**BMG/BUC GE Centricity Business to Cerner**

**SIU Requirements**

**Version 1.4**

**Prepared By: Sarah Thies & Art Schwartz**

**Date: 5/8/2018**

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# **Document Control**

## Resources

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## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 4/3/2015 | Sarah Thies | Originally Created |
| V1.1 | 5/10/2016 | Sarah Thies | ***Note:*** Cloverleaf passing phone type in PID-13.3 *(like ADT)* |
| V1.2 | 2/16/2017 | Sarah Thies | Added Non-Functional Requirement centered on blocking BMG inbound scheduled events from rebounding out by SCH-2.2 “BMG Scheduling Appointment Id” |
| V1.3 | 3/1/2017 | Lois Whitley | Combined BMG and BUC SIU Documentation |
| V1.4 | 5/8/2018 | Tiffany Bohall | Updated SSN logic |
|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

This document outlines the BayCare Medical Group (BMG) and BayCare Urgent Care (BUC) Scheduling (SIU) interface from GE Centricity Business to Cerner. All functional requirements needed to support this solution post implementation will be included.

## 1.2 Project Scope

Implement a Scheduling (SIU) interface from the GE Centricity Business Practice Management System to the Cerner EMR Application for the BayCare Medical Group (BMG) and BayCare Urgent Care (BUC) providers. The BMG appointments will populate the Cerner **Ambulatory Organizer** Application and the BUC appointments will populate the Cerner **Tracking Shell** Application.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

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

### 1.3.2 Glossary

List the terms that require definition

## 1.4 Document References

**Cerner Specifications:**

Unit16i-Display-Only\_Scheduling\_Inbound.pdf

**GE Specifications:**

MASTER BYH\_EWS\_SCHED\_OUTBOUND\_FINAL.xlsx

# 2. Diagram





# 3. Requirements

## 3.1 Functional Requirements (Cerner FSI)

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.

|  |  |  |
| --- | --- | --- |
| **Cerner** |  |  |
| **Number** | **Requirement Name** | **Requirement Description** |
| FR.2015.1.0 | Corporate Patient Identifier (CPI )value | The CPI value is a unique number identifying the patient among all BayCare systems. The CPI is used by Cerner to load balance SIU inbound processing. Cloverleaf will kill messages ***without*** the CPI value. |
| FR.2015.2.0 | Filler Status Code | When GE sends the value ***ARR*** in SCH-25, Cloverleaf will send Cerner SIU^Z01 (Type & Trigger) as notification of an appointment check-in |

## 3.2 Non-Functional Requirements

Provide concise detail for the below non-functional requirements. The below requirements must be evaluated for every project.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cerner** | |  | |  | |
| **Number** | | **Requirement Name** | | **Requirement Description** | |
| NFR.2016.1.0 | | PID-13.3 | | ***Note:*** Cloverleaf will pass phone type tags in sub field 3 *(like ADT)* in an effort to standardize. | |
| NFR.2017.2.0 | | Script: siu\_surg\_mobj\_out on Comm Server: SIU\_TCPIP\_SURGINET\_OUT using ***Soarian*** Source | | Blocking BMG inbound scheduled events from rebounding out by SCH-2.2 “BMG Scheduling Appointment Id” | |
| NFR.2016.3.0 | |  | |  | |
| NFR.2016.3.0 | | Block Surgery Schedules | | If service is SHS, SUR, SPE or HPR, kill the schedule | |

### 3.2.1 Dedicated Encounter Data Flow Requirements

**\*** There are 3 fields ***total*** for tracking specific encounters like Workers’ Comp and Occupational Medicine. In SIU, there is one field, SCH-7. In ADT, there are 2 fields, PV1-4 and PV1-18.

|  |  |  |
| --- | --- | --- |
| **Cerner** |  |  |
| **Number** | **Requirement Name** | **Requirement Description** |
| FR.2015.3.0 | SCH-7 Appointment Type **\*** | GE will send ***IWC*** (Initial Worker’s Comp appointment), ***FWC*** (Follow-up Worker’s Comp appointment), ***DOT*** *(DOT Physical)*, ***DRG*** *(Drug Screen-OCC)* and ***PHP*** *(Post Hire Physical)* in field SCH-7 to identify Workers’ Comp and Occ Med encounters. |

## 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

* TCPIP

### 3.3.2 Outbound to the BayCare Cloverleaf

* TCPIP

### 3.3.3 Inbound to the Vendor

* TCPIP

### 3.3.4 Outbound to the Vendor

* TCPIP

### 3.3.5 Inbound to the BayCare Cerner EMR

**C30**

Port Number: 10023

IP Address: Cloverleaf IP 10.5.250.203, site **bmg** & thread **siu\_cer\_out\_T\_c30**

**P30**

Port Number: 10029

IP Address: Cloverleaf IP 10.5.250.201, site **bmg\_prod** & thread **siu\_cer\_out**

### 3.3.6 Outbound to the BayCare Cerner

Test

Port Number: Click here to enter text.

IP Address: 10.5.250.203

Prod

Port Number: Click here to enter text.

IP Address: 10.5.25.201

# 4. HL7 Messaging

## 4.1 Messaging Format

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

SCH

[{PID}]

RGS *place holder only*

[{AIS}

{AIG}

{AIL}]

AIP

*Message Construction Notes:*

*[Square Brackets] – Optional*

*{Curly Brackets} – Repeatable*

*MSH – Message Header*

*EVN – Event segment*

*PID – Patient ID segment*

*PV1 – Patient Visit segment*

*AIS – Appointment Information*

*AIG -– Appointment Information General Resource*

*AIL -– Appointment Information Location resource*

*AIP-– Appointment Information Personnel resource*

*[{ – 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** |
| SIU^S12 | New Appointment |
| SIU^S13 | Reschedule |
| SIU^S14 | Modify |
| SIU^S15 | Cancel |
| SIU^S26 | No show |
| SIU^Z01 | Check-in |

### 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.

ge\_cer\_siu.xlt

### 4.1.4 Cloverleaf Site Location

**C30**

SITE: **bmg** & THREAD: **siu\_cer\_out\_T\_c30**

**P30**

SITE **bmg\_prod** & THREAD **siu\_cer\_out**

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Data Type** | **Length** | **Notes** |
| --- | --- | --- | --- | --- | --- |
| MSH segment | MSH |  |  |  | Pathcopy MSH Segment |
| Sending Application | MSH-3 |  |  |  | Hard code BMG |
| Receiving Application | MSH-5 |  |  |  | Hard code BMG |
| Message Type | MSH-9.1 |  |  |  | If S13 change to s12  If SCH-25 = ARR code Z01 |
| Patient ID | PID-2 |  |  |  | If empty then kill |
| SCH segment | SCH |  |  |  | Pathcopy SCH Segment |
| Placer Appointment ID | SCH-1 |  |  |  | Copy to SCH-2 |
| Filler Appointment ID | SCH-2 |  |  |  | Copy from SCH-1 |
| Placer group Number | SCH-4 |  |  |  | Copy 1st sub-field to 2nd subfield |
| Event Reason | SCH-6 |  |  |  | Copy from SCH- 7 1st sub-field to 2nd subfield |
| Appointment Reason | SCH-7 |  |  |  | Copy to SCH-6 |
| Appointment Timing Quantity | SCH-11 |  |  |  | Copy 1st sub-field to 4th subfield |
| Filler Status Code | SCH-25 |  |  |  | If the value ***ARR*** is in SCH-25 then Cloverleaf will send Cerner SIU^Z01 (Type & Trigger) as notification of an appointment check-in |
| NTE segment | NTE |  |  |  | Pathcopy NTE Segment(s) |
| PID Segment | PID |  |  |  | Pathcopy PID Segment |
| Patient ID | PID-2 |  |  |  | Copy from PID-3  Hard code BCCPI to 5th subfield |
| Patient Identifier | PID-3 |  |  |  | Copy MRN to first iteration  Hard code BMGMRN to 5th subfield  Copy CPI to second iteration  Hard code CPI to 5th subfield |
| Patient Telephone | PID-13 |  |  |  | Copy 2nd sub field to 1st sub field  Copy 1st sub field to 3rd sub field |
| Patient account Number | PID-18 |  |  |  | Copy, copy BMGFN to 5th sub field |
| SS number | PID-19 |  |  |  | Copy with TCL that format’s the SSN and removes the value if the number is the same (i.e. all 5’s, 9’s, etc.) and removes the dashes |
|  | PV1-19 |  |  |  | Kill if SHS, SUR, SPE or HPR  In pre-translate filter |
| AIS Segment | AIS |  |  |  | Pathcopy AIS Segment |
| AIG Segment | AIG |  |  |  | Pathcopy AIG Segment |
| AIL Segment | AIL |  |  |  | Pathcopy AIL Segment |
| AIP Segment | AIP |  |  |  | Pathcopy AIP Segment |

## 4.3 Sample Messages

**Cerner**

**Standard Outbound (Post Cloverleaf):**

MSH|^~\&|BMG||BMG||201503251101||SIU^S12|63636\_103\_SC1|P|2.3||||||ASCII

SCH|6842|6842||||^DOT~DOT PHYSICAL|DOT|DOT|10|MIN|201503251100^^^201503251100|RS7038^BUCPROV^WAU||||||||B107926TEST|||||PEN

PID|1|300135613^^^^BCCPI|27795^^^^BMGMRN~300135613^^^^CPI||GRIFFIN^TOCCMED||19920101|F||2106-3|24 FLOWER POT LANE^^SAINT PETERSBURG^FL^33705||(727)527-7878|||U||6842^^^^BMGFN|777-22-1111

AIS|1||6842|201503251100|||10|MIN||P

AIG|1||135^BUC|||||201503251100|||10|MIN||P

AIL|1||WAU|||201503251100|||10|MIN||P

AIP|1||RS7038^BUCPROV^WAU|||201503251100|||10|MIN||P

MSH|^~\&|BMG||BMG||201503251104||SIU^S14|63636\_108\_SC3|P|2.3||||||ASCII

SCH|6842|6842||||^DOT~DOT PHYSICAL|DOT|DOT|10|MIN|201503251100^^^201503251100|RS7038^BUCPROV^WAU||||||||B107926TEST|||||PEN

PID|1|300135613^^^^BCCPI|27795^^^^BMGMRN~300135613^^^^CPI||GRIFFIN^TOCCMED||19920101|F||2106-3|24 FLOWER POT LANE^^SAINT PETERSBURG^FL^33705||(727)527-7878|||U||6842^^^^BMGFN|777-22-1111

AIS|1||6842|201503251100|||10|MIN||P

AIG|1||135^BUC|||||201503251100|||10|MIN||P

AIL|1||WAU|||201503251100|||10|MIN||P

AIP|1||RS7038^BUCPROV^WAU|||201503251100|||10|MIN||P

MSH|^~\&|BMG||BMG||201503251141||SIU^Z01|63636\_191\_SC6|P|2.3||||||ASCII

SCH|6845|6845||||^DOT~DOT PHYSICAL|DOT|DOT|10|MIN|201503251130^^^201503251130|RS7038^BUCPROV^WAU||||||||B107926TEST|||||ARR

PID|1|300135617^^^^BCCPI|27810^^^^BMGMRN~300135617^^^^CPI||GRIFFIN^OCMD4||19920101|F||2106-3|24 BLOOMING TREE DR^^SAINT PETERSBURG^FL^33713||(727)527-7878|||U||6845^^^^BMGFN|555-44-4454

AIS|1||6845|201503251130|||10|MIN||A

AIG|1||135^BUC|||||201503251130|||10|MIN||A

AIL|1||WAU|||201503251130|||10|MIN||A

AIP|1||RS7038^BUCPROV^WAU|||201503251130|||10|MIN||A

# **5. Testing**

## 5.1. Unit Testing Scenarios

|  |  |
| --- | --- |
| **Scenario** | **Expected Result** |
|  |  |
|  |  |

## 5.2 Integrated Testing Scenarios

|  |  |
| --- | --- |
| **Scenario** | **Expected Result** |
|  |  |
|  |  |

## 5.3 Testing Approvals

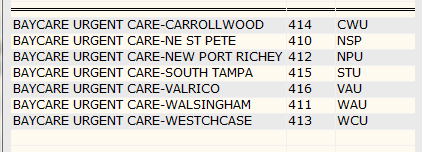
|  |  |  |  |
| --- | --- | --- | --- |
| **Testing Phase** | **Date** | **Department** | **Team Member** |
| PH1.UNIT |  |  |  |
| PH1.INTEGRATED |  |  |  |

## 5.4 Piloting

List the facilities and associated networks in scope for pilot testing.

BMG: SUNCOAST

BUC - table



## 5.5 Approvals

|  |  |  |  |
| --- | --- | --- | --- |
| **Testing Phase** | **Date** | **Department** | **Team Member** |
| PH1.0 |  |  |  |
|  |  |  |  |
|  |  |  |  |

# 6. Deployment / Implementation Model

Provide the detail as to how to deploy the solution defined in the IDBB from both the BAYCARE and vendor perspective.

# 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