METEOR ON FHIR - USE CASE - PROVIDER DIRECTORY

Identifier	Title	Priority Level	Status
meteor-on-fhir/003	Provider Directory	Argonaut - Sprint 2	Prototyped

Description / Intent

"There is currently no national provider directory that contains the electronic addresses of clinicians and hospitals for exchanging health care information, and this complicates the delivery of electronic data. The Centers for Medicare and Medicaid Services could host such an electronic directory, using the National Provider Identier database as a starting point. " - Perlin, Baker, et. al.

A federated trust infrastructure for sharing of Protected Health Information (PHI) would not only need a national provider directory; but it would need local caches of the provider directory. In this use case, an Authorization Server stores data on Providers, Organizations, and Locations resources, and provides basic Create/Read/Update/Delete/List (CRUDL) user interface for these organizations. The provider directory is initialized from a flat file; although in future use cases, the cached directory may be fetched automatically from a source.

For example, Rainbow's End Medical Home hires Dr. Allison Cameron as a Practitioner. Her name and credentials are stored in the Provider Directory.   She manages a patient Jane Doe, who has PHI located in 3 other health systems. As Jane grants Rainbow's End access to her PHI from other health systems, the Provider Directory is populated with entries as clinicians are encountered in the record.

Future use cases include a) the ability to synchronize the Provider Directory from an authoritative server, such as might be run at the Centers for Medicare and Medicaid Services, b) the ability to validate provider credentials against an external directory, and c) the ability to export the local cached directory for other systems to use.

Primary Actor

End User - Patient
End User - Person

Additional/Supporting Actors

Application – operated by Organization A, which requests accesses EHR data on the patient's behalf
Authorization server – operated by Organization A, and used to authenticate the clinician or patient and to authorize the application to access EHR data on behalf of the clinician or patient
Resource server – operated by Organization B, which hold and retrieve EHR data as authorized

Other Stakeholders

Organization A
Organization B

Endpoints

GET http://hostname/fhir-1-8-0/Practitioner

METEOR ON FHIR - USE CASE - PROVIDER DIRECTORY

POST http://hostname/fhir-1-8-0/Practitioner
PUT http://hostname/fhir-1-8-0/Practitioner
DEL http://hostname/fhir-1-8-0/Practitioner

Preconditions

OAuth Client Access must be configured by a System Administrator. To continue the previous example, the System Administrator would need to register Meteor on FHIR as a Client Application on the Withings website. Withings would then provide the System Administrator with a clientId and clientSecret, which are then used to configure Meteor on FHIR. The "Sign in With Withings" button then uses the clientId and clientSecret to provision John Doe with an access token.

Postconditions

The provider systems has recorded the access in the audit log.
The patient profile has an auth token.

Basic Flow / Quality Control Script

Patient

1.   Patient opens web browser and launches the application.
2.   Patient logs into the application
3.   Patient can query list of Providers
4.   Patient can select Provider and view details
5.   Patient can query list of Organizations
6.   Patient can select Organizations and view details

Staff

1.   Staff opens web browser and launches the application.
2.   Staff logs into the application

1.   Staff can query list of Providers
2.   Staff can select Provider and view details
3.   Staff can select New Provider and fill in details
4.   Staff can view the newly created Provider in the Provider List
5.   Staff can select Provider and view details
6.   Staff can update Provider details
7.   Staff can view updated Provider details
8.   Staff can delete Provider

METEOR ON FHIR - USE CASE - PROVIDER DIRECTORY

References

http://argonautwiki.hl7.org/images/e/ec/Argonaut_UseCasesV1-1.pdf
http://argonautwiki.hl7.org/index.php?title=2016_08_Argonaut_Provider_Directory_Connectathon_1
http://hl7.org/fhir/2017Jan/practitioner.html
https://www.researchgate.net/publication/220309807_A_Time_and_a_Place_for_Standards

Improving Health Through Interoperability and Information Sharing
Information Technology Interoperability and Use for Better Care and Evidence

Wireframes & Screenshots

Practitioners

	NEW			PRACTITIONERS				DETAIL
name	telecom	use	issuer	identification	start	end	▌▐	
Alison Camron	131-509-40	home	American College of Physicians	4541463	Feb 02017	Feb 2018	▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌
Eric Foreman	969-768-4583	home	American College of Physicians	5358085	Feb 02017	Feb 2018	▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌
Gregory House	276-694-759	home	American College of Physicians	7711874	Feb 02017	Feb 2018	▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌
James Wilson	120-290-3418	temp	American College of Physicians	5694522	Feb 02017	Feb 2018	▌▌▌▌▌▌▌▌▌▌▌▌▌▌
Lawrence Kutner	802-473-6815	home	American College of Physicians	9557884	Feb 02017	Feb 2018	▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌
Lisa Cuddy	015-849-6203	work	American College of Physicians	8266465	Feb 02017	Feb 2018	▌▌▌▌▌▌▌▌▌▌▌▌▌▌
Robert Chase	400-690-9630	work	American College of Physicians	2514083	Feb 02017	Feb 2018	▌▌▌▌▌▌▌▌▌▌▌▌▌▌
Thirteen	785-565-6819	temp	American College of Physicians	5346540	Feb 02017	Feb 2018	▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌

Practitioners

NEW	PRACTITIONERS	DETAIL

name	telecom value	telecom use
Gregory House	276-694-759	home

issuer	qualification ID	start	end
American College of Physicians	7711874	01/01/2017	01/01/2018

SAVE