

2020-02 CDS Hooks Track

Submitting WG/Project/Implementer Group

CDS, Argonaut

Justification and Objectives

CDS Hooks provides a powerful framework for remote decision support, leveraging the power of FHIR as well as the ability to suggest a SMART App launch. CDS Hooks consistently draws connectathon participants and we expect this to continue now that [version 1.0](#) of the specification has been released. It also serves as a natural launching point for SMART Apps using [SMART Web Messaging](#).

That being the case, the primary objectives for this track will be

- Exploration of CDS Hooks 1.0 functionality to return information cards, suggestion cards, and SMART App link cards
- Supplementing workflow integration with SMART Web messaging

This track will use R2-R4 versions of FHIR.

Related tracks

[2020-02 Clinical Reasoning](#)

Proposed Track Lead

[Dennis Patterson](https://chat.fhir.org/#narrow/sender/191358-dennis.patterson) (<https://chat.fhir.org/#narrow/sender/191358-dennis.patterson>)

Expected participants

- Cerner
- Epic

Participant Tracking: <https://bit.ly/cds-hooks-connectathon-tracking>

Track Orientation

A webinar will be hosted over Microsoft Teams to share further participation information about this track.

Thursday, January 23rd, 2020 3:00 pm | 1 hour | Central Time (US & Canada)

[Join Microsoft Teams Meeting](#)

+1 816-384-1534 United States, Kansas City (Toll)

Conference ID: 239 009 632#

[Local numbers](#) | [Learn more about Teams](#)

- Slides: <https://bit.ly/cdshooks-23-orientation>

System Roles

CDS Service Provider - The CDS Service Provider role provides real-time clinical decision support as a remote service. The CDS Service is invoked on a desired hook and returns the decision support in the form of CDS cards. Those cards can also include a link to a SMART App.

CDS Client / EHR - The CDS Client will allow for the registration of interested CDS services on various CDS hooks, triggering each appropriately. The EHR will also display the CDS cards (obtained from the CDS services) to the user and provide the ability to launch a SMART App.

Scenarios

Information Card

Action: CDS Service returns info card, CDS Client (EHR) accepts display info card.

Precondition: Read the [Quick Start Guide](#). Explore the [CDS Hooks sandbox](#).

Success Criteria: CDS Client (EHR) or sandbox displays info card.

Bonus point: CDS Service queries FHIR server while generating card.

App Link Card

Action: CDS Service returns app link card, CDS Client (EHR) accepts app link card.

Precondition: N/A

Success Criteria: CDS Client (EHR) or sandbox displays app link card.

Bonus point: CDS Client (EHR) generates SMART launch token, SMART app performs SMART handshake with OAuth2 server.

Suggestion Card

Action: CDS Service returns suggestion card, CDS Client (EHR) accepts suggestion card.

Precondition: N/A

Success Criteria: CDS Client (EHR) displays actionable suggestion card.

Bonus point: N/A

Workflow Integration with SMART Web Messaging

Action: Following invocation of the order-select hook, CDS Client launches SMART App via app link card, including launch context parameters for patient, smart_messaging_origin, and appContext.

Precondition: Read about [SMART Web Messaging](#).

Success Criteria: When a user has decided on an alternate order, the app issues a SMART Web Messaging call to scratchpad.update to alter the draft order. To complete the workflow, the app issues a SMART Web Messaging call to ui.done to return control back to the EHR.

Bonus point: N/A

TestScript(s)

The AEGIS Touchstone testing tool has test scripts available for tracks to test their implementations. See www.touchstone.com to sign in our register if you are a new user.

Below, you will find a link to the tests specific to this HL7 track. Please send questions or issues to touchstone_support@aeigis.net and a team member will be glad to assist you.

CDS-Hooks Tests can be found here:

https://touchstone.aegis.net/touchstone/testdefinitions?selectedTestGrp=/CDSHSandbox/DaVinci&activeOnly=false&contentEntry=TEST_SCRIPTS

https://touchstone.aegis.net/touchstone/testdefinitions?selectedTestGrp=/CDSH1-0-FR4-0-0-Basic&activeOnly=false&contentEntry=TEST_SCRIPTS

https://touchstone.aegis.net/touchstone/testdefinitions?selectedTestGrp=/CDSH1-0-FR3-5-0-Basic&activeOnly=false&contentEntry=TEST_SCRIPTS

https://touchstone.aegis.net/touchstone/testdefinitions?selectedTestGrp=/CDSH1-0-FR3-0-1-Basic&activeOnly=false&contentEntry=TEST_SCRIPTS

Security and Privacy Considerations

<https://cbs-hooks.org/specification/1.0/#security-and-safety>