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Integration Guide for PMS Vendors

Patient Demographic Synchronization and
Patient Appointment Schedule
Version 0.6

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Version Control

Version #	Revision Date	Revised By	Comments
0.1	2009-01-22	Angela Israilov	Initial draft
0.2	2009-01-29	Angela Israilov	Added Patient Appointment Schedule
0.3	2009-02-13	Angela Israilov	Updated SIU standard
0.4	2009-03-16	Angela Israilov	Updated SIU standard with RGS, AIS, AIG, and AIL, AIP segments
0.5	2009-04-02	Angela Israilov	Made corrections to ADT and SIU tables per group review
0.6	2010-03-03	Angela Israilov	• Updated document with ADT^A01 and SIU^S12 data structure • Updated ADT^A01 table with PD1 (Primary Care Physician info) and NK1 (Patient's Next of Kin info) segments • Updated CSV table with additional data elements that consist of primary care physician and next of kin info. • Added sample HL7 ADT^A08 , sample SIU^S12, and sample CSV (patient demographics initial load) messages

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1. Business Solution

1.1. Overview

The purpose of this document is to describe the scope of the Covisint integration of the Practice Management System vendors (PMS) for patient synchronization and appointment schedules. PMS systems must be compliant with Covisint Standard Patient Synchronization interface when adding and/or updating patient demographics and compliant with Covisint Standard Appointments Schedule interface when sending on patient appointment schedule.

1.2. Initial Batch Load of Patient Demographics

Covisint encourages the initial loading of data from PMS systems to the Covisint Healthcare Portal using the HL7 format. When PMS systems are not able to support the initial extract in this format, Covisint will request the Comma Separated Values (CSV) format described in detail later in this document. Covisint will do an initial upload of historical patient demographic records sent from a PMS system into third-party vendor applications. Data loaded through the CSV format is based on a manual process and does not return HL7 acknowledgement (ACK) messages.

1.3. Patient Synchronization Solution

Once the initial load of patient records for the practice is completed, the PMS systems will send real-time Add and Update HL7 ADT messages to Covisint Connect. Covisint provides a patient synchronization solution that allows PMS systems to send patient demographic messages on behalf physician practices to Covisint Connect, which will be forwarded on to any vendor application in which the physician is signed up.

1.4. Appointment Schedules

Covisint Connect will accept HL7 Patient Appointment Schedules (SIU) from cooperative PMS vendors and/or non-cooperative SCOUT interfaces. These messages will go to the Health Information Exchange (HIE) profile. Covisint will schedule information and route or forward the messages to an end recipient if requested Appointment Schedule data will be updated on an on-going basis through received HL7 Schedule Information Unsolicited (SIU) transactions.
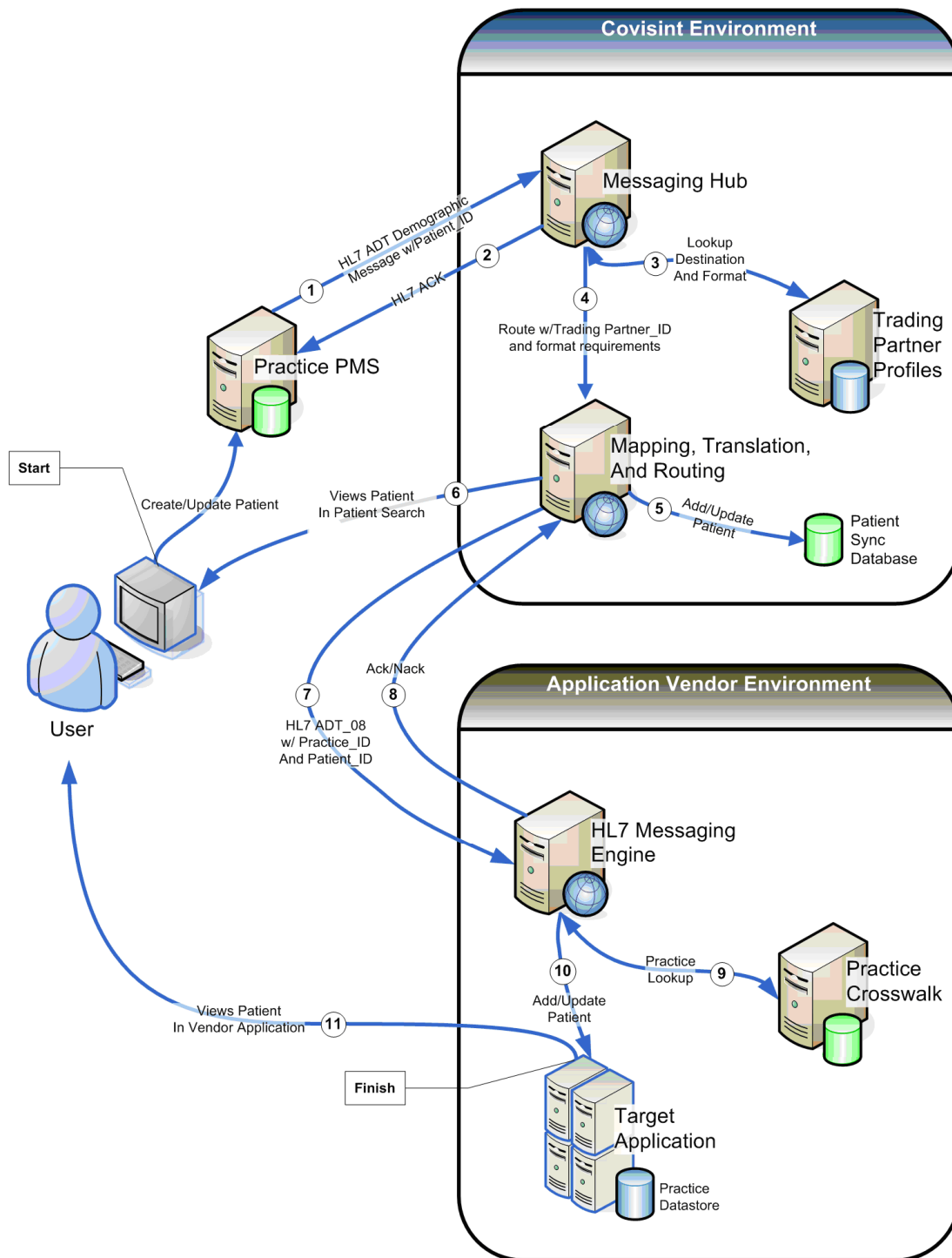
2. Patient Demographic Synchronization Overview

Covisint Environment

Messaging Hub

HL7 ADT Demographic
Message w/Patient_ID

1

2 HL7 ACK

3 Lookup
Destination
And Format

Trading
Partner
Profiles

Practice PMS

4 Route w/Trading Partner_ID
and format requirements

Mapping, Translation,
And Routing

5 Add/Update
Patient

Patient
Sync
Database

Start

Create/Update Patient

Views Patient
In Patient Search **6**

User

Ack/Nack

7 **8**

HL7 ADT_08
w/ Practice_ID
And Patient_ID

Application Vendor Environment

HL7 Messaging
Engine

10 **9** Practice
Lookup

Practice
Crosswalk

Views Patient
In Vendor Application **11**

Add/Update
Patient

Finish

Target
Application

Practice
Datastore

Figure (1) – Patient Demographic Synchronization Process Flow

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1. **Practice Management System: (PMS) Sends Demographic Message** – When the user adds or updates patient demographic information in the PMS system, a real-time HL7 ADT message is sent to the Covisint Messaging Hub.

2. **Covisint Returns HL7 Transmission Level ACK Message** – Upon receipt, Covisint returns an acknowledgement message back to the PMS system.

3. **Trading Partner Profile Lookup** – Covisint retrieves trading partner information (e.g., routing rules, transformation requirements).

4. **Message Routed by Trading Partner ID** – Covisint routes the message to the trading partner ID that uniquely identifies the source practice.

5. **Patient Synchronization Database Add/Update** – Covisint stores patient demographic information discretely by practice domain.

6. **User Views Patient in IPO Portal Portlet** – Users can access patient demographic information, from the message via the UP portal (e.g., Patient Search portlet, Patient Synchronization Status portlet).

7. **Covisint Sends Demographic Message to Vendor Application** – An HL7 ADT_A08 message is sent to the vendor application per vendor mapping requirements

8. **Vendor Application Returns ACK** – Vendor application returns acknowledgement to Covisint.

9. **Vendor Application Trading Partner ID Crosswalk** – Vendor application performs trading partner ID crosswalk to their internal practice ID.

10. **Vendor Application Add/Update** – Vendor application adds/updates the patient information in their application.

11. **User Views Patient Record in Vendor Application** – When the user accesses the vendor application, the patient record is pre-populated, or updated. No user action is required to create/update the patient record in the vendor application.

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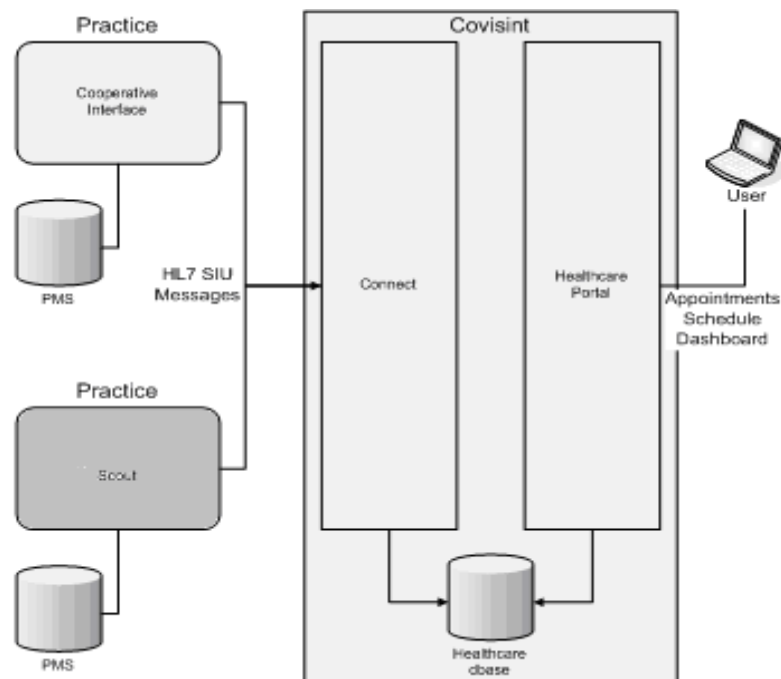
3. Patient Appointment Schedule Overview

Figure (2) – Patient Appointment Schedule Process Flow

- **Practice Management System: (PMS) Sends Patient Appointment Schedule Message** – When the user adds or updates patient appointment schedule information in the PMS system, a real-time HL7 SIU message is sent to the Covisint Messaging Hub.

- **Covisint Returns ACK Message** – Upon receipt, Covisint returns an acknowledgement message back to the PMS system.

- **Health Information Exchange** (**HIE)** – All trading partners will communicate through a central HIE trading partner. There is no point-to-point trading partner relationship.

- **Practice's Cooperative and Covisint Non-Cooperative SCOUT Interfaces** – Patient appointment schedule solution supports both external vendors and Covisint's Hyper Product Interfaces to extract schedule information and deliver it to Covisint Connect.

- **User Views Patient Appointment Schedule** – Users can access patient appoint schedule information from the message via the IPO Portal (e.g., Appointment Schedule portlet). In order to use this service, the following conditions must be met:

  o The practice has signed up and been approved for the Appointment Schedule service package.

  o Practice's PMS system has been integrated with the Covisint Healthcare Portal.

  o Practice's PMS system has Appointment Schedule functionality/module installed.

- **Patient Appointment Schedule Portlet** – Provides a snapshot view of patient appointment schedules for a particular physician's office. The service allows practice users to conveniently view patient appointment schedules, select patients, and access integrated Covisint Healthcare Portal services such as Patient Dashboard or Single Sign-On to patients within participating applications.