



## Quick Reference Guide

### Transport of Immunization HL7 Messages via Secure HTTP (HTTPS)

HL7 messages are received by the ImpactSIIS inbound interface and processed in a two-stage manner. The first stage is where the message content and validation is performed by an integration tool called Public Health Connection Hub (PHC-Hub™). The second stage applies ImpactSIIS business rules and updates the patient's immunization record. ImpactSIIS supports the user ID and password for security (HTTPS) to connect to PHC-Hub.

1. When transporting identifiable health information, the privacy of the information must be insured. The HTTPS protocol provides encryption and is recommended by the standard.
  2. The interface will need to use the Internet public network for communication. The transaction must be encrypted using the HTTPS protocol.
    - PHC-Hub has a security certificate if needed
    - Please contact the ImpactSIIS program staff at (866)349-0002 for further information.
  3. Health information messages state important facts about personal information. Because of this, it is necessary to provide assurance of the identity of the party asserting the personal information in these messages. Authentication provides such assurance.
  4. Exchange Requirements:
    - Use HL7 Version 2.5.1 (Implementation Guide for Immunization Data Transactions Using Health Level Seven (HL7) Standard Version 2.5.1)
    - When the sending application sends ImpactSIIS an HL7 message via HTTPS POST command, it must have USERID, PASSWORD, MESSAGEDATA
    - Send your local patient identifier with all VXUs
    - Search (using a QBP) based on either an ID (state registry ID, local patient ID/medical record number, Social Security number, or Medicaid number) or the combination of patient first name, last name, and date of birth.
  5. When using UserID/Password authentication, the EHR application initiates the HTTPS transaction to PHC-Hub with the following data fields that populate the message. These parameters are consistent in all three POST format options shown below.
    - 
    - 
    -
- USERID – Assigned by ImpactSIIS
  - PASSWORD - Assigned by ImpactSIIS
  - MESSAGEDATA – The HL7 message as ASCII text. The message must begin with the character using "MSH".
6. The HttpPostForwarder (proxy) service forwards HTTP POST messages to the ImpactSIIS and returns the response back to the sender. The proxy service accepts POST messages in three different formats.
    - **Option 1:** for sending POST messages to the proxy service is a *multipart/form-data* POST with a boundary. Example HTTP POST message:

```
POST http://agen-dev-app:8702/HttpPostForwarder HTTP/1.1
Content-Type: multipart/form-data; boundary=-----8cf28f71e050b80
Host: agen-dev-app:8702
Content-Length: 573
Expect: 100-continue
Connection: Keep-Alive
-----8cf28f71e050b80
Content-Disposition: form-data; name="UserID";
test_user
-----8cf28f71e050b80
Content-Disposition: form-data; name="Password";
test_password
-----8cf28f71e050b80
Content-Disposition: form-data; name="FacilityID";
MSH|^~\&|||VXQ^V01|||2.4
QRD||I||25AR|^speciale^shane|VXI|SIIS
QRF|||~20010101
-----8cf28f71e050b80
```

- **Option 2** for sending POST messages to the proxy service is an *application/x-www-form-urlencoded* POST. Example HTTP POST message:

```
POST http://agen-dev-app:8702/HttpPostForwarder HTTP/1.1
Content-Type: application/x-www-form-urlencoded
Host: agen-dev-app:8702
Content-Length: 235
Expect: 100-continue
```

- **Option 3** for sending POST messages to the proxy service is a *text/plain* POST with the USERID and PASSWORD in the URL. Example:

<https://server/HttpPostForwarder/userID/password>. Example HTTP POST message:

```
HTTP/1.1p://agen-dev-  
app:8702/HttpPostForwarder/test_user/test_password HTTP/1.1  
Content-Type: text/plain  
Host: agen-dev-app:8702  
Content-Length: 88  
Expect: 100-continue  
Connection: Keep-Alive
```

MSH|^~\&|||VXQ^V01||2.4  
QRD||I|25^R|^special^shane|VXI|SIIS  
ORF||~20010101

7. The URLs that the messages will be imported to are:

- ImpactSIIS PHC-Hub Test:  
<https://test.ohioimpactsiis.org/phctst/HL7Server>
  - ImpactSIIS PHC-Hub Production:  
<https://ohioimpactsiis.org/phcprod/HL7Server>

- Once the message has been sent, the EHR should expect a standard acknowledgement (ACK) message in response. The ACK message is part of the single HTTP transaction and is returned over the same connection. Error messages with details on why the inbound HL7 message was not successfully processed are also returned.

## Transport Via SOAP

- When transporting messages via the IIS Soap Web Server (WSDL), parameters for the submitSingleMessage operation:

Parameter	Input/Output	Data Type	Description
username	Input	String	IIS username
Password	Input	String	IIS password
facilityID	Input	String	IIS Facility ID
hl7Message	Input	String	HL7 version 2.x message (e.g.: 2.3.1, 2.5.1, etc...) intended for IIS
Return	Output	String	HL7 version 2.x response (e.g.: 2.3.1, 2.5.1, etc...) from IIS

If content type is specified it should be specified as text/xml to use a web service.

Additional guidance for Soap Web services may be found here:  
<https://www.cdc.gov/vaccines/programs/iis/technical-guidance/SOAP/downloads/transport-specification.pdf>

## 2. The WSDL that we support:

- ImpactSIIS PHC-Hub Test for CDC WSDL:  
<https://test.ohioimpactsiiis.org/phctst/soa/ws/HL7Service.wsdl>
  - ImpactSIIS PHC-Hub Production for CDC WSDL:  
<https://ohioimpactsiiis.org/phcprod/soa/HL7Service.wsdl>

**NOTE:** if you are trying to use SOAP UI with Java 7, you will get an SSL handshake error. Java 8 will resolve this.

- Once the message has been sent, the EHR should expect a standard acknowledgement (ACK) message in response. The ACK message is part of the single HTTP transaction and is returned over the same connection. Error messages with details on why the inbound HL7 message was not successfully processed are also returned.