**ADT Requirements for**

**Soarian to Computrition**

**Version 1.0**

**Prepared By: Levy Lazarre**

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# **Document Control**

## Resources

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## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
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|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to outline the Admission, Discharge and Transfer (ADT) interface requirements for the Computrition application.

Computrition “Hospitality Suite” is an enterprise level food service automation system that has been selected to become the standard Diet and Nutrition Services Management at BayCare hospitals.

Features and benefits of “Hospitality Suite” include:

* + Can be used by single- or multi-site facilities
  + Provides all modern features of nutrition care management
  + Improves patient and physician satisfaction
  + Extended functionalities via add-on modules like “Room Service”

## 1.2 Project Scope

The scope of this project is to migrate all BayCare hospitals using other diet systems (VST Carex, CBORD…) to Computrition and upgrade all hospitals already using Computriton to the Enterprise version of the software.

Integration for this application includes an ADT interface from Soarian Financials for patient demographics, an ADT interface from Cerner Millennium for allergies, a diet orders interface from Cerner Millennium, and a result interface from Cerner Millennium for patient height / weight information.

This document describes the ADT interface from Soarian to Computrition, which includes data for BayCare inpatients and outpatients.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

ADT - Admission, Discharge and Transfer

HIS – Hospital Information System

### 1.3.2 Glossary

**Hospitality Suite** is the name of the application suite used by BayCare

**Room Service** is the name of an add-on to Hospitality Suite used by BayCare

## 1.4 Document References

1. HL7-Interface-Specifications-ADT-v-2010.pdf
2. Interface Schema Document.docx

# 2. Diagram – N/A

# 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 | Send all inpatients and outpatients to Computrition except Nursery patients | Advanced filter is used to remove patients with a PV1.10 Hospital Service of NSY. |
| FR.2017.2.0 | Do not send Pre-Admit patients to Computrition | Diet orders are not issued until a patient is actually admitted, so pre-admits would unnecessarily burden the system. Therefore, A05 messages are not sent to Computrition. |

|  |  |  |
| --- | --- | --- |
| FR.2017.3.0 | One outbound connection to Computrition for each BayCare hospital. | Vendor requires a separate connection for each hospital. HL7 messages are routed to the proper Oracle database schema based on the sending facility in the MSH header. Each hospital has its own schema, except BayCare Alliant (BAH) that shares the same schema as Mease Dunedin (MDU). |

|  |  |  |
| --- | --- | --- |
| FR.2017.4.0 | Create dummy location in PV1.3 for ER patients | In A04 messages for ER patients, the facility code is concatenated to the string “ER”, creating a dummy location placed in PV1.3 (like MPHER, NBYER …). This is necessary for Computrition to be able to process the allergies and height / weight messages from Cerner. |

|  |  |  |
| --- | --- | --- |
| FR.2017.5.0 | PV1.3 formatting | Vendor requested to concatenate nursing station, room, and bed number in a single string for PV1.3 patient location, like ICU0163W |

|  |  |  |
| --- | --- | --- |
| FR.2017.6.0 | Suppress discharge date in A13 messages | Computrition cannot process an A13 (Cancel Discharge) message if there is a discharge date in PV1.45 |

|  |  |  |
| --- | --- | --- |
| FR.2017.7.0 | Suppress “Future Admits” in Computrition | Occasionally, Soarian will send an A08 update on a pre-admit patient and that will cause a ‘Future Admit’ in Computrition. To solve this issue, the vendor has turned off admitting on A08. Paul Huskey set the following rule in the interface to **TRUE**: SETRULE SKIP\_IF\_NOT\_IN\_SYSTEM  However, the following rule is set**:** SETRULE ADMITTING\_MESSAGES\_IF\_NOT\_IN\_SYSTEM=O01|A02, so the system will admit on Orders (ORM^O01) and Transfers (ADT^A02) |

## 3.2 Non-Functional Requirements

None related to interfacing.

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

### 3.3.1 Inbound to the BayCare Cloverleaf

* No inbound since this is a one-way outbound interface from Cloverleaf to Computrition

### 3.3.2 Outbound to the BayCare Cloverleaf

### 3.3.3 Inbound to the Vendor

### 3.3.4 Outbound to the Vendor

* Protocol: TCP/IP MLLP
* TEST IP 10.44.184.237
* PROD IP 10.44.184.231

Both interface servers are running Linux OS, RedHat Enterprise Linux (RHEL) version 7.

The port numbers for the different connections are listed in the document named “Interface Schema Document.docx”.

### 

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

### 3.3.6 Outbound to the BayCare Cerner

# 4. HL7 Messaging

## 4.1 Messaging Format

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

EVN

PID

PV1

PV2

*Message Construction Notes:*

*[Square Brackets] – Optional*

*{Curly Brackets} – Repeatable*

*MSH – Message Header*

*EVN – Event segment*

*PID – Patient ID segment*

*PV1 – Patient Visit segment*

*PV2 – Patient Visit – additional information 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^A01 | Admit a Patient |
| ADT^A02 | Transfer a Patient |
| ADT^A03 | Discharge a Patient |
| ADT^A04 | Register a Patient |
| ADT^A06 | Change an outpatient to an inpatient |
| ADT^A08 | Update Patient Information |
| ADT^A09 | Patient departing - tracking |
| ADT^A10 | Patient arriving - tracking |
| ADT^A11 | Cancel admit/visit notification |
| ADT^A13 | Cancel discharge |

### 4.1*.*3 Cloverleaf Configuration Files

The following Cloverleaf configuration files were used:

Xlate: soarf\_comp\_adt.xlt

Variants: HL7 2.6 Soarian

TCL filters: tpsAdvHL7Filter.tcl

Table: soarf\_inv\_religion.tbl

### 4.1.4 Cloverleaf Site Location

Cloverleaf site locations for the Computrition interfaces:

TEST: dietary\_8

PROD: dietary\_8\_p

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Data Type** | **Length** | **Notes** |
| --- | --- | --- | --- | --- | --- |
| Message Header Segment | MSH | Y | Misc | Varies | PathCopy the entire segment |
| Encoding Characters | MSH.2 | Y | ST | 4 | Copy “^~\&” |
| Receiving Facility | MSH.6 | Y | HD | 180 | Copy MSH.4 |
| Version ID | MSH.12 | Y | HD | 60 | Copy “2.6” |
| Event Code Segment | EVN | Y | Misc | Varies | PathCopy the entire segment |
| Patient ID – Internal ID (BayCare MRN) | PID.3 | Y | CX | 20 | Copy |
| Patient Name | PID.5 | Y | XPN | 48 | Copy subfields 0-4 |
| Date of Birth | PID.7 | N | DTM | 8 | Copy the entire field |
| Gender | PID.8 | N | IS | 1 | Copy the entire field |
| Primary Language | PID.15 | Y | CWE | 20 | Copy the entire field |
| Religion | PID.17 | N | ID | 20 | Table lookup.  Table = soarf\_inv\_religion.tbl |
| Patient Account Number | PID.18 | N | CX | 20 | Concat subfields 0 and 3 |
| Patient Class | PV1.2 | N | ID | 1 | Copy the entire field |
| Patient Location | PV1.3 | N | PL | 12 | Concat nursing unit, room, bed  (PV1.3 subfields 0, 1, 2).  If A04 on ER patient, concat the facility MSH.6 with “ER” |
| Patient Type | PV1.18 | N | ID | 3 | Copy the entire field |
| Admit Date/Time | PV1.44 | N | TS | 12 | Copy the entire field |
| Discharge Date/Time | PV1.45 | N | TS | 12 | Copy the entire field. Copy “null” to this field if the message is ADT^A13 (Cancel Discharge) |
| Reason for Admission | PV2.3 | N | ST | 180 | Copy PV2.3 second subfield to this field |

## 4.3 Sample Messages

**Sample ADT messages to Computrition (inpatient, ER, outpatient):**

MSH|^~\&|SOARF|MPH||MPH|201705021557||ADT^A08|36488112-11a1-4dce-9869-5bd24e4ce4b7|P|2.6||3

EVN|A08|201705021557||PSX|b096773|201705021554|9027

PID|||7000013718^^^BCHS^MR||MAYTEST^FOURTEEN||19630522|M|||||||EN||CAT|6000030101^BCHS

PV1||I|ICU1028101|||||||||||||||I||||||||||||||||||||||||||201705021554

PV2|||CHEST PAIN

MSH|^~\&|SOARF|MPH||MPH|201705080927||ADT^A04|90bf6fa2-8850-42c6-a5ca-f399175f1434|P|2.6||1

EVN|A04|201705080927||QCI|pdc50934|201705080925|9027

PID|||7000013843^^^BCHS^MR||JANE^DOE^""||19010101|F|||||||||UNK|6000030307^BCHS

PV1||E|MPHER|||||||||||||||E||||||||||||||||||||||||||201705080925

PV2|||TEST

MSH|^~\&|SOARF|MPH||MPH|201704260954||ADT^A04|9a874121-9d92-4ecf-9dd9-0ff6b936ac52|P|2.6||1

EVN|A04|201704260954||CI|b127437|201704260906|9028

PID|||7000013632^^^BCHS^MR||BODOLAY^RED||20050126|M|||||||EN||CAT|6000029983^BCHS

PV1||O||||||||||||||||R||||||||||||||||||||||||||201704260906

PV2|||BACK PAIN

# **5. Testing**

## 5.1. Unit Testing Scenarios

Perform various ADT activities in Soarian and verify that the information is correctly reflected in the application.

|  |  |
| --- | --- |
| **Scenario** | **Expected Result** |
| Admit a patient in Soarian Financials | Patient is found in Computrition with the proper demographics |
| Modify the patient’s demographic information in Soarian | All changes are seen in Computrition |

## 5.2 Integrated Testing Scenarios

|  |  |
| --- | --- |
| **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

Go-live dates for the Computrition Application (with Cutover the night before):

MPH, MCS, MDU, BAH: May 3, 2017

NBY: May 14. 2017

## 6.1 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 |  |  | |  | |  |  |  |

# 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