN~05416^^^^^^^^772^^^^PRN~05416^^^^^^^^775^^^^PRN~05091^^^^^^^^757^^^^PRN|201908150941||||Phys

ROL||UC|AD|1962540997^Cimino^Patrick^Thomas^II^^MD^^900004^L^^^NPI^^^^20170217~05091^^^^^^^^581^^^^PRN~05091^^^^^^^^2078^^^^PRN~05091^^^^^^^^2077^^^^PRN~05091^^^^^^^^2076^^^^PRN~05416^^^^^^^^1316^^^^PRN~05416^^^^^^^^1325^^^^PRN~05416^^^^^^^^684^^^^PRN~05416^^^^^^^^737^^^^PRN~05091^^^^^^^^1505^^^^PRN~1464^^^^^^^^900000^^^^DN~055144^^^^^^^^183^^^^PRN~ME46867^^^^^^^^195^^^^LN~05416^^^^^^^^769^^^^PRN~05091^^^^^^^^777^^^^PRN~05091^^^^^^^^745^^^^PRN~05091^^^^^^^^779^^^^PRN~05091^^^^^^^^2127^^^^PRN~05091^^^^^^^^781^^^^PRN~05091^^^^^^^^748^^^^PRN~05416^^^^^^^^771^^^^PRN~05091^^^^^^^^783^^^^PRN~05416^^^^^^^^772^^^^PRN~05416^^^^^^^^775^^^^PRN~05091^^^^^^^^757^^^^PRN|201908150941||||Phys

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

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

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

ZPV|||||||||||||||||||||||||||||||||||||||||||||||||""|BCBCE2FIS1041LK|||||||||||^^mostCurrEncTypeCd^mostCurrEncTypeCd^IP||||||||5400058215^^No SCD^504^ZAVN^^20190815||201908150941

ZID|123412341^^^900001^SS^^20190815~7000111754^^^504^MR^^20190815~810123887^^^900000^PN^^20190815

### 4.3.2 Outbound from Cloverleaf

MSH|^~\&|BCHS\_ADT|SJS\_SOARIAN|eICU|SJS|20190816095800||ADT^A08|e31f0573-5cd0-4377-a21d-0d5a5e9c|P|2.3  
PID||7000111754|6000145203^^^&BCHS^FIN^&SJS||SJSERH^TEST||19910730|F||N|123 MAIN ST^^Saint Petersburg^FL^33709^USA^M^^Pinellas||^^^^^^5555555555|||S||6000145203|123412341  
PV1||||||||||||||||||||||||||||||||||||AHR||||||||201908150941

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

# Appendix A: Risks and Concerns

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Name** | |  | |
| **Number** | **Risk/Concern** | **Comment** | **Mitigation** |
|  |  |  |  |
| RC.2013.1.0 |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

* End of document