**Medicity Lab Orders to Cerner**

**Version 1.1**

**Prepared By: Tiffany Bohall & Dan Olszewski**

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# **Document Control**

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## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 2/23/2018 | Tiffany Bohall | Originally Created |
| V1.1 | 2/28/18 | Dan Olszewski | FSI updates added |
|  |  |  |  |
|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to define the interface requirements between Medicity HIE and Cerner, specifically for lab orders. The intended audience includes anyone wishing to know more about this communication.

## 1.2 Project Scope

The scope of the integration that is defined in this Integration Development Build Book (IDBB), includes only the orders from Medicity HIE to Cerner. No other interface are discussed.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

HIE – Health Information Exchange

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

Additional documents specific to Medicity HIE can be found on the Enterprise Integration team’s Sharepoint website: EIT Site Documents > Medicity HIE.

# 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 –N/A

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.2018.1.0** | Cerner\_pad\_leading\_zeros | TCL proc which pads the social security number with leading 0 from Cerner, if the length is less than 9. |
| **Cerner - FR.2018.2.0** | HIE – ESI Alias Translation | The Client ID needs to be setup for this Contributor system for the orders to write to the HIE order alias pool. |

## 3.2 Non-Functional Requirements –N/A

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.

|  |  |  |
| --- | --- | --- |
| **Cerner** |  |  |
| **Number** | **Requirement Name** | **Requirement Description** |
| NFR.2018.1.0 | HIE – ESI Alias Translation | The Client ID needs to be setup for this Contributor system for the orders to write to the HIE order alias pool. |

## 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 BayCare’s 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 –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 Cerner

|  |  |
| --- | --- |
| 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 v2.3, cerner\_emr ORM\_O01

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

PID

PV1

ORC

OBR

[{NTE}]

*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** |
| ORM\_O01 | Order |
|  |  |
|  |  |

### 4.1*.*3 Cloverleaf Configuration Files

Cloverleaf Configuration Files:

* Variant: HL7 v2.3, cerner\_emr ORM\_O01
* Xlates: Medicity\_cerner\_orm\_soar.xlt

### 4.1.4 Cloverleaf Site Location

Cloverleaf site locations: Medicity\_15\_p

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Notes** |
| --- | --- | --- | --- |
| Message Header | MSH | Y | Pathcopy the entire MSH segment |
| Patient Identifier | PID | Y | Pathcopy the entire PID segment |
| Patient Visit | PV1 | Y | Pathcopy the entire PV1 segment |
| Common Order | ORC | Y | Pathcopy the entire ORC segment |
| Observation Request | OBR | Y | Pathcopy the entire OBR segment |
| Specimen Source | OBR.15 | Y | If OBX.3.0 = “Specimen Type:”, copy OBX.5 to OBR.15. Else, if OBX.3.0 = “Body Site:”, copy OBX.5 to OBR.15.3. Else, copy @NTEsetid to NTE.1, hardcode “ORDCOM” to NTE.2, concatenate OBX.3, OBX.5 outbound to NTE.3, math add 1 to group variable and 1 to @NTEsetid. |
| Placer Field | OBR.16 | Y | If OBR.16.0 is not null, hard code “BayCare Dr Number” into OBR.16.8. |
| Notes and Comments | NTE | Y | Copy @null to NTEsetid.  Iterate through NTE segments and pathcopy. Copy NTE.1 to @NTEsetid and hard code “ORDCOM” to NTE.2. |
| Set ID  Value Type  Observation Identifier  Observation Value | OBX.1  OBX.2  OBX.3  OBX.5 | Y | If ORC.20 does not = null, hardcode “1” to OBX.1, hardcode “TX” to OBX.2, hard code “ABNSTATUS” to OBX.3 and copy ORC.20 to OBX.5. |

## 4.3 Sample Message

**INBOUND:**

MSH|^~\&|HIE|3004|HNAM|BHS|20180129120043||ORM^O01|20180291|P|2.3

PID|1||7000015133^^^BHS MRN||TESTING^TESTILLA||19850101|F|||1234 HAPPYVILLE LANE^^CLEARWATER^FL^33756||7275671234|||||6000032734^^^BHS FIN

PV1|1||||||MS055144^Cimino^Patrick

ORC|SN|201802419^BHS3004||201802420|H||^^^20180124135730^^ROUTINE||20180124135730|||MS055144^Cimino^Patrick||||IN TRANSIT

OBR|1|201802419^BHS3004||4905503^ACTH^^^ACTH||20180124155700||||||||20180124155700|BLOOD|MS055144^Cimino^Patrick^^^^^^BHS Dr Number||||||||NBOSA|||^^^^^ROUTINE~~~~~

DG1|1||D82.4^^ICD10|Hyperimmunoglobulin E [IgE] syndrome

OBX|1|TX|Patient\_Fasting||YES

**OUTBOUND:**

MSH|^~\&|HIE|3004|HNAM|BHS|20180129120043||ORM^O01|20180291|P|2.3

PID|1||7000015133^^^BHS MRN||TESTING^TESTILLA||19850101|F|||1234 HAPPYVILLE LANE^^CLEARWATER^FL^33756||7275671234|||||6000032734^^^BHS FIN

PV1|1||||||MS055144^Cimino^Patrick

ORC|SN|201802419^HIE ORDER ID||201802420|H||^^^20180124135730^^ROUTINE||20180124135730|||MS055144^Cimino^Patrick||||IN TRANSIT

OBR|1|201802419^HIE ORDER ID||4905503^ACTH^^^ACTH||20180124155700||||||||20180124155700|BLOOD|MS055144^Cimino^Patrick^^^^^^BayCare Dr Number||||||||NBOSA|||^^^^^ROUTINE

NTE|1|ORDCOM|Patient\_Fasting YES

# 5. Alerts –N/A

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 –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