



Direct Messaging Implementation Guide

Version 1.2, January 2018

Document History

Version	Date	Update Origin	Written by	Verified by
1.00	11/19/2016	Initial Draft	Kelly Llewellyn	Sue Merk
1.1	1/16/2017	Updated general assumptions.	Kelly Llewellyn	
1.2	1/15/2018	Updated Section 2 to include details about CDR response messages.	Rhonda May	

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1 Overview

The OneHealthPort Health Information Exchange (HIE) Direct Messaging Implementation Guide provides information for organizations that use Direct Messaging for the secure delivery of Consolidated-Clinical Data Architecture (C-CDA) documents to the clinical data repository (CDR). The Direct Messaging pathway is only supported for the CDR and not open for exchange across the HIE trading partner community.

1.1 Purpose

The purpose of this document is to provide the information needed by organizations using Direct to set up, test and submit C-CDAs to the CDR.

1.2 Intended Audience

This document is intended for:

- New trading partners requiring information about using Direct to send messages to the CDR.
- Electronic health record (EHR) vendors supporting customers in the set-up, testing and submissions of C-CDAs to the CDR using Direct.

2 Direct Message Submission to the CDR

Organizations choosing this data submission option will be required to send the C-CDA in a validated xml format to the CDR's Direct Mail address.

2.1 General Assumptions for Direct Message C-CDA Submissions

- ***Organizations will inform OneHealthPort of their Direct domain name for mapping purposes in the CDR prior to beginning data submissions by sending the Direct domain name in a OneHealthPort Support Request Form <http://www.formstack.com/forms/?1688456-sjNVJY8V7I>***
- Contracted organizations submitting clinical documents via Direct messaging will submit properly formatted and fully formed .xml files meeting the C-CDA validation requirements.
- Direct messages with attached PDF documents will not be processed by the CDR. Attachments must be in an .xml format.

- The OneHealthPort Direct mail address will be available and recognized by Direct-Trust certified HISPs and non-Direct Trust certified messages for the Clinical Data Repository destination only.
- The OneHealthPort Clinical Data Repository can accept XDR and XDM formatted direct messages.
- Direct messages received from submitters not contracted with the OneHealthPort HIE will error and no data will update in the CDR. An error message will be returned to the sending direct address.

2.2 CDR Direct Message Addresses

CDR Direct Mail addresses are listed below.

- CDR Test Environment – uat@direct.cdr.onehealthport.com
- CDR Production Environment – available after testing in UAT

2.3 CDR Direct Message Responses

The CDR will return both success and failure messages. Examples of message responses follow:

2.3.1 Success.

A CCD was processed into the CDR. File Name: 123456789.xml. CDR Response: Your CCD submission has successfully processed in the CDR.

2.3.2 Patient not found.

The OneHealthPort CDR could not identify the Patient based on the information included in your message. Please contact OneHealthPort for assistance using the online support form at: <http://www.formstack.com/forms/?1688456-sjNVJY8V7I>

Note: This is a general error for issues where the Sponsor's patient identifier, or CDR global patient identifier were not in the C-CDA, or if they were in the C-CDA they did not match any patient record in the system.

2.3.3 Unknown Source ID

The OneHealthPort CDR could not identify the organization submitting the C-CDA. Please contact OneHealthPort to resolve organization identifier issues using the online support form at: <http://www.formstack.com/forms/?1688456-sjNVJY8V7I>

Note: This is a general error message that will be sent for situations where the CDR does not recognize the sender's Direct messaging address. Organizations will need to report the Direct messaging address to OneHealthPort before resuming C-CDA submissions.

2.3.4 Invalid file format

The file submitted to the OneHealthPort CDR had an invalid file format. Please contact OneHealthPort for CCD file formatting issue support using the online support form at: <http://www.formstack.com/forms/?1688456-sjNVJY8V7I>

Note: This error message occurs when the C-CDA submitted cannot be processed by the CDR because, for example, the xml file is malformed, or improperly encoded using an encoding algorithm other than UTF-8.

2.3.5 Invalid Confidentiality Code

The file submitted to the OneHealthPort CDR had an invalid confidentiality code. Please contact OneHealthPort for CCD A file formatting issue support using the online support form at:

<http://www.formstack.com/forms/?1688456-sjNVJY8V7I>

Note: This error message occurs when the C-CDA submitted cannot be processed by the CDR because the document is missing a valid confidentiality code of N, R or V.

Direct message responses can be linked to the Direct CCD submission through the file name returned in the message response. It is prudent to have unique file names that provide some clue as to the patient to which the response relates. Some options that can assist in file naming are:

- Insert a patient identifier, such as account number or medical record number, with no other patient identifying information in the file name.
- Insert a unique GUID (i.e., 5692e3e9-d2c0-407a-be98-27682b63a67a) in the file name.
- Insert a date and time stamp in the filename, so that the return message can be correlated to the time the message was sent.

3 HIE and CDR Operations Change Management

Organizations using the Direct method to connect to the Clinical Data Repository will not need to incorporate operational change management processes. Direct messages are held in the mailbox whenever the CDR or HIE systems are unavailable for maintenance. Once systems are back online messages waiting will be processed and responses returned to senders. The Direct message is asynchronous by design so the systems do not require coordination of system downtime.

3.1 OneHealthPort HIE and CDR System Availability Notifications

The OneHealthPort HIE and CDR web pages post system availability in the Twitter “*Tweets*” notification box shown below. Current system status is posted and updates are provided via Twitter feeds. Operations teams can sign up to follow Twitter feeds announcing system events using Tweets by @ohphie.

Unplanned outages are posted on the OneHealthPort HIE and CDR web pages, as well as upcoming scheduled maintenance downtimes. Monthly maintenance schedules are also posted annually for use in operational planning. See the [OneHealthPort HIE](#) and [OneHealthPort CDR Maintenance Schedule](#) section on the web pages for

more information. In addition to web page postings, detailed system announcements and notifications are sent via email distribution.

The screenshot shows the OneHealthPort HIE website interface. At the top, there is a navigation bar with links: HOME, SINGLE SIGN-ON, HIE, CDR, CREDENTIALING, ADMIN/IMP, and ABOUT US. Below this is the OneHealthPort | HIE logo. A secondary navigation bar includes: HIE Home, Contracting, Registration, Transactions, Application Portal, Participants, Support, and About.

The main content area is divided into several sections:

- Contracting:** The Health Information Exchange (HIE) supports the exchange of clinical or business information in standardized message formats. To participate, interested organizations must sign a participation agreement and pay an annual subscription fee.
- Registration:** Organizations contracted with the OneHealthPort HIE must register facilities before exchanging information.
- Transactions:** The HIE supports standard transactions such as C-CDA documents, Electronic Laboratory Reporting and Syndromic Surveillance messages to the Department of Health, and system-to-system query capability to the Prescription Monitoring Program database.
- Application Portal:** HIE web applications offer OneHealthPort HIE participants access to tools for using HIE services through a secure website portal. Applications include the Clinical Data Repository, the OneHealthPort Provider Directory, and C-CDA Validation Testing.
- Maintenance Schedule:** Production maintenance is scheduled monthly for up to a 4-hour outage starting at 5 PM Pacific. Next scheduled outage is Friday, January 20, 2017. UAT maintenance is scheduled for a 5-hour outage the first Thursday of each month starting on Wednesday at 11 PM and ending Thursday 4 AM Pacific.

At the bottom of the content area, there are links for [Maintenance Schedule](#) and [Notification Sign-Up](#). A "Tweets" widget on the right side shows two tweets from @ohphie regarding production maintenance.

Footer information includes: © 2016 OneHealthPort, Seattle, WA, USA. All rights reserved. and a [Contact Us](#) link.

3.2 OneHealthPort HIE and CDR Support Request Form

Use this form to obtain technical support or assistance with issues related to information exchange activities with the OneHealthPort HIE or the CDR. The support request form is located on the OneHealthPort HIE and CDR web pages and the link is also provided below. The form is monitored by HIE and CDR technical consultants and business team members to ensure proper resources are quickly deployed to respond to customer issues.

<http://www.formstack.com/forms/?1688456-sjNVJY8V7I>