**Varian Radiation Oncology to Soarian Scheduling SIU Requirements**

**Version 1.0**

**Prepared By: Levy Lazarre**

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# **Document Control**

## Resources

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## Project Distribution List

## Document Version Control

|  |  |  |  |
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|  |  |  |  |

# 1. Introduction

## 1.1 Purpose

The purpose of this document is to describe the SIU Interface going from Aria (Varian Radiation Oncology) to Soarian Scheduling.

Varian Aria is an enterprise application used in the treatment of oncology patients (medical and radiation oncology) by doctors, nurses, and RT technicians for the management and documentation of infusion and radiation therapy .

## 1.2 Project Scope

The scope of this project is to facilitate the transmission of patient scheduling information from the Varian Oncology module to Soarian Scheduling via an HL7 SIU interface. It is important to note that the schedules sent from Aria to Soarian are not ‘live’ schedules in Soarian in the sense that they cannot be modified or manipulated in any way in Soarian. Instead, they are “placeholders”, “skeleton” schedules, designed solely to help keep track of the patients’ availability for other appointments and avoid time conflicts.

## 1.3 Terminology Standards

### 1.3.1 Acronyms

**SIU** – Scheduling Information, Unsolicited

**HIS** – Health Information System, the source and keeper of patient demographic data

**CPI** – Corporate Patient Identifier. A high level internal patient identifier that is unique across BayCare facilities.

### 1.3.2 Glossary

**ADT Event** – Trigger event associated with a patient event: registration, admission, discharge, transfer, update…

## 1.4 Document References

1. IEM Scheduling Interface Guide.pdf

2. Soarian\_Scheduling\_Inbound\_Appt\_Interface\_Manual.pdf

# 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

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 | MSH.4 (Sending Facility) must be valued by Aria. This value is necessary in order for the SIU message to be properly processed by Soarian. | Aria will extract the 3-character facility code for the patient from stored ADT in the database. Cloverleaf will transform this friendly facility code to Soarian’s internal value via translation table, for example MPH 🡪 80A0 |
| FR.2018.2.0 | Aria must send the patient CPI in PID.2. The CPI is required by Soarian Scheduling in order to process SIU messages for patients who have never been scheduled in the Soarian scheduling database. | Cloverleaf will receive the CPI in PID.2 and move it to PID.3 with proper formatting for Soarian. |
| FR.2018.3.0 | AIS.3 = RADONC | Soarian will require the value of “RADONC” in AIS.3 for the Aria placeholder, so it’s hardcoded in Cloverleaf. |
| FR.2018.4.0 | AIL.3 locations | Soarian will require pre-built locations in AIL.3 so they are obtained by table lookup in Cloverleaf, based on the MSH.4 facility code. |
| FR2018.5.0  FR2018.6.0 | AIP.3 resources  Send both the patient’s MRN and CPI in PID.3 | Soarian will require pre-built resources in AIP.3 so they are obtained by table lookup in Cloverleaf, based on the MSH.4 facility code.  Soarian is expecting both the MRN and CPI in PID.3, properly formatted. Cloverleaf will add the appropriate identifier types so that the two identifiers can be properly distinguished. |
| FR.2018.7.0 | SCH.7 = XRT (department code) | Soarian will require the value of “XRT” in SCH.7 (Appointment Reason) for the Aria placeholder, so it’s hardcoded in Cloverleaf. |

|  |  |  |
| --- | --- | --- |
| FR.2018.8.0 | Change Varian event codes S16 (Discontinuation), S17 (Deletion) and S26 (No show) to S15 (Cancellation) for Soarian | Soarian Scheduling does not natively support those event codes. They must all be changed to the generic S15 event code by Cloverleaf. |

## 3.2 Non-Functional Requirements

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

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

### 3.3.1 Inbound to the BayCare Cloverleaf from VARIAN

* TCP MLLP Server Connection

### 3.3.2 Outbound to Soarian Scheduling

* TCP MLLP Client Connection

# 4. HL7 Messaging

## 4.1 Messaging Format

### 4.1.1 Segments

The segments utilized for this interface are:

MSH

SCH - Scheduling Activity Information

NTE

PID

[PV1]

RGS - Required by HL7 to preserve the message structure; Interface does ***not*** use

AIS - Appointment Information, Service

AIL - Appointment Information, Location Resource

AIP - Appointment Information, Personnel Resource

*Message Construction Notes:*

*[Square Brackets] – Optional*

*{Curly Brackets} – Repeatable*

*MSH – Message Header*

*PID – Patient ID segment*

*PV1 – Patient Visit segment*

*NTE – Note segment*

### 4.1*.*2 Messaging Event Types

Below are the messages types necessary for this integration

Supported SIU Events

|  |  |
| --- | --- |
| **Event Type** | **Description** |
| S12 | Notification of new appointment booking |
| S13 | Notification of Appointment Rescheduling |
| S14 | Notification of Appointment Modification |
| S15 | Notification of Appointment Cancellation |

### 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.

HL7 Variants: 2.6 Soarian and 2.3 varian

Xlate: aria\_soars\_siu.xlt

TCL Script: No message filter used in this interface

### 4.1.4 Cloverleaf Site Location

Production = varian\_26\_p, soars\_siu\_29\_p

Test = varian\_26, soars\_siu\_29

## 4.2 Data Transformation Requirements

| **Field Description** | **HL7 Field Loc.** | **Required R/O/C** | **Data Type** | **Length** | **Notes** |
| --- | --- | --- | --- | --- | --- |
| **Message Header Segment** | **MSH** | **R** |  |  | PathCopy |
| Sending Application | MSH.3 | C |  |  | Hard code “GENAPPT” |
| Sending Facility | MSH.4 | R |  |  | Table lookup - **cer\_soars\_fac.tbl** |
| Receiving Application | MSH.5.1 | O |  |  | Hardcode “SOARIAN” |
| Receiving Application | MSH.5.2 | O |  |  | Hardcode “SCHEDULING” |
| Receiving Facility | MSH.6 | O |  |  | Table lookup of MSH.4 - **cer\_soars\_fac.tbl** |
| Date/Time of Message | MSH.7 | Y |  |  | Copy and append “00” for seconds |
| Message Type | MSH.9 | Y |  |  | **Change Varian event codes S16 (Discontinuation), S17 (Deletion) and S26 (No show) to S15 (Cancellation)** |
| **Scheduling Activity Information Segment** | **SCH** | **R** |  |  |  |
| Placer appointment ID – entity ID | SCH.1.1 | Y |  |  | Copy |
| Placer appointment ID –namespace ID | SCH.1.2 | Y |  |  | Hardcode “HNAMSCHEVID” |
| Filler appointment ID | SCH.2.1 | Y |  |  | Copy |
| Filler appointment ID | SCH.2.2 | Y |  |  | Hardcode “HNAMSCHEVID” |
| Appointment Reason | SCH.7 | Y |  |  | Hardcode “**XRT**” |
| Appointment Duration | SCH.9 | Y |  |  | Copy |
| Appointment Duration units | SCH.10 | Y |  |  | Copy |
| Appointment Timing Quantity – start date/time | SCH.11.4 | Y |  |  | Copy - Remove seconds |
| Placer Contact Person – Id Number | SCH.12.1 | O |  |  | Copy |
| Placer Contact Person – Family Name | SCH.12.2 | O |  |  | Copy |
| Placer Contact Person – Given Name | SCH.12.3 | O |  |  | Copy |
| Entered By Person | SCH.20 | O |  |  | Copy |
| **Patient Identifier Segment** | **PID** | **R** |  |  |  |
| Set ID - PID | PID.1 | O |  |  | Copy |
| Patient ID – repetition 1 | PID.3 ~1 | R |  |  | Copy the CPI from inbound PID.2 to subfield 1.  Hardcode “900000” to subfield 4.  Hardcode “PI” to subfield 5. |
| Patient ID - repetition 2 | PID.3 ~2 | R |  |  | Copy the MRN from inbound PID.3 to subfield 1.  Hardcode “504” to subfield 4.  Hardcode “MR” to subfield 5. |
| Patient Name | PID.5 | R |  |  | PathCopy |
| Name Type Code | PID.5.7 | O |  |  | Hardcode “Current” |
| Date/Time of Birth | PID.7 | R |  |  | Copy |
| Gender | PID.8 | R |  |  | Copy |
| Race | PID.10 | O |  |  | Copy |
| Address | PID.11 | O |  |  | Copy |
| Marital Status | PID.16 | O |  |  | Copy |
| Patient Account Number | PID.18 | O |  |  | Copy (however generally not available from Aria) |
| **Patient Visit Segment** | **PV1** | **R** |  |  |  |
| Patient Class | PV1.2 | O |  |  | Copy |
| **Appointment Information Segment** | **AIS** | **C** |  |  | Not required for Cancel Appointment messages (S15, S16, S17)  **ITERATE** |
| Set ID | AIS.1 | O |  |  | Copy |
| Universal service Number | AIS.3 | R |  |  | Hardcode “**RADONC**” |
| Start Date/Time | AIS.4 | R |  |  | Copy – Remove seconds |
| Duration | AIS.7 | R |  |  | Copy |
| Units | AIS.8 | R |  |  | Copy |
| **Appointment Information – Location Resource Segment** | **AIL** | **R** |  |  |  |
| Location Resource ID | AIL.3 | R |  |  | Table lookup on inbound MSH.4  **aria\_soars\_siu\_locations.tbl** |
| **Appointment Information – Personnel Resource Segment** | **AIP** | **R** |  |  |  |
| Personnel Resource ID | AIP.3 | R |  |  | Table lookup on inbound MSH.4  **aria\_soars\_siu\_resources.tbl** |

## 4.3 Sample Messages

Inbound to Cloverleaf from Varian: (Reschedule Outpatient)

MSH|^~\&|VARIAN|SJH|SORIAN||201704171701||**SIU^S14**|000004627|P|2.5.1|||AL|NE||ASCII|||

SCH|2017041717001040085|2017041717001040085||||SC^Scheduled|||15|M|^^^20170419160000^20170419161500||||||||||||||||

PID|1|810015530|7000016334^^^2||Smith^test||||||^^^^^^^^^|||||||||||||||||||N|||||||||

PV1||O|^^^SJH Radiation Therapy|||||||||||||||100||||||||||||||||||||||||||||||||||

RGS|1||

AIL|1||CL23EX^^^^^^^^CL23EX|||20170419160000|||15|M||

AIS|1||^Daily Treatment|20170419160000|||15|M||||

Outbound from Cloverleaf to Soarian: (Reschedule Outpatient)

MSH|^~\&|GENAPPT|Z0A5|SOARIAN^SCHEDULING|Z0A5|20170417170100||**SIU^S14**|000004627|P|2.5.1|||AL|NE||ASCII

SCH|2017041717001040085^HNAMSCHEVID|2017041717001040085^HNAMSCHEVID|||||**XRT**||15|M|^^^201704191600

PID|1||810015530^^^900000^PI~7000016334^^^504^MR||Smith^test^^^^^Current

PV1||O

**AIS**|1||**RADONC**|201704191600|||15|M

AIL|||**SJH**

AIP|||**JHEXAMRM1**

Inbound to Cloverleaf from Varian: (Delete Appointment)

MSH|^~\&|VARIAN|MPH|SOARIAN||201712081518||SIU^S17|000005091|P|2.5.1|||AL|NE||ASCII|||

SCH|2017120815171040087|2017120815171040087||||CA^Deleted|||||||||||||||||||||

PID|1|810015539|7000016337^^^2||OCTOBER^TESTARIA||19800101|F||3|^^^^^United States^HM^^^|||||Separated||||||||||||||N|||||||||

PV1||O|""^""^""^""^^^^^""|||||||||||||||100|""|""||||||||||||||||||||||||20171002^D|""|||||||""

RGS|1||

Outbound from Cloverleaf to Soarian: (Delete Appointment changed to Cancel Appointment)

MSH|^~\&|GENAPPT|80A0|SOARIAN^SCHEDULING|80A0|20171208151800||**SIU^S15**|000005091|P|2.5.1|||AL|NE||ASCII

SCH|2017120815171040087^HNAMSCHEVID|2017120815171040087^HNAMSCHEVID|||||**XRT**

PID|1||810015539^^^900000^PI~7000016337^^^504^MR||OCTOBER^TESTARIA^^^^^Current||19800101|F||3|^^^^^United States^HM

PV1||O

AIL|||**LYKES**

AIP|||**MPEXAMRM1**

**Go Live Date for Aria SIU interface: April 18, 2018**

# Appendix A: Risks and Concerns

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Name** |  |  | | |  |  |  |  |
| **Number** | **Risk / Concern** | **Comment** | **Mitigation** | | |  |  |  |
| RC.2018.1.0 | AIL.3 and AIP.3 (locations and resources ) tables getting out of sync with Soarian | Integration Team must be notified when values are added/deleted/modified in Soarian so that the Cloverleaf tables can be updated. | | Reminder will be given to Application Analysts. | |  |  |  |

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

* End of document