

BCBS Health Plans Bidirectional Implementation Overview

May 17, 2021

>> Singh: Good afternoon, everyone. Thank you for meeting with us this afternoon. My name is Richa Singh, and I'm from blue cross and blue shield of Texas. I have worked with the Texas department of state Health and Human Services on the implementation of the bidirectional HL7 Interface.

I will be providing you with how we implemented it with the ImmTrac2 registry. This webinar is 45 minutes long and we will have time at the end for any Q&A. Blue Cross and Blue Shield of Texas implemented this at the request of the registry's intent, for managed care organizations to convert to HL72.5.1 version.

Utilizing this new modality helps Blue Cross Blue Shield receive the data faster and at a higher frequency. This in turn ensures we can coordinate care and keep a track of specific member immunization data. Data when received through the Bidirectional Interface in an industry standard HL7 version is also more reliable. Data when received through the Bidirectional Interface, there is no manual intervention after the Bidirectional Interface is implemented and the administrative effort is drastically reduced for both Blue Cross and Blue Shield of Texas and the state.

The interface was a win for all stakeholders. By automating the data exchange of the immunization data, we can target interventions with members who are truly non-compliant, and are hence able to provide care for members of the state. The connection was also a single source of handling transactions for immunization data for Texas, and has increased the speed to market. This also led to reduction in administrative costs for both Blue Cross Blue Shield of Texas and State of Texas.

We partnered with Availity to query for members' immunization data. This partnership has helped us query the data seamlessly. We will look into the latest slides of how it helps us to the connections to the state.

Availity sends clinical data to health plans to support better member outcomes via direct connections with immunization registries, health systems, laboratories, health information exchanges, et cetera.

It is the second largest health information organization in the nation. Let us see in the next slide how Availity helped us with the bidirectional interface.

Here is a data flow diagram that outlines how we partner with Availity and exchange the data with the state registry. The first step is creating a member roster and sending it to Availity using secure protocol. Availity is our vendor partner, which houses the HL7 interface engine and converts the member roster to HL7 QVP messages. Member by member, they query the immunization registry to a secure API connection.

The registry responds to the QBP message with either an immunization history message or an exact member match or multiple matches, or member not found message, or an error. If the member is not found or is errored or has multiple matches, then those are not sent to Blue Cross and Blue Shield of Texas. Only the ones with the exact member match are SFDP'd to Blue Cross and Blue Shield of Texas.

We pull the strings of our strongest HL7 and Availity resources and put together a resource list. Some of these resources working with the support on our previous batch query process and helped us build the right member roster. Resources at Availity included HL7 interface developer connectivity product, application architect, to help build development of the HL7 connection and capacity load testing of the ImmTrac system.

To help with the data ingestion, consumption, need verification on the Blue Cross and Blue Shield side, we needed QA resources, data engineers. A business manager was also required to help with understanding the goal and keeping tasks on track.

This is an overall timeline that walks us through the tasks end-to-end. Once our goals were aligned, it took us a total of four months from start to finish to implement the project. Let us take a look at the timeline in detail. Blue Cross and Blue Shield of Texas reviewed the implementation guide provided by the ImmTrac to create the member roster. The roster -- of member data that was required by ImmTrac for optimum member match. We worked with our internal stakeholders and decided which members would be included on the membership roster.

Blue Cross and Blue Shield of Texas shared the roster including the required fields with Availity who would query for the data from ImmTrac.

The next step was establishing the connectivity with ImmTrac. Availity established the connection with ImmTrac test environment. Availity and Blue Cross and Blue Shield of Texas scheduled regular meetings with ImmTrac for testing all scenarios and test patients provided by ImmTrac.

Successful testing in the test environment was a prerequisite for connecting to production ImmTrac. So, we suggest you perform these tests with an analyst on the ImmTrac team before you request for production connectivity. The testing scenarios are mentioned above. The query for



child and adult help with the positive testing scenario, where Blue Cross and Blue Shield of Texas should be receiving the response.

And the two query scenarios where you query for a patient not in the registry and query returns multiple matches were negative testing scenarios where we tested for patient information, which Blue Cross and Blue Shield of Texas should not receive.

After we had established connectivity with the production ImmTrac system, to avoid overwhelming the ImmTrac databases, Blue Cross and Blue Shield decided to test the capacity of the ImmTrac system by querying small production batch files. After the small file was queried without any issues, we started querying a large file and requested ImmTrac as well as Availity to monitor the loads. It looked like it would take more than a month to query one entire file, and Availity in ImmTrac helped us with multiple threads to increase the processing time to a couple of weeks.

Blue Cross and Blue Shield of Texas received only exact member matches for immunization data. The multiple matches and errored or not found members were not received by us. The RCP-2 segment on a QBP message value can be set to 1 on the query message to not receive all multiple member match data and hence helped Blue Cross and Blue Shield of Texas stay within the HIPAA guidelines.

Development and ingestion for data consumption in Blue Cross and Blue Shield took considerable amount of time after the data was received.

I just received a question. For testing, we are looking for -- I think we should wait for our questions until the end. Is that okay? So, I'm going to answer this in the end.

Development and ingestion for data consumption in Blue Cross and Blue Shield took considerable amount of time.

Some key takeaways from our project was to always hold hands with internal stakeholders and to prioritize which -- sorry. To always hold hands with your internal stakeholders and to prioritize which members you want the data most frequently to least frequently. We partnered with our stakeholders to decrease the roster size creatively to be able to query every month with the state within a reasonable timeframe.

The member roster for Blue Cross and Blue Shield of Texas was large and we were looking to receive the data from the state within a couple of weeks. ImmTrac and Availity stepped up and went above and beyond in order to quickly decrease the processing time from more than a month to two weeks by establishing multiple threads.

Last but not least, as mentioned earlier, Blue Cross and Blue Shield of Texas suggests all MCOs do not receive multiple matches and to stay within HIPAA guidelines and policies.

We wanted to say a big thank you, thanks a million, to our Texas state friends, and Availity friends for partnering with us. We wouldn't be here providing you this information if ImmTrac was not quick to respond to our questions and help us move along quickly. They understood that the data was needed on an urgent basis and worked with Blue Cross and Blue Shield of Texas until we made it to the finish line.

Availity with their creative solutions and stellar HL7 resources did a phenomenal job. Kudos to both for the partnership.

That's all that I had to share. Thank you so much. I'll be taking questions, and the first question that we have is from Raquesh. Looking for end point UL or DWSDL. May I know if you have those details or point to those details.

You can reach out to ImmTrac for this information. And, Fred, do you have any details on that? Because Availity is the one -- I'm looking to Fred to see if you can answer that.

>> Darnell: Yeah, Richa. I believe that information was part of the implementation guide that we were originally provided. A lot of those details were included in there.

>> Singh: Right.

>> Darnell: Especially for the sub-environment, instead of for the testing environment. And I'm not sure the production environment was published until we were able to prove that we could do the proper testing in the test environment.

>> Singh: I agree. That's how it went. He is saying we believe one web service call is associated with the single QBP HL7 message, and a single HL7 response. That's correct. Will web service work for multiple HL7 messages and respond with multiple members? Fred, I'm looking to you to answer that question.

>> Darnell: I think that's the scenario where we get back the multiples, but I don't know if it comes back in a single message or in multiple messages, if there are multiple members. Let me try to track that down.

>> Singh: I'm taking the next question now. The next question is, by John Glenn. Should you quantify some of the performance concerns you experience such as how long to process transactions per member.



So, it varied. During the peak time, it went to two seconds to three seconds sometimes per member. And during the non-peak times at night, it was multiple messages in one second. We did experience that, John.

Another question. Approximately how large is your membership roster that takes two weeks?

So, our first roster was 900,000 members. And it took two weeks to query the 900,000 members.

What was your biggest challenges that you had to resolve? That's a great question. I would say, you know, creating the member roster and working with your stakeholders, sometimes you have multiple stakeholders and you have to bring everybody along and bring that one membership roster from the -- that had the highest priority to the lowest.

And the next question is, what was your biggest challenge -- sorry, I'm repeating the same one.

Raqesh, that is a question again for Fred. And I think Fred is working on finding that answer; is that right?

>> Darnell: Yeah. I think you meant 900,000. And the answer is yes. We do an individual call per member in the roster. So we query it for every single member in the roster that we receive. Once we parse it and turn it into the HL7 message. If there's an underlying question, is there a form of batch with this, it is not.

>> Singh: Exactly. It's member by member. That's correct.

>> Darnell: There's a question about the authentication method that we used. We used the authentication method that was outlined by the state in the implementation guide. I don't have that implementation guide in front of me, but we use their --

>> Singh: Their authentication. Uh-huh.

>> Darnell: Yeah. I don't know if there's somebody from the State that wants to talk about that.

>> Rodriguez: Hi. This is Yiuliana with the State. Our implementation guide is posted on our D website, so all you have to do is log on to www.dshs.com, and under forms and documents, you should be able to find that implementation guide that you're looking for. I can also post it here in the chat for you guys in just a moment.



>> Singh: For the registry consenting process, do you handle that on the front end during the registration process? So, are you talking about the agreement or the contract?

Yes, that is correct. I am hearing some echo here. If you can please mute yourselves, please. Thank you.

The agreement for sending the PHI. Which language have you used –

>> Darnell: I think that's the question about the members from Blue Cross –

>> Singh: Sorry, go ahead, Fred.

>> Darnell: I think that's more of a business question about the registry consent process. That's a Blue Cross member opt-in for obtaining that information. Are you familiar with the business process behind that?

>> Rodriguez: This is Yiuliana again with the State. So, for queries, we don't require consent be sent. That's only when you are sending BXU messages.

>> Singh: Thank you, Yiuliana. So for making the web service calls, the language that they're using, Fred, it's a question for you again. It's HL7 what we're using.

>> Darnell: That's correct. Just from a technical perspective, Availity utilizes North Connect 2 as our HL7 engine, but there's a lot of customization that's happening around that to allow to scale for the multiple health plans and other things that we utilize. So, your point is that HL7 is the data format and your question is, what is the -- what is it coded in behind the scenes in order to make that web service call? I'll ask that question.

>> Singh: Is the link to implementation guide shared over email? Yiuliana, I'm sorry. You're sharing it on the chat, right?

>> Rodriguez: I was trying to share it on the chat, but for some reason, I don't have access to the entire audience, only to the panelists.

>> Singh: Okay.

>> Darnell: The answer to your question is the web service call is in Java.

>> Singh: Blue Cross Blue Shield sends a spreadsheet to Availity, and what do you get back? You said SFTP, but is it a document, or is it an HL7 message?

So, once we send out a file to Availity, Availity converts that to an HL7 message and queries ImmTrac member by member, and they receive a response, member by member on each of those queries. Availity

aggregates that data and sends us one file to SFTP.

So, we receive it monthly through Availity, but over those two-week period, Availity was continuously querying ImmTrac. It is HL7 message from ImmTrac to Availity, but from Availity to us, it's a document.

We will be sharing the slides with you after this meeting is over. And you can go through the workflow diagram that we had.

Fred, do you want to take the next one?

>> Darnell: Yeah. I don't think we can share the -- I don't think we can share samples of the code that we created. It's proprietary. It actually is part of our agreement with Blue Cross that we can't make that politically available.

>> Singh: Are patients giving consent to the State giving their personal data to an outside for-profit company?

So, Texas is an opt-in state. And so, when they opt-in for data to be shared with ImmTrac, ImmTrac can share the data with us. We are an MCO in contract with the Texas Medicaid services, so we were already receiving data for our Medicaid population and for all our population through a batch query process.

We are in total [indiscernible] health guidelines there.

Are you able to help us with VFC400? I'm not sure what VFC400 is.

>> Darnell: That may be a question for our ImmTrac folks.

>> Rodriguez: I'm not sure what that is either; however, if you don't mind sending an email to -- again, I'll post that email in the chat, and you can definitely send that question there so I can forward it to the appropriate individual.

>> Darnell: There's a question that says is there a need to engage your network team for the connection with the state. Availity has a dedicated network team and they were the ones who engaged to create that connection with the State and do the testing of the connection prior to the development team that does the clinical HL7 development. So, we definitely followed that model, just to ensure that that security and so forth was there.

I believe from our standpoint, our external connections with through Data Power, which is an IBM appliance.

>> Singh: The next question is, is the payload from Availity to ImmTrac an HL7 message? Yes, it is an HL7 message.

>> Darnell: Yes.



>> Singh: Any questions for Blue Cross and Blue Shield or Availity?

>> Darnell: There's a question that says they went through the implementation guide and it doesn't cover calls to web services.

>> Singh: Uh-huh. Yeah, where do we get information? I guess that's what we did. We reached out to ImmTrac and they provided us the [indiscernible]. [Echo] this process does not include immunization administration. Is your question about receiving -- who administered the immunization and where it was decided for administration? We did receive that data on the HL7 message.

Does Availity have SOC type 2 certification? Fred, that's a question for you.

>> Darnell: Also, High Trust certified.

>> Singh: Who is the point of contact for receiving the end point, is the question, Ragesh. For the end points, you can reach out to their distribution list. If you go to their website and go to ImmTrac2 registry page, you can see the contact and you'll be able to receive the answer. Process does not include immunization reporting to the state.

>> Rodriguez: This process does not include that. This is only query-only, which is normally what our health plans and schools do. If you are wanting to report administration, then you would have to do a whole new process, which is VXU and query. So this is only for query-only or health plans.

>> Singh: Did Blue Cross Blue Shield undergo an RFP to choose availability as a vendor? Yes, Fred, we are a vendor partner.

>> Darnell: I can explain that a little bit more. Availity is actually a joint venture that's owned -- a partially owned subsidiary of HCSC's parent company, which is Healthcare Service Corporation. They also own Blue Cross of Illinois, Oklahoma, New Mexico, and Montana, and we are partially owned but them as well as Humana, Blue Cross of Florida, and Anthem Blue Cross. So we're really not just a vendor, we're a subsidiary.

>> Singh: Thank you, Fred. Does ImmTrac have limitations of number of web service calls made in a day? Yes. ImmTrac -- Yiuliana, do you want to take that?

>> Rodriguez: I'm sorry, can you repeat the question?

>> Singh: Does ImmTrac have limitations over a number of web service calls made on a day?

>> Rodriguez: I guess I don't really understand. Is it the query's limitation?



>> Singh: Yeah, if it's a large number of members.

>> Rodriguez: Oh, I see. So, we currently do not have an exact number and we are working on, you know, trying to find that exact number. But currently, we do not have how many queries can come through at a time.

>> Darnell: I think the limitation is you need to wait for the response to come back before you can send the next query. And so it's limited to the time it takes for the response to return. Right? That's why we went with the multiple approach.

>> Singh: Exactly, yep. That's a great point, Fred.

>> Rodriguez: I believe y'all are using three channels; is that correct?

>> Singh: Yes, we are. We are using three channels at the moment.

We had it at 1.5 seconds and I think we had to increase it a little further. I don't have that exact time right now. But I believe, Fred, on your end, you can find that information out. Roger was the one who did that for us.

Other questions? Great. If you have to talk to ImmTrac directly, what is the process? You can reach out to them -- oh. I guess I'll let Yiuliana answer that one.

>> Rodriguez: Yeah. So, the best way currently to reach out to us is via the email that I put on the chat. So, ImmTracmu.dhhs.Texas.gov. We are onboarding any health plan that is ready to be onboarded, so just put your health plan information, include your Texas EISD, and we will reach out to you as soon as possible.

>> Singh: Any other questions?

>> Darnell: I do not have a response on that threshold time-out. I know we're seeing sub two-second, sub-three second responses currently. I don't think the time-out is set too much higher than that.

>> Singh: Okay, the question is, will you try making same web service if you did not receive response after two seconds? So this is what Availability does, and Fred, I'm speaking on behalf of you, so stop me if I'm wrong there.

But what I know is, once they finish the whole file, they aggregate all the error messages and run them over one more time. Any of the web service calls do not get a response back on those, they run them again. You're welcome.



Well, thank you, everyone. We can hang here and take any other questions that you have.

Okay. After those several awkward seconds, I think we are okay -- okay, there's another question. Great. Did you use spot-on to develop the ability to handle individual records? On the Blue Cross Blue Shield side, when you receive the responses. We are pulling the data into our data lake, and then accordingly handling the data coming in from there.

>> Darnell: Availity does not use Python.

>> Singh: Okay. I'm not sure I understand your question, Raqesh. That's ImmTrac. Yiuliana, that's for you. If you cannot see the questions, I can send them out to you.

>> Rodriguez: If you don't mind repeating the question.

>> Singh: There's a url that is sent on the chat. If I read through the url, I don't think it will make sense for you. But they're checking if that url is good for testing.

>> Rodriguez: So that url is a link to our forms page, and within that forms page, you would find the bidirectional data exchange information. So, you'd have like the web service. You won't be able to connect until we provide your point of contact for the credentials to connect. You'll be able to see how it looks in the format.

>> Darnell: I'm being told that we set our time-out to [indiscernible].

>> Singh: To what? I don't think we heard that clearly, Fred.

>> Darnell: We set our time-out to 90 seconds. But when we don't get a response back, we put it at the end of the queue and we try it again. A minute and a half, correct?

Question asking, do we have to engage in a networking team for firewall setup? We did. I don't know if –

>> Singh: Uh-huh. Because we work with Availity, there isn't a firewall that we need to set up with Availity. We already receive information from you. But Availity, yeah, I think it more applies to Fred.

>> Darnell: I think the connection is a secure API, so I'm not sure there's a firewall component to it. I don't see any more questions coming in.

>> Singh: Right.

>> Darnell: Maybe offer a last chance.



>> Singh: I agree. They have stopped trickling in. All right. Thank you for joining us, everyone. For any other questions, please direct those to ImmTrac, and if they are for Blue Cross and Blue Shield of Texas, they should be directing them to us. Any for Availity, we can direct them to Availity. All right. Have a great day, everyone. Thank you, Fred.

>> Darnell: Thank you. Bye.

>> Singh: Bye.