CONNECTICUT MEANINGFUL USE STATE TESTING (MUST)

Stage 1

User Manual

Release 1.0

May 28, 2014

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Chapter 1 - Introduction

Welcome

Welcome to the CT Meaningful Use State Testing (MUST).

Purpose

The goal of this manual is to provide you with a thorough understanding of the MUST Portal.

Objectives

Upon completion of this manual, you will be able to:

- Log in and out of the MUST application
- Navigate through the MUST tabs
- Send Test Message
- Find the summary results in Validation tab
    - understand icons for status and certificate columns,
    - customize summary page,
    - expanding and collapsing individual tests
- Understand icons and validation results for message segments and message fields
- Understand message content to display actual content in the request and the simulated response for the test message
- Understand Action – e-mail attestation certificate or delete tests in Message Content for the test message
- Manage your profile
- How to run tutorial
- Log Off

Chapter 2 MUST Portal Overview

CONNECTICUT MEANINGFUL USE STATE TESTING (MUST) OVERVIEW

This self-service integration portal provides your IT staff does not need to wait for hours, days, or even weeks to get a response back to technical inquiries in HL7 format parsing or to receive feedback on the validity of a test message(s). All of the information you need to get started with your HL7 message implementation is available from this web portal. Once you have developed your test message from your system, the majority of the integration testing is handled through DPH MUST portal with fully automated test harness. Test messages are validated against CT processing rules in real-time, with results available immediately for review. This portal provides incremental testing with all results available for review.

MUST Portal Functionality

Business Requirement Functionality	***Rationale***
Ability to access and complete on-line	Streamline submission process
Ability to register for multiple MU public health objectives (planned in next release)using NPI registration	***Eliminate multiple registration processes and user accounts and passwords***
Registration instructions/FAQs/checklists available prior to beginning registration process; All documentation is downloadable	***Collection of all the necessary information to complete registration process quickly***
Ability for user to establish user account using e-mail and password with e-mail verification during registration process and manage their profile with password resets by user	***Facilitates updates to the registration information to accommodate EPs' hectic schedules***
Ability to register group practices or individuals use NPI	***Accommodates different types of practices***
Ability to add multiple EPs under a Group NPI	***Allows one designated person (Group NPI administrator) from group practice to add EPs using Group's NPI; Also associates Group NPI attestation certificate to all those EPs***
Ability to allow EHR vendors or third party integrators to register to develop HL7 interface for their clients	test their HL7 message test message for parsing and, format and review content against CT local HL7 guides

The Connecticut Department of Health is committed to streamlining the process of sending, receiving, and testing HL7 messages for public health reporting. This initial release will have support immunization VXU message type. The Connecticut Meaningful Use State Testing (MUST) is a web application available to eligible professionals (EPs), eligible hospitals (EHs), their vendors of their systems and third party integrators to test their HL7 message test message for parsing and, format and review content against CT local HL7 guides. Additionally, for those EPs and EHs looking to complete Stage 1 testing and receiving attestation certificate that the test was completed will be required to use this portal.

Please continue check the CT DPH Health Information Technology Exchange page for new announcements related to MUST. There will be a downloadable links in the Documentation tab in MUST portal.

URL Access

Environment	URL address for adding to browsers
Staging	http://stg-dphmust.ct.gov:8080/portal/
Production	http://dphmust.ct.gov:8080/portal/

Both sites work the same except for the certificate generated from staging environment is not valid as stated on certificate.

MUST web application provides immediate feedback on each test message on the tree like structure that can expand and collapse on multiple message segments and further expand or collapse on the message fields. Please refer to the Chapter 8 Validation tab for more details.

It is the responsibility of the person performing that the data submitted in the HL7 message is test data. DPH is not liable if the person performing the test does not comply with following requirements:

The person performing the test for generating the Stage 1 attestation certificate will be required to certify:
That the test performed for submittal of electronic data was from the certified EHR technology for their system
All documentation that supports that this test was performed from the certified EHR technologies is maintained by them and may be audited.
This certificate should be retained as documentation supporting that you have performed at least one test of your certified EHR technology's capacity to submit electronic data to Connecticut Department of Public Health for Stage 1 Meaningful Use Menu Option for Public Health Reporting requirement.

If requested, please provide a PDF copy of this certificate to the State Medicaid office and/or CMS as part of your application for EHR Incentive payment, showing that you have performed the test.

The About Screen

This page is the MUST portal default page. This is the only page that is available with a user name and password.

CAPTCHA security feature

Captcha is a security mechanism which protects against automated malware, by using human-readable text in an image to confirm access to the portal by a human. This security feature is used when registering your account, each time you log into MUST and when you submit a test message.

When performing an important function in the portal, such as registration, logging in or submitting a test message, a captcha confirmation with text will appear. Type the characters you see into the Answer field and click “Submit” to continue. If you would like to try another image instead of the current one, click “Refresh”. The answer that you type must match the letters that you see in the grey image with the line through it.

Navigation of tabs and within tabs

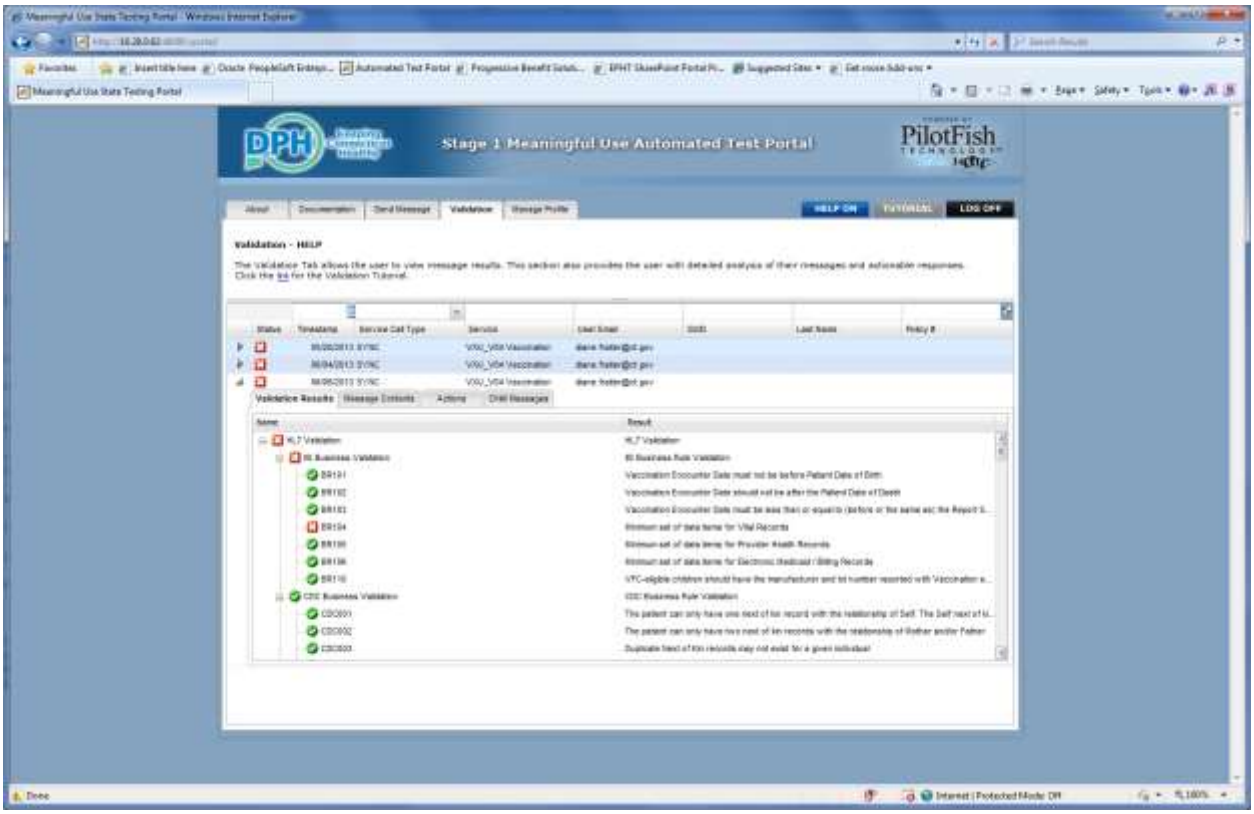
Understanding the visual clues

A green check indicates there was no problem where an ‘X’ in a red box indicates there was a problem.

Only test submitted to complete Stage 1 testing will have a certificate generated as indicated by the green check. These tests cannot be deleted. These records are permanently stored and can be audited for Stage 1 attestation by DSS and/or CMS.

Upon each test message submitted, there is a corresponding validation results as a separate row in the tab. These tests can be sorted and filtered as describe below by the fields available.

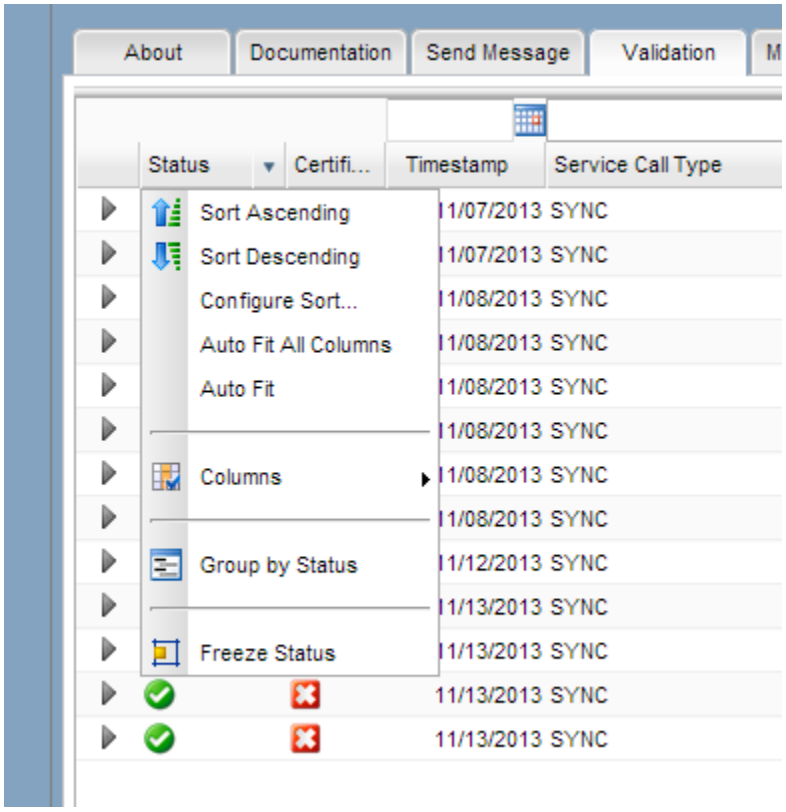
Each row has a gray triangle pointing to the right. This is collapsed view. If you click on this triangle, the message is expanded with the gray arrow changing direction from pointing to the right to down direction. All of the parent message type is displayed with the associated segments further expanded to all the message fields. Before each is a visual indicator on whether there were any problems. A green check indicates there was no problem where an ‘X’ in a red box indicates there was a problem. If the is a problem in any field, all the message segments that contain the fields will have a red check as well as the parent VXU_VO4 in the validation results.



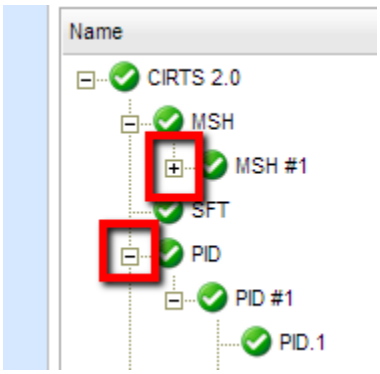
Click on the arrow to open or close the information for a validation result. If you want to reset the sorting for the data inside a validation attempt, close the grey arrow and then open it again.

Filtering and sorting columns

Any time a table view is displayed in a tab, the column names can be sorted and/or filtered. The filter icon looks like a funnel or you can use '>' to select drop downs to filter. The filter is the row above the column name. Sorting is performed by clicking on column then use the arrow to the right to drop down the choices below.

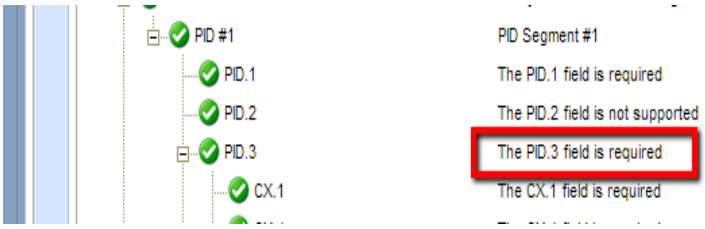


Expanding and Collapsing tree structure of a test



Click on plus (+) and minus (-) signs inside the tree of result data to expand and collapse data fields or segments.

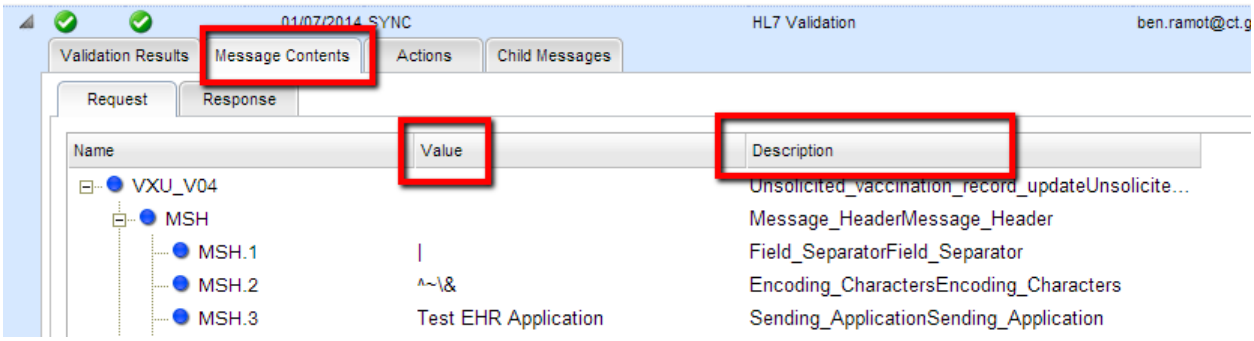
Each line in the result column corresponds to the rule used to validate this segment.



With the "Validation Results" row expanded, the user may view the validation rules applied to this message in a tree structure, including the name, text result, and if the rule passed or failed as indicated by green checkmark or red "X". Rules are organized into a hierarchy, with any failed rule causing its immediate parent rules to also fail.

Message Contents

Use the Message Contents tab to see the contents of the message that was submitted



The value column shows the data for that segment, and the Description column shows the name of the segment.

Chapter 3 Prerequisites prior to self-Registration Process

3.1 Eligible Professionals and Eligible Hospitals

Information entered into MUST is for test data only but important who is performing the test. Users will be assigned their own username and password and will have an e-mail verification of the e-mail account entered. This will be part of the registration process. Each username is connected to one role and may or may not belong to a group practice. The critical unique identifier is the NPI (National Provider Identifier) used at registration time. DSS will be able to use either group NPI or the individual NPI. DPH cannot change the designation of a NPI from either group NPI or individual NPI. This decision is user's discretions. Once the NPI and e-mail accounts are created, DPH can address any issues with these fields. E-mail accounts and NPI numbers can only be used once and must be unique. Users are able to change their own passwords and resend a password if they forget their password.

The group practice concept allows the portal to collect practice's NPI whether it is individual practice, group practice with many providers or a hospital and associate multiple professionals to the Stage 1 Meaningful Use test. The "Add User to Group" concept allows associating multiple providers under the NPI for this organization. This construct will work for hospitals as well as practices.

Each additional professional is added to group NPI by the group administrator. The group administrator only needs to add the name, password and e-mail address for each professional to the group for this to work. Adding users to a group generates e-mail verification to the new e-mail address. The test perform by the group will be used to generate additional Stage 1 certificates with each professional's name. This user will be required to log in and go to Validation tab, find the test with the certificate associated with it and open it and go to Action tab to e-mail it to their e-mail account.

Roles and permissions work together to provide the functionality for the MUST portal.

Question for EPs and EHs:
Determine how to register into MUST portal
- Register NPI as
- Individual Eligible Professional (EP)?
- Group Practice?
- Eligible Hospital (EH)?
- Eligible Professionals (EPs) associated to Group Practice?

Are you looking for Stage 1 Medicaid attestation with CT DSS?

Are you looking for Stage 1 Medicare attestation with CMS?

Questions to ask your EHR Vendor or third party integrator to generate HL7 test message from your EHR system?

Talk with your EHR vendor on how to “copy and paste” test message into MUST
Talk with your EHR vendor on how to “generate a file” with test message that can be uploaded into MUST portal

Questions to Answer for EP or EH Registration:		
Fields in Registration Process:	**Value**	**Selection Choices**
NPI to use to Register NPI		
Public Health Measure		Immunizations
NPI Group Password		
Administrator E-mail		
Administrator Password		
First Name		
Last Name		
Organization Name		
Address		
City		
State		
Zip		
Facility Type		select from EP, Group Practice, EH, CAH
Phone Number		
Attesting to MU Stage 1?		select Yes or No
Enrolled with CT DSS MAPIR?		select Yes or No
ONC Certified EHR #		
Who is your vendor of EHR Product?		
Name of EHR Product		
EHR Product Version		

Add User to NPI Process:	Value
NPI to use to Register NPI	
NPI Group Password	
User E-mail	
User Password	
First Name	
Last Name	
Phone Number	

3.2 Vendor or third party integrator Registration

Information entered into MUST is for test data only but important who is performing the test. Users will be assigned their own username and password and will have an e-mail verification of the e-mail account entered. This will be part of the registration process. Each username and e-mail account combination is connected a unique identify created at the time of registration. All tests submitted by the user account can be viewed and/or deleted only by that user account not by vendor. There is no association to the vendor's clients; ***vendors cannot submit the Stage 1 test for their clients***. Vendors must provide instructions to their clients on "how to perform the tests".

Questions to Answer for Vendor Registration:	
Registration fields in Vendor Registration:	**Value**
Public Health Measure	Immunizations
User E-mail	
User Password	
First Name	
Last Name	
Vendor Organization Name	
Address	
City	
State	
Zip	
Phone Number	
Cell Number	
Product Name you're testing?	
EHR Product Version	
HL7 Version	2.5.1

CT's approved transport mechanism currently is PHIN MS; please see the documentation page of the portal on transport preparation for Meaningful Use Stage 2.

Chapter 4. REGISTRATION

Roles and Permissions:

Information entered into MUST is only for testing data, however is important to know who is performing the test. In order to identify the person who is utilizing this portal, usernames and passwords will be provided to allow access to the web application. Each username is connected to one role and may or may not belong to a group. Three different roles exist: Register NIP, User to NPI, and Register Vendor.

“Register NPI” is a group concept allows the portal to collect NPI (National Provider Identifier), whether it is an individual practice, a group practice, or a hospital.

“User to NPI” allows associating multiple providers under the NPI for this organization. The users can be added to a NPI group where the test for the NPI group will cover all of the EP/EH users associated to the group.

Table 1.1- 1 Role and Permissions

Permissions	Role		
	Registe r NPI	Add User to NPI	Register Vendor
View the documentation	X	X	X
Send a HL7 message	X	X	X
Validation a HL7 message	X	X	X
Delete a validation attempt for your user account	X	X	X
Generate an E-mail certificate	X	X	
Manage profile (change password, modify general information)	X	X	X

4.1 Register NPI (National Provider Identifier)

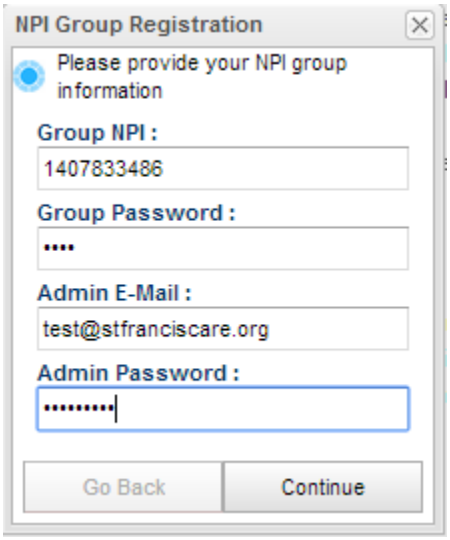
Register as “NPI” (National Provider Identifier) as group practice or individual professional. DSS will accept either from the Stage 1 Attestation certificate or from the MUST Portal. The NPI group can be a single EP, a group practice or hospital organization. The NPI group will be able to associate registered users to the NPI group, by the NPI group administrator. The NPI Group Administrator registers the NPI group is the NPI group and only the NPI Group Administrator can add users to the NPI Group by using “Add User to NPI” with additional information. This enables the testing performed by the administrator to cover all the EP users in a practice. The NPI filters out extraneous information so only the attempts from your NPI are display in the validation tab. The EP user will be e-mailed a “Stage 1 Certificate” with the EP’s name on it and all the testing performed by the person who initiated the test. The EP can submit the Stage 1 certificate as part of application to DSS under his number with the NPI group test.

The Portal will store the NPI and e-mail to be used with the group of users in order to manage its validation process. This NPI number will be printed on the Stage 1 attestation certificate and must be the one used while registering in DSS MAPIR. This initial registration for the group will create an administrative user who is part of the NPI group, as well as the group itself.

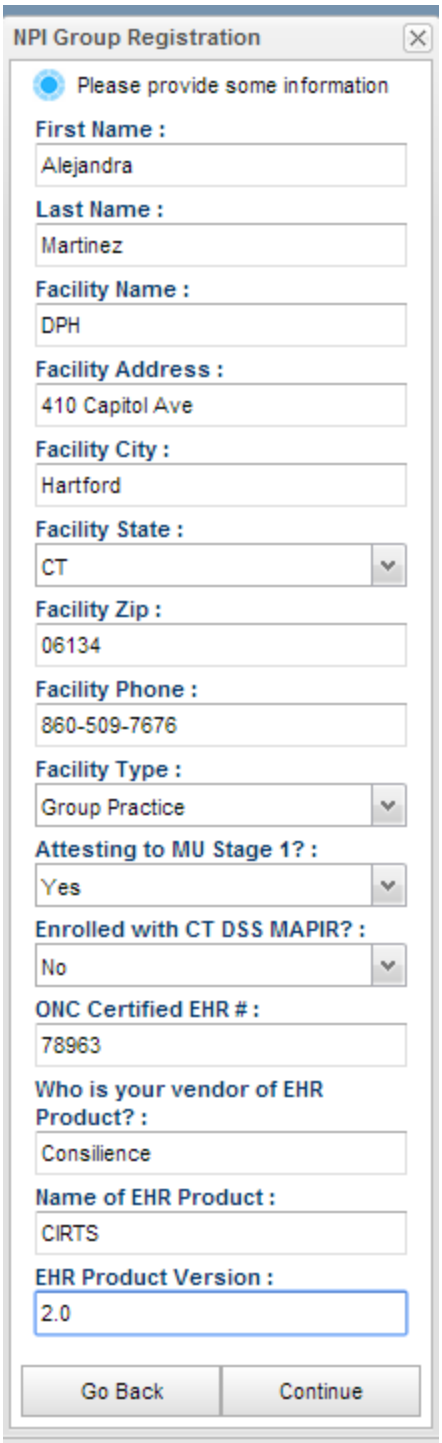
When registering as an NPI group representing a single provider practice, you will be asked to provide the NPI and the group password for your group, as well as your own email and new password for the Portal. You will not use the “Add user to NPI” function.

TO CREATE A NPI GROUP

Click on the “Register NPI” button and provide your NPI group information.

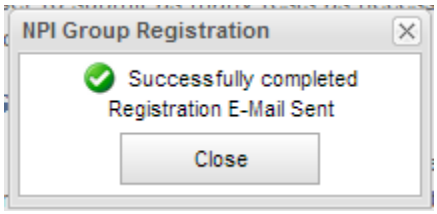


Click on the “continue” button and provide general information about the group (all fields are required).



Click on the “continue” button. You will see a distorted picture (a “CAPTCHA”) with a few characters that you will need to type in, for security purposes. You can click Refresh to try a different picture.

Click on the “Finish” button and a pop up will notify you and a confirmation email will be sent to the email you provided during registration.



All e-mail addresses are verified at the time of registration. MUST Portal will send out e-mail confirmation from the mustportal@ct.gov (example below) with a link in the body. Please confirm by clicking on the link.

From: mustportal@ct.gov
Date: March 21, 2014 at 12:22:39 PM EDT
To: dahiana030393@hotmail.com
Subject: MUST Portal Group Registration

Meaningful Use State Testing Portal

Registration

Hello, Alejandra

You have registered successfully with Meaningful Use State Testing Portal. To login, please click here.

E-Mail Address: dahiana030393@hotmail.com

API Key: c5955d78-cf11-40da-bec3-c05683b9383c

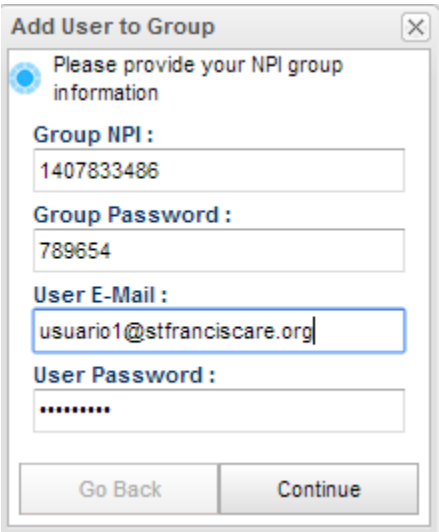
Group Password: 123

4.2 Add User to NPI (National Provider Identifier)

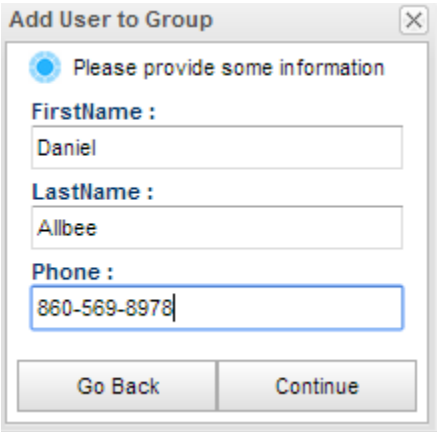
To add a new user to a NPI group, you must supply the NPI group number and password supplied in the creation of the group.

TO ADD A USER TO NPI GROUP

Click on the “Add User to NPI” button and provide your NPI group information.

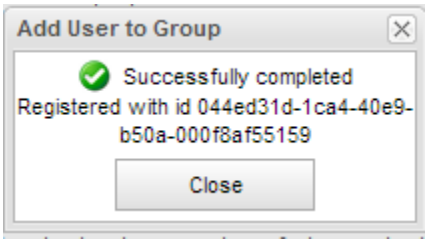


Click on the “Continue” button and provide some general information about the new user.



Click on the “continue” button. You will see a distorted picture (a “CAPTCHA”) with a few characters that you will need to type in, for security purposes. You can click Refresh to try a different picture.

Click on the “Finish” button and a pop up will notify you and a confirmation email will be sent to the email you provided during registration.



All e-mail addresses are verified at the time of registration. The MUST Portal will send out an e-mail confirmation from the mustportal@ct.gov (example below) with a link in the body. Please confirm by clicking on the link.

From: mustportal@ct.gov
Date: March 21, 2014 at 12:22:39 PM EDT
To: dahiana030393@hotmail.com
Subject: MUST Portal Group Registration

Meaningful Use State Testing Portal

Registration

Hello, Alejandra

You have registered successfully with Meaningful Use State Testing Portal. To login, please click here.

E-Mail Address: dahiana030393@hotmail.com

API Key: c5955d78-cf11-40da-bec3-c05683b9383c

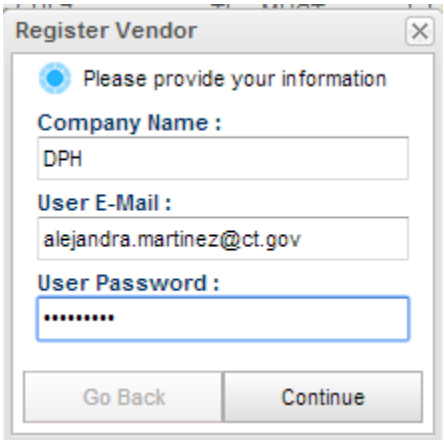
Group Password: 123

4.3 Register Vendor

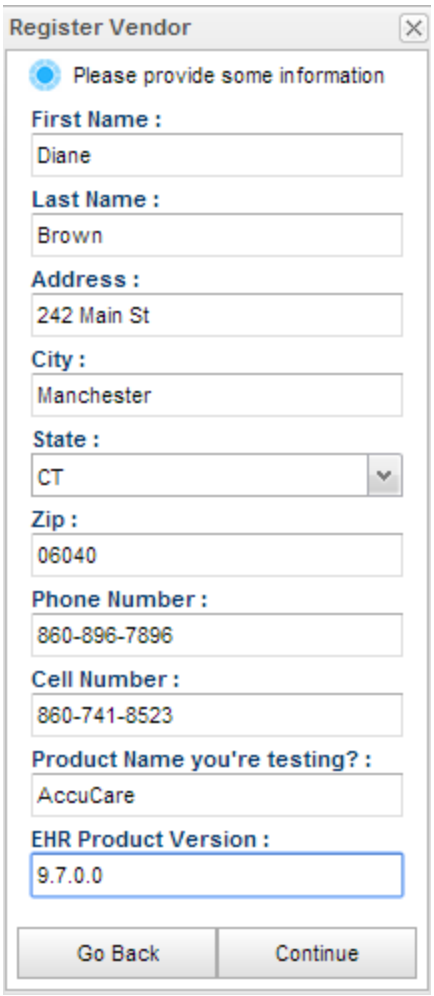
When registering as a vendor or third party integrator the Portal will store a unique id and e-mail to be used to manage its validation process. This unique identification filters out so only your attempts are display in the validation tab.

TO CREATE A VENDOR

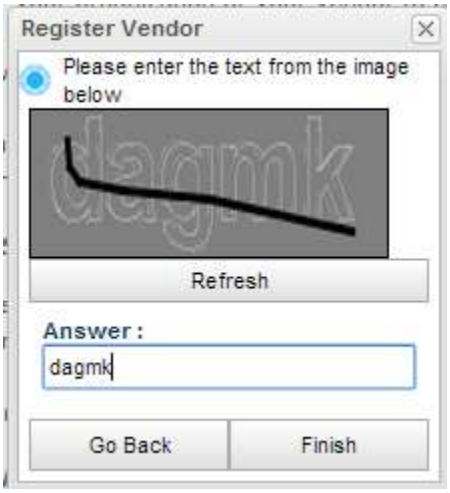
Click on the “Register Vendor” button and provide your information.



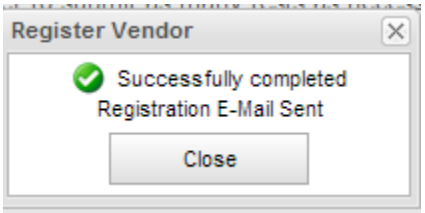
Click on the “Continue” button and provide some general information about the new user.



Click on the “continue” button. You will see a distorted picture (a “CAPTCHA”) with a few characters that you will need to type in, for security purposes. You can click Refresh to try a different picture.



Click on the “Finish” button and a pop up will notify you and a confirmation email will be sent to the email you provided during registration.



All e-mail addresses are verified at the time of registration. The MUST Portal will send out an e-mail confirmation from the mustportal@ct.gov (example below) with a link in the body. Please confirm by clicking on the link.

MUST Portal Vendor Registration

mustportal@ct.gov

Sent: Fri 3/21/2014 12:50 PM

To: Martinez, Alejandra

Meaningful Use State Testing Portal

Registration

Hello, Alejandra

You have registered successfully with Meaningful Use State Testing Portal. To login, please click here.

E-Mail Address: alejandra.martinez@ct.gov

API Key: 82878153-2033-41e5-bf23-91664ff7c008

Group Password: 144da8d5-6aab-421d-9ee4-7d4466909fad

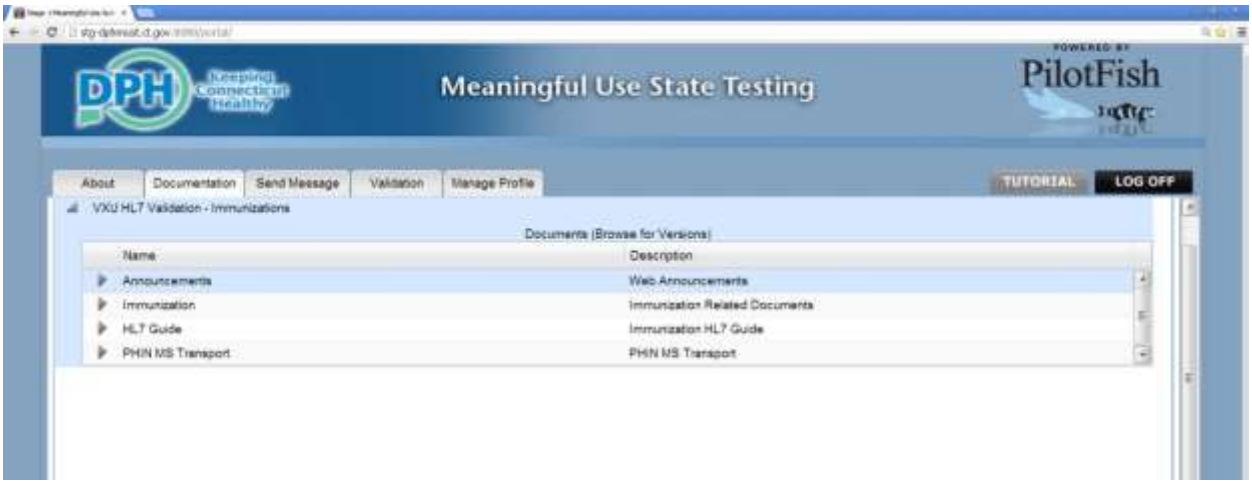
TIP:

Please make sure that your e-mail application is not sending this email to your spam or junk e-mail box. Follow the process of your e-mail application to prevent this sender being moved to these folders in the future.

Chapter 5 How to use Documentation tab

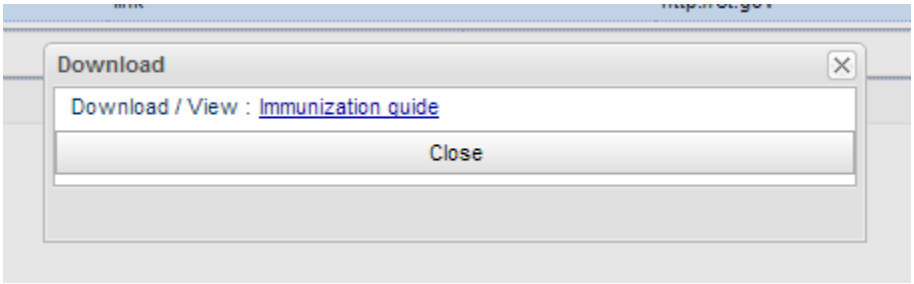
The Documentation tab shows a list of helpful resources provided to help you in the validation process, organized by Service category.

If you click on the triangle next to a service category you will see a list of the various documents that are relevant.



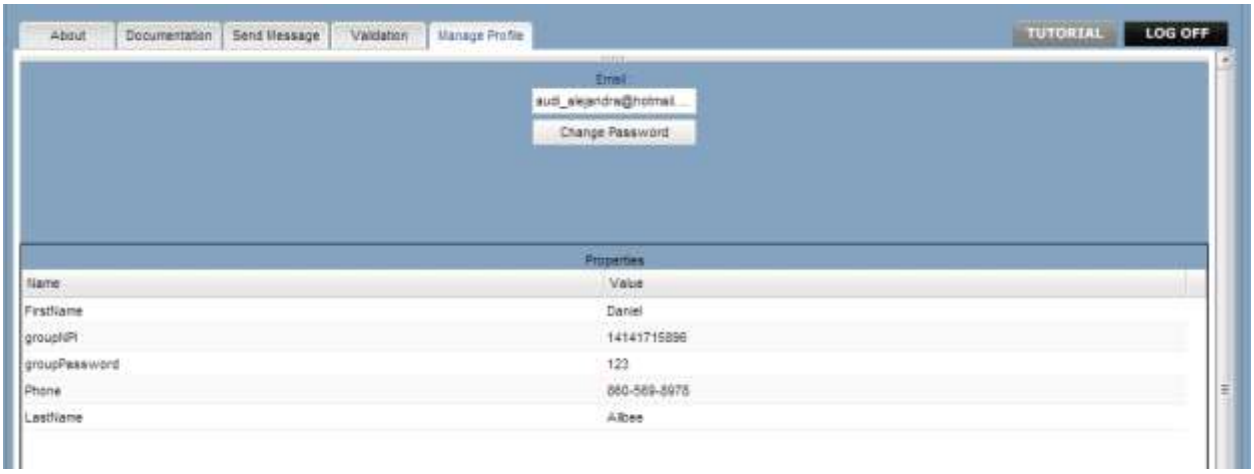
If you then click on the triangle next to a document, you will see a list of versions. Each version can be accessed via the grey icon in the Download column.

If you click on the grey icon for a document, you will get a pop up with a link to the document. If you click on the link, the document will pop up in a new tab or window.



Chapter 6 MANAGE PROFILE

The “Manage Profile” option allows the user to edit the user’s general information, for example: change passwords, addresses, names, and phone numbers.



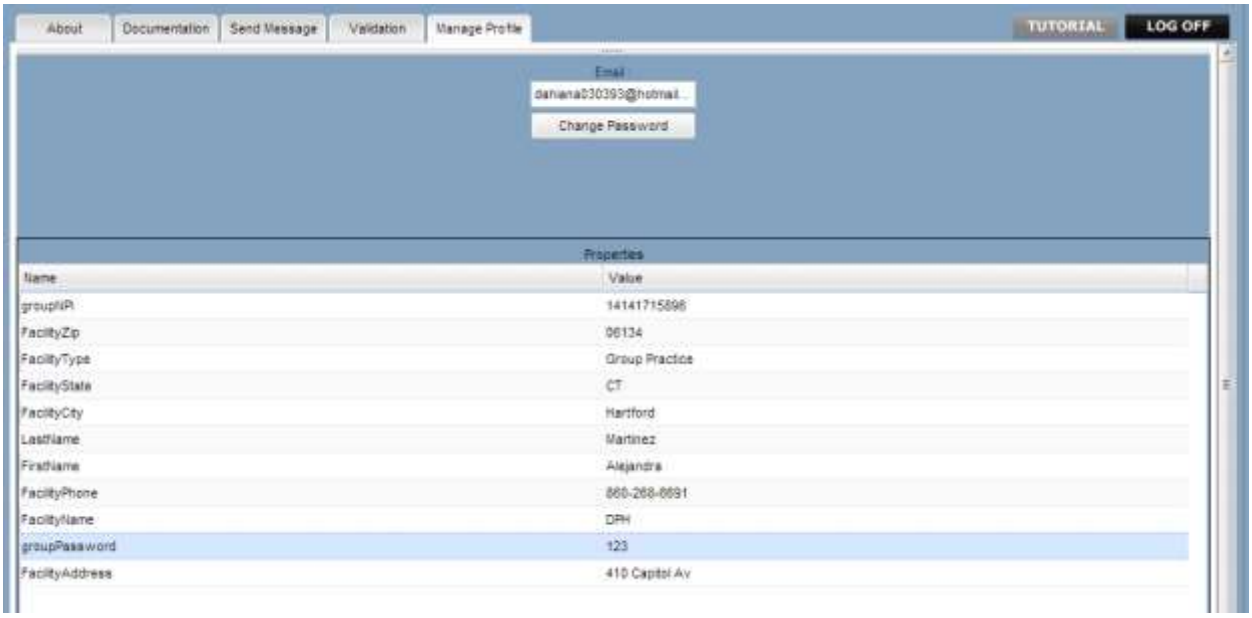
The information shown depends of the type of user. Double click on a field to change the information within.

NPI user Administrator:

The “NPI administrator” can change:

- Last Name
- First Name
- Facility Name
- Group Password
- Facility Address
- Facility City
- Facility State
- Facility Zip
- Facility Phone
- Facility Type
- Attesting to MU Stage 1
- Enrolled with CT DSS MAPIR?
- ONC Certified EHR #
- Vendor of EHR Product
- Name of EHR Product

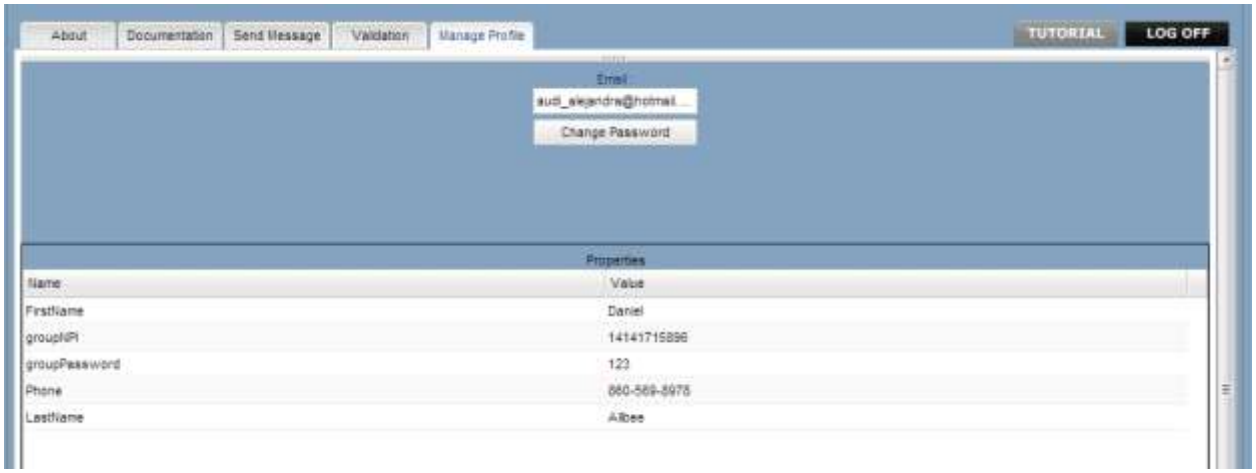
- EHR Product Version



NPI user Group:

"NPI User Group" can change:

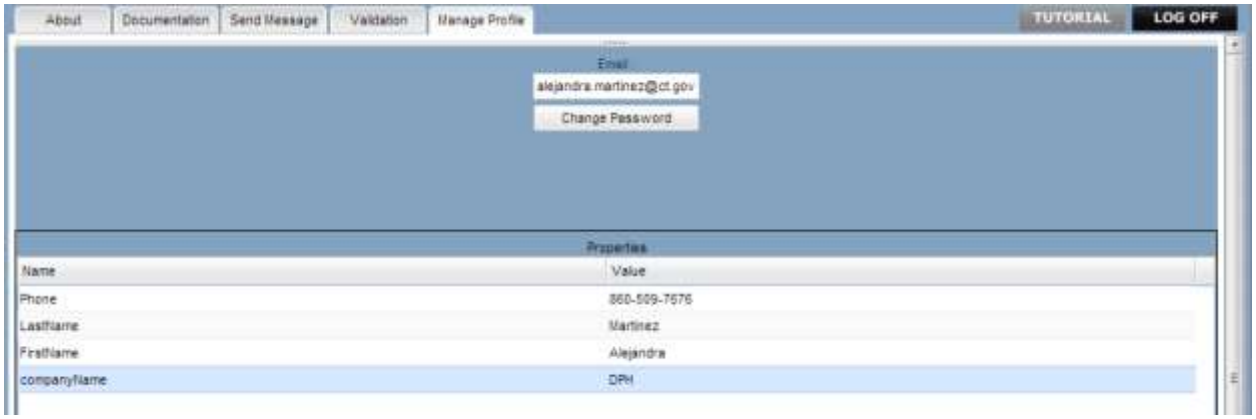
- First Name
- Last Name
- Phone Number



Vendor user:

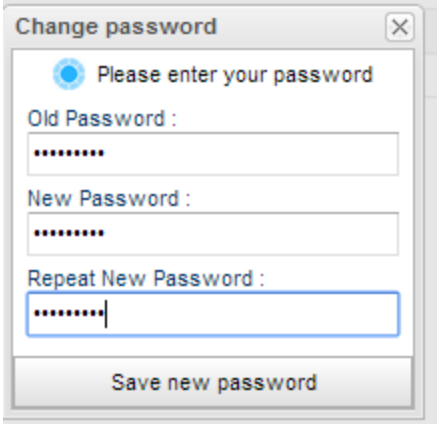
A “Vendor User” can change:

- Last name
- First name
- Phone number
- Company name
- Address
- City
- State
- Zip
- Phone Number
- Cell Number



6.1 Change Password

To change a password click on “Change Password” button, provide the old and password, enter your new password twice, and then click on the “save new password” button.



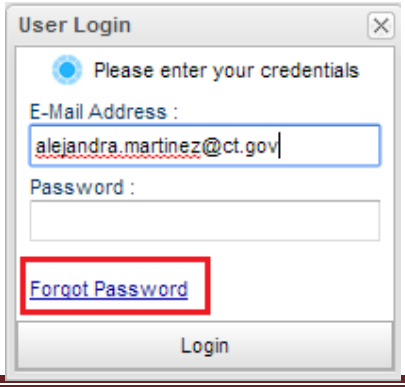
6.2 Forgot the Password

If a user forgets their password, the portal provides an option to reset the password and will send them an email with the new password assigned.

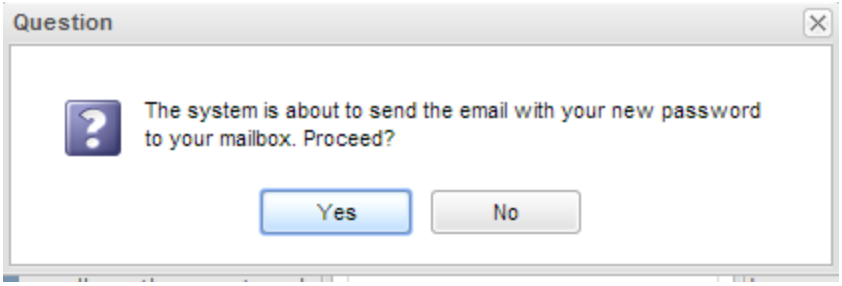
To reset the password

Go to the “Stage MUST” portal and click the “Login” button.

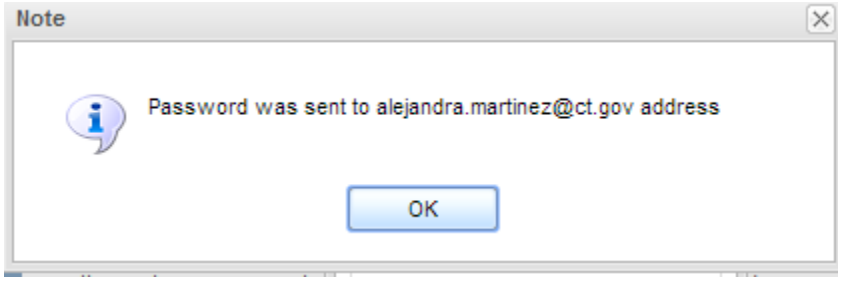
Provide your e-mail address and click on “Forgot Password” link.



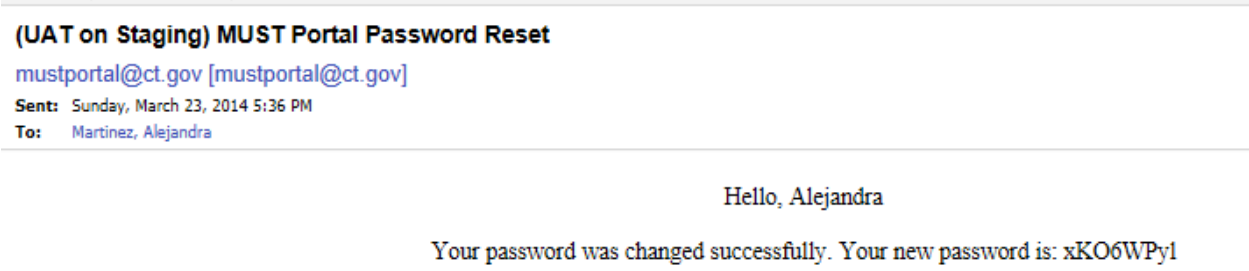
A window will pop up asking you to confirm your request with the option buttons “Yes” or “No”. Click on “Yes” button.



A pop up will notify you that your request has been submitted.

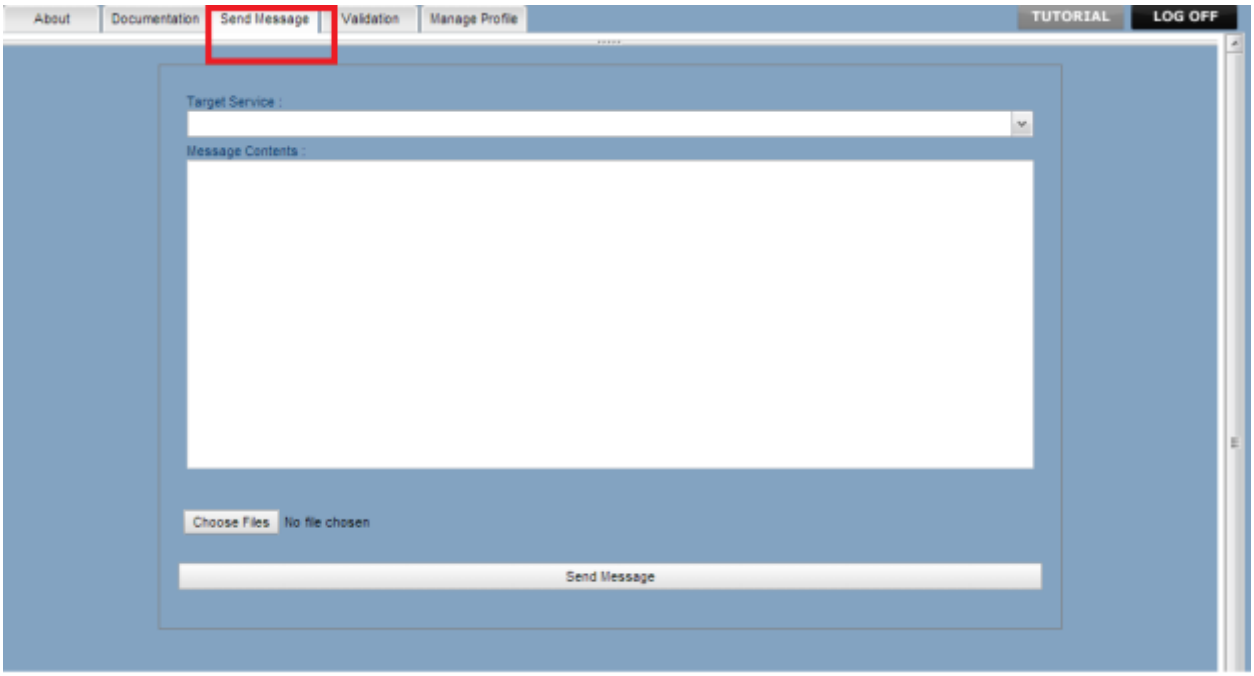


Check your email to verify that the email with the new password is there.



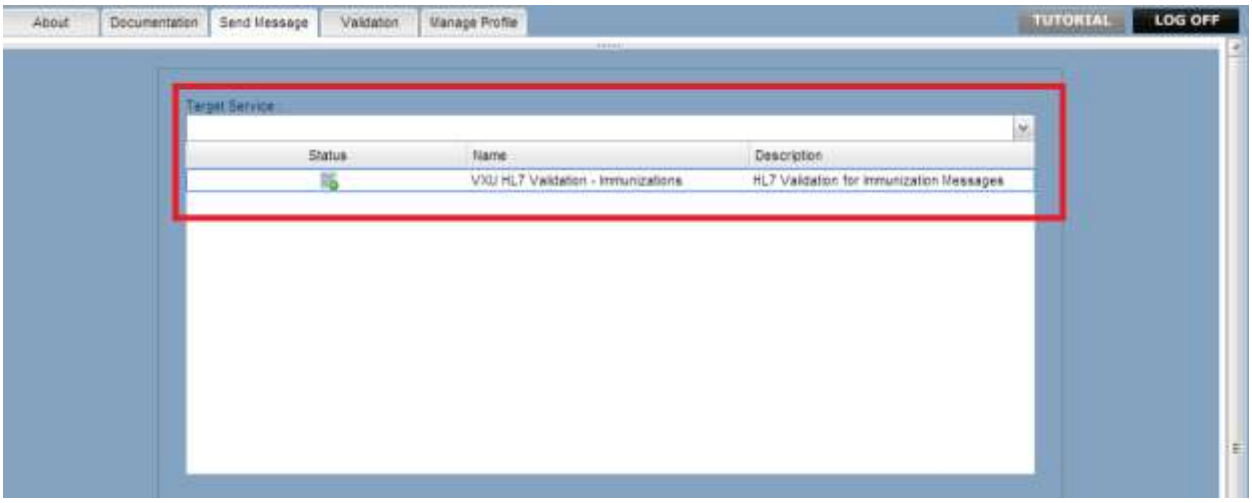
Chapter 7 SEND A MESSAGE

The Send Message tab is where you either “cut & paste” or upload a file containing the HL7 messages to test and validate.

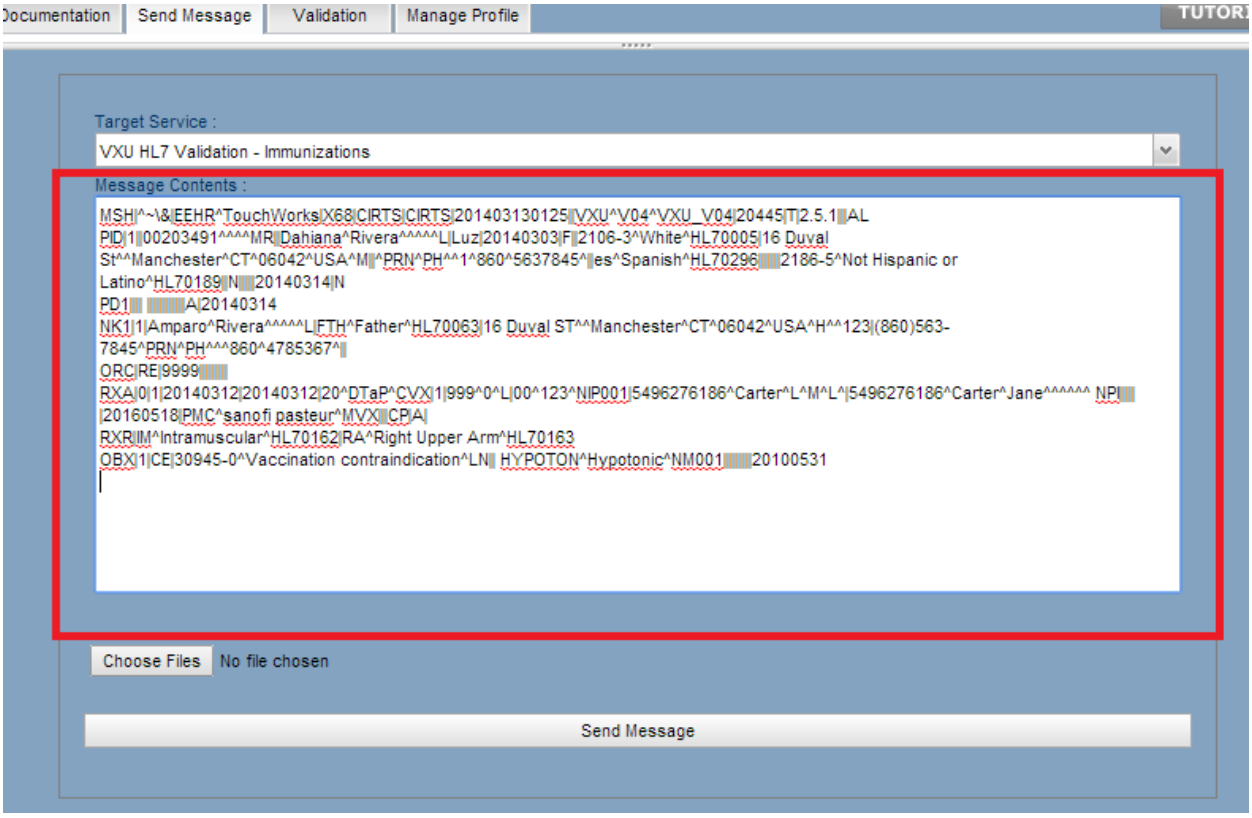


TO SEND A MESSAGE

Choose a service type for Immunization validation –“VXU HL7 Validation Immunizations”.

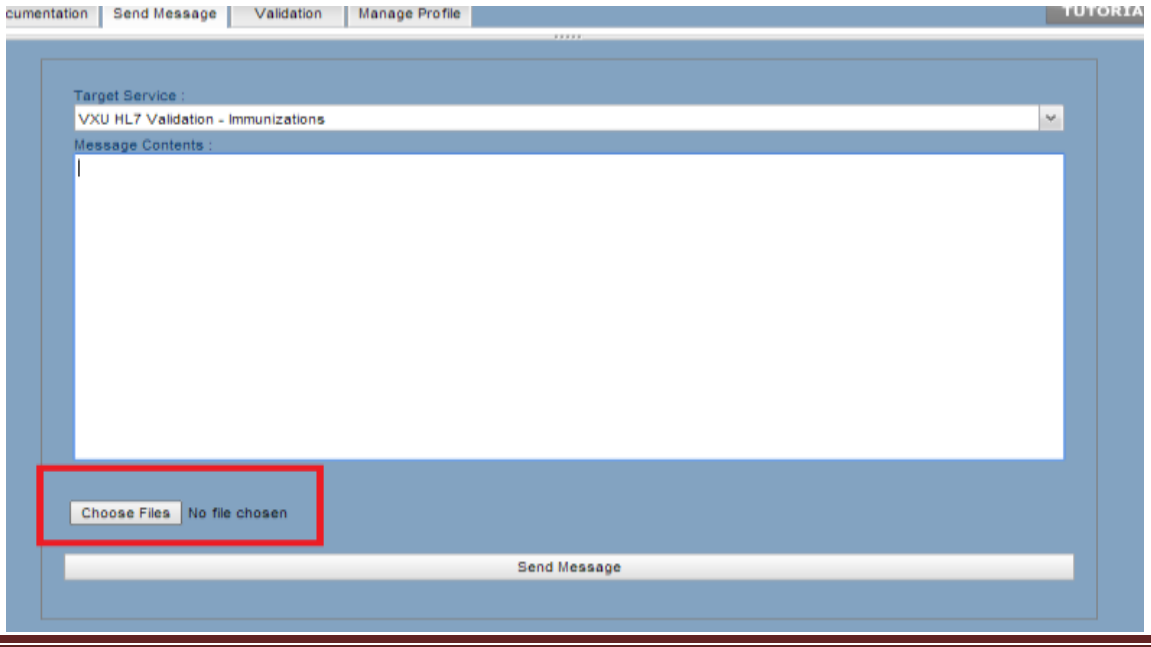


If you want to “cut and paste” the HL7 message, paste into the Message Contents box.

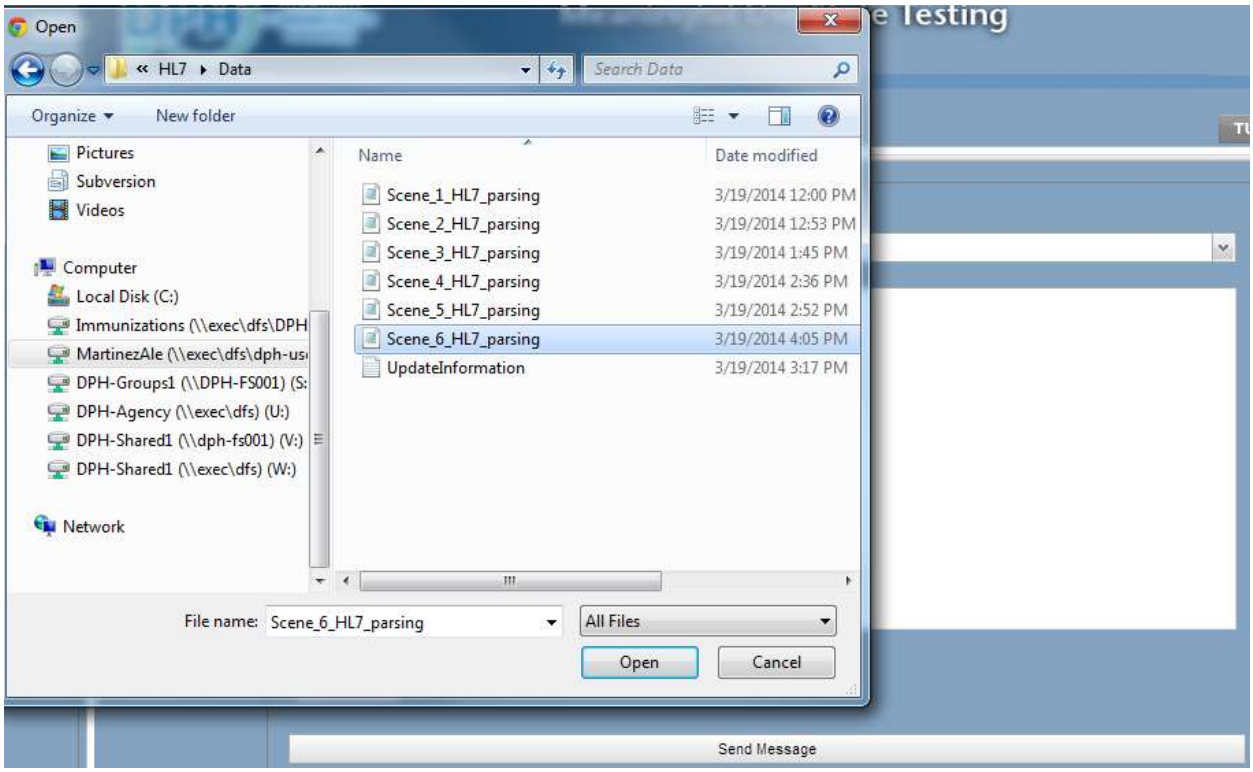


Or

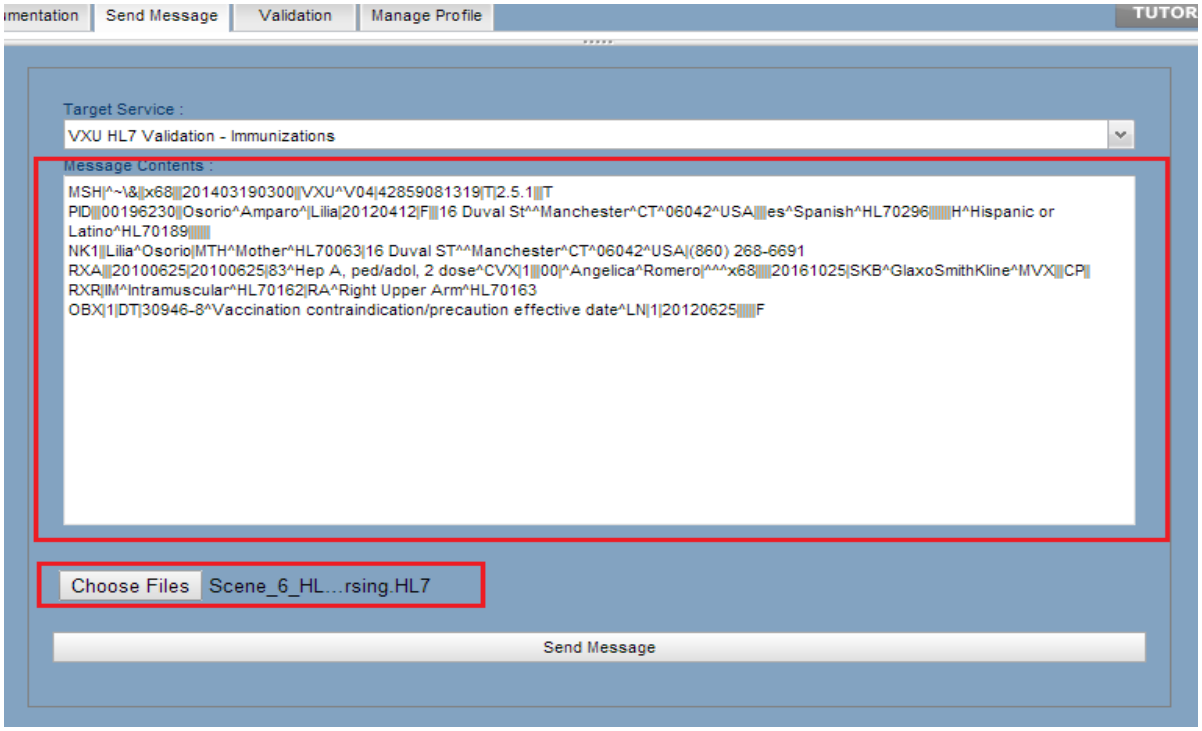
If you want to upload the HL7 messages, click on “Choose Files” button.



Select the HL7 messages and click on “open” button.



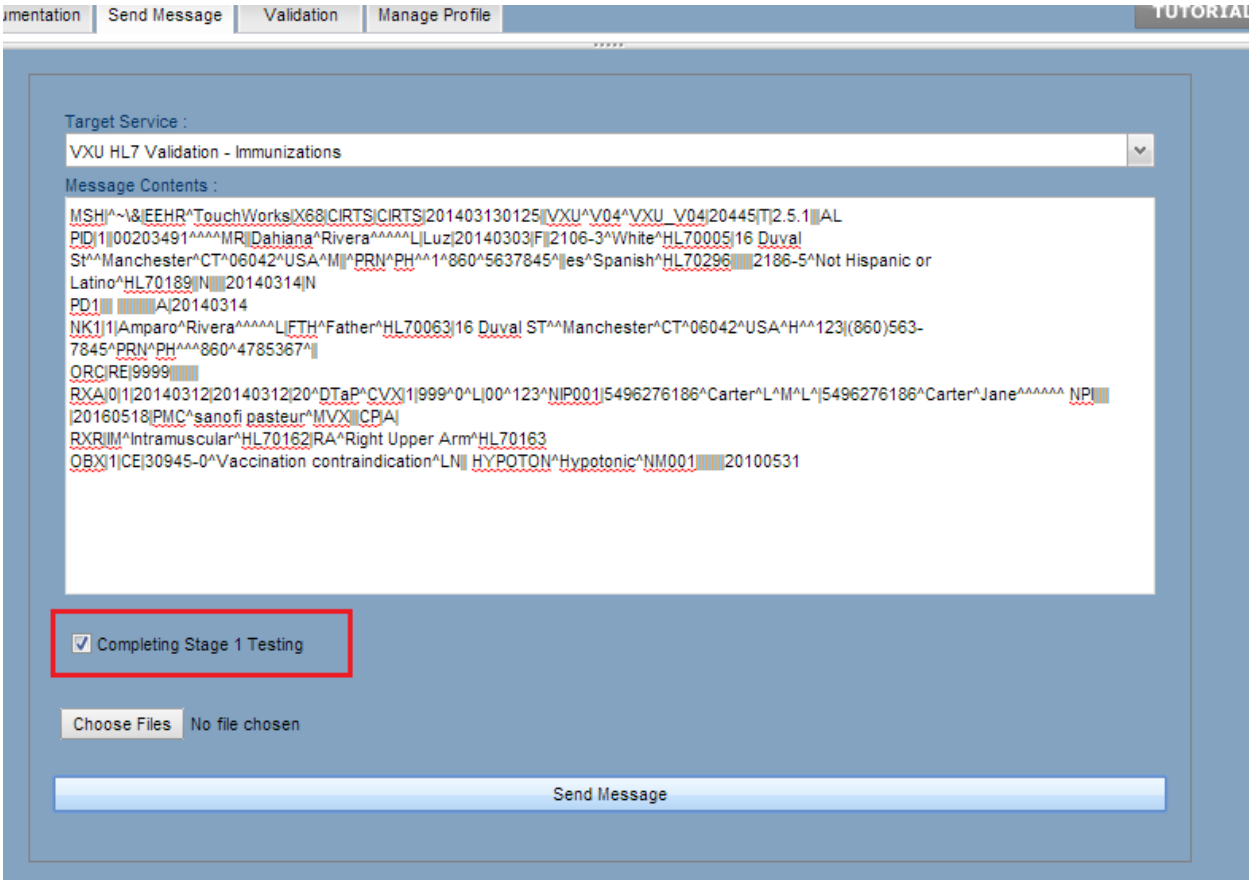
The HL7 messages will appear in “Messages Contents” box.

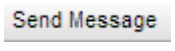


If logged into the portal as a NPI group user, the option “Completing Stage 1 Testing” checkbox will be available.

If the option for “Completing Stage 1 Testing” is selected, the results of the validation attempt will be used to generate the attestation certificate to any of the users in the NPI group. To submit electronic data for Meaningful Use Stage 1, the green check mark will signify that the attestation certificate has been generated. This validation attempt cannot be deleted.

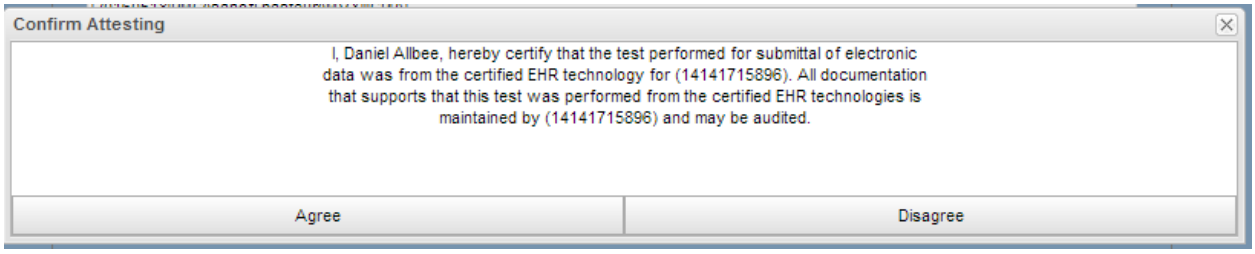
If you don’t check the box labeled “Completing Stage 1 Testing”, you can continue to perform and analyze data validation attempts. The results of the validation attempt will not be used to generate the attestation certificate to any user in your NPI group. To submit electronic data for Meaningful Use Stage 1, the red “X” in the validation tab identifies that there is no attestation certificate associated with this test. This validation attempt can be deleted.



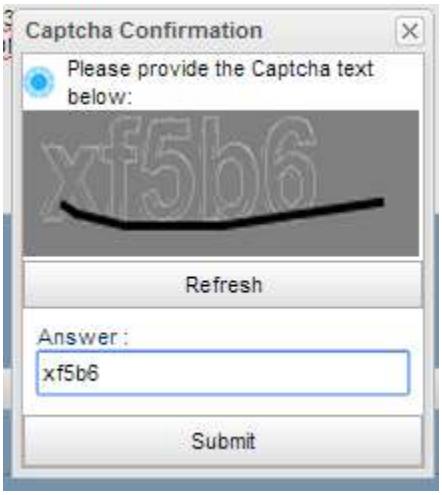
Click on the “Send Message” button 

.

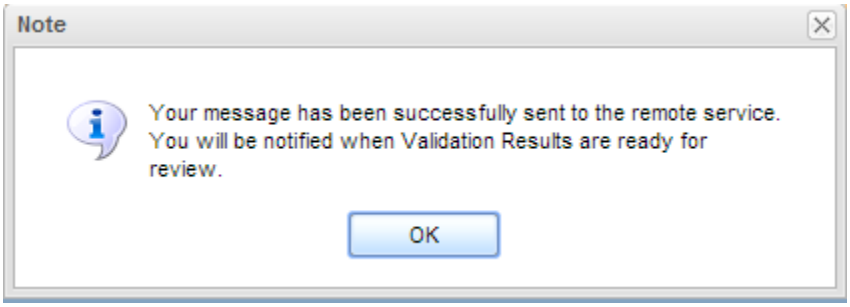
If the checkbox labeled as “Completing Stage 1 Testing” is checked, a popup window confirming that you are attesting for the NPI will appear with the option buttons “Agree” or “Disagree”



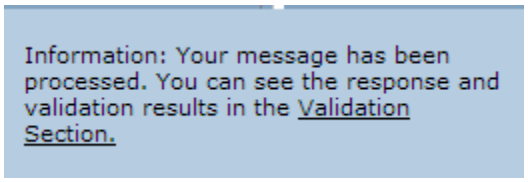
Next the security feature call a “Captcha” image will appear. If you are having trouble with the image, you can click the refresh button to display a new image. You must type the answer in the text box and then click “Submit” to complete the test.



When you click “Submit”, the validation attempt will be submitted to the Portal. A pop up will notify you that a validation has been attempted and submitted.

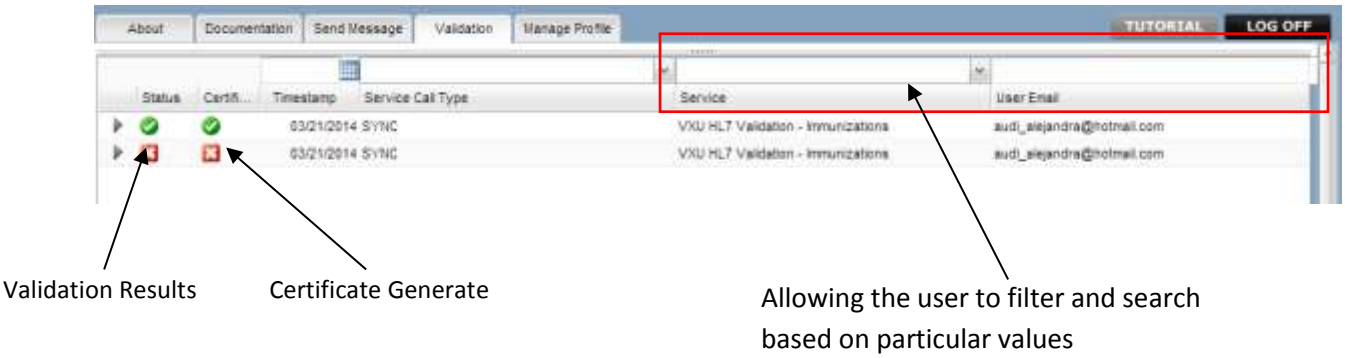


A pop up will notify that a validation has been processed and is ready to review.



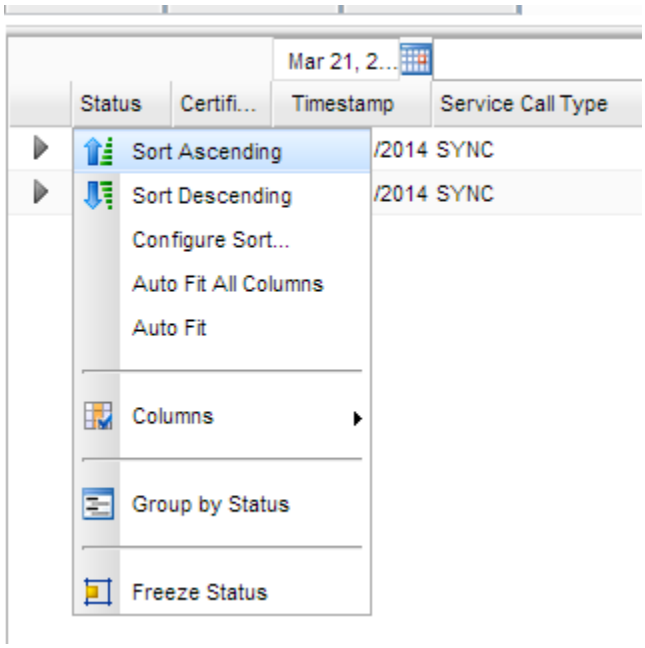
Chapter 8 MESSAGE VALIDATION

After a validation attempt has been processed, the results can be viewed at the “validation tab”, with results listed separately by attempt.

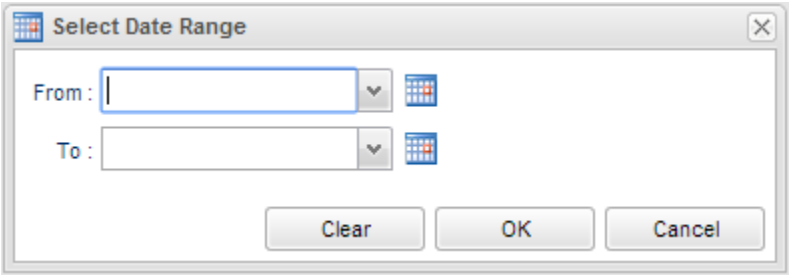


8.1 Tools

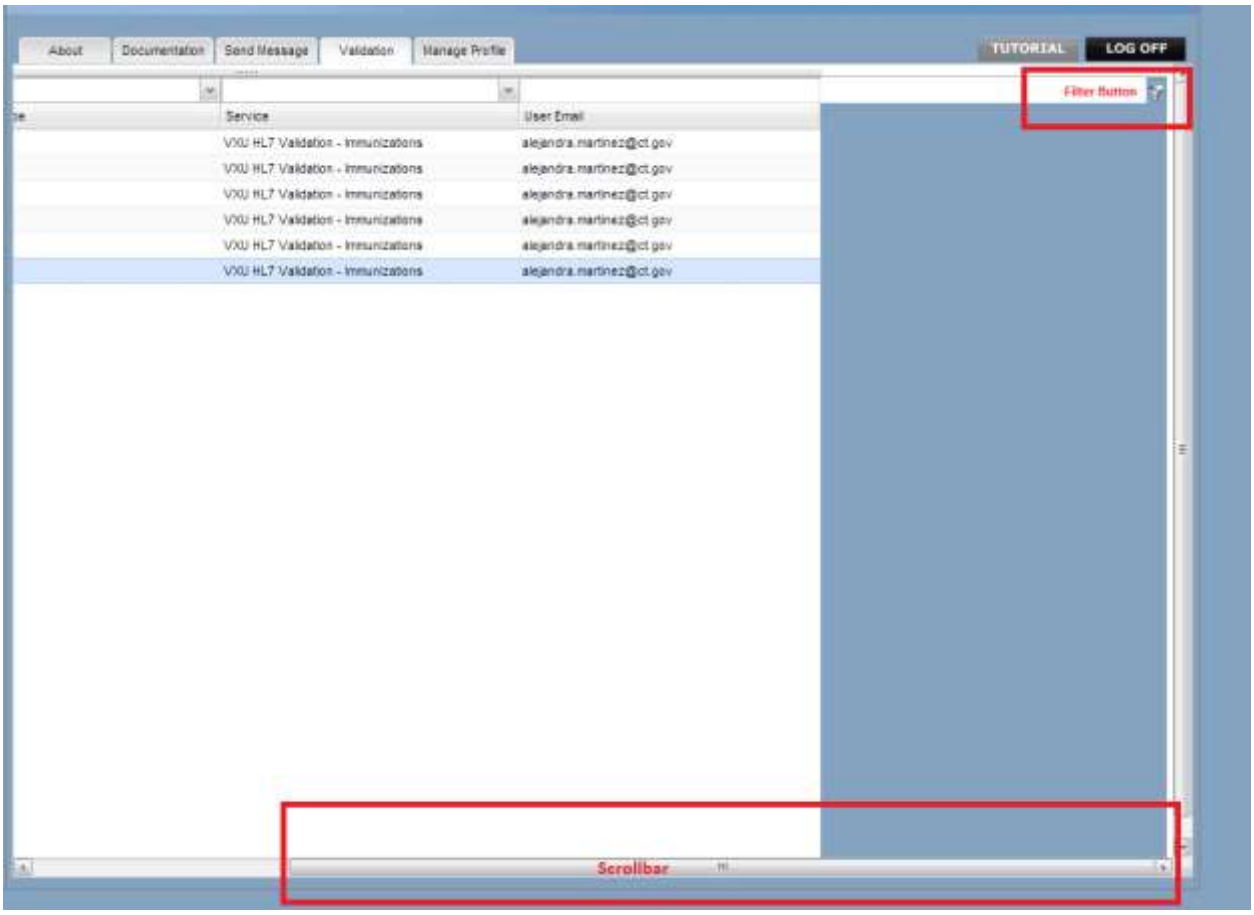
The portal provide options to sort, filter, fit columns, add and delete columns, status freezing and group by status. For activate this option click in the columns labels a grey triangle will appear on the right.



Filter by Date: Click on the “Calendar” button and select date range and then click the “ok” button.

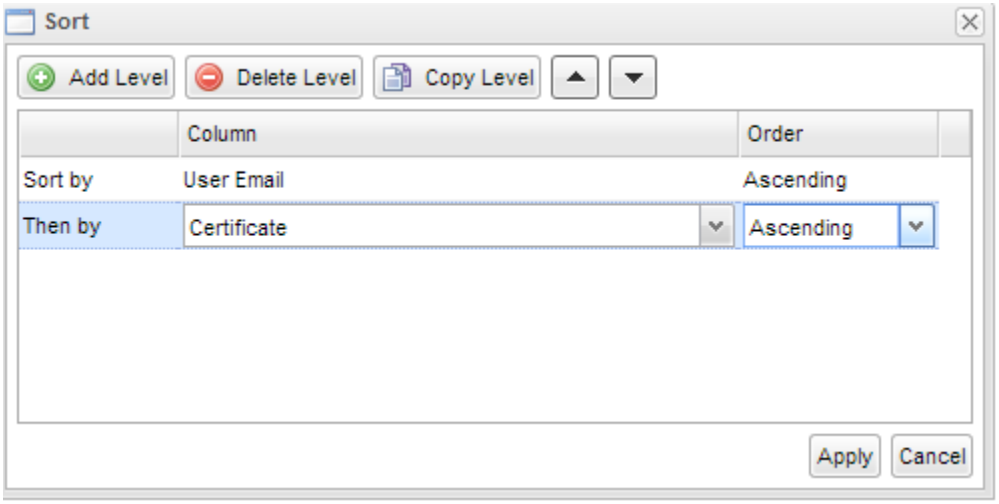


Move to scrollbar to the end and click on “filter” button.

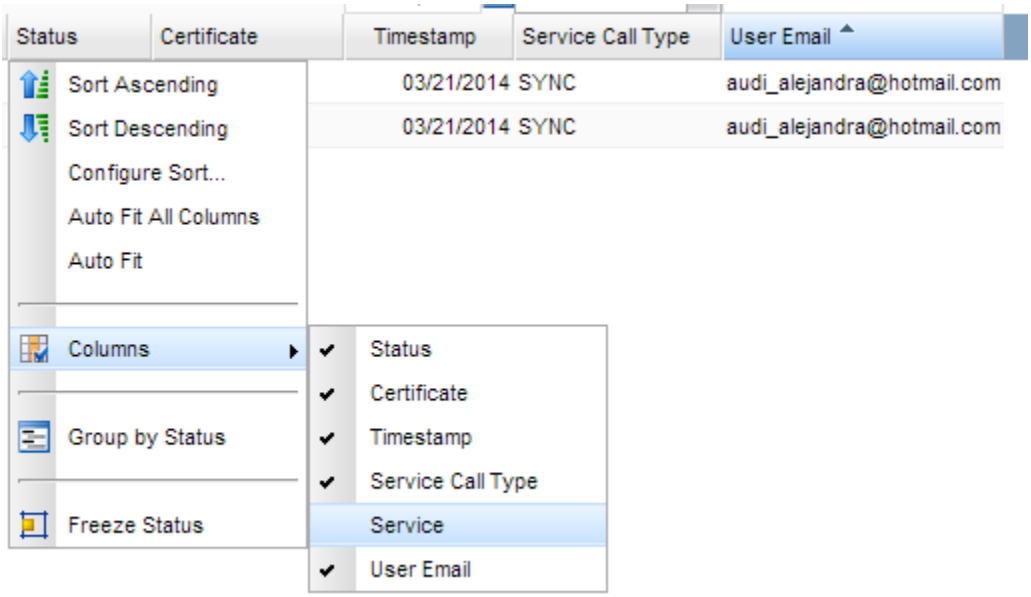


Sort Information: You can sort the results by date or by other columns. Any column in the Portal can generally be sorted as well.

Configure Sort Option: click in the column’s label and a grey triangle will appear on the right and then click “Configure Sort”. The user can now sort, add levels, delete and define the order.

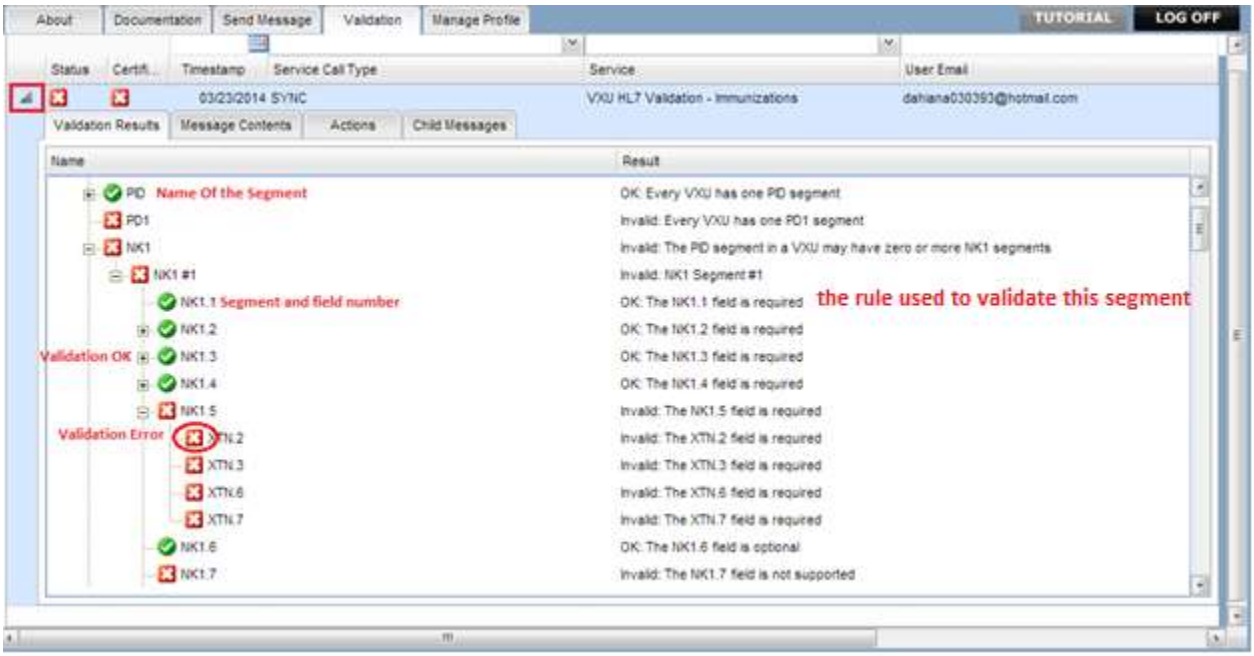


Setup Columns: click on the column's label and a grey triangle will appear on the right and click on "Columns". The user can add or delete columns in the table.



8.2 Validation Results Tab

Click on the grey triangle on the left to expand a validation attempt to show more details. **The Validation Results** tab will show each segment, subcomponents of the data, and the validation result for each. The parts of the hierarchy can be expanded and collapsed by clicking on the minus and plus signs next to an item.



Each row of the table has an entry for the "Status" column indicating if the message was considered by the system to be successful or to have failed. This is indicated via a green checkmark (for success) or a red "x" (for failure).

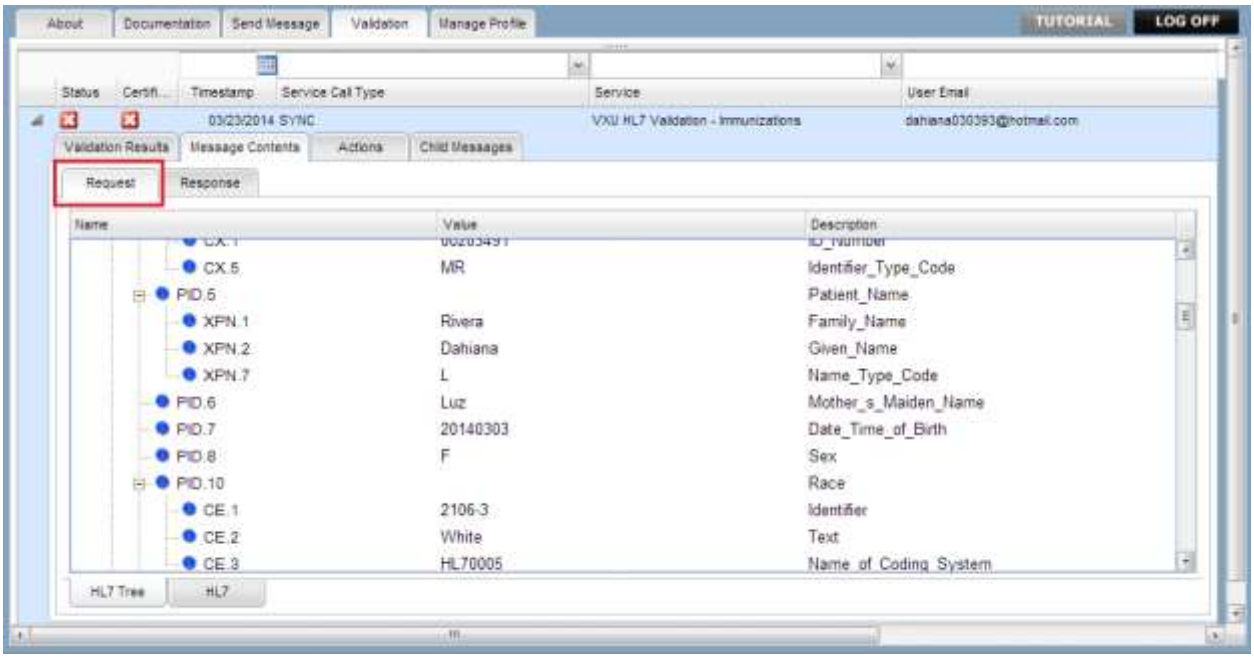
8.3 Message Contents Tab

With the **"Message Contents"** row expanded the user may view any messages associated with the one sent, such as the initial request (sent by the user) and the response (sent back by the system).

8.3.1 Request Tab

The **Request** tab shows the parsed content sent in the HL7 message by field. The user can view:

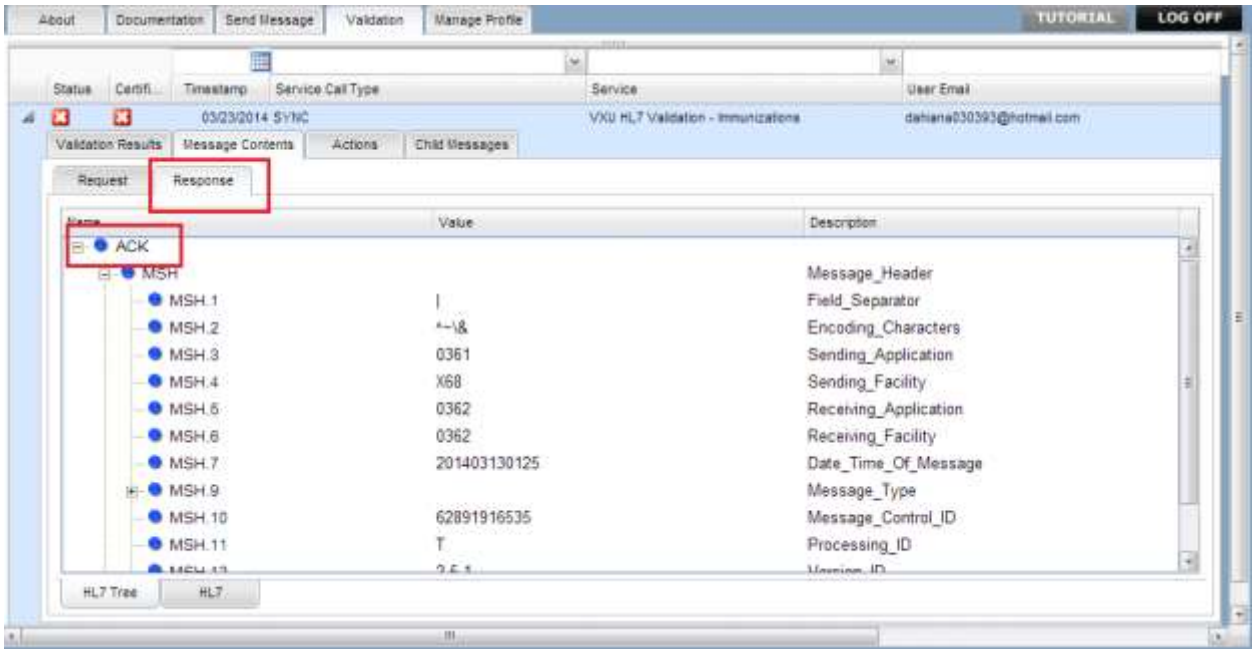
- Name of the segment and field number
- Value (data sent)
- Description (name of the field)



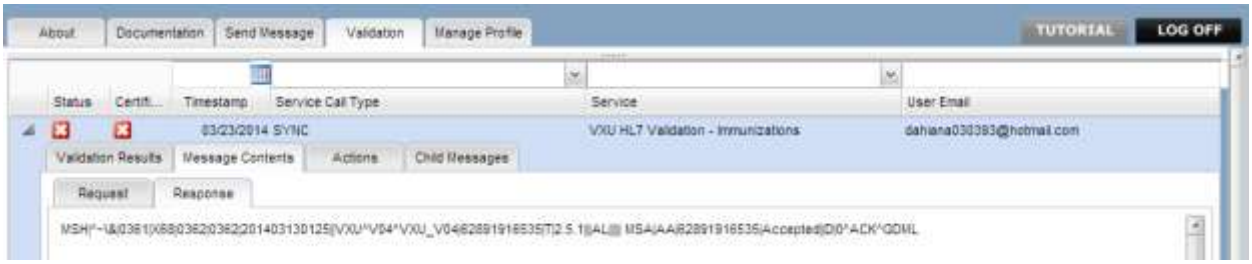
8.3.2 Response Tab

Show the ACK message obtained. The user can view:

- Name of the segment and field number
- Value
- Description (name of the field)

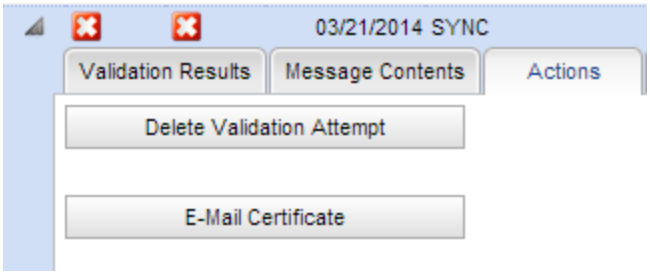


The option HL7 shows the response obtained in format HL7 message.



8.4 Actions Tab

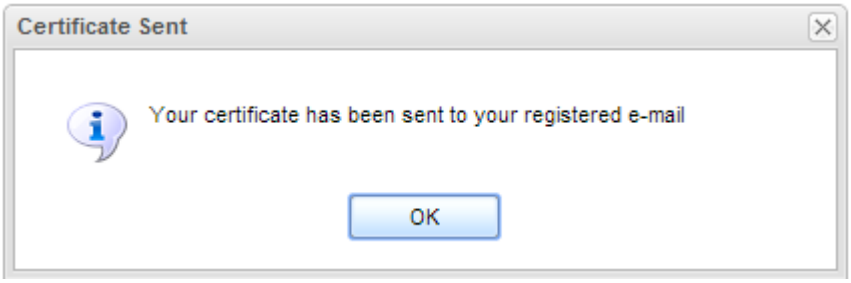
The Actions tab allows the removal of a validation attempt or generation of an E-mail certificate.



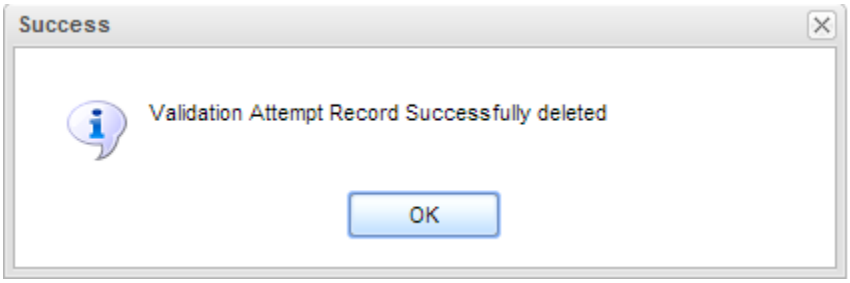
In the Actions tab, an E-Mail Certificate button will be available only if you or another user in your NPI group checked the Completing Stage 1 Testing checkbox when submitting the validation. If this button was selected, an email containing a certificate will be sent to your email address.

8.4.1. Delete Validation Attempt:

To remove a validation attempt, click on the button and confirm the request by clicking on the "ok" button.



A pop up will notify you that a validation Attempt record was successfully been deleted.



8.4.2 E-Mail Certificate

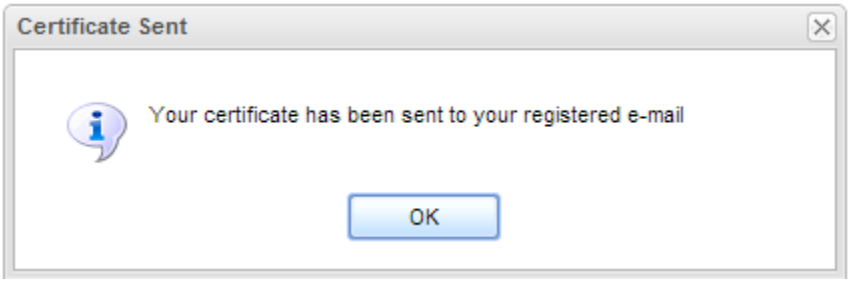
This option only is available if:

- You checked the Completing Stage 1 Testing checkbox.

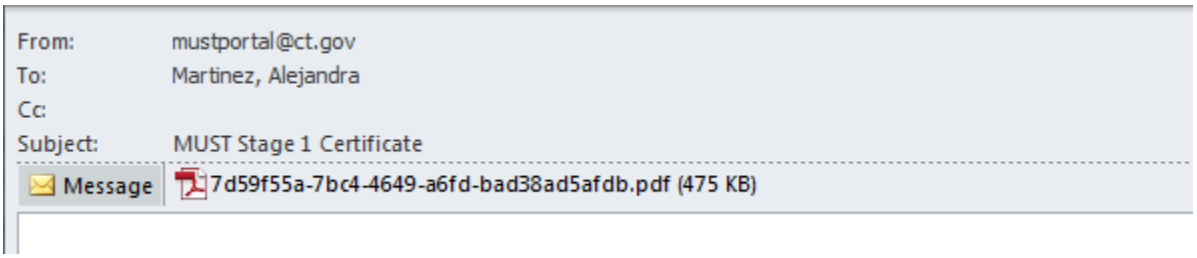
The message was OK and you are login as a NPI user group and the checkbox labeled as "Completing Stage 1 Testing" was checked, the system automatically sends an email certificate in pdf format to your email.

To generate an E-mail certificate, click on the button and confirm the request by clicking on “ok”.

A pop up will notify you that validation Attempt record was successfully been sent it.



Check your email to verify that the certificate is there in pdf format.



State of Connecticut
Department of Public Health

Keeping Connecticut Healthy

Certificate of Public Health Meaningful Use Stage 1 Testing

DPH Test Certificate Number: **7d59f55a-7bc4-4649-a6fd-bad38ad5af**

Name: **Clinical Test**

NPI: **789**

I, **Alejandra Martinez**, hereby certify that the test performed for submittal of electronic data was from the certified EHR technology for

Clinical Test (789). All documentation that supports that this test was performed from the certified EHR technologies is maintained by

Clinical Test (789) and may be audited.

Test was performed by:

Name: **Alejandra Martinez**

Organization: **Clinical Test**

Address: **410 Capitol Ave, Hartford, CT 06134**

Phone Number: **8602686691**

E-mail: **alejandra.martinez@ct.gov**

CT DPH – Stage 1 Public Health Reporting Measure tested:
Immunization

Status of Test: **Passed, Not Valid (UAT testing)**

Date Test Performed: **2014-03-18**

Time Test Performed: **08:53:03.007**

Chapter 9 - Tutorial Information

About Tutorial

You navigate through the Portal using 5 tabs. You will primarily be working with 3 of them.

1. **About** - How to use the Portal.
2. **Documentation** - A central repository of all you need to build an interface including interface details and contact information.
3. **Send Message** - This section allows the user to send messages synchronously for testing.
4. **Validation** - This section allows the user to review their sent messages.
5. **Manage Profiles** - This section allows the user to modify user information, including your password.

Moving through the tabs on the MUST Portal allows the user to validate HL7 structure and mapping according to CT local guides for building the HL7 interface. Once you have configured the interface, testing HL7 message parsing and validating is fairly easy. MUST Portal is available for use 24X7 with immediate response for all functions can be accessed using the tabs and tree hierarchy.

Documentation Tutorial

The Documentation section links to an online repository listing all of the interface templates available for EPs and EHs and their vendors for the HL7 interface. The tree structure is expanded or collapsed for each area with capability to download documents and links to a separate page. .

The Documentation page includes all the resources for building a compliant HL7 message for your interface. Resources provided includes User Guide that walks a user through to process to test a message and generating the Stage 1 attestation certificate. Additional documentation includes implementation guides, web site links and other interface template information as well as information to prepare for PHIN MS connectivity.

Send Message Tutorial

In the "Send Message" section, the user can send test messages without needing to establish to DPH or test connectivity to the receiving system. The "Target Service" drop-down (current only has immunizations) will allows the user to select from a list of services. NOTE: There may fewer or other available services and the expected message formats may vary according to the target service.

The user will need a sample message to send into the service. Please contact your interface vendor ho how to generate test message from your electronic system. The MUST portal can support a "copy and paste" into a window or upload a file. The user may then click "Send Message," after which the button will be greyed out while the message is processed. If the user is looking for the attestation certificate, it is the same process just answering additional question for this test. The certificate is e-mailed to the logged in user account if they are EP or EH user type.

Validation Tutorial

In the Validation section a view of sent messages are presented. This is the most complex portion of the MUST Portal. Message Contents can be viewed, actionable responses to correct errors are presented and Validation Results show validation rules that were performed.

Here's how to analyze your results:

1. Each column in the table ("Status", "Timestamp", "Service Call Type", etc.) has a text field above it, allowing the user to filter and search based on particular values. The Portal may be configured by administrators to show additional information in these columns, such as "Service" or "User E-mail".

2. Each row of the table has an entry for the "Status" column indicating if the message was considered to be successful or to have failed HL7 parsing. This is indicated via a green checkmark (for success) or a red "x" (for failure).
3. Finally, each row has a small, grey arrow on the left-most column, which allows the row to be expanded.

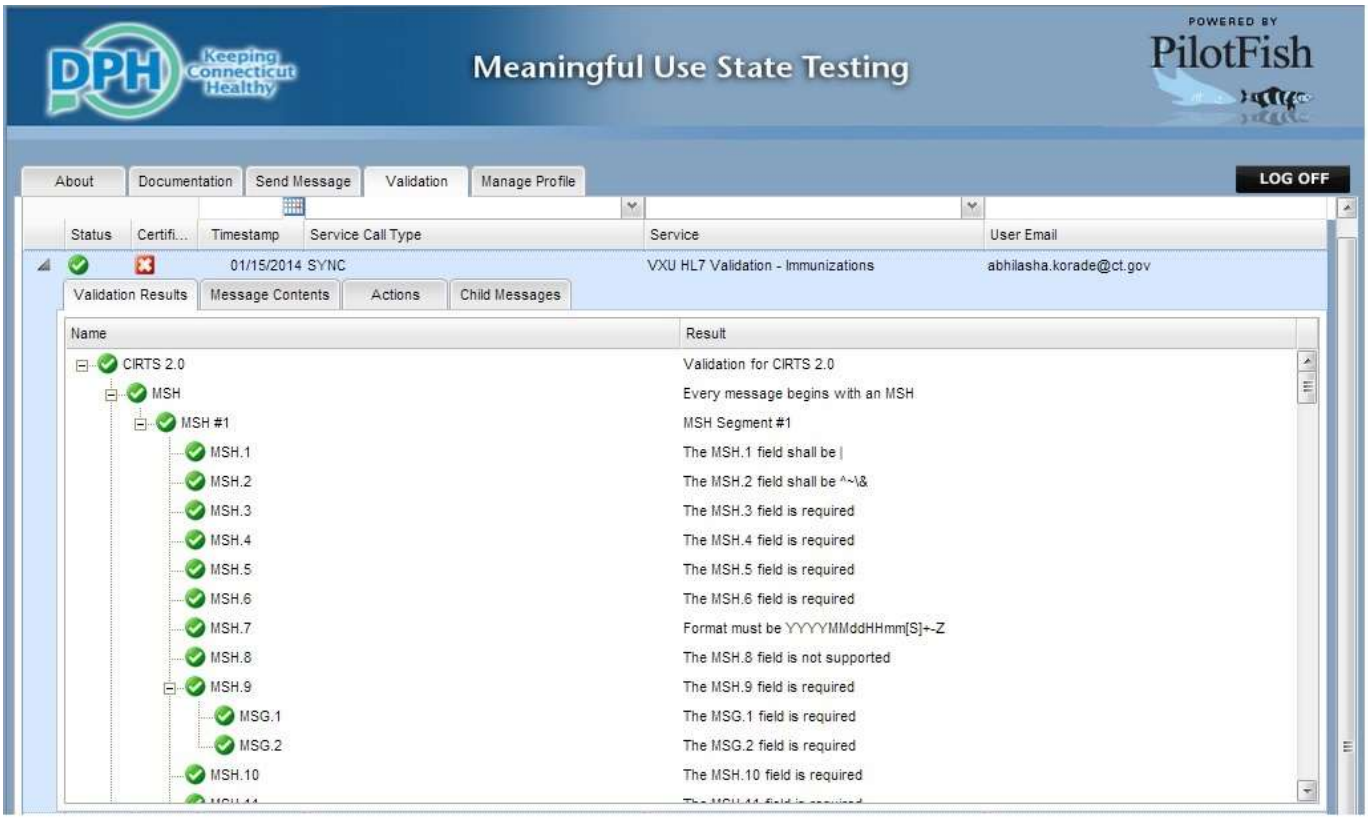
In the simulated testing examples below, the test result is expanded by clicking on gray triangle. Expanding a row reveals three additional sub tabs:

"Validation Results" - allows the user to see a tree representation of the validation rules performed.

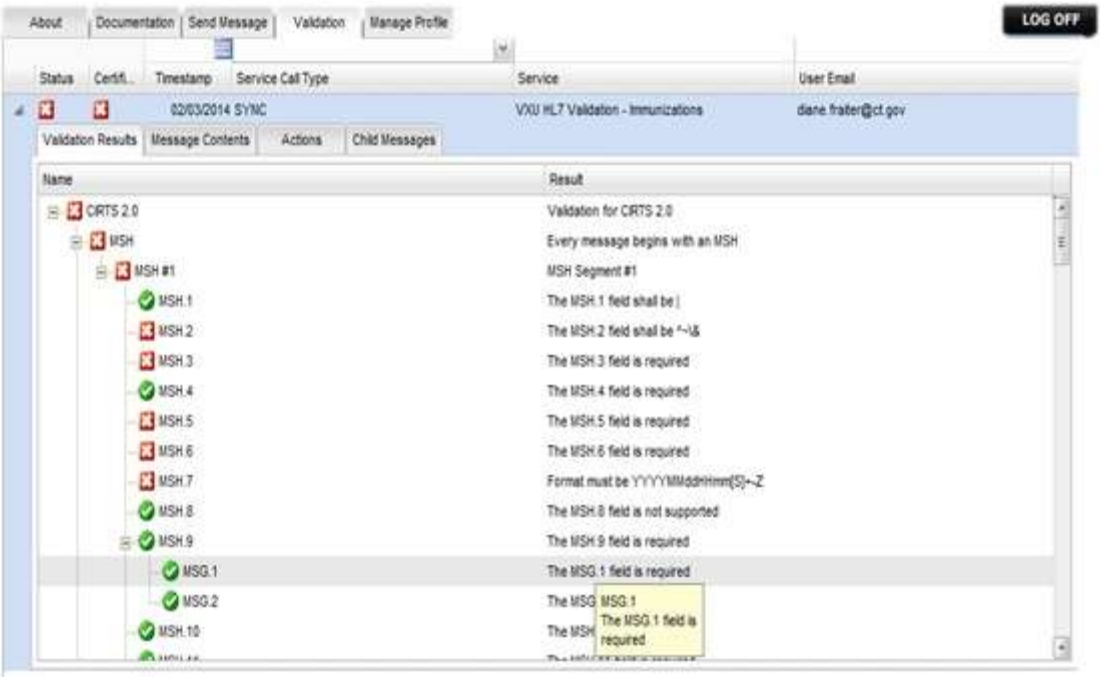
"Message Contents" - allows the user to view message contents.

"Actions" - allows the user to take actions specific to that row.

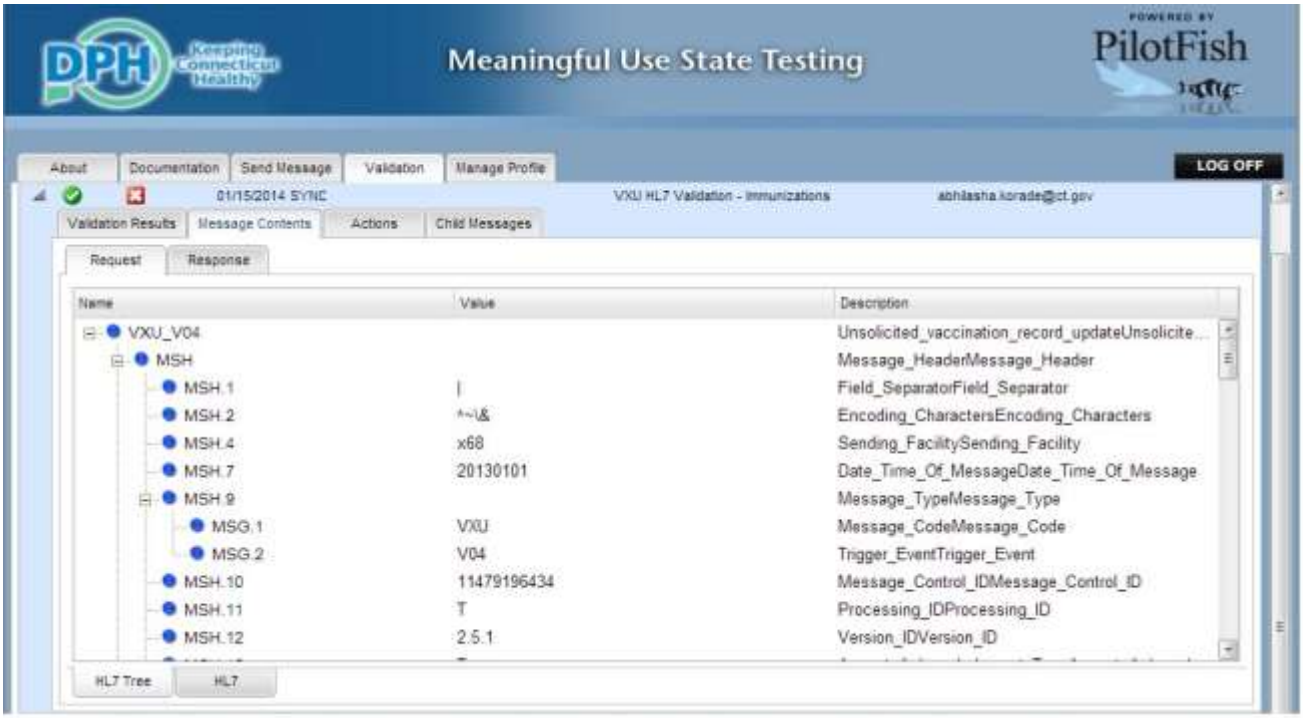
NOTE: Each of these rows within each tab can also be expanded by clicking its own arrow.



With the "Validation Results" row expanded the user may view the validation rules applied to this message in a tree structure, including the name, text result, and if the rule passed or failed (indicated via green checkmark or red "X"). Rules are organized into a hierarchy, with any failed rule causing its immediate parent rules to also fail.

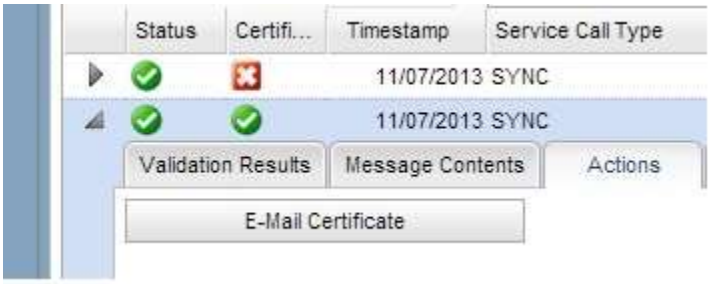


With the "Message Contents" row expanded the user may view any messages associated with the one sent, such as the initial request (sent by the user) and the response (sent back by the system).



With the "Actions" row expanded the user may see the available actions for each test.

"E-mail certificate" which allows the user to resend the attestation certificate to the account logged in.



"Delete Entry" - deletes this particular validation attempt row as long as no certificate was generated by this test and refreshes the page.

NOTE: that the effects of this button are permanent.

Final Testing and Deployment Once the user has reviewed the validation results and corrected any errors, the message can once again be submitted via the "Test Message" tab for final testing. Once this message passes validation and succeeds, the user may communicate with the "Technical Contact" to arrange moving to the pre-test steps and transport mechanism. Technical contact information can be found under Documentation.

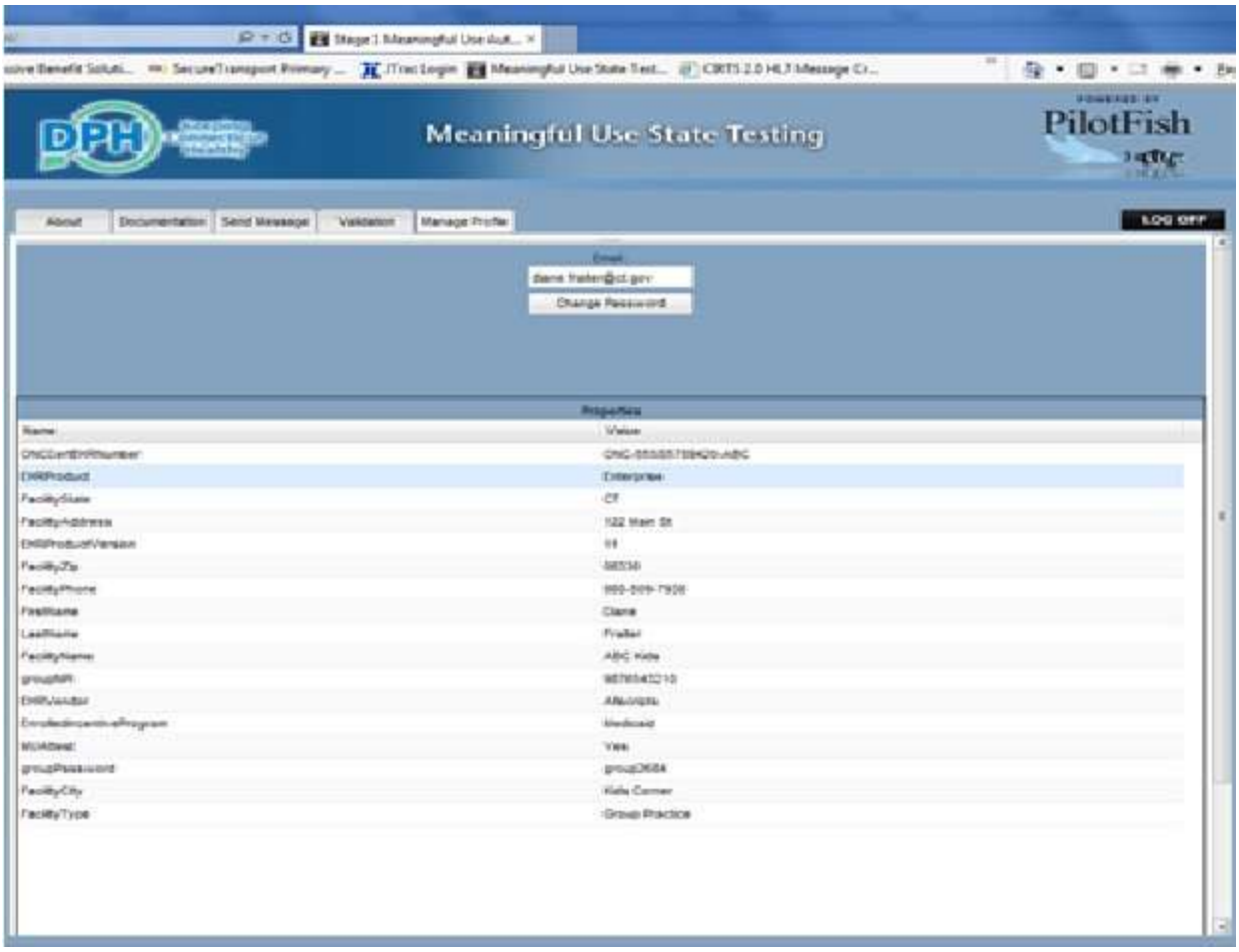
Manage Profiles Tutorial

The Manage Profiles Tab allows the user to modify their password, name, organization name, address and phone number in one central dialogue screen. New users will probably want to change their automatically generated password using Change Password button. After altering any of the editable fields, the user just type it in. Once you move to another field on this page, this information is saved.

These changes the user must contact DPH directly using dph.cirts@ct.gov e-mail address with the request.

Fields that the user cannot modify are:

1. e-mail address
2. NIP if EP or EH or vendor ID if a vendor or third integrator
3. Group ID or Group password



Chapter 10 - Contact Information

For technical support and related questions, contact the following support staff:

Contacts	Phone/Fax	E-mail
DPH Help Desk (technical support for MUST)	Phone: (860) 509-7777	Dph.must@ct.gov
State of Connecticut Department of Public Health, Immunization Program	Phone: (860) 509-7929 Fax: (860) 509-8370	Dph.cirts@ct.gov

Chapter 11 – Troubleshooting for Browser settings

If you are experiencing technical issues with MUST portal, we recommend your first try:

11.1 Browser Requirements

Supported browsers for MUST include:

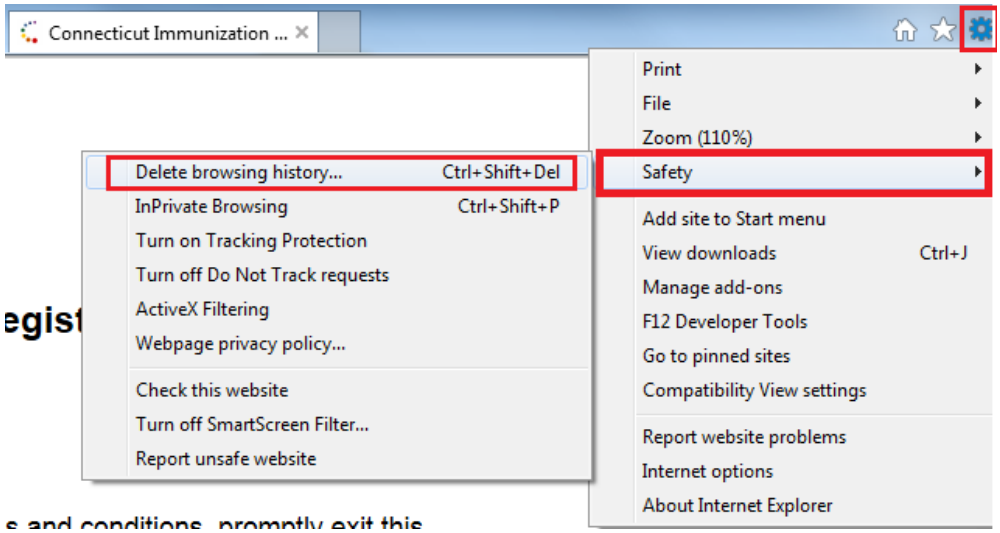
- Microsoft Internet Explorer 9.0 and above
- Mozilla Firefox 3.0 and above
- Chrome Auto Update Enabled (Latest Version)

11.2 Clear Cache and Cookies in your browser

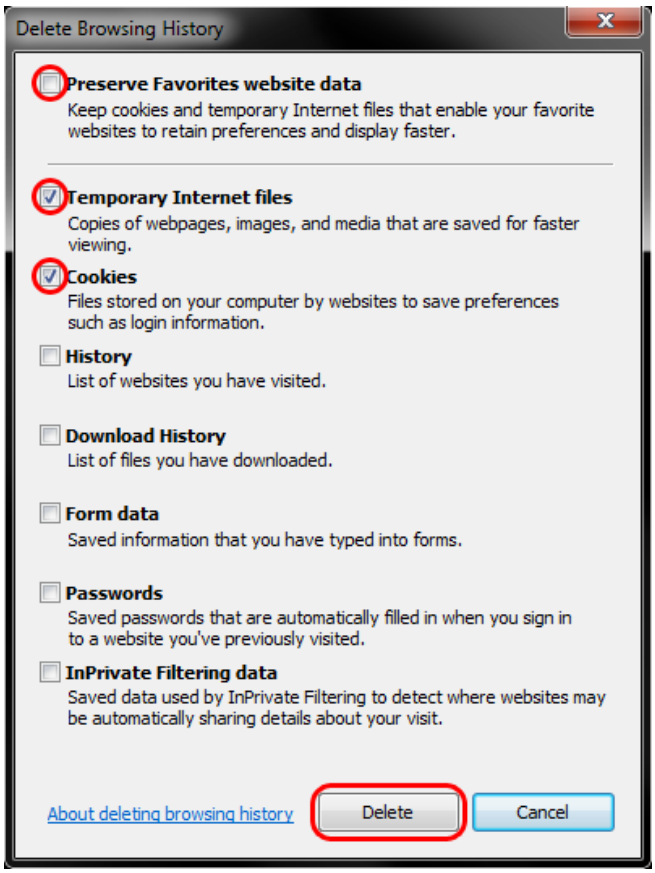
Internet Explorer 9, 10 and 11.

This section explains how to clear the cache and cookies in Internet Explorer 9, 10 and 11.

1. Select **Tools (via the Gear Icon) > Safety > Delete browsing history...**.



2. Make sure to uncheck **Preserve Favorites website data** and check both **Temporary Internet Files** and **Cookies** then click **Delete**.

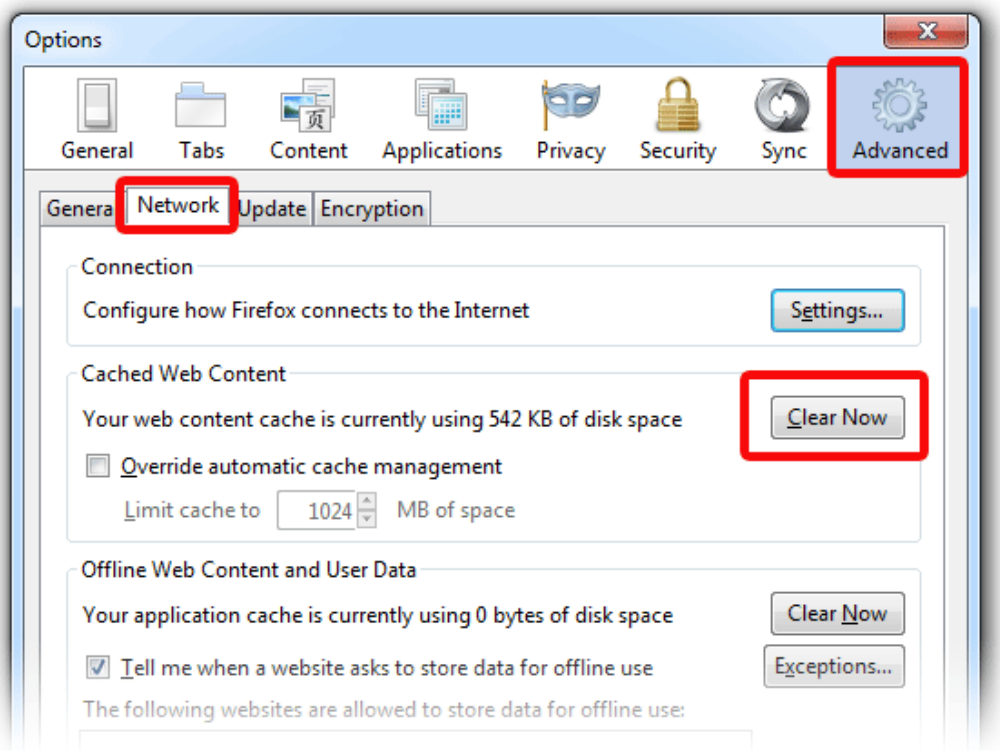


3. You will get a confirmation at the bottom of the window once it has successfully cleared your cache and cookies.

Mozilla Firefox

This section explains how to clear the cache and cookies in Mozilla Firefox

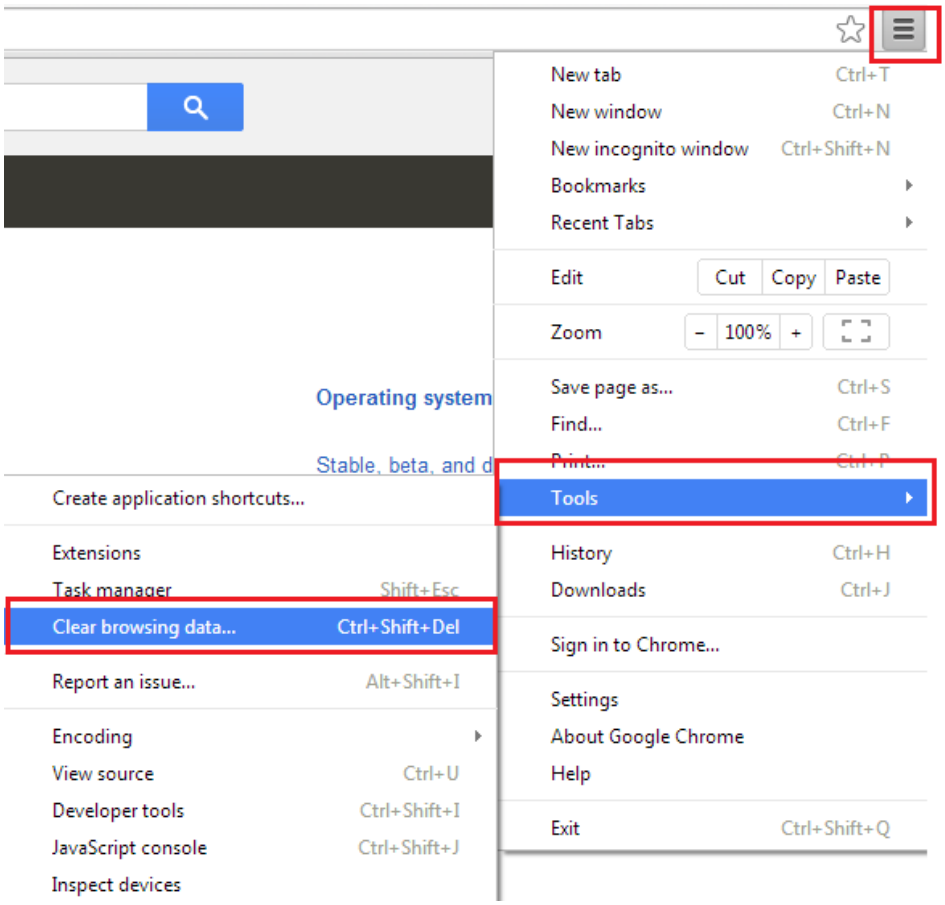
1. Click the menu button ☰ and choose Options
2. Select the Advanced panel.
3. Click on the **Network** tab.
4. In the **Cached Web Content** section, click Clear Now.
5. Click OK to close the Options window



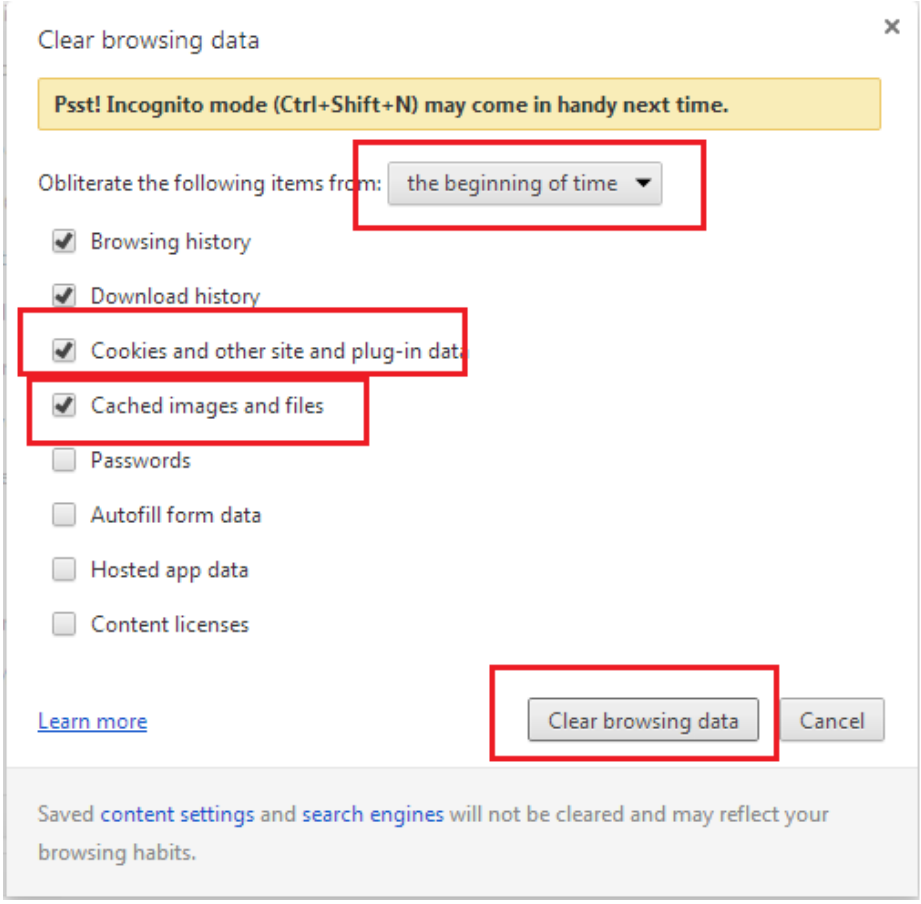
Chrome

This section explains how to clear the cache and cookies in Chrome

1. Click the Chrome menu on the browser toolbar.
2. Select **Tools**.
3. Select **Clear browsing data**.



4. In the dialog that appears, select the checkboxes for the types of information that you want to remove.
5. Use the menu at the top to select the amount of data that you want to delete. Select **beginning of time** to delete everything.
6. Click **Clear browsing data**.


Clear browsing data
Psst! Incognito mode (Ctrl+Shift+N) may come in handy next time.
Obliterate the following items from:
the beginning of time
Browsing history
Download history
Cookies and other site and plug-in dat
Cached images and files
Passwords
Autofill form data
Hosted app data
Content licenses
Learn more
Clear browsing data
Cancel
Saved content settings and search engines will not be cleared and may reflect your browsing habits.

Appendix a - Glossary

Overview

Some of the commonly-used terms and abbreviations in MUST are:

Term	Meaning
CDC	Centers for Disease Control and Prevention
CMS	Centers for Medicare & Medicaid Services
DAS/BEST	Department of Administrative Services /Bureau of Enterprise Systems and Technology
DPH	Department of Public Health, State of Connecticut
DSS	Department of Social Services, State of Connecticut
EH	Eligible hospital
EHR	Electronic Health Record
EP	Eligible provider
HL7	Health Level Seven organization and standards
MU	Meaningful Use
MUST	Connecticut Meaningful Use State Testing Portal
NPI	National Provider Identifier
PHINMS	Public Health Information Network Messaging System
User	A person who uses MUST

HL7 Message	Structure
VXU	sending or receiving immunization-related messages

VXU Segment Usage

Segment	***Comment***
MSH	*Every message begins with a header.*
PID	*Every VXU has one Patient identification segment.*
PD1	*Every VXU has one Patient Demographic segment.*
NK1	*The PID segment in a VXU may have one next of kin segment.*
ORC	*The order segment in a VXU message.*
RXA	*Each ORC segment in a VXU message must have one or more Pharmacy/Treatment Administration segment. Every RXA has the vaccine event.*
RXR	*Every RXA segment in a VXU message may have zero or one Pharmacy/Treatment Route segment for route and administration.*
OBX	*Every RXA segment in a VXU may have zero or more OBX observation segments that contain additional vaccine information.*