

DevDays HL7[®] FHIR[®]

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firely



VONK 3.0 – MAKING FHIR EVEN SIMPLER

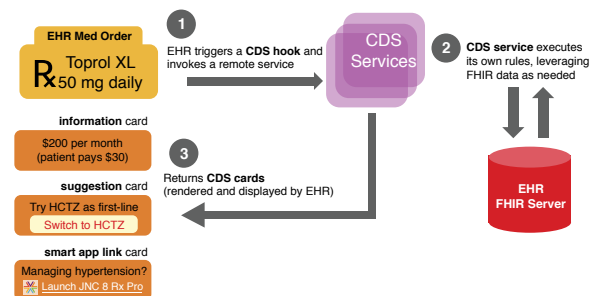
PARTNERS

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Overview



Links

Spec:
<https://cds-hooks.hl7.org/1.0/>

Sandbox:
<http://sandbox.cds-hooks.org/>

Quick Start:
<https://cds-hooks.org/quickstart/>

CDS Service Response Body

cards - REQUIRED - an array of **Cards** with a combination of information, suggested actions, and links

Card:

summary - REQUIRED - <140-character summary sentence for display to the user inside of this card
 detail - OPTIONAL - optional detailed information to display (GitHub Flavored Markdown)
 indicator - REQUIRED - urgency/importance of what this card conveys (info/warning/critical)
 source - REQUIRED - grouping structure for the **Source** of information displayed on this card
 suggestions - OPTIONAL - array of **Suggestions** for changes in the context of the current activity
 selectionBehavior - OPTIONAL - intended behavior of the suggestions. If suggestions present, value must be at-most-one
 links - OPTIONAL - array of **Links** to suggest an app or other additional information

Source:

label - REQUIRED - short, human-readable label to display source of the card's information
 uri - OPTIONAL - optional absolute URL to load to learn more about the organization or data set
 icon - OPTIONAL - absolute url for an icon for the source of this card (100x100 pixel PNG without any transparent regions)

Suggestion

label - REQUIRED - human-readable label to display for this suggestion
 uuid - OPTIONAL - unique identifier for auditing and logging suggestions
 actions - OPTIONAL - array of suggested **Actions** (logically AND'd together)

Action:

type - REQUIRED - type of action being performed (create/update/delete)
 description - REQUIRED - human-readable description of the suggested action
 resource - OPTIONAL - FHIR resource to create/update or id of resource to delete

Link:

label - REQUIRED - human-readable label to display
 url - REQUIRED - URL to GET when link is clicked
 type - REQUIRED - type of the given URL (absolute/smart)
 appContext - OPTIONAL - additional context to share with a linked SMART app

```
{
  "cards": [
    {
      "summary": "<140 char Summary Message",
      "detail": "optional GitHub Markdown details",
      "indicator": "info",
      "source": {
        "label": "Human-readable source label",
        "url": "https://example.com",
        "icon": "https://example.com/img/icon-100px.png"
      },
      "suggestions": [
        {
          "label": "Human-readable suggestion label",
          "uuid": "e1187895-ad57-4ff7-af1-ccf954b2fe46",
          "actions": [
            {
              "type": "create",
              "description": "Create a prescription for Acetaminophen 250 MG",
              "resource": {
                "resourceType": "MedicationRequest",
                "...": "<snipped for brevity>"
              }
            }
          ]
        }
      ],
      "links": [
        {
          "label": "SMART Example App",
          "...": "<snipped for brevity>"
        }
      ]
    }
  ]
}
```

CDS Service Discovery - GET {baseUrl}/cds-services

Response Body

services - An array of **CDS Services**

CDS Service:

hook - REQUIRED - hook this service should be invoked on
 title - RECOMMENDED - human-friendly name of this service
 description - REQUIRED - description of this service
 id - REQUIRED - {id} portion of service URL:
 {baseUrl}/cds-services/{id}
 prefetch - OPTIONAL - Object containing key/value pairs of FHIR queries that this service is requesting the CDS Client to include on service calls

```
{
  "services": [
    {
      "hook": "hook-noun-verb",
      "title": "CDS Service Example",
      "description": "An example of a CDS Service that returns a card",
      "id": "patient-greeter",
      "prefetch": {
        "patientToGreet": "Patient/{{context.patientId}}"
      }
    }
  ]
}
```

CDS Service Request - POST {baseUrl}/cds-services/{id}

Request Body

hook - REQUIRED - hook that triggered this CDS Service call
 hookInstance - REQUIRED - UUID for this hook call
 fhirServer - OPTIONAL - base URL for CDS Client's FHIR server
 fhirAuthorization - OPTIONAL - structure with **FHIR Authorization** information for the above url
 context - REQUIRED - hook-specific contextual data
 prefetch - OPTIONAL - FHIR data prefetched by the CDS Client

FHIR Authorization

access_token - REQUIRED - OAuth 2.0 access token
 token_type - REQUIRED - fixed value: Bearer
 expires_in - REQUIRED - lifetime in seconds of the access token
 scope - REQUIRED - scopes the access token grants to the CDS Service
 subject - REQUIRED - OAuth 2.0 client id of the CDS Service's auth server registration

```
{
  "hook": "hook-noun-verb",
  "hookInstance": "d1577c69-dfbc-44ad-ba6d-3e05e953b2ea",
  "fhirServer": "https://fhir.client.com/version",
  "fhirAuthorization": {
    "access_token": "opaque-token",
    "...": "<snipped for brevity>"
  },
  "context": {
    "userId": "Practitioner/example",
    "...": "<snipped for brevity>"
  },
  "prefetch": {
    "patientToGreet": {
      "resourceType": "Patient",
      "...": "<snipped for brevity>"
    }
  }
}
```