



Edge Test Tool – TechLab Makeover

ETT Release 2.0 Prototype Review

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Edge Test Tool Home Page



Edge Test Tool

This Tool provides a mechanism for developers to test the sending and receiving capabilities of their Direct XDR Edge Implementations. The implementers can interact with a Direct Reference Implementation to check their implementations for interoperability and functionality.

 Direct Testing	 Message Validators	 Edge Testing
 HISP Testing & Delivery Notification	 2015 Edition Testing by Criteria	

Version: 1.2.5.1 Released: May 31, 2017

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Edge Test Tool Home Page – Surveillance Panel



Edge Test Tool

This Tool provides a mechanism for developers to test the sending and receiving capabilities of their Direct XDR Edge Implementations. The implementers can interact with a Direct Reference Implementation to check their implementations for interoperability and functionality.

 Direct Testing	 Message Validators	 Edge Testing
 HISP Testing & Delivery Notification	 2015 Edition Testing by Criteria	 Surveillance Testing

Version: 1.2.6 Released: June 15, 2017

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Direct Testing – Home Page

The screenshot shows the HealthIT.gov Direct Testing Home Page. At the top, there's a navigation bar with links for ETT Home, Direct Home, Register Direct, Send Direct Message, Message Validator, CCDA Validators, Cert Discovery, Login/Sign up, Documents, and Help.

Certificates

A message box states: "⚠ Links for Direct Certificates not configured! You need to update the file direct_certificates_links.json located in ETT root directory. If you do not want to provide links you can just write - for the link of each certificate."

Content validation

All content validation is controlled by the Direct (To) address the content is sent to. The following Direct (To) addresses and the expected content types for validation are ...

CCDA R2.1

Message format

Sender SUT Test Data Receiver SUT Test Data

Select document... Validation Objective: Reference Filename:

CCDA R1.1

Direct (To) address	Purpose	Action
direct-clinical-summary@localhost	ONC 2014 Edition Certification 170.314(e)(2) - Clinical Summary	🔗
direct-ambulatory2@localhost	ONC 2014 Edition Certification 170.314(b)(2) Transition of Care/Referral Summary - For Ambulatory Care	🔗
direct-ambulatory7@localhost	ONC 2014 Edition Certification 170.314(b)(7) Data Portability - For Ambulatory Care	🔗
direct-ambulatory1@localhost	ONC 2014 Edition Certification 170.314(b)(1) Transition of Care Receive - For Ambulatory Care	🔗
direct-inpatient2@localhost	ONC 2014 Edition Certification 170.314(b)(2) Transition of Care/Referral Summary - For Inpatient Care	🔗
direct-inpatient7@localhost	ONC 2014 Edition Certification 170.314(b)(7) Data Portability - For Inpatient Care	🔗
direct-inpatient1@localhost	MU 2 170.314(b)(1) Transition of Care Receive - For Inpatient Care	🔗
direct-vdt-ambulatory@localhost	ONC 2014 Edition Certification 170.314 (e)(1) Ambulatory Summary	🔗
direct-vdt-inpatient@localhost	ONC 2014 Edition Certification 170.314 (e)(1) Inpatient Summary	🔗
ccda@localhost	Non-specific CCDA	🔗

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Direct Testing – Register Direct



ETT Home Direct Home **Register Direct** Send Direct Message Message Validator CCDA Validators ▾ Cert Discovery ▾ Login/Sign up  Documents  Help

Registration for Transport Testing Tool

These instructions cover the special requirements for sending Direct messages to the NIST Transport Testing Tool Direct message validation system. By its nature, it is difficult to get feedback from the recipient of a Direct/SMTP message. So, to enable message validation feedback, we require pre-registration. This pre-registration links a Direct (From) address that is used to send to the validator to a normal email account. Validation reports are sent back to the email account for review by the user. This panel allows the user to register their email account and link one or more Direct (From) account to it. Direct messages sent from a non-registered Direct (From) address will not be validated nor reported on.

Register a Direct Email Address

Direct email address



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Direct Testing – Send Direct Message

The screenshot shows the 'Send a Direct Message' page of the HealthIT.gov Direct Testing tool. The page has a header with the HealthIT.gov logo and navigation links for ETT Home, Direct Home, Register Direct, Send Direct Message (which is highlighted in yellow), Message Validator, CCDA Validators, Cert Discovery, Login/Sign up, Documents, and Help.

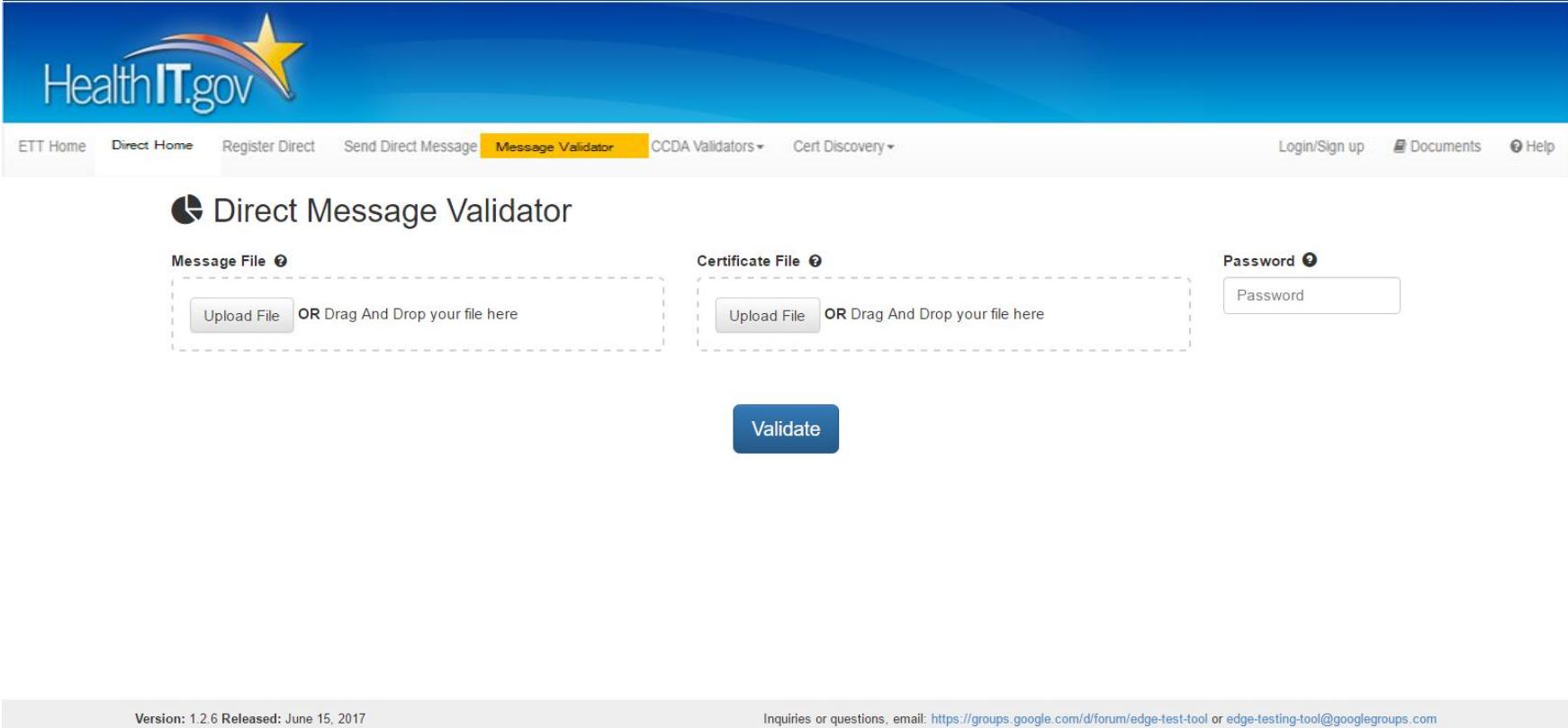
The main form area is titled 'Send a Direct Message' and includes the following fields:

- Direct From Address:** A text input field containing 'Direct From Address' with a placeholder '@localhost'.
- Subject:** A text input field for the message subject.
- Direct To Address:** A text input field for the recipient's address.
- Text Message:** A text input field for the message content.
- Choose document to be sent as the message content:** A dropdown menu currently set to 'Select attachment to be sent...'.
- Message format:** Buttons for 'Wrapped' and 'Unwrapped' message formats.
- Signing Certificate:** Buttons for 'GOOD_CERT' (highlighted in green), 'INVALID_CERT', 'EXPIRED_CERT', 'DIFFERENT_TRUST_ANCHOR', and 'BAD_AIA'.
- or select message with invalid digest (message which had been altered):** A dropdown menu currently set to 'INVALID_DIGEST'.
- Signing Algorithm:** Buttons for 'SHA-1' and 'SHA-256'.
- Encryption Certificate:** A dashed box for uploading files, with 'Upload File' and 'OR Drag And Drop your file here' options.

A large 'Send' button is located at the bottom of the form.

At the bottom of the page, there is footer information: 'Version: 1.2.6 Released: June 15, 2017', 'Announcements | Release notes | FAQ', 'Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com', 'Privacy Policy | Disclaimers', and the HealthIT.gov logo.

Direct Testing – Message Validator



The image shows the HealthIT.gov Direct Message Validator interface. At the top, there is a navigation bar with links for ETT Home, Direct Home, Register Direct, Send Direct Message, Message Validator (which is highlighted in yellow), CCDA Validators, Cert Discovery, Login/Sign up, Documents, and Help.

The main content area is titled "Direct Message Validator". It features three input fields: "Message File" (with "Upload File" and "OR Drag And Drop your file here" options), "Certificate File" (with "Upload File" and "OR Drag And Drop your file here" options), and "Password" (with a "Password" input field). A large blue "Validate" button is centered below these fields.

At the bottom of the page, there is a footer with the text "Version: 1.2.6 Released: June 15, 2017" and "Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com".

Direct Testing – CCDA R 1.1 Validator

The screenshot shows the HealthIT.gov website with a blue header bar. The main content area is titled "CCDA R1.1 Validator with ONC MDHT Tool". On the left, there's a "CCDA File" section with a dashed box for file upload, containing a "Upload File" button and the text "OR Drag And Drop your file here". To the right is a list of validation types, with the last one, "Non-specific CCDA", selected. A large blue "Validate" button is at the bottom.

CCDA File (?)

Upload File OR Drag And Drop your file here

Clinical Office Visit Summary - ONC 2014 Edition 170.314(e)(2) - Clinical Summary

Transitions Of Care Ambulatory Summary - ONC 2014 Edition 170.314(b)(2) Transition of Care/Referral Summary - For Ambulatory Care

Transitions Of Care Ambulatory Summary - ONC 2014 Edition 170.314(b)(7) Data Portability - For Ambulatory Care

Transitions Of Care Ambulatory Summary - ONC 2014 Edition 170.314(b)(1) Transition of Care Receive - For Ambulatory Care

Transitions Of Care Inpatient Summary - ONC 2014 Edition 170.314(b)(2) Transition of Care/Referral Summary - For Inpatient Care

Transitions Of Care Inpatient Summary - ONC 2014 Edition 170.314(b)(7) Data Portability - For Inpatient Care

Transitions Of Care Inpatient Summary - ONC 2014 Edition 170.314(b)(1) Transition of Care Receive - For Inpatient Care

VDT Ambulatory Summary - ONC 2014 Edition 170.314 (e)(1) Ambulatory Summary

VDT Inpatient Summary - ONC 2014 Edition 170.314 (e)(1) Inpatient Summary

Non-specific CCDA

Validate

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Direct Testing – CCDA R 2.1 Validator

The screenshot shows the HealthIT.gov website with a blue header bar. The main content area is titled "ONC C-CDA R2.1 Validator Tool". It contains four numbered steps for validating a CCDA file:

- Download a test data input file to be used as input for generating a C-CDA.
Message format ⓘ
Sender SUT Test Data Receiver SUT Test Data
Select document... Download Download all files
- Generate your CCDA file and when you are ready to validate, proceed to Step 3.
- Select a C-CDA Document Type or ONC 2015 Edition Certification from the list below.
Message format ⓘ
Select document... Validation Objective:
Reference Filename:
- Upload generated C-CDA file and click validate.
Upload File OR Drag And Drop your file here
Validate

At the bottom, there are links for Version 1.2.6, Announcements, Release notes, FAQ, Inquiries, Privacy Policy, and Disclaimers.

Direct Testing – Direct Certificate Discovery Tool 2014 Edition

The screenshot shows the HealthIT.gov Direct Certificate Discovery Tool 2014 Edition interface. At the top, there's a navigation bar with links like ETT Home, Direct Home, Register Direct, Send Direct Message, Message Validator, CCDA Validators, and the current page, Cert Discovery. There are also links for Log In/Sign Up, Documents, and Help.

The main title is "2014 Direct Certificate Discovery Tool". Below it, a section titled "Purpose of the 2014 Direct Certificate Discovery Tool" explains its purpose: to support automated testing of systems that enact the Certificate Discovery and Provider Directory Implementation Guide, as of July 9, 2012. It's based on the test package and requirement traceability matrix created by the Modular Specifications project under the direction of the Office of the National Coordinator (ONC) and National Institute of Standards and Technology (NIST).

The tool is divided into two main testing areas:

- Hosting**: Allows a System Under Test (SUT) to verify that their certificates are hosted correctly, and discoverable by other Direct implementations.
- Discovery**: Allows a SUT to verify that they can discover certificates in other Direct implementations by using them to send Direct messages.

Hosting - Verify your certificate can be discovered

Directions:
Step 1. Determine the required test cases for your SUT (System Under Test). Notice that there are two options for storage of address-bound and domain-bound certificates.
Step 2. Select a test case that reflects the SUT from the dropdown.
Step 3. Read the Description and Instructions for the selected test case. Then enter the Direct address and submit. Your SUT configuration may require that you select more than one test case. If so, then select one test case at a time, following the instructions to execute the test after each selection.

Select a Hosting Test Case:
-No testcase selected-

Enter Your Direct Address:
direct email address

Discover DCDT's Certificates

Directions:
Step 1. Download the Testing Tool's trust anchor.
Download Trust Anchor
Step 2. Upload the anchor to your Direct instance. This will allow you to send messages to our host.
Step 3. Using the form below, map the Direct email address from which you will be sending messages to a non-Direct email address. You will receive a regular email containing test results. The email address should be able to receive plain text messages. Make sure you have access to the recipient email address in order to verify the receipt of the messages.

Enter Your Direct Address:
direct email address
Enter Your Email Address (for results):
results email address

Step 4. Choose a test case from the drop-down menu below. Read the test case description below the "Direct Address" field, copy the displayed Direct address and proceed to step 5. You should run all of the tests in order to verify the system's ability to handle all test cases. Note: your system MUST NOT already contain a certificate for the address selected or the test case will not be valid.

Step 5. Attempt to send a message to the Direct address that you've just copied. Please only send to one address at a time. The test case results message will indicate the test case results. See the test case instructions for additional information.

Select a Discovery Test Case:
-No testcase selected-

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Direct Testing – Direct Certificate Discovery Tool 2015 Edition

The screenshot shows the HealthIT.gov Direct Certificate Discovery Tool 2015 Edition interface. At the top, there's a navigation bar with links like ETT Home, Direct Home, Register Direct, Send Direct Message, Message Validator, CCDA Validators, and Cert Discovery. Below the navigation is a main title "2015 Direct Certificate Discovery Tool". Underneath, a section titled "Purpose of the 2015 Direct Certificate Discovery Tool" explains its purpose: to support automated testing of systems to enact the Certificate Discovery and Provider Directory Implementation Guide. It highlights two main testing areas: "Hosting" and "Discovery".

Hosting - Verify your certificate can be discovered

Directions:
Step 1. Determine the required test cases for your SUT (System Under Test). Notice that there are two options for storage of address-bound and domain-bound certificates.
Step 2. Select a test case that reflects the SUT from the dropdown.
Step 3. Read the Description and Instructions for the selected test case. Then enter the Direct address and submit. Your SUT configuration may require that you select more than one test case. If so, then select one test case at a time, following the instructions to execute the test after each selection.

Select a Hosting Test Case:
-No testcase selected-

Enter Your Direct Address:
direct email address

Discover DCDT's Certificates

Directions:
Step 1. Download the Testing Tool's trust anchor.
Download Trust Anchor
Step 2. Upload the anchor to your Direct instance. This will allow you to send messages to our tool.
Step 3. Using the form below, map the Direct email address from which you will be sending messages to a non-Direct email address. You will receive a regular email containing test results. The email address should be able to receive plain text messages. Make sure you have access to the recipient email address in order to verify the receipt of the messages.

Enter Your Direct Address:
direct email address
Enter Your Email Address (for results):
results email address

Select a Discovery Test Case:
-No testcase selected-

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Message Validators - C-CDA R1.1 Validator



ETT Home CCDA R1 Validator CCDA R2 Validator XDM Validator XDR Validator Direct Message Validator Login/Sign up Documents Help

CCDA R1.1 Validator with ONC MDHT Tool

CCDA File (?)

OR Drag And Drop your file here

- Clinical Office Visit Summary - ONC 2014 Edition 170.314(e)(2) - Clinical Summary
- Transitions Of Care Ambulatory Summary - ONC 2014 Edition 170.314(b)(2) Transition of Care/Referral Summary - For Ambulatory Care
- Transitions Of Care Ambulatory Summary - ONC 2014 Edition 170.314(b)(7) Data Portability - For Ambulatory Care
- Transitions Of Care Ambulatory Summary - ONC 2014 Edition 170.314(b)(1) Transition of Care Receive - For Ambulatory Care
- Transitions Of Care Inpatient Summary - ONC 2014 Edition 170.314(b)(2) Transition of Care/Referral Summary - For Inpatient Care
- Transitions Of Care Inpatient Summary - ONC 2014 Edition 170.314(b)(7) Data Portability - For Inpatient Care
- Transitions Of Care Inpatient Summary - ONC 2014 Edition 170.314(b)(1) Transition of Care Receive - For Inpatient Care
- VDT Ambulatory Summary - ONC 2014 Edition 170.314 (e)(1) Ambulatory Summary
- VDT Inpatient Summary - ONC 2014 Edition 170.314 (e)(1) Inpatient Summary
- Non-specific CCDA

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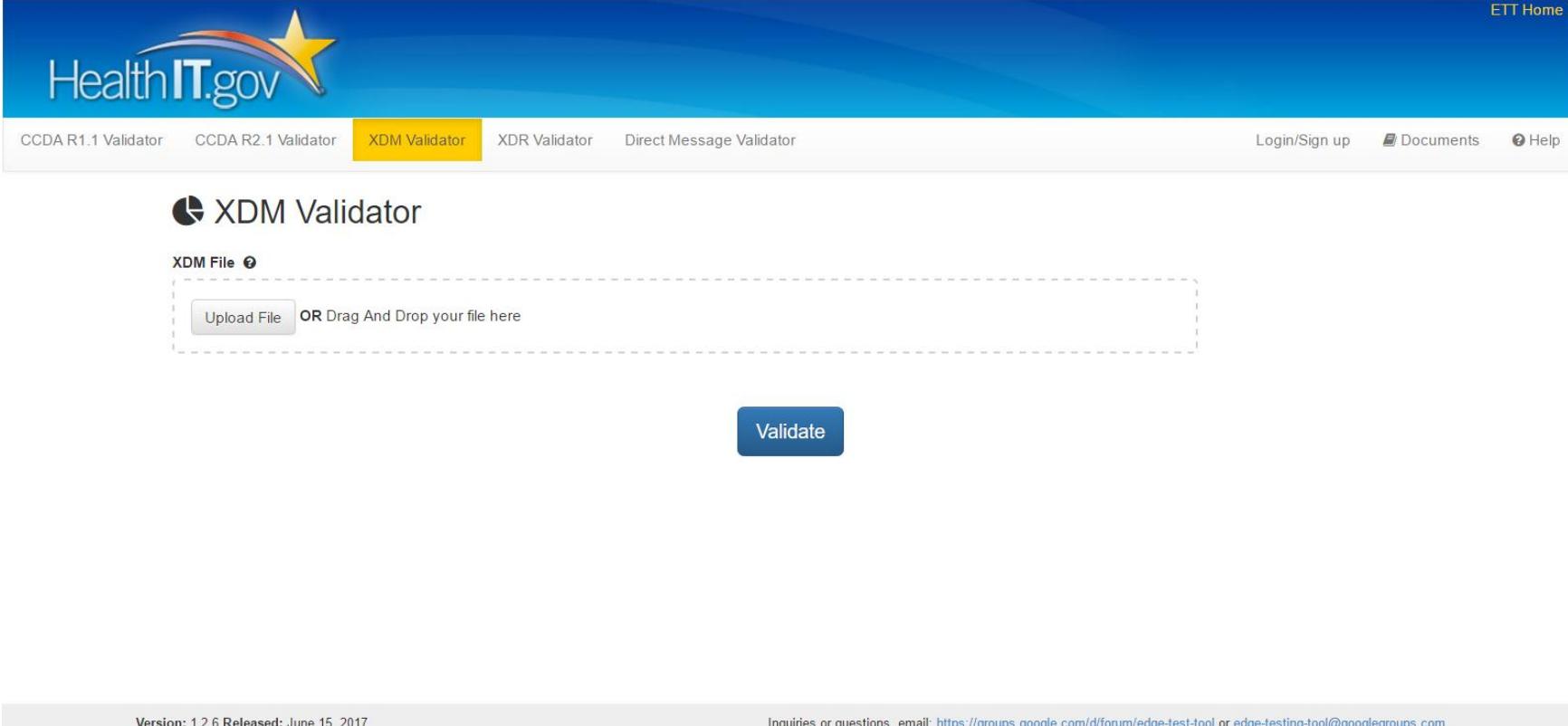
Message Validators - C-CDA R 2.1

The screenshot shows the HealthIT.gov website with a blue header bar. The main content area is titled "ONC C-CDA R2.1 Validator Tool". It contains four numbered steps for validating C-CDA files:

- Download a test data input file to be used as input for generating a C-CDA.
Message format ⓘ
Sender SUT Test Data Receiver SUT Test Data
Select document... Download Download all files
- Generate your CCDA file and when you are ready to validate, proceed to Step 3.
- Select a C-CDA Document Type or ONC 2015 Edition Certification from the list below.
Message format ⓘ
Select document... Validation Objective:
Reference Filename:
- Upload generated C-CDA file and click validate.
Upload File OR Drag And Drop your file here
Validate

At the bottom, there is footer information: Version: 1.2.5.1 Released: May 31, 2017, Announcements | Release notes | FAQ, Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com, Privacy Policy | Disclaimers.

Message Validators – XDM Validator



The screenshot shows the HealthIT.gov XDM Validator page. At the top, there's a navigation bar with links for CCDA R1.1 Validator, CCDA R2.1 Validator, XDM Validator (which is highlighted in yellow), XDR Validator, Direct Message Validator, Login/Sign up, Documents, and Help. The main title "XDM Validator" is displayed with a gear icon. Below it, there's a section for "XDM File" with a dashed box for file upload or drag-and-drop, containing a "Upload File" button and the text "OR Drag And Drop your file here". A large blue "Validate" button is centered below the file input area. At the bottom of the page, there's a footer with the text "Version: 1.2.6 Released: June 15, 2017" and "Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com".

Message Validators – XDR Validator

The screenshot shows the HealthIT.gov XDR Validator page. At the top, there's a navigation bar with links to ETT Home, CCDA R1.1 Validator, CCDA R2 Validator, XDM Validator, XDR Validator (which is highlighted in yellow), and Direct Message Validator. To the right are links for Login/Sign up, Documents, and Help. Below the navigation is the main content area titled "XDR Validator". It features two tabs: "XDR Send" (selected) and "XDR Receive". The "XDR Send" tab contains fields for "Patient ID" (with a placeholder "Patient ID") and "Select Test Data Set" (with a dropdown menu showing "Select attachment to be sent..." and a delete icon). There's also a "SAML" section with a switch labeled "OFF". The "Endpoint" field is empty. At the bottom are "Send" and "Reset" buttons.

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Message Validators – Direct Message Validator

The screenshot shows the HealthIT.gov website with a blue header. In the top right corner, there are links for "Login/Sign up", "Documents", and "Help". The main content area has a title "Direct Message Validator" and three input fields: "Message File", "Certificate File", and "Password", each with an "Upload File" button and a "Drag And Drop your file here" placeholder. A large "Validate" button is centered below the inputs. At the bottom, there is footer text: "Version: 1.2.6 Released: June 15, 2017" and "Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com".

HealthIT.gov

ETT Home CCDA R1.1 Validator CCDA R2 Validator XDM Validator XDR Validator Direct Message Validator Login/Sign up Documents Help

Direct Message Validator

Message File ?

Upload File OR Drag And Drop your file here

Certificate File ?

Upload File OR Drag And Drop your file here

Password ?

Password

Validate

Version: 1.2.6 Released: June 15, 2017

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Edge Testing – Home Page

The screenshot shows the Edge Testing – Home Page with the following sections:

- Email address endpoints for MDN**: A table listing email addresses and their purpose for sending MDN responses. The columns are "Email address (To)" and "Purpose".

Email address (To)	Purpose
processedonly5@localhost	Provides regular processed MDN's when messages received. (No Dispatched MDN)
processeddispatched6@localhost	Provides both Processed and Dispatched MDN's when messages received.
processdelayeddispatch7@localhost	Provides Processed when message received, dispatched after 1 hour 5 minutes after message received.
nomdn8@localhost	No MDNs are provided.
noaddressfailure9@localhost	Non-existent address. (Need to send Failure MDN)
processedonly5-plain@localhost	Provides SMTP processed MDN's when messages received. (No Dispatched MDN)
processeddispatched6-plain@localhost	Provides both Processed and Dispatched SMTP MDN's when messages received.
noaddressfailure9-plain@localhost	Non-existent address. (Need to send Failure MDN)
- Bad MDN endpoints**: A table listing email addresses that result in bad MDN responses. The columns are "Email address (To)" and "Purpose".

Email address (To)	Purpose
white_space_mdn@localhost	MDN Report field containing white spaces.
extra_line_break_mdn@localhost	MDN Report field with line breaks.
extra_space_disposition@localhost	Extra Space in Disposition Report Field.
missing_disposition@localhost	Missing Disposition Notification To Header.
null_sender@localhost	MDN with Null Envelope Sender.
different_sender@localhost	MDN's containing different Sender and From addresses.
different_msgid@localhost	Message ID differences between the outer envelope and inner message for wrapped messages.
white_space_822@localhost	RFC822 headers containing white spaces.
different_cases_822@localhost	RFC822 headers constructed using different cases.
dsn@localhost	Non-existent address. (Need to send Failure MDN)
- Support**: A section providing help information and links to forums.

If you are looking for help about this tool <https://groups.google.com/forum/#!forum/edge-test-tool>

At the bottom of the page, there is footer information:
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Edge System – SMTP

The screenshot shows the HealthIT.gov Edge System – SMTP Test Cases interface. At the top, there's a navigation bar with links to ETT Home, Edge Home, SMTP Test Cases (which is highlighted in yellow), Message Tracking, IMAP Test Cases, POP3 Test Cases, XDR Test Cases, and Validation Reports. On the right side of the nav bar are links for Login/Sign up, Documents, and Help.

The main content area has a title "Your system as" followed by two tabs: "Sender" (selected) and "Receiver". Below these tabs is a "Default Profile" dropdown menu. The "Sender" section contains fields for "Vendor SMTP Hostname/IP", "Vendor SMTP Email Address", "Vendor SMTP Username", "Vendor SMTP Password", and a "TLS Required" checkbox. At the bottom of this section are buttons for "+ New Profile", "Save", and "Remove".

To the right of the "Sender" section is a detailed description of the "SMTP Test 8, 14, 18 (Send)" test case. It explains that the test verifies the ability of the sending system to send an email to ETT using the SMTP protocol with STARTTLS and PLAIN SASL Authentication (if enabled). It notes that the SUT will send an email to `wellformed1@ttpedge.sitenv.org`. A "RUN" button is prominently displayed next to the test description. To the left of the "RUN" button are links for "More Info." and "Logs".

At the bottom of the page, there's a footer with links for Version: 1.2.6 Released: June 15, 2017, Announcements | Release notes | FAQ, Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com, Privacy Policy | Disclaimers, and The Office of the National Coordinator for Health Information Technology logo.

Edge System – Message Tracking

The screenshot shows the HealthIT.gov Edge System - Message Tracking interface. At the top, there's a navigation bar with links to ETT Home, Edge Home, SMTP Test Cases, Message Tracking (which is highlighted in yellow), IMAP Test Cases, POP3 Test Cases, XDR Test Cases, and Validation Reports. On the right side of the nav bar are links for Login/Sign up, Documents, and Help.

The main content area has a title "Your system as" followed by tabs for "Sender" (selected) and "Receiver". Below these tabs is a "Default Profile" dropdown menu. To the right of the dropdown are fields for "Vendor Hostname/IP", "Vendor Email Address", "Vendor Username", and "Vendor Password". There's also a checkbox for "TLS Required" which is checked. At the bottom of this section are buttons for "+ New Profile", "Save" (with a checkmark icon), and "Remove".

Two test cases are listed in boxes:

- SMTP MT Test 45 - Generate Unique Message-ID (IG for Delivery Notification Suite)**
Verifies the ability of the sending system to send messages with unique message-IDs and a properly formed Disposition Notification Options Header. The sending system will send multiple messages (at least 3) to wellformed14@tpds.sitenv.org. Hitting 'Run' will cause ETT to check the message IDs for uniqueness (2014 Edition Note: use this case if you opt for 'Message tracking using Implementation Guide for Delivery Notification').
More Info. Logs **RUN**
- SMTP MT Test 46 (Generate Disposition Notification Options Header)**
Verifies the ability of the sending system to send messages with a correct Disposition Notification Options Header. The sending system will send a message to wellformed14@tpds.sitenv.org with the required header. Hitting 'Run' will cause ETT to check for this header.
More Info. Logs **RUN**

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Edge System – IMAP

The screenshot shows the HealthIT.gov Edge System – IMAP test interface. On the left, there's a sidebar titled "Your system as" with tabs for "Sender" and "Receiver". Below it, there's a "Default Profile" section with fields for "Vendor IMAP Hostname/IP", "Vendor IMAP Email Address", "Vendor IMAP Username", and "Vendor IMAP Password". There's also a "TLS Required" checkbox and buttons for "+ New Profile", "Save", and "Remove".

The main area lists ten test cases:

- IMAP Test 19, 20, 24**: Verifies the ability of the Edge system to initiate a IMAP session with STARTTLS and PLAIN SASL AUTHENTICATION(if enabled). The Vendor should retrieve an email from 'imaptesting@tpds.sitenv.org'. Status: **RUN**.
- IMAP Test 21**: Verifies the ability of the Vendor to use either the uppercase, lowercase or mixed case mailbox names and access data. The Vendor should fetch emails from imaptesting@tpds.sitenv.org within the folders 'FOLDER' and 'folder2'. Status: **RUN**.
- IMAP Test 25**: Verifies the ability of the Vendor to receive status and size updates from the IMAP4 server. An email will be sent to the SUT and the SUT will show size and status updates (e.g change in the number of emails in inbox) when new email is received. Status: **RUN**.
- IMAP Test 27**: Verifies the ability of the Vendor to accept XDM packages sent using different MIME Types. The SUT should fetch emails from xdmimetypes@tpds.sitenv.org. Status: **RUN**.
- IMAP Test 28**: Verifies the ability of the Vendor to accept multiple attachments (in varying order). The Vendor should fetch an email from 'multipleattachments@tpds.sitenv.org'. Status: **RUN**.
- IMAP Test 29(a)**: Test for the ability of the Vendor to accept C-CDA even when the CCDA document includes a broken reference to a style-sheet. The Vendor should fetch an email from 'brokenrefstylesheet@tpds.sitenv.org'. Status: **RUN**.
- IMAP Test 29(b)**: Test for the ability of the Vendor to accept C-CDA even when the CCDA document includes a good reference to an invalid style-sheet.. The Vendor should fetch an email from 'invalidstylesheet@tpds.sitenv.org'. Status: **RUN**.
- IMAP Test 30**: Verifies the ability of the Vendor to accept XDM package even in the case where the required XHTML is bad. The Vendor should fetch an email from 'xdmbadxhtml@tpds.sitenv.org'. Status: **RUN**.
- IMAP Test 31 (Receive)**: Verifies the ability of the SUT to accept different attachment types. Attachment type dropdown: **text/html**. Status: **RUN**.

At the bottom, there are links for "Version: 1.2.6 Released: June 15, 2017", "Inquiries or questions, email: https://groups.google.com/d/forum/edge-test-tool or edge-testing-tool@googlegroups.com", "Announcements | Release notes | FAQ", "Privacy Policy | Disclaimers", and "Page 20".

Edge System – POP3

The screenshot shows the HealthIT.gov Edge System – POP3 test tool. At the top, there's a navigation bar with links to ETT Home, Edge Home, SMTP Test Cases, Message Tracking, IMAP Test Cases, POP3 Test Cases (which is the active tab), XDR Test Cases, Validation Reports, Login/Sign up, Documents, and Help.

The main area has two sections: "Your system as" (with Sender and Receiver tabs) and a list of test cases.

Your system as:

- Default Profile
- Vendor POP Hostname/IP:
- Vendor POP Email Address:
- Vendor POP Username: Vendor POP Password:
- TLS Required:
- + New Profile, ,

Test Cases:

Test Case	Description	More Info	Logs	Status
POP Test 19, 20, 24	Verifies the ability of the SUT to support various POP3 commands. The proctor need to send commands to the ETT and retrieve an email from 'poptesting@tpds.sitenv.org'.	More Info	Logs	RUN
POP Test 27	Verifies the ability of the SUT to accept XDM packages sent using different MIME Types. The Vendor should fetch emails from 'xdmmimetypes@tpds.sitenv.org'.	More Info	Logs	RUN
POP Test 28	Verifies the ability of the SUT to accept multiple attachments (in varying order). The Vendor should fetch emails from 'multipleattachments@tpds.sitenv.org'.	More Info	Logs	RUN
POP Test 29(a)	Test for the ability of the Vendor to accept C-CDA even when the CCDA document includes a broken reference to a style-sheet. The Vendor should fetch an email from 'brokenstylesheet@tpds.sitenv.org'.	More Info	Logs	RUN
POP Test 29(b)	Test for the ability of the Vendor to accept C-CDA even when the CCDA document includes a good reference to an invalid style-sheet.. The Vendor should fetch an email from 'invalidstylesheet@tpds.sitenv.org'.	More Info	Logs	RUN
POP Test 30	Verifies the ability of the SUT to accept XDM package even in the case where the required XHTML is bad. The Vendor should fetch emails from 'xdmbadxhtml@tpds.sitenv.org'.	More Info	Logs	RUN
POP Test 31 (Receive)	Verifies the ability of the SUT to accept different attachment types.	More Info	Logs	RUN

Version: 1.2.6 Released: June 15, 2017
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Edge System – XDR

The screenshot shows the HealthIT.gov Edge System XDR Test Cases interface. It displays six test cases, each with a 'RUN' button:

- XDR Test 3**: Verify the ability of the receiving system to correctly receive a properly formatted XDR message with Limited metadata. Step 1: Provide your Endpoint, and C-CDA Document Type. Hit Run to send a XDR message.
- XDR Test 4a**: Verify the ability of the receiving system to appropriately respond to a malformed message. This case is of an invalid SOAP header. Step 1: Provide your Endpoint. Hit Run to send a XDR message.
- XDR Test 4b**: Verify the ability of the receiving system to appropriately respond to a malformed message. This case is of an invalid SOAP body. Step 1: Provide your Endpoint. Hit Run to send a XDR message.
- XDR Test 5**: Verify the ability of the receiving system to correctly receive a properly formatted XDR message with Full (XDS) metadata. Step 1: Provide your Endpoint. Hit Run to send a XDR message.
- XDR Test 8**: Verifies the ability of the receiving system to complete a mutual TLS handshake before data is sent across. Certificates for this test can be downloaded from the link at the top of this page. As this is a socket-level test, the full endpoint for this test is not necessary and only hostname and port are to be entered below. Step 1: Provide your IP Address, and Port. Hit Run to send a XDR message.
- XDR Test 9**: Verifies the ability of the receiving system to reject a mutual TLS connection where the certificate provided by the ETT is invalid. Certificates for this test can be downloaded from the link at the top of this page. As this is a socket-level test, the full endpoint is not necessary and only hostname and port are to be entered below. The SUT MUST attempt an HTTPS connection. Step 1: Provide your IP Address, and Port. Hit Run to send a XDR message.

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Edge System – Validation



ETT Home Edge Home SMTP Test Cases Message Tracking IMAP Test Cases POP3 Test Cases XDR Test Cases **Validation Reports** Login/Sign up Documents Help

You must be logged and have smtp/xdr profiles

Version: 1.2.6 Released: June 15, 2017

Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com

HISP Testing & Delivery Notification – Home Page

The screenshot shows the HISP Testing & Delivery Notification – Home Page. At the top, there is a navigation bar with links to ETT Home, HISP Home, SMTP Test Cases, Message Tracking, IMAP Test Cases, POP3 Test Cases, XOR Test Cases, Validation Reports, Login/Sign up, Documents, and Help.

>Email address endpoints for MDN

A response MDN will be sent from ETT to your SUT upon reception of a SMTP message to those email addresses.

Email address (To)	Purpose
processedonly5@localhost	Provides regular processed MDN's when messages received. (No Dispatched MDN)
processeddispatched6@localhost	Provides both Processed and Dispatched MDN's when messages received.
processdelayeddispatch7@localhost	Provides Processed when message received, dispatched after 1 hour 5 minutes after message received.
nomdn8@localhost	No MDNs are provided
noaddressfailure9@localhost	Non-existent address. (Need to send Failure MDN)
processedonly5-plain@localhost	Provides SMTP processed MDN's when messages received. (No Dispatched MDN)
processeddispatched6-plain@localhost	Provides both Processed and Dispatched SMTP MDN's when messages received.
noaddressfailure9-plain@localhost	Non-existent address. (Need to send Failure MDN)

Bad MDN endpoints

A response MDN will be sent from ETT to your SUT upon reception of a SMTP message to those email addresses.

Email address (To)	Purpose
white_space_mdn@localhost	MDN Report field containing white spaces
extra_line_break_mdn@localhost	MDN Report field with line breaks.
extra_space_disposition@localhost	Extra Space in Disposition Report Field.
missing_disposition@localhost	Missing Disposition Notification To Header
null_sender@localhost	MDN with Null Envelope Sender
different_sender@localhost	MDN's containing different Sender and From addresses.
different_msgid@localhost	Message ID differences between the outer envelope and inner message for wrapped messages.
whil_space_822@localhost	RFC822 headers containing white spaces.
different_cases_822@localhost	RFC822 headers constructed using different cases.
dsn@localhost	Non-existent address. (Need to send Failure MDN)

Support

If you are looking for help about this tool <https://groups.google.com/forum/#forum/edge-test-tool>

Version: 1.2.5.1 Released: May 31, 2017 Inquiries or questions, email: <https://groups.google.com/forum/edge-test-tool> or edge-testing-tool@googlegroups.com

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HISP Testing & Delivery Notification - SMTP

The screenshot shows the HealthIT.gov Edge Test Tool (ETT) interface. At the top, there's a navigation bar with links to ETT Home, HISP Home, SMTP Test Cases (which is highlighted in yellow), Message Tracking, IMAP Test Cases, POP3 Test Cases, XDR Test Cases, and Validation Reports. On the right side of the nav bar are links for Login/Sign up, Documents, and Help.

The main content area has a title "Your system as" followed by two tabs: "Sender" (selected) and "Receiver". Below these tabs is a "Default Profile" dropdown. The "Sender" profile configuration includes fields for Vendor SMTP Hostname/IP, Vendor SMTP Email Address, Vendor SMTP Username, Vendor SMTP Password, and a "TLS Required" checkbox (which is checked). At the bottom of this section are buttons for "+ New Profile", "Save" (with a checkmark icon), and "Remove".

To the right of the profile configuration is a box titled "SMTP Test 8, 14 (Send)". It contains a description of the test: "Verifies the ability of the sending system to send an email to ETT using the SMTP protocol with STARTTLS. The SUT will send an email to edge-receiver@tpds.sitenv.org. Hitting 'Run' will cause ETT to search for an email sent to edge-receiver@tpds.sitenv.org from the email address entered in Profile window. Note that the C-CDA Document Type selected will not affect the test result." Below the description are buttons for "More Info.", "Logs", and a large red "RUN" button.

At the bottom of the page, there's a footer with links: "Version: 1.2.6 Released: June 15, 2017", "Announcements | Release notes | FAQ", "Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com", "Privacy Policy | Disclaimers", and the HealthIT.gov logo.

HISP Testing & Delivery Notification – Message Tracking

The screenshot shows the HealthIT.gov Edge Test Tool (ETT) interface for testing message delivery. The main navigation bar includes links for ETT Home, HISP Home, SMTP Test Cases, IMAP Test Cases, POP3 Test Cases, XDR Test Cases, Validation Reports, Login/Sign up, Documents, and Help.

The central area displays three message tracking tests:

- SMTP MT Test 39 (Message with Good Header)**: Verifies the ability of the system to properly process the Disposition-Notifications-Options Header. A 'RUN' button is present.
- SMTP MT Test 40 (Message with Bad Header)**: Verifies the ability of the system to process an invalid Disposition-Notifications-Options Header. A 'RUN' button is present.
- SMTP MT Test 41 (Unable to deliver)**: Verifies that when the system successfully validates security and trust, but cannot deliver the message to its final destination, the system generates an MDN failed or a failure DSN. A 'RUN' button is present.

Each test section includes fields for Sender (set to Receiver), Default Profile (set to Vendor), Vendor Hostname/IP, Vendor Email Address, Vendor Username, Vendor Password, TLS Required (checked), and a file upload section for certificates. Buttons for '+ New Profile', 'Save', and 'Remove' are also visible.

At the bottom of the page, there is footer information: Version 1.2.6 Released: June 15, 2017, Announcements | Release notes | FAQ, Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com, Privacy Policy | Disclaimers, and a link to The Office of the National Coordinator for Health Information Technology.

HISP Testing & Delivery Notification - IMAP

The screenshot shows the HealthIT.gov IMAP Test Cases interface. At the top, there's a navigation bar with links to ETT Home, HISP Home, SMTP Test Cases, Message Tracking, IMAP Test Cases (which is the active page), POP3 Test Cases, XDR Test Cases, and Validation Reports. On the right side of the header are links for Login/Sign up, Documents, and Help.

The main area is titled "Your system as" with tabs for "Sender" (selected) and "Receiver". Below this, there's a "Default Profile" dropdown set to "Vendor IMAP Hostname/IP". The profile fields include "Vendor IMAP Email Address", "Vendor IMAP Username", and "Vendor IMAP Password". A checkbox for "TLS Required" is checked. At the bottom of this section are buttons for "+ New Profile", "Save", and "Remove".

The main content area lists several IMAP tests:

- IMAP Test 1, 2, 3**: Verifies IMAP4 CAPABILITY, NOOP and LOGOUT commands are implemented. Status: **RUN**.
- IMAP Test 8, 11, 15**: Verifies the ability of the Vendor HISP to implement imap commands.(AUTHENTICATE, STARTTLS, LOGIN, SELECT, FETCH). Status: **RUN**.
- IMAP Test 9**: Verifies the ability of the Vendor HISP to reject a command when a command with bad syntax is sent. Status: **RUN**.
- IMAP Test 10**: Verifies the ability of the Vendor HISP to reject commands with right syntax based on the specific state of the connection. Status: **RUN**.
- IMAP Test 17**: Verifies the ability of the Vendor HISP to reject incorrect username/password. Status: **RUN**.
- IMAP 32 (Receive + Validate)**: Verifies the ability of the SUT to host attachments and make it available for fetching through IMAP. The CCDA is validated using the MDHT validator. Status: **RUN**.

At the bottom of the page, there's a footer with links to Version information (1.2.6 Released: June 15, 2017), Announcements, Release notes, FAQ, Inquiries or questions (email: https://groups.google.com/d/forum/edge-test-tool or edge-testing-tool@googlegroups.com), Privacy Policy, and Disclaimers.

HISP Testing & Delivery Notification – POP3

The screenshot displays the HISP Testing & Delivery Notification – POP3 interface on the HealthIT.gov website. The top navigation bar includes links for ETT Home, HISP Home, SMTP Test Cases, Message Tracking, IMAP Test Cases, POP3 Test Cases (which is the active tab), XDR Test Cases, Validation Reports, Login/Sign up, Documents, and Help.

The main content area is titled "Your system as" and includes tabs for "Sender" (selected) and "Receiver". A profile dropdown is set to "Default Profile". Below it, there are fields for "Vendor POP Hostname/IP", "Vendor POP Email Address", "Vendor POP Username", and "Vendor POP Password". A checkbox for "TLS Required" is checked. At the bottom of this section are buttons for "+ New Profile", "Save", and "Remove".

The list of test cases is as follows:

- POP Test 1, 2**: Verifies POP3 CAPA, NOOP and QUIT commands are implemented. Status: RUN.
- POP Test 5, 11, 15**: Verifies POP3 STAT, STLS, RETR, LIST, RSET and QUIT commands are implemented. Status: RUN.
- POP Test 9**: Verifies the ability of the Vendor HISP(POP Server) to reject a command when a command with bad syntax is sent. Status: RUN.
- POP Test 10**: Verifies the ability of the Vendor HISP(POP Server) to reject a command in bad state. Status: RUN.
- POP Test 17**: Verifies the ability of the Vendor HISP(POP Server) to reject authentication when bad username/password is used. Status: RUN.
- POP 32 (Receive + Validate)**: Verifies the ability of the SUT to host attachments and make it available for fetching through POP. The CCDA is validated using the MDHT validator. Status: RUN.

Version: 1.2.6 Released: June 15, 2017

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HISP Testing & Delivery Notification - XDR

The screenshot shows the HealthIT.gov XDR Test Cases interface. It displays five test cases, each with a 'RUN' button:

- XDR Test 10:** Test Tool sends a Direct Message to the SUT. The SUT must translate this to an XDR message and send it back to the Edge. Verify that the HISP system can create an XDR message per the specification and forward to Edge. The return endpoint is provided below. The validation report will be sent to the email address registered with the Direct address enter during setup.
Endpoints: http://hit-dev.nist.gov:11080/xdstools2/sim/local-eit_..._10/repl/xdrp
https://hit-dev.nist.gov:11084/xdstools2/sim/local-eit_..._10/repl/xdrp
- XDR Test 11:** Test Tool sends a Direct Message + XDM to the SUT. The SUT must translate this to an XDR message with Limited Metadata and send it back to the Edge. Verify that the HISP system can create an XDR message per the specification and forward to Edge. The return endpoint is provided below. The validation report will be sent to the email address registered with the Direct address enter during setup.
Endpoints: http://hit-dev.nist.gov:11080/xdstools2/sim/local-eit_..._11/repl/xdrp
https://hit-dev.nist.gov:11084/xdstools2/sim/local-eit_..._11/repl/xdrp
- XDR Test 12:** Test Tool sends a Direct Message + XDM to the SUT. The SUT must translate this to an XDR message with Full Metadata and send it back to the Edge. Verify that the HISP system can create an XDR message per the specification and forward to Edge. The return endpoint is provided below. The validation report will be sent to the email address registered with the Direct address enter during setup.
Endpoints: http://hit-dev.nist.gov:11080/xdstools2/sim/local-eit_..._12/repl/xdrp
https://hit-dev.nist.gov:11084/xdstools2/sim/local-eit_..._12/repl/xdrp
- XDR Test 16:** Verify that Mutual TLS session is established between the Sender and the Receiver before transmitting data.
Step 1: Provide your Direct To Address. Hit Run to generate your endpoint.
- XDR Test 17:** Verify that HISP disconnects when the Server provided certificate is invalid. Only the IP address of the SUT shall be entered below. As this is a socket based test, the full endpoint is not required. Only the hostname and port are needed and provided.
Step 1: Provide your IP Address. Hit Run to generate your endpoint.

HISP Testing & Delivery Notification – Validation Reports



ETT Home HISP Home SMTP Test Cases Message Tracking IMAP Test Cases POP3 Test Cases XDR Test Cases **Validation Reports** Login/Sign up  Documents  Help

You must be logged and have smtp/xdr profiles

Version: 1.2.6 Released: June 15, 2017 Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com

Test By Criteria – Home Page

The screenshot shows the 'Criteria Home' section of the HealthIT.gov website. It includes a navigation bar with links to ETT Home, Criteria Home, and sections for § 170.315(b)(1), § 170.315(h)(1), and § 170.315(h)(2). The main content area has three sections:

- Email address endpoints for MDN**: A table listing email addresses and their purposes:

Email address (To)	Purpose
processedonly5@localhost	Provides regular processed MDN's when messages received. (No Dispatched MDN)
processeddispatched6@localhost	Provides both Processed and Dispatched MDN's when messages received.
processdelayeddispatch7@localhost	Provides Processed when message received, dispatched after 1 hour 5 minutes after message received.
nomdn@localhost	No MDNs are provided.
noaddressfailure8@localhost	Non-existent address. (Need to send Failure MDN)
processedonly9-plain@localhost	Provides SMTP processed MDN's when messages received. (No Dispatched MDN)
processeddispatched10-plain@localhost	Provides both Processed and Dispatched SMTP MDN's when messages received.
noaddressfailure11-plain@localhost	Non-existent address. (Need to send Failure MDN)
- Bad MDN endpoints**: A table listing email addresses and their purposes:

Email address (To)	Purpose
white_space_mdn@localhost	MDN Report field containing white spaces.
extra_line_break_mdn@localhost	MDN Report field with line breaks.
extra_space_disposition@localhost	Extra Space in Disposition Report Field.
missing_disposition@localhost	Missing Disposition Notification To Header.
null_sender@localhost	MDN with Null Envelope Sender.
different_sender@localhost	MDN's containing different Sender and From addresses.
different_msgid@localhost	Message ID differences between the outer envelope and inner message for wrapped messages.
white_space_822@localhost	RFC822 headers containing white spaces.
different_cases_822@localhost	RFC822 headers constructed using different cases.
dsn@localhost	Non-existent address. (Need to send Failure MDN)
- Support**: A note about getting help: "If you are looking for help about this tool <https://groups.google.com/forum/#forum/edge-test-tool>"

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Test By Criteria – 170.315(b)(1)

The screenshot shows the HealthIT.gov Edge Test Tool (ETT) interface. At the top, there's a navigation bar with links to ETT Home, Criteria Home, § 170.315(b)(1), § 170.315(h)(1), § 170.315(h)(2), Login/Sign up, Documents, and Help.

In the center, there's a section titled "Select Criteria for § 170.315(b)(1)" with a dropdown menu set to "Criteria (i)(A) Send using Edge Protocol - SMTP".

To the left, a "Default Profile" window contains fields for Vendor SMTP Hostname/IP, Vendor SMTP Email Address, Vendor SMTP Username, Vendor SMTP Password, and a checked "TLS Required" checkbox. Buttons for "+ New Profile", "Save", and "Remove" are at the bottom.

Two test results are listed on the right:

- SMTP Test 8, 14, 18 (Send)**:
Verifies the ability of the sending system to send an email to ETT using the SMTP protocol with STARTTLS and PLAIN SASL Authentication (if enabled). The SUT will send an email to `wellformed1@tpedge.sitenv.org`. Hitting Run will cause ETT to search for an email sent to `wellformed1@tpedge.sitenv.org` from the email address entered in Profile window. Note that the C-CDA Document Type selected will not affect the test result.
Status: **RUN**
- SMTP MT Test 46 (Generate Disposition Notification Options Header)**:
Verifies the ability of the sending system to send messages with a correct Disposition Notification Options Header. The sending system will send a message to `wellformed14@tpds.sitenv.org` with the required header. Hitting 'Run' will cause ETT to check for this header.
Status: **RUN**

Version: 1.2.6 Released: June 15, 2017

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Test By Criteria – 170.315(h)(1)

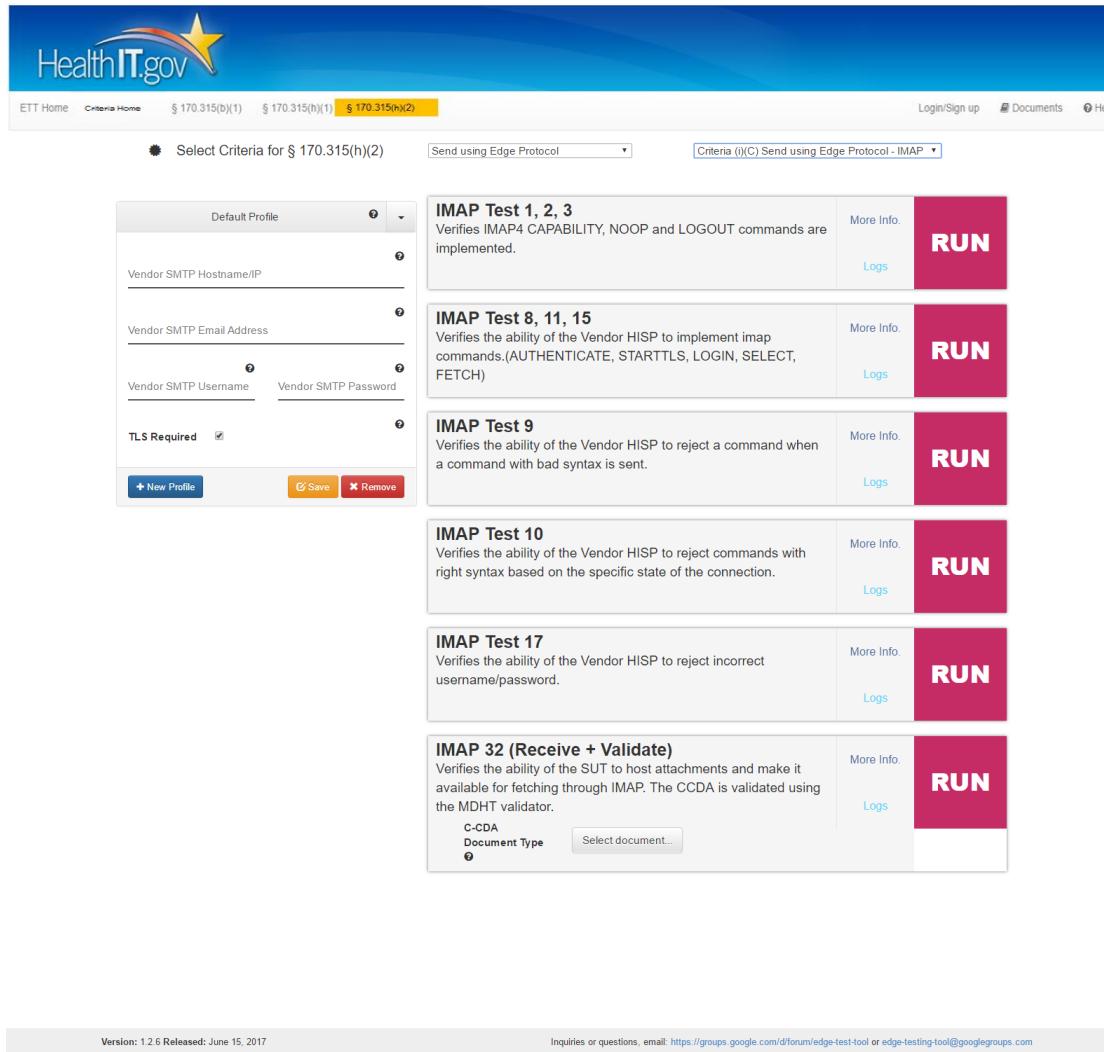
The screenshot shows the HealthIT.gov Edge Test Tool interface. At the top, there's a navigation bar with links to ETT Home, Criteria Home, § 170.315(b)(1), § 170.315(e)(1), § 170.315(h)(2), Login/Sign up, Documents, and Help.

The main area displays three test cases:

- SMTP MT Test 39 (Message with Good Header)**:
Description: Verifies the ability of the system to properly process the Disposition-Notifications-Options Header. Hitting 'Run' will cause ETT to send a message with a well-formed Disposition-Notifications-Options Header. If the message is sent successfully 'Check MDN' will appear. Clicking that will check for the expected Processed and Dispatched MDN (Note that you may have to click multiple times due to lag.) The expected result is a Processed and Dispatched MDN. The selection of a file is optional, if the system requires clinical information with the message.
Status: **RUN**
- SMTP MT Test 40 (Message with Bad Header)**:
Description: Verifies the ability of the system to process an invalid Disposition-Notifications-Options Header. Hitting 'Run' will cause ETT to send a message with an incorrect Disposition-Notifications-Options Header. If the message is sent successfully 'Check MDN' will appear. Clicking that will check for the expected Processed MDN (Note that you may have to click multiple times due to lag.) The expected result is that the Vendor will be able to process the invalid Disposition-Notifications-Options Header and respond with a Processed MDN. Optionally, the test will accommodate systems that also respond with a Dispatched MDN—however the Dispatched MDN must NOT contain the X-DIRECT-FINAL-DESTINATION-DELIVERY header to pass. The selection of a file is optional, if the system requires clinical information with the message.
Status: **RUN**
- SMTP MT Test 41 (Unable to deliver)**:
Description: Verifies that when the system successfully validates security and trust, but cannot deliver the message to its final destination, the system generates an MDN failed or a failure DSN. ETT (as Sending HISP) sends a well-formed message to a destination address. The system decrypts and trust validates the message, returning a Processed MDN. The system is unable to deliver the message (mail box full, unavailable, mailbox does not exist) and returns either an MDN failed or a failure Delivery Status Notification. The selection of a file is optional, if the system requires clinical information with the message.
Status: **RUN**

At the bottom of the page, there's a footer with links to Version: 1.2.6 Released: June 15, 2017, Announcements | Release notes | FAQ, Inquiries or questions, email: https://groups.google.com/forum/edge-test-tool or edge-testing-tool@googlegroups.com, Privacy Policy | Disclaimers, and The Office of the National Coordinator for Health Information Technology logo.

Test By Criteria – 170.315(h)(2)



The screenshot shows the HealthIT.gov Edge Test Tool interface. At the top, there's a navigation bar with links to ETT Home, Criteria Home, § 170.315(b)(1), § 170.315(h)(1), and § 170.315(h)(2). The current section is § 170.315(h)(2), which is highlighted in yellow. On the left, there's a sidebar for "Select Criteria for § 170.315(h)(2)" with fields for "Default Profile", "Vendor SMTP Hostname/IP", "Vendor SMTP Email Address", "Vendor SMTP Username" (with a password field next to it), and a "TLS Required" checkbox. Below these are buttons for "+ New Profile", "Save", and "Remove". In the main area, there are six test cases listed in boxes:

- IMAP Test 1, 2, 3**: Verifies IMAP4 CAPABILITY, NOOP and LOGOUT commands are implemented. Status: **RUN**. Buttons: More Info, Logs.
- IMAP Test 8, 11, 15**: Verifies the ability of the Vendor HISP to implement imap commands.(AUTHENTICATE, STARTTLS, LOGIN, SELECT, FETCH) Status: **RUN**. Buttons: More Info, Logs.
- IMAP Test 9**: Verifies the ability of the Vendor HISP to reject a command when a command with bad syntax is sent. Status: **RUN**. Buttons: More Info, Logs.
- IMAP Test 10**: Verifies the ability of the Vendor HISP to reject commands with right syntax based on the specific state of the connection. Status: **RUN**. Buttons: More Info, Logs.
- IMAP Test 17**: Verifies the ability of the Vendor HISP to reject incorrect username/password. Status: **RUN**. Buttons: More Info, Logs.
- IMAP 32 (Receive + Validate)**: Verifies the ability of the SUT to host attachments and make it available for fetching through IMAP. The CCDA is validated using the MDHT validator. Status: **RUN**. Buttons: More Info, Logs. Sub-fields include C-CDA, Document Type (with a dropdown menu), and a "Select document..." button.

At the bottom of the page, there's a footer with links to Version: 1.2.6 Released: June 15, 2017, Announcements, Release notes, FAQ, Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com, Privacy Policy, and Disclaimers.

Edge Test Tool - Announcements



ETT Home Edge Home SMTP Test Cases Message Tracking IMAP Test Cases POP3 Test Cases XDR Test Cases Validation Reports Login/Sign up [Documents](#) [Help](#)

📣 Announcements

ONC's Transport Testing Platform provides transport and content validation for the 2014-2015 Edition health IT certification program. The initial version includes the Edge Testing Tool developed by NIST. Future versions of the platform will include API testing, FHIR, and other transport validation tools.

The current release schedule for usability improvements is as follows:

- Release 1.2.6.1 - C-CDA Validator Update: June 26th, 2017
- Release 2.0 - Style Sheets, TechLab Release: July 20th, 2017
- Release 2.0.0.1 - C-CDA Validator Update: July 31st, 2017
- Release 2.0.1 - UI Cleanup: Aug 17th, 2017
- Release 2.0.1.1 - C-CDA Validator Update: Aug 28th, 2017
- Release 2.1 - Surveillance Test Update: Sept 21st, 2017

C-CDA Validator updates will be provided on the last Monday of each month.

Version: 1.2.6 Released: June 15, 2017

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Edge Test Tool - Documents



ETT Home Direct Home Register Direct Send Direct Message Message Validator CCDA Validators ▾ Cert Discovery ▾ Login/Sign up **Documents** Help

Guides

- Edge Testing Tool User Guide [!\[\]\(63750d57d3fbc43ebce98f4204e5b61a_img.jpg\) Download](#)
- Slides from 2015 Edition ETT Detailed Training [!\[\]\(05f52e575df6ce4b53c1ac1f72964ddc_img.jpg\) Download](#)

Samples

- 2015 Edition C-CDA Test Data Package [!\[\]\(19deccd99d5449936c70e832106ec876_img.jpg\) Download](#)
- C32/CCR Samples [External Link](#)
- Miscellaneous Samples [External Link](#)

Documents

- 2015 Test Procedures and Companion Guides [External Link](#)
- Local Installation Guide
- Installing using the AMI (Amazon Machine Image) [!\[\]\(11f0ad71b4a8bab099c375255015a316_img.jpg\) Download](#)

ETT Instruction/Demonstration Videos

- Demonstration Videos [External Link](#)
- Note: The infrastructure references from the videos have changed. More details can be found here. [External Link](#)

Version: 1.2.6 Released: June 15, 2017

[Announcements](#) | [Release notes](#) | [FAQ](#)

Inquiries or questions, email: <https://groups.google.com/d/forum/edge-test-tool> or edge-testing-tool@googlegroups.com

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Edge Test Tool – Help Page



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Edge Help

If you are looking for help about this tool <https://groups.google.com/forum/#!forum/edge-test-tool>

Certification Help

Questions about the applicability of the initial set of standards, implementation specifications, and certification criteria should be directed to ONC at ONC.Certification@hhs.gov.
Questions about functions and activities of the ATCBs should be directed to ONC at ONC.Certification@hhs.gov.

Frequently Asked Questions

Find answers for Frequently Asked Questions [here](#)

Release Notes - [View full release notes](#)

Version 1.0.22 - Aug 15, 2016

- Direct
 - Added SHA-256 signature algorithm selection on Direct send page.
 - Fixed the different trust anchor certificate on Direct send.
- XDR
 - Removed XDR 4c and 15c.
 - HISP, Your System As Receiver: Updates to allow the outgoing "Direct From" address to be configurable from the UI. This affects: XDR 13, XDR 14, XDR MT Test 15, XDR MT Test 16, XDR MT Test 30, XDR MT Test 31, XDR MT Test 32, XDR MT Test 33, XDR MT Test 34, XDR MT Test 35, XDR MT Test 36, XDR MT Test 37, XDR MT Test 38, XDR MT Test 43, XDR MT Test 44.
 - Removed XDR 4c and XDR 15c. Full explanation is available here: <https://groups.google.com/forum/#topic/edge-test-tool/v7DTiWWdR8>
- C-CDA R2.1 Validator
 - Corrected a display issue where a green check was in some situations showing when the XML contained errors.
- IMAP
 - HISP, Your System As Sender: IMAP 9 updated to allow a greater flexibility of error messages from SUT

Version: 1.2.6 Released: June 15, 2017
[Announcements](#) | [Release notes](#) | [FAQ](#)

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Edge Test Tool – FAQ's Page



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FAQ

Frequently Asked Questions

Direct

- Q: We are testing the "Send a Direct Message" functionality as part of our H1 testing: <https://ttpedge.sitenv.org/ttp/#/direct/send> But are having an issue with the SHA-256 option. Can you confirm the SHA-256 option is sending the correct hash? It appears to be sending the SHA-1 hash in the message.
 - A: The first is the hash used to sign the Direct message. The second is the hash that is used in the XD* metadata and refers only to the hash of the attachment itself. These are two separate hashes, calculated independently.

The first hash is defined in the Direct Applicability Statement. Version 1.0 mentions both SHA-1 and SHA-256 which is why the Direct portion of the ETT tooling allows both to be used for testing.

The second hash (which is the one from the SOAP body below) is part of the XD* metadata. The definition of the hash slot is in IHE ITI TF Vol 3 Table 4.2.3.2-1 (page 64) http://www.ihe.net/uploadedFiles/Documents/ITI/IHE_ITI_TF_Vol3.pdf. The data type for this hash is "SHA1" only.

The document metadata is separate from the signing of the Direct message.

- Q: Why am I not receiving a validation report?
 - A: Please verify that you have registered your direct address with a corresponding contact address which is where the validation report will be delivered, see

Edge Test Tool – Release Notes



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Release Notes

[Version 1.0.22](#)

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[Version 1.0.19](#)

[Version 1.0.18](#)

[Version 1.0.17](#)

[Version 1.0.16](#)

[Version 1.0.15](#)

[Version 1.0.14](#)

Version 1.0.22 - Aug 15, 2016

- Direct
 - Added SHA-256 signature algorithm selection on Direct send page.
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 - HISP, Your System As Receiver: Updates to allow the outgoing "Direct From" address to be configurable from the UI. This affects: XDR 13, XDR 14, XDR MT Test 15, XDR MT Test 16, XDR MT Test 30, XDR MT Test 31, XDR MT Test 32, XDR MT Test 33, XDR MT Test 34, XDR MT Test 35, XDR MT Test 36, XDR MT Test 37, XDR MT Test 38, XDR MT Test 43, XDR MT Test 44.
 - Removed XDR 4c and XDR 15c. Full explanation is available here: <https://groups.google.com/forum/#topic/edge-test-tool/v7DTiWWdR8>
- C-CDA R2.1 Validator
 - Corrected a display issue where a green check was in some situations showing when the XML contained errors.
- IMAP
 - HISP, Your System As Sender: IMAP 9 updated to allow a greater flexibility of error messages from SUT

Version 1.0.21 - Jul 27, 2016

Edge Test Tool – Local Install Guide



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? Local Installation Guide

This document outlines the steps required to create a local installation for the Edge Testing Tool. This involves setting up at least three servers at this point due to the fact that the components in the architecture use the standard port 25 (in addition to a few other ports). The main server is the Edge server that runs the main application packaged as a springboot jar. This also hosts the XDS toolkit and a Name server which require tomcat containers. The second server is for running the SMTP service - Apache James is being used. The ccda-validator is also hosted in this server. The third server runs the Direct RI (java). A different reorganization is possible, and will need adjustments to the configuration.

Edge server installation steps

Prerequisites:

1. Java 8 openjdk (installation steps Appendix A)
2. Tomcat 7 (installation steps Appendix B).
3. Mysql database (installation steps Appendix C).
4. Name server (installation steps Appendix D).

Installation.

Step 1. Navigate to the ETT's downloadable and executable .jar file (ett.jar) located in the directory located [here](#). The needed configuration information (contained within the application properties file) is [here](#).

```
# create /opt/ttp/logs (-p for parents create, if not present)
```