**EMMI *ORM* Cerner Reqs**

**Version 1.1**

**Prepared By: Sarah Thies & Tom Fredrickson**

**Date: 2/6/2017**

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# **Document Control**

## Resources

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|  |  |  |
|  |  |  |

## Project Distribution List

## Document Version Control

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Modifier** | **Description** |
| V1.0 | 12/7/2016 | Sarah Thies | Originally Created |
| V1.1 | 2/6/2017 | Tom Fredrickson | Added Cloverleaf Components |
|  |  |  |  |
|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

The EMMI Application provides educational videos to the patient’s **home** email address prior to the patient’s appointment. The purpose of this document is to provide the **added** build for the new BMG Orders to flow over the **existing** GetWell Network Orders Interface from Cerner to Cloverleaf to EMMI.

## 1.2 Project Scope

The BayCare Cerner application will send new Cerner BMG **orders** to EMMI via Cloverleaf using the **existing** Get Well Network Orders outbound interface. In turn, EMMI will send the associated result back to Cerner using the **existing** Get Well Network results inbound interface.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

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

GWN: Get Well Network

### 1.3.2 Glossary

List the terms that require definition

## 1.4 Document References

**Cerner Specifications:**

<https://wiki.ucern.com/display/public/reference/Unit+09o+-++Order+Message+Processing+Outbound>

**EMMI Documents/Specifications:**

# 2. Diagram

***ORDERS***

# 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** |
| FR2017.1.0 | CPI | The BayCare CPI value will be sent via Cloverleaf in field PID-3.1 with identifier type in sub-field 2 containing value CPI. |
| FR2017.2.0 | FIN | The BayCare FIN value will be sent via Cloverleaf in field PID-18.1 with identifier type in field PID-18.4 containing value BMGFN. |
| FR2017.3.0 | Activity Type: ***OFC Videos*** | All BMG video orders for EMMI need to be built with an activity type of OFC Videos. This is a requirement; the CDF meaning of the activity type has to be OFCVIDEOS or the orders will be suppressed by the global ESO Orders Suppression script. (Note: Code Set 106 Activity Type) |
| FR2017.4.0 | Global ESO Suppression Script: eso\_get\_order\_selection\_v19  .prg | Addition made to the eso\_get\_order\_selection script to un-suppress all orders with an activity type having the CDF meaning of ***OFCVIDEOS***. |
| FR2017.5.0 | Route Script: ***OFCVIDEOS*** | The new EMMI Activity must be added to the route script to direct the orders outbound the GETWELL Interface. See Notes below for details |
| FR.2017.6.0 | Mod Object Script: ***orm\_getwell\_emmi\_outv1*** | Updated the mod object script on the GetWell Network Orders Interface to allow EMMI orders to go out. See Notes below for details |
|  |  |  |

**NOTES:**

**Contributor System:**

GETWELL

**Route Script:**

Add EMMI Activity Type as seen below:

ELSEIF **(**(CQMSUBTYPE**)** **IN** **(**"EDUTAINMENT"**,** **"OFCVIDEOS"))**

SET STAT=ALTERLIST(OENROUTE->ROUTE\_LIST, 1)

SET OENROUTE->ROUTE\_LIST[1]->R\_PID = GET\_PROC\_ID("ORM\_TCP\_GETWELL\_OUT")

go to exit\_point

**Mod Object Script:**

Modified as seen below:

New script Name: **orm\_getwell\_emmi\_outv1**

Com Server: ORM\_TCP\_GETWELL\_OUT

1.

Commented Out the ***IGNORE*** LOGIC

;;If (oen\_reply->CONTROL\_GROUP [1]->MSH [1]->receiving\_application->name\_id not in ;;("SJH","SJN","SAH","SJW","MCS" ,"NBY", "MPH","SFB","MDU", "SJS","BRM","WHH","WHW"))

;; Set OenStatus->Ignore=1

;;endif

2.

Commented Out ***2nd doctor filter*** script

/\*12/23/16, commenting out logic below, calling op\_doc\_filter\_gen\_out never worked

because the set facility is *not* the assigning auth for the providers, the working script is v5

6/12/14 - New logic to call doctor filter script by R Quack

If(oen\_reply->CONTROL\_GROUP [1]->MSH [1]->receiving\_application->name\_id in

("SFB","MCS","MPH","MDU","NBY","SJH","SJN","SAH","SJW", "SJS","BRM","WHH","WHW", "SGA"))

execute op\_doc\_filter\_gen\_outv5

else

execute op\_doc\_filter\_gen\_out

EndIf\*/

### 3.1.1 Functional Requirements (Cloverleaf)

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** |
| FR2017.1.0 | Filter Orders to EMMI OFC Videos | We are filtering orders outbound to EMMI to just allow EMMI OFC orders as specified in OBR-4.1. See filter below. |
| FR2017.2.0 | CPI | The BayCare Community Medical Record Number (CMRN) is being sent via Cloverleaf in field PID-3.1 with identifier type “CPI” in PID-3.2. |
| FR2017.3.0 | FIN | The BayCare FIN value will be sent via Cloverleaf in field PID-18.1 with identifier type in field PID-18.4 containing value BMGFN. |
| FR2017.4.0 | Append a Z Segment | A ZEM segment is required at the end of each order out to EMMI to identify the unique BayCare customer ID. |
| FR2017.5.0 | MSH segment hardcoded values. | MSH-2 = ^~\&  MSH-3 = BAYCARE  MSH-4 = BAYCARE  MSH-5 = EMMI  MSH-6 = CERNER  MSH-12 = 2.3 |

## 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.2015.1.0 | 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. Please see the reference document located on the Integration SharePoint server: <insert link to document here>

### 3.3.1 Inbound to the BayCare Cloverleaf

* Click here to enter text.

### 3.3.2 Outbound to the BayCare Cloverleaf

Cerner ***C30***

BMG Video orders to EMMI

Comserver: ORM\_TCP\_GETWELL\_OUT

Port Number: 12066

IP Address: Cerner NAT’d IP Address 10.100.128.66 to CloverLeaf 10.5.250.203

Cerner ***P30***

BMG Video orders to EMMI

Comserver: ORM\_TCP\_GETWELL\_OUT

Port Number: 12070

IP Address: Cerner NAT’d IP Address 10.100.128.64 to CloverLeaf 10.5.250.201

### 3.3.3 Inbound to the Vendor

Click here to enter text.

### 3.3.4 Outbound to the Vendor

* The EMMI Server connection information is:
* TEST Host: 69.2.63.104 Port: 11014
* PROD Host: ??? Port: ???

### 3.3.5 Inbound to the BayCare Cerner EMR

Cerner ***C30***

BMG Video results from EMMI

Comserver: ORU\_TCP\_GETWELL\_OUT

See EMMI ***Results*** Requirements Document for details

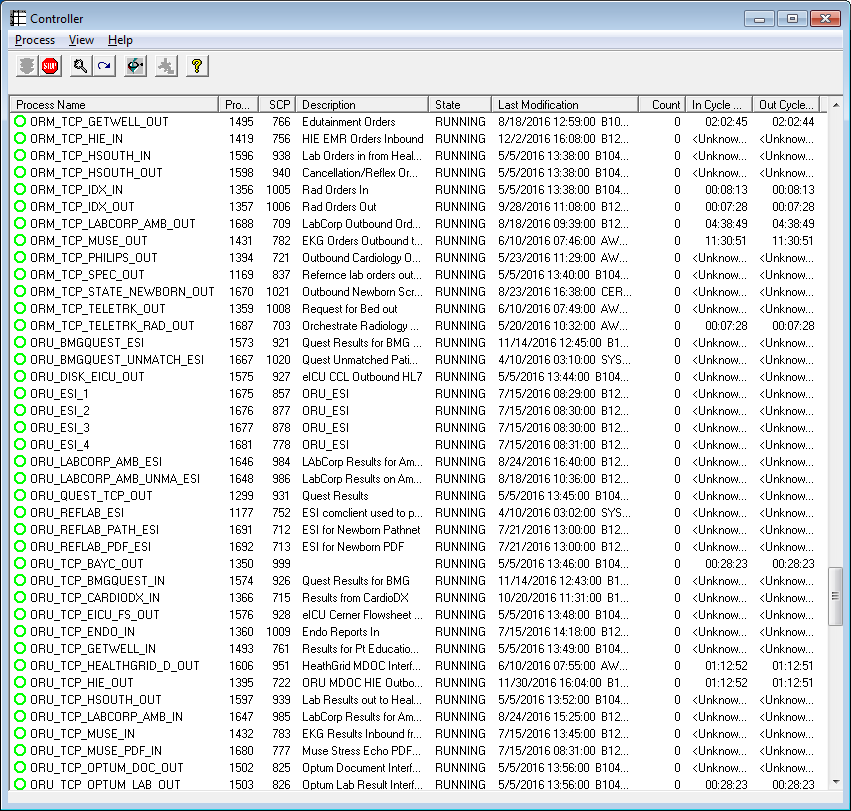
Cerner ***P30***

BMG Video results from EMMI

Comserver: ORU\_TCP\_GETWELL\_OUT

See EMMI ***Results*** Requirements Document for details

### 3.3.6 Outbound BayCare Cerner to Cloverleaf



**C30**

Port Number: 12066

**P30**

Port Number: 12070

# 4. HL7 Messaging

## 4.1 Messaging Format

### 4.1.1 Segments

The segments utilized for the ORM interface are:

MSH

PID

PV1

ORC

OBR

*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 is the messages type necessary for this integration

|  |  |
| --- | --- |
| **Event Type** | **Description** |
| ORM^O01 | BMG Video Order |

### 4.1*.*3 Cloverleaf Configuration Files

Route: orm\_cer\_in\_crt\_T --> orm\_emmi\_out\_T

Process: pat\_ed\_orders

Pre-Proc: tpsAdvHL7Filter.tcl

{ADVFLTR {

{{PATH {{OBR:4.1} {OBR:4.1}}} {VALUE {{\*Emmi\*OFC} {\*EMMI\*OFC}}} {LOGICAL {||}} {GLOB {1 1}} {MATCHDISP CONTINUE} {NOMATCHDISP KILL}}

}

}

{DEBUG 1}

Here we will only accept messages with the OBR-4.2 wildcard match of '\*EMMI\*OFC'. The filter is zero based within a field.

Xlate File: cerner\_emmi\_orm.xlt

Post-Proc: appendZSegment.tcl

### 4.1.4 Cloverleaf Site Location

Site: patient\_ed\_11

**Orders**

**C30**

SITE: **patient\_ed\_11\_p**& THREAD: **orm\_cer\_in** PROCESS: **pat\_ed\_orders**

**P30**

SITE: **patient\_ed\_11\_p**& THREAD: **orm\_cer\_in** PROCESS: **pat\_ed\_orders**

## 4.2 Data Transformation Requirements

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Field Description** | **HL7 Field Loc.** | **Required Y/N** | **Data** | **Length** | **Notes** |
| Encoding Characters  Sending Application  Sending Facility  Receiving Application  Receiving Facility | MSH-2  MSH-3  MSH-4  MSH-5  MSH-6 | Y  Y  Y  Y  Y | ^~\&  BAYCARE  BAYCARE  EMMI  CERNER |  | Hardcoded  Hardcoded  Hardcoded  Hardcoded  Hardcoded |

## 4.3 Sample Messages

**Cerner**

**Outbound Cerner *Order***

MSH|^~\&|HNAM|CERNER|SGA|BAYCARE|20170120103441||ORM^O01|Q2875434800T3597815339||2.3||||||8859/1

PID|1|59769^^^BMGMRN^MRN^CD:1054310291|59769^^^BMGMRN^MRN^CD:1054310291~810008950^^^BayCare CMRN^Community Medical Record Number^CD:1054310291||EMMI^TEST||19570118|F||W|2997 DREW STREET^^CLEARWATER^FL^33759^^Home~none^^^^^^e-mail||(727)467-7777^PRN~(727)467-7777^PRN||ENG|U||2983643^^^BMGFN|213123213|||NOH|||0

PV1|1|O|SGA^^^SGA^^Ambulatory(s)^SGA||||MS006154^Dmiqmu^Lxnwmqfa^F^^^^^BayCare Dr Number|MS020180^Maloney^Timi^D^^^^^BayCare Dr Number||CD:1066006381||||RP||N||A||M|||||||||||||||||||SGA||Active

PV2||S|^TEST VANJA|||||20170119103000||0||||||||||||CONFID|^^6149208

IN1|1|70121500^Medicare Part B^^^Medicare Part B|6704054|MEDICARE B||||||||20170118163512|21001231000000||O|EMMI^TEST^^^^^Current|1|19570118|2997 DREW STREET^^CLEARWATER^FL^33759~none|||0|||||||||||||M||||||||F||||||849567021B

IN2|0|213123213|||||||||||||||||||||||849567021B||||||||||||||||||||||||||||||||||||849567021B||(727)467-7777

IN3|1|849567021B^^^^Authorization|||||||20170118163513|21001231000000

ORC|NW|8761156551^HNAM\_ORDERID|||20||||20170120103425|^Dfkfgfaxn^Uflsf^^^^^^^Personnel||MS006716^Beattie^Martin^N^^^^^BayCare Dr Number|||20170120103440|||Written^Written/Paper/Fax|^Dfkfgfaxn^Uflsf^^^^^^^Personnel

OBR|1|8761156551^HNAM\_ORDERID||VIDOFC9839^V:Emmi-COPDOFC||||||||||||MS006716^Beattie^Martin^N^^^^^BayCare Dr Number||||||20170120103440||CD:2218572245|||1^^0^20170120103400

**Transformed by Cloverleaf outbound to EMMI:**

MSH|^~\&|BAYCARE|BAYCARE|EMMI|CERNER|20170120103441||ORM^O01|Q2875434800T35978153|P|2.3||||||8859/1

PID|||810008950^CPI||EMMI^TEST||19570118|F|||||(727)467-7777|||||2983643^^^BMGFN

PV1||O|SGA^^^SGA^^Ambulatory(s)^SGA||||||||||||||||||||||||||||||||||||SGA

ORC|NW|8761156551

OBR|1|8761156551||VIDOFC9839^V:Emmi-COPDOFC||||||||||||MS006716^Beattie^Martin^N^^^^^BayCare Dr Number

ZEM|1|Client ID|AED69B43-892A-4F19-97D1-063C2029B83D

**Cerner Outbound Order:**

MSH|^~\&|HNAM|CERNER|SGA|BAYCARE|20170120103440||ORM^O01|Q2875434799T3597815338||2.3||||||8859/1

PID|1|59769^^^BMGMRN^MRN^CD:1054310291|59769^^^BMGMRN^MRN^CD:1054310291~810008950^^^BayCare CMRN^Community Medical Record Number^CD:1054310291||EMMI^TEST||19570118|F||W|2997 DREW STREET^^CLEARWATER^FL^33759^^Home~none^^^^^^e-mail||(727)467-7777^PRN~(727)467-7777^PRN||ENG|U||2983643^^^BMGFN|213123213|||NOH|||0

PV1|1|O|SGA^^^SGA^^Ambulatory(s)^SGA||||MS006154^Dmiqmu^Lxnwmqfa^F^^^^^BayCare Dr Number|MS020180^Maloney^Timi^D^^^^^BayCare Dr Number||CD:1066006381||||RP||N||A||M|||||||||||||||||||SGA||Active

PV2||S|^TEST VANJA|||||20170119103000||0||||||||||||CONFID|^^6149208

IN1|1|70121500^Medicare Part B^^^Medicare Part B|6704054|MEDICARE B||||||||20170118163512|21001231000000||O|EMMI^TEST^^^^^Current|1|19570118|2997 DREW STREET^^CLEARWATER^FL^33759~none|||0|||||||||||||M||||||||F||||||849567021B

IN2|0|213123213|||||||||||||||||||||||849567021B||||||||||||||||||||||||||||||||||||849567021B||(727)467-7777

IN3|1|849567021B^^^^Authorization|||||||20170118163513|21001231000000

ORC|NW|8761156225^HNAM\_ORDERID|||20||||20170120103425|^Dfkfgfaxn^Uflsf^^^^^^^Personnel||MS006716^Beattie^Martin^N^^^^^BayCare Dr Number|||20170120103440|||Written^Written/Paper/Fax|^Dfkfgfaxn^Uflsf^^^^^^^Personnel

OBR|1|8761156225^HNAM\_ORDERID||VIDOFC111^V:Emmi-BackPain\_AcuteLowOFC||||||||||||MS006716^Beattie^Martin^N^^^^^BayCare Dr Number||||||20170120103440||CD:2218572245|||1^^0^20170120103400

# 

# 5. Testing

## 5.1. Unit Testing Scenarios

|  |  |
| --- | --- |
| **Scenario** | **Expected Result** |
| See **Vanja Karabašić** |  |
|  |  |
|  |  |

## 5.2 Integrated Testing Scenarios

|  |  |
| --- | --- |
| **Scenario** | **Expected Result** |
| See **Vanja Karabašić** |  |
|  |  |

## 5.3 Testing Approvals

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

2/2/2017 per **Vanja Karabašić**

Just to let everyone know that after extensive testing of the BMG Orders and EMMI Integration, we have completed the testing and will be ready to move it into production two weeks after education is sent out. The education is still pending but should be completed soon, subsequently we will decide on a Go-Live date once the education has been created.

We have decided to keep the following workflow for the orders:

**Orders are placed:**

C:\Users\b104994\AppData\Local\Temp\msohtmlclip1\02\clip_image001.png

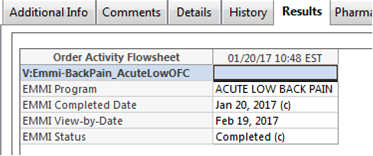
**Order are pending to be watched by the patient:**

C:\Users\b104994\AppData\Local\Temp\msohtmlclip1\02\clip_image002.png

**Patient completed watching video/orders:**

C:\Users\b104994\AppData\Local\Temp\msohtmlclip1\02\clip_image003.png

**Results display:**



## 5.4 Piloting

NA

## 5.5 Approvals - Please see Monica Bousbar in the Lab

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

# 6. Deployment / Implementation Model

***GO LIVE*** xx/xx/2017

# 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