

I am a service rendering provider and I currently do not have a supplier Health Information Technology (HIT), where do I start?



Pallavi Talekar: A service rendering provider is a DME supplier or Home Health Agency. It is okay if the supplier does not have a HIT system, and they can still volunteer in the DME eRx program. The service rendering provider should have internal discussions or conversations about adopting a HIT that can quickly and efficiently share information. The service rendering provider should also investigate vendors that are able to fulfill their needs by requesting a demonstration of the HIT to understand their features. The EMDI team recommends for service rendering providers to adopt a HIT that can send and receive structured documentation via FHIR or Consolidation Clinical Document Architecture (CCDAs).



Jim Fetters: Planning is the key to make sure that everything that the service rendering provider is searching for aligns with their business level or needs. They should also make sure that connecting capabilities are built into the HIT or that they can build an interface that can fulfill this requirement.





Are Electronic Health Records (EHRs) required in order to pilot under this program? I'm not aware of my service ordering providers EHR system, what should I do?



Pallavi Talekar: Yes, EHR systems are required to pilot in this program. The role of the EHR is to create FHIR-based orders and send it to HIT systems, and exchange HIT standards, like FHIR. Once the provider decides to pilot in this program they should find other potential participants; explore physician hospitals or suppliers; contact key personnel of the other participants (i.e., chief technology officer (CTO)); and then bring together the technical staff of all parties to discuss the pilot timeline, level of effort, etc.





I am a service rendering provider and have a supplier HIT but it's not FHIR enabled, how do I know that my supplier HIT is capable of implementing FHIR transactions?



Robert Dieterle: One way to know that the HIT is capable of implementing FHIR transactions is by working with the HIT. The service rendering provider should understand when the HIT plans to enable themselves to conduct a FHIR transaction, if they are working with a third party to implement these transactions, and if the HIT can make transactions using other standards.



Jim Fetters: Added to that, the service rendering provider should be aware of technologies that can be used in clouds like Microsoft Azure. Microsoft Azure enables a FHIR server and Application Program Interfaces (APIs). There are many ways to make the HIT adaptable by using the particular versions of FHIR.





I am a representative of a supplier HIT system and have a theoretical understanding of FHIR concepts. Where do I begin with the implementation of FHIR in my HIT system?



Robert Dieterle: Recommend getting involved with FHIR as a 'novelist'. A great way to learn how FHIR works is by attending introductory, advanced, and other high-level executive classes. These representatives should also understand OAuth, Clinical Decision Support (CDS) Hooks, and the SMART on FHIR App (integrated into the EHR or HIT system). It is also best to attend Connectathons to work with other peers in the HIT industry.



Jim Fetters: Agrees with Robert Dieterle and suggested for representatives to go to the Health Level Seven (HL7) website to understand the different components of FHIR. Representatives should also become familiar with authentication technologies, since this technology is a crucial step to get into the FHIR data source.





What are the steps involved in starting from having no FHIR capabilities to the completion of a DME eRx pilot? What are the approximate time frames for each of those steps?



Jim Fetter: With the assumptions that one has an existing EHR system, the first step will be to plan everything out and make sure that they are knowledgeable in what they are planning to do. One can create a service for a cloud-based approach and setup FHIR implementation via a FHIR server (i.e., Google has a preview API and Microsoft can be an open-sourced server with a code on GitHub or they can have a managed server). The process for all these steps is fairly quick of about an hour. Next, one should make sure connection points, endpoints, and authentication work properly. Microsoft created a process with the user interface (UI) team with a generic EHR system that pulls data out of the records into Microsoft system and the patient-related app used by NewWave. The UI connection took about a few days. The integration of the app is rapid.



Zane Schott: Operationally, the steps will include finding the providers and matching data to EHRs. Also, the steps include having providers that are willing to interact or a partner with a HIT or a platform (i.e., DME Hub) that are willing to work on their own or be open-sourced. Meeting with other providers, 'hand shaking' with these providers, and including authentication/ security into the process can take an estimate of eight weeks to 10 months to synchronize all the efforts.





My organization is not an HL7 Member, how do we adopt FHIR?



Robert Dieterle: FHIR is an open standard and any provider can implement the FHIR standard, Da Vinci Project Implementation Guides, or Argonaut (sits on top of FHIR). Any provider can use this information without being a FHIR member. But it is strongly encouraged for organizations to join HL7 to become an active participate in the process of developing the FHIR standards and becoming a part of the FHIR solutions. The HL7 Connectathons are open to everyone, but there is a fee to attend. The HL7 membership will help providers learn more about FHIR.





Currently, many EHR systems are providing support for Draft Standard for Trial Use 2 (DSTU2) and Release 3 (R3) versions of FHIR, when do they plan to support US CORE profiles for R4?



Zane Schott: DSTU2 is pervasive and available everywhere. DSTU3 is 👔 also available, but it is limited. Some EHR systems began adopting R4 in July 2019, but it is expected that more EHR systems will start adopting R4 in quarter four of 2019. R4 will be adopted in a more evolutionary process.



Jim Fetters: The Azure FHIR API open source version supports 3.0.1 and R4. We expect the managed service version of the API for FHIR to support R4 by the end of 2019.



Robert Dieterle: Da Vinci Project has a relationship with about 80 percent of the certified EHR systems. It is assumed that these EHR systems will be able to support and use the U.S. Core Profile by the end of 2019.





What are the requirements for implementing and maintaining a standalone FHIR server? (time, resources, cost)



Jim Fetters: Many of the requirements are cost-related, especially for the management and governance of the standalone FHIR server. It is also important to conform to federal regulations like Health Insurance Portability and Accountability Act (HIPAA).



Zane Schott: It is important to have a technical person or resource that has an advanced/open-source skillset with an understanding of JAVA programming. The time to implement the server can be quick. The true cost of implementing the server is the developer or the human resource.





What type of resources are (manpower and infrastructure support) needed in order to conduct a pilot and participate in Connectathon? What are some steps I could take in order to gather these resources from within my organization?



Zane Schott: Connectathon is a good place to start for developers who know Java Script/ JSON/OAuth. The Connectathon can take one team member that is familiar with web services and who understands what is needed of the organizations and the resource map.



Robert Dieterle: This depends on an organization's current infrastructure or manpower. Some organizations may need more manpower and infrastructure if they are implementing FHIR directly, rather than having a third party implementing it for them. Other types of resources include a good architect and knowledge of program languages like JavaScript Object Notation (JSON)/ eXtensible Markup Language (XML)/ Representational State Transfer (RESTful) exchanges. An organization can have a team of about four to five people. Someone in the team will need to be familiar with the current technology and be able to program in modern language.





What are the eligibility criteria for the Connectathon? Please provide additional details



Pallavi Talekar: The criteria consist of the supplier HIT or EHR system that can exchange FHIR transactions.



Robert Dieterle: The best and the brightest that is familiar with the technologies should attend the Connectathon. It is best to look into the Connectathon's definitions and scenarios on the HL7 website. One should be able to work with the code and infrastructure that will be tested. The participation of the members of the Da Vinci Project's Connectathon increased over the years. It is expected that over 300 individuals from the Da Vinci Project will be attending the upcoming September 2019 Connectathon in Atlanta.





What is the role of the supplier HIT at the Connectathon testing?



Zane Schott: The role of the supplier HIT can vary. For instance, Brightree is a leading group in the supplier HIT community, in which they use interoperability to act as a mediator to the supplier. The HIT vendor role is to intercept, translate, and transform data.



Robert Dieterle: All participants in the healthcare infrastructure or industry will be testing at the Connectathon (i.e., provider, payer, health IT, etc.), since FHIR is a new technology that is easy to implement and provides real time solutions in clinical workflows.





What are the benefits of the Connectathon and how will Connectathon testing help us with DME eRx pilot?



Robert Dieterle: The benefits include being able to test in a collaborative environment; test populating FHIR resources; test workflows for validation and to not miss anything; and test to know if extension of other resources is needed. It is an environment where ordering providers and suppliers can learn from one another.





Does the SMART on FHIR app pull any data from EHR/EMR system?



Zane Schott: Yes, the SMART on FHIR App pulls data from the EHR system. It can pull information concerning the patient (i.e., demographics, elements with encounter, height, weight, etc.), the determination of care, or the equipment needed by the supplier. It can also assist with medical justification or qualification of the order





Can someone demonstrate the SMART on FHIR app?



Zane Schott: Yes, it can be demonstrated. The required tools to download and run the environment for the SMART on FHIR App is on the DME eRx Workgroup website.



Robert Dieterle: The SMART on FHIR App is on GitHub and information about the environment is in Secure File Transfer Protocol (SFTPs). This information is also available on the Da Vinci Project HL7 Confluence website.

