
eHealth Information Exchange

Trading Partner Onboarding Packet

ADT Integration Project

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1 Program Overview

The Tennessee (TN) Division of Health Care Finance & Administration (HCFA) has approved the eHealth Information Exchange to establish an Information Exchange (IE) in support of its strategic plan to support the TennCare (Tennessee Medicaid) Health Care Innovation Initiative to assist in the transformation of both cost and quality of health care delivery for TennCare Medicaid recipients. In order to provide more timely feedback to prospective payers and to improve patient and state interaction, the eHealth Information Exchange will focus on building a content rich data structure, interfaces and communication tools which provide a simplified and more user-friendly approach for data analytics. The beneficiaries of this IE Project will be existing and future payers, providers, and the state. HCFA intends to utilize its architecture and platform for communicating new developments, data needs, supporting the processing and sharing of patient level clinical and financial data and other industry specific information as the IE matures. Hospitals that are active members of the Tennessee Hospital Association (THA) will coordinate their feeds through THA for delivery to TennCare.

2 Project Overview

Office of eHealth Information Exchanges (OeHI), in coordination with TennCare, will interface directly with non-THA member hospitals throughout the state to enable the processing of the hospital Admission, Discharge, and Transfer (ADT) data. ***If you are a member of the Tennessee Hospital Association, your ADT feed will be provided by THA and it is not necessary for your organization to establish a direct interface connection to TennCare.***

The first application that will utilize this ADT data is the Altruista Care Coordination product with future applications the state has planned will follow. The ADT information will assist patients' primary care providers (PCPs) in coordinating patient-centered care. The project focus is to collect and utilize the ADT data for potentially reducing hospital re-admissions, resulting in potential healthcare savings.

The intent of this initiative is to establish an effective program that imposes greater discipline on IE operations to seize the following improvement opportunities:

- ◆ Formalize the eHealth services to support the logistics of building a state IE.
- ◆ Establish Health Level 7 (HL7), ADT infrastructure requirements to support the necessary data from initial inpatient Medicaid admission status through patient discharge.
- ◆ Initial support the Altruista Care Coordination Application by passing eligible hospital ADTs, and confirming PCP and Managed Care Organizations (MCO) relationships.
- ◆ Initial target is to have ADT data from select trading partners by mid-2016. This date corresponds with the date that Altruista is to begin their implementation efforts.
- ◆ In a later phase, establish dashboards and other communication tools to help visually communicate the value of the IE to others.
- ◆ Improve communications with trading partners to optimize IE service delivery.

3 TennCare- Trading Partner Connectivity

Introduction:

In order to receive demographic and clinical data from trading partners, TennCare will establish connectivity with each hospital or health system. The TennCare eHealth Information Exchange involves establishing an exchange infrastructure with its provider community and one of the key goals for this project is to support selected HL7 ADT transactions.

Based on the initial program goals, TennCare has identified a list of transactions being supported in the initial phase. As the program matures, we will ask our trading partners to expand their submission of clinically significant HL7 data. The following may be updated on a periodic basis and TennCare would communicate the changes to its trading partner appropriately.

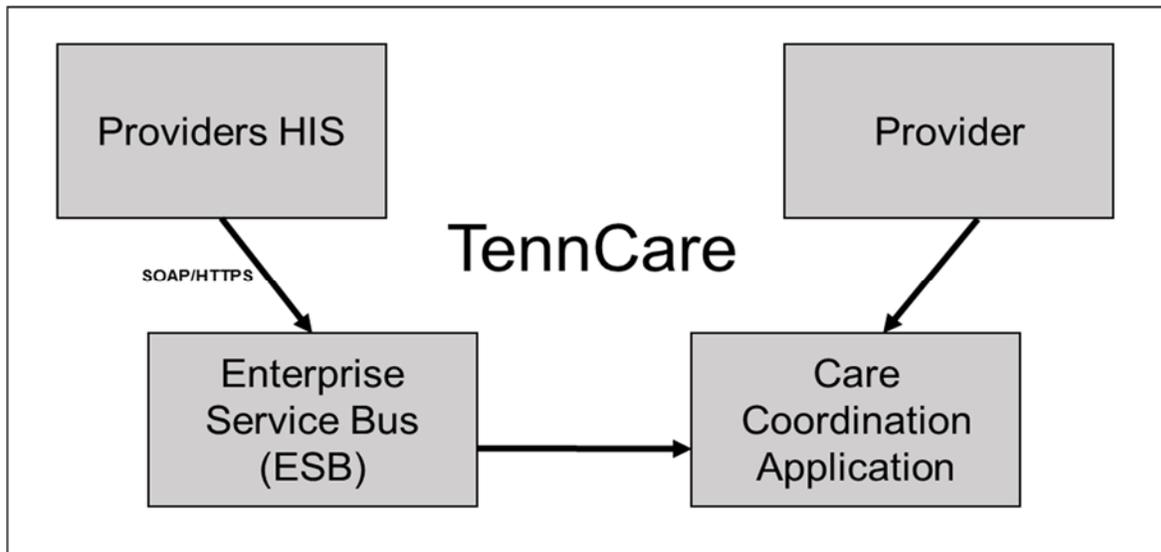
Provider Requests:

- ◆ Providers need to configure their Interface Engine to send HL7 messages over HTTPS to TennCare using web services
- ◆ Providers need to send the HL7 messages using either version 2.3.1 or 2.5.1.
- ◆ Providers are requested to send the following HL7 messages:
 - A01 Admit Visit Notification
 - A02 Transfer a patient
 - A03 Discharge/end visit
 - A04 Register a patient
 - A05 Pre-admit a patient
 - A06 Change an outpatient to inpatient
 - A08 Update patient information
 - A11 Cancel Admit/Visit notification
 - A12 Cancel Transfer
 - A13 Cancel discharge/end visit
- ◆ Providers are requested to filter for TennCare Medicaid patients only
- ◆ Providers need to send ADT message as close to real-time as possible
- ◆ Providers will receive an HL7 acknowledgement ACK or NACK as appropriate
- ◆ Providers are being asked to monitor returned acknowledgements and web service traffic and resubmit ADTs if a NACK is sent

TennCare Responsibilities:

- ◆ Support HL7 message transmission and establish connectivity with the provider organization
- ◆ Convey acknowledgements (ACK or NACK) as appropriate
- ◆ Perform monthly maintenance with scheduled downtimes occurring twice per month on the second and fourth Saturdays from 5:00 PM through 12:00 AM

High level architecture for this connectivity mechanism is given below.



4 Transaction Error Handling

From Provider/Hospital/Facility Perspective

There are occasions where connectivity may be unavailable and when that occurs error messages will be communicated back to the sending system. If the data fails to enter TennCare's inbound service the submitting facility will receive one of the following HTTP messages after a failure to communicate with the state system.

- ◆ 403 Access Denied – i.e. resubmit authentication
- ◆ 404 Server Not Found – i.e. server is temporarily down, resubmit later
- ◆ 501 Not Implemented – i.e. not currently available, resubmit later
- ◆ 502 Bad Gateway/Proxy – i.e. server is acting as a proxy and there are issues further up the connectivity chain, resubmit later
- ◆ 503 Service Unavailable – i.e. service is down, resubmit later

When the facility is notified of an unsuccessful transmission the expectation is that the facility will resubmit. Successful transmissions will receive an HTTP acknowledgement.

5 Project Team Contact Details

5.1 Project Resources

Name	Role	Contact Information
Wesley McRae	Clinical Technical Consultant First level of contact for onboarding and technical support.	Wesley.McRae@tn.gov 615.507.6353 Central Time Zone
Janet McRae	Clinical Technical Consultant Second level of contact for onboarding and technical support.	Janet.McRae@tn.gov 615.507.6623 Central Time Zone
Andrea M. Renner	Project Manager	Andrea.M.Renner@tn.gov 615.253.5438 Central Time Zone
Erik Bock	Technical Architect	Erik.Bock@tn.gov 615.507.6049 Central Time Zone
Don Oaks	EDI Manager	Don.Oaks@tn.gov 615.507.6334 Central Time Zone
Hugh Hale	Project Sponsor	Hugh.Hale@tn.gov 615.507.6339 Central Time Zone

6 Reference Documents

This section includes documents for use during the Onboarding process.

6.1 Participant Onboarding Questionnaire

To assist the state in better understanding your technology, please download the latest version of the eHealth Information Exchange questionnaire from the eHealth overview webpage. This document intends to gather technical details from a provider prior to planning the connectivity and exchange of data.

6.2 Technical Specification for HL7 Messaging

In order for TennCare to support integration programs the incoming HL7 files sent by providers need to conform to certain standards. This facilitates the efficient usage of demographic, clinical and financial data within TennCare systems. Please download the latest version of our technical specifications from the eHealth overview page. Feel free to reach out to our team if you have any questions.

6.3 User ID and Password

Each trading partner will have its own unique ID and Password for communicating with the state IE. This ID and Password are unique to the IT Department and will be used for data transmission to the state. The eHealth team will work with Provider Services to assist in the process for establishing this user ID and password. Details will be discussed at the as the registration has been completed and communicated to the participant.

When testing begins the team will provide participants with the URL for connectivity, finalization of establishing the ID and Password, testing information, and the final URL for production.

7 Appendix A

Memo - Option to Opt In/Out for Patients



MEMO

Date: July 25, 2016

To: Mary Moewe, Office of E-Health Initiatives

From: Andrei Dumitrescu, Privacy Officer

Subject: Use of authorizations in sharing of PHI for IE purposes

Question:

Whether individual HIPAA authorizations are necessary before a covered entity can share PHI with TennCare for IE purposes?

Answer:

No, as the HIPAA Privacy Rule generally allows covered entities to use or disclose PHI for treatment, payment and healthcare operations without prior individual authorization.

Background and Analysis:

The Tennessee Information Exchange (TN IE) is designed to facilitate the exchange of electronic health record information among organizations within the region and community and across hospital systems. TN IE provides the capability to electronically transmit clinical information among disparate healthcare information systems with the goal of facilitating access to clinical data to provide improvements in patient care, including timeliness, efficiency and effectiveness of care.ⁱ

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule requires a covered entity, such as a provider, hospital or health plan, to have in place appropriate administrative, technical, and physical safeguards to protect the privacy of protected health information (PHI), including reasonable safeguards to protect against any intentional or unintentional use or disclosure in violation of the Privacy Rule.ⁱⁱ

The HIPAA Privacy Rule requires the individual's prior authorization for any use or disclosure of protected health information not otherwise expressly permitted or required by the Privacy Rule. Covered entities are generally not required to obtain individual consent prior to use and disclosure of PHI for treatment, payment, or health care operations purposes.ⁱⁱⁱ While the Privacy Rule allows covered entities to choose whether to obtain individual consent in order to use or disclose PHI for treatment, payment and healthcare operations, TennCare has adopted an opt-out model with respect to sharing through TN IE networks, and individual choice is not required before information is shared.

Thus, to the extent the primary purpose of the TNIE electronic health information exchange is to facilitate the transmittal of clinical information among health care providers and insurers for the purposes of treatment, payment or healthcare operations, individual HIPAA authorizations for TennCare enrollees are not necessary prior to covered entities exchanging information. Nevertheless, if the purpose of a covered entity's sharing PHI through the TNIE is for a purpose not otherwise permitted by the Privacy Rule, individual HIPAA authorizations may be required.



Andrei Dumitrescu
Office of General Counsel, Privacy Officer

8 Appendix B Code Sets

Code Sets	
RACE	
ID(String)	Name(String)
1002-5	American Indian or Alaska Native
2028-9	Asian
2054-5	Black or African American
2076-8	Native Hawaiian or Other Pacific Islander
2106-3	White
2131-1	Other Race
RELIGION	
ID(String)	Name(String)
ABC	Christian: American Baptist Church
AGN	Agnostic
AME	Christian: African Methodist Episcopal Zion
AMT	Christian: African Methodist Episcopal
ANG	Christian: Anglican
AOG	Christian: Assembly of God
ATH	Atheist
BAH	Baha'i
BAP	Christian: Baptist
BMA	Buddhist: Mahayana
BOT	Buddhist: Other
BTA	Buddhist: Tantrayana
BTH	Buddhist: Theravada
BUD	Buddhist
CAT	Christian: Roman Catholic
CFR	Chinese Folk Religionist
CHR	Christian
CHS	Christian: Christian Science
CMA	Christian: Christian Missionary Alliance
CNF	Confucian
COC	Christian: Church of Christ
COG	Christian: Church of God
COI	Christian: Church of God in Christ
COL	Christian: Congregational
COM	Christian: Community

COP	Christian: Other Pentecostal
COT	Christian: Other
CRR	Christian: Christian Reformed
EOT	Christian: Eastern Orthodox
EPI	Christian: Episcopalian
ERL	Ethnic Religionist
EVC	Christian: Evangelical Church
FRQ	Christian: Friends
FWB	Christian: Free Will Baptist
GRE	Christian: Greek Orthodox
HIN	Hindu
HOT	Hindu: Other
HSH	Hindu: Shaivites
HVA	Hindu: Vaishnavites
JAI	Jain
JCO	Jewish: Conservative
JEW	Jewish
JOR	Jewish: Orthodox
JOT	Jewish: Other
JRC	Jewish: Reconstructionist
JRF	Jewish: Reform
JRN	Jewish: Renewal
JWN	Christian: Jehovah's Witness
LMS	Christian: Lutheran Missouri Synod
LUT	Christian: Lutheran
MEN	Christian: Mennonite
MET	Christian: Methodist
MOM	Christian: Latter-day Saints
MOS	Muslim
MOT	Muslim: Other
MSH	Muslim: Shiite
MSU	Muslim: Sunni
NAM	Native American
NAZ	Christian: Church of the Nazarene
NOE	Nonreligious
NRL	New Religionist
ORT	Christian: Orthodox
OTH	Other
PEN	Christian: Pentecostal
PRC	Christian: Other Protestant

PRE	Christian: Presbyterian
PRO	Christian: Protestant
QUA	Christian: Friends
REC	Christian: Reformed Church
REO	Christian: Reorganized Church of Jesus Christ-LDS
SAA	Christian: Salvation Army
SEV	Christian: Seventh Day Adventist
SHN	Shintoist
SIK	Sikh
SOU	Christian: Southern Baptist
SPI	Spiritist
UCC	Christian: United Church of Christ
UMD	Christian: United Methodist
UNI	Christian: Unitarian
UNU	Christian: Unitarian Universalist
VAR	Unknown
WES	Christian: Wesleyan
WMC	Christian: Wesleyan Methodist
Ethnic Group	
ID(String)	Name(String)
H	Hispanic or Latino
N	Not Hispanic or Latino
U	Unknown
MARITAL STATUS	
ID(String)	Name(String)
A	Separated
B	Unmarried
C	Common law
D	Divorced
E	Legally Separated
G	Living together
I	Interlocutory
M	Married
N	Annulled
O	Other
P	Domestic partner
R	Registered domestic partner

S	Single
T	Unreported
U	Unknown
W	Widowed
Admit Status	
E	Emergency
I	Inpatient
O	Outpatient

9 Appendix C HL7

The IE will accept the following messages:

- A01 – Admit/Visit Notification
- A02 – Transfer a patient
- A03 – Discharge/end visit
- A04 – Register a Patient
- A05 – Pre Admit a Patient
- A08 – Update patient information
- A11 – Cancel Admit
- A12 – Cancel Transfer
- A13 – Cancel Discharge

The HCFA IE follows the HL7 Interface Specification V2.5.1 (V2.3.1) which can be found at www.hl7.org. This section describes the required Message Segments for reference purposes only. These message segments are required for all accepted ADT Messages: A01, A02, A03, A04, A05, A08, A11, A12, and A13

<i>ADT</i>	<i>ADT Message</i>
MSH	Message Header
EVN	Event Type
PID	Patient Identification
	<i>PV1</i> Patient Visit

Message Header:

SEQ	LEN		DT	OPT	RP/#	TBL#	ITEM #	ELEMENT NAME
1	1		ST	R			00001	Field Separator
2	4		ST	R			00002	Encoding Characters
3	180		HD	O			00003	Sending Application
4	180		HD	O			00004	Sending Facility
5	180		HD	O			00005	Receiving Application
6	180		HD	O			00006	Receiving Facility

SEQ	LEN		DT	OPT	RP/#	TBL#	ITEM #	ELEMENT NAME
7	26		TS	O			00007	Date/Time Of Message
8	40		ST	O			00008	Security
9	7		CM	R			00009	Message Type
10	20		ST	R			00010	Message Control ID
11	3		PT	R			00011	Processing ID
12	8		ID	R		0104	00012	Version ID
13	15		NM	O			00013	Sequence Number
14	180		ST	O			00014	Continuation Pointer
15	2		ID	O		0155	00015	Accept Acknowledgment Type
16	2		ID	O		0155	00016	Application Acknowledgment Type
17	2		ID	O			00017	Country Code
18	6		ID	O	Y/3	0211	00692	Character Set
19	60		CE	O			00693	Principal Language Of Message

Event Type

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
1	3	ID	B		0003	00099	Event Type Code
2	26	TS	R			00100	Recorded Date/Time
3	26	TS	O			00101	Date/Time Planned Event
4	3	IS	O		0062	00102	Event Reason Code
5	60	XCN	O		0188	00103	Operator ID
6	26	TS	O			01278	Event Occurred

Patient Identification

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	O			00104	Set ID - Patient ID
2	20	CX	O			00105	Patient ID (External ID)
3	20	CX	R	Y		00106	Patient ID (Internal ID)

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
4	20	CX	O	Y		00107	Alternate Patient ID - PID
5	48	XPN	R			00108	Patient Name
6	48	XPN	O			00109	Mother's Maiden Name
7	26	TS	O			00110	Date/Time of Birth
8	1	IS	O		0001	00111	Sex
9	48	XPN	O	Y		00112	Patient Alias
10	1	IS	O		0005	00113	Race
11	106	XAD	O	Y		00114	Patient Address
12	4	IS	B			00115	County Code
13	40	XTN	O	Y		00116	Phone Number - Home
14	40	XTN	O	Y		00117	Phone Number - Business
15	60	CE	O		0296	00118	Primary Language
16	1	IS	O		0002	00119	Marital Status
17	3	IS	O		0006	00120	Religion
18	20	CX	O			00121	Patient Account Number
19	16	ST	O			00122	SSN Number - Patient
20	25	CM	O			00123	Driver's License Number - Patient
21	20	CX	O	Y		00124	Mother's Identifier
22	3	IS	O		0189	00125	Ethnic Group
23	60	ST	O			00126	Birth Place
24	2	ID	O		0136	00127	Multiple Birth Indicator
25	2	NM	O			00128	Birth Order
26	4	IS	O	Y	0171	00129	Citizenship
27	60	CE	O		0172	00130	Veterans Military Status
28	80	CE	O			00739	Nationality
29	26	TS	O			00740	Patient Death Date and Time
30	1	ID	O		0136	00741	Patient Death Indicator

PV1 – Patient Visit

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
1	4	SI	O			00131	Set ID - PV1
2	1	IS	R		0004	00132	Patient Class
3	80	PL	O			00133	Assigned Patient Location

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
4	2	IS	O		0007	00134	Admission Type
5	20	CX	O			00135	Preadmit Number
6	80	PL	O			00136	Prior Patient Location
7	60	XCN	O	Y	0010	00137	Attending Doctor
8	60	XCN	O	Y	0010	00138	Referring Doctor
9	60	XCN	O	Y	0010	00139	Consulting Doctor
10	3	IS	O		0069	00140	Hospital Service
11	80	PL	O			00141	Temporary Location
12	2	IS	O		0087	00142	Preadmit Test Indicator
13	2	IS	O		0092	00143	Readmission Indicator
14	3	IS	O		0023	00144	Admit Source
15	2	IS	O	Y	0009	00145	Ambulatory Status
16	2	IS	O		0099	00146	VIP Indicator
17	60	XCN	O	Y	0010	00147	Admitting Doctor
18	2	IS	O		0018	00148	Patient Type
19	20	CX	O			00149	Visit Number
20	50	CM	O	Y	0064	00150	Financial Class
21	2	IS	O		0032	00151	Charge Price Indicator
22	2	IS	O		0045	00152	Courtesy Code
23	2	IS	O		0046	00153	Credit Rating
24	2	IS	O	Y	0044	00154	Contract Code
25	8	DT	O	Y		00155	Contract Effective Date
26	12	NM	O	Y		00156	Contract Amount
27	3	NM	O	Y		00157	Contract Period
28	2	IS	O		0073	00158	Interest Code
29	1	IS	O		0110	00159	Transfer to Bad Debt Code
30	8	DT	O			00160	Transfer to Bad Debt Date
31	10	IS	O		0021	00161	Bad Debt Agency Code
32	12	NM	O			00162	Bad Debt Transfer Amount
33	12	NM	O			00163	Bad Debt Recovery Amount
34	1	IS	O		0111	00164	Delete Account Indicator
35	8	DT	O			00165	Delete Account Date
36	3	IS	O		0112	00166	Discharge Disposition
37	25	CM	O		0113	00167	Discharged to Location

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM#	ELEMENT NAME
38	2	IS	O		0114	00168	Diet Type
39	2	IS	O		0115	00169	Servicing Facility
40	1	IS	B		0116	00170	Bed Status
41	2	IS	O		0117	00171	Account Status
42	80	PL	O			00172	Pending Location
43	80	PL	O			00173	Prior Temporary Location
44	26	TS	O			00174	Admit Date/Time
45	26	TS	O			00175	Discharge Date/Time
46	12	NM	O			00176	Current Patient Balance
47	12	NM	O			00177	Total Charges
48	12	NM	O			00178	Total Adjustments
49	12	NM	O			00179	Total Payments
50	20	CX	O		0192	00180	Alternate Visit ID
51	1	IS	O		0326	01226	Visit Indicator
52	60	XCN	O	Y	0010	01224	Other Healthcare Provider

MSA – Message Acknowledgement

SEQ	LEN	DT	OPT	RP/#	TBL#	ITEM #	ELEMENT NAME
1	2	ID	R		0008	00018	Acknowledgment Code
2	20	ST	R			00010	Message Control ID
3	80	ST	O			00020	Text Message
4	15	NM	O			00021	Expected Sequence Number
5	1	ID	B		0102	00022	Delayed Acknowledgment Type
6	100	CE	O			00023	Error Condition

10 Appendix D

List of Acronyms

- ACK/NAK Acknowledgement Code/Negative Acknowledgement Code
- CCT Care Coordination Tool
- CCV Care Coordination Vendor (Altruista)
- ESB Enterprise Service Bus; a software architecture model
- HCP HealthCare Pack (IBM specific)
- HCFA Health Care Financial Administration
- IE Health Information Exchange
- HIPAA Health Insurance Portability and Accountability Act
- HIS Hospital Information System
- HL7 Health Level 7; international standards for transfer of clinical/administrative data
- HPE Hewlett Packard Enterprise
- MCO Managed Care Organization
- MMIS Medicaid Management Information Systems
- PCP Primary Care Physician
- STS Strategic Technology Solutions, state agency
- TIN Tax Identification Number
- TM Transaction Management module/application (Edifecs specific)
- TP Trading Partner
- TPA Trading Partner Agreement

ⁱ <https://www.tn.gov/ehealth/section/health-information-exchange>

ⁱⁱ See 45 C.F.R. § 164.530(c)

ⁱⁱⁱ See 45 C.F.R. § 164.506