RIDP and FARS API Testing for Enhanced Direct Enrollment

Overview of Hub RIDP & FARS Service Testing

February 2018

Agenda

- Overview of RIDP and FARS

- CMS Phases

- Test Reporting

- Test Scenarios & Test Data

- SoapUI Setup

Overview of RIDP and FARS

Background

Remote ID Proofing Service (RIDP)

- Allows EDE Partner to validate the authenticity of individuals who intend to enroll in a qualified health plan.
- The service connects to Experian to perform identity proofing.

Fraud Archive Reporting Service (FARS)

- Allows EDE Partner to check the Experian FARS database to determine if the individual's identity was verified through the call center process.
- The service is triggered if RIDP service returns a final decision code of Refer (*REF*), meaning the individual being proofed needs to contact the Experian call center to verify their identity.
  - Only *RF1* and *RF2* codes should be directed to the Experian Call Center
- Individual uses a reference number returned by the RIDP service when contacting the call center.
- After successfully completing the Experian call center process, Experian updates the FARS database allowing the EDE Partner to retrieve the updated identity proofing

RIDP Process Flow

Initial Request for Questions	The EDE entity initiates initial RIDP request containing Applicant details.
Initial Response with Questions	The RIDP service returns the *SessionIdentification*, *DSHReferenceNumber*, and Questions (when applicable) for the Applicant to answer. If no Questions are generated a RF1 code is returned.
Final Request with Answers	The EDE entity submits another RIDP request with the Question Answers and the *SessionIdentification*.
Final Response with Identity Proofing Decision	The RIDP service returns a decision as to whether the Applicant passed (*ACC*) or failed (*RF*) the identity proofing process based on the answers provided. The service will also return the *SessionIdentification* and *DSHReferenceNumber*.

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FARS Process Flow

RIDP Result	For RIDP *FinalDecisionCode RF1* or *RF2*, the Applicant contacts the Experian HD with the *DSHReferenceNumber* the Hub provides to complete identity proofing over the phone.
Experian Help Desk	The Experian HD verifies the identity of the individual and updates the Fraud Archive Reporting Service DB.
FARS Request	The Applicant notifies the EDE entity to initiates a FARS Service request to determine if the Applicant completed follow-up verification with Experian on the phone. In the request, the EDE entity must use the *DSHReferenceNumber* returned in the final RIDP response to associate the RIDP and FARS transactions.
FARS Response	A final decision as to whether the Applicant passed (*ACC*) or failed (*RF1/RF2/RF4*) the identity proofing with the Experian Help Desk

Healthcare.gov RIDP – Consumer Contact Details

Healthcare.gov RIDP – Questions & Answers

Answer these questions so we can verify your identity

Based on your information, we've put together a few questions that only you'll be able to answer. Why do I need to verify my identity?

Which one of the following retail credit cards do you have? If there is not a matched retail credit card, please select 'NONE OF THE ABOVE'.

MARINER SUPPLY

XS CARGO

ZELLERS

DUNNES STORES

NONE OF THE ABOVE/DOES NOT APPLY

Please select the county for the address you provided.

AMHERST

DICKENSON

WARREN

STAFFORD

NONE OF THE ABOVE/DOES NOT APPLY

VERIFY MY IDENTITY

Healthcare.gov RIDP – Identity Verification Result

Successful Identity Proofing

Failed Identity Proofing

CMS Phases

CMS Testing Phase - Requirements

CMS Test Harness Phase

- EDE Partner tests Mock Responses from Experian using the Hub Test Harness
- EDE Partner executes the Required Test Scenarios for EDE RIDP/FARS Hub services applicable to the EDE Partner
- Optional test case scenarios are provided for partners to use for additional validation testing
- EDE Partner will test using Mathematica Test Data provided by CMS
- All testing completed by the Partner will be documented and submitted to CMS via the Test Harness Summary Templates

CMS Experian Test Phase

- EDE Partner tests with the Experian Test Environment via the Hub Gateway
- EDE Partner executes the Required Test Scenarios applicable to the EDE Partner
- EDE Partner will test using Experian Test Data provided by CMS
- All testing completed by the Partner will be documented and submitted to CMS via the Experian Testing Summary Template

CMS Test Harness Phase

CMS Test Harness Phase Details

- **Who:**
  - Enhanced Direct Enrollment Partners
- **Testing Timeline:**
  - Currently Available- <u>Monday, Tuesday, Wednesday, and Friday from 9:30 AM to 9:00 PM ET</u>
- **Test Data:**
  - EDE Partners will utilize **Mathematica Test Data** applications for the Test Harness
  - All Data used for testing in the IMPL environment is required to be Mathematica test data, unless otherwise agreed upon. Production data must NOT be used.
- **Test Environment:**
  - <u>IMP1A Environment</u>
    - Formal environment endpoint information:
      - https://impl.hub.cms.gov/Imp1/RIDPServiceDE
      - https://impl.hub.cms.gov/Imp1/FARSServiceDE

CMS Experian Test Phase

TDS Experian Test Phase Details

- **Who:**
  - Enhanced Direct Enrollment Partners
- **Testing Timeline:**
  - Experian Availability: Thursdays from 9:30 AM to 9:00 PM ET
- **Test Data:**
  - EDE Partners will utilize **Experian Test Data** provided by CMS after Harness Testing
  - If your application includes validation on state or zip your test cases are limited
  - The street addresses provided will pass validation against postal service addresses
  - All Data used for testing in the IMPL environment is required to be CMS provided test data, unless otherwise agreed upon. Production data must NOT be used.
- **Test Environment:**
  - IMP1A Environment
    - Formal environment endpoint information:
      - https://impl.hub.cms.gov/Imp1/RIDPServiceDE
      - https://impl.hub.cms.gov/Imp1/FARSServiceDE

CMS Test Phase – Exit Criteria

Submitting CMS Test Summary Report

- Partners will document all testing via the CMS Testing Summary Templates on zONE
    - https://zone.cms.gov/document/enhanced-direct-enrollment-ede-documents-and-materials
- Send Testing Report to Hub Help Desk (dsh.support@qssinc.com)
- Use the Subject: *"IMP1A: EDE RIDP/FARS Testing Report"*
- In the email include the following information:
    - Completed Testing Summary Report
    - Hub Partner ID
    - Testing System Used
    - Partner projected Production date (If not ready for production)
- Hub Team will validate payloads and send to the testing summary report to CMS for next phase approval

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CMS Production Phase

- EDE Partner must complete the following Requirements for CMS Production Approval

  – Completion of Testing requirements with the CMS Test Harness Phase and CMS Experian Test Phase

  – Verification of test cases running via Partner GUI or Interface

  – CMS will provide Hub Team with approved list of EDE Partners for Production Activation

- Hub Team will enable access to RIDP/FARS Service in the Production Environment and notify the approved EDE Partner Technical POC for connectivity verification

Test Reporting

Partner Testing Summary Report Template

Current Status Tab

Services Testing Tracking	Services	No. of Application	Testing Total	Passed	Failed	Pending	Defects	Completed	Percentage Complete	Results	Comments
	DE RIDP	41	0	0	0	41	0	0	0%		
	DE FARS	7	0	0	0	7	0	0	0%		
Total	0	48	0	0	0	48	0	0	0%		
PASSED	0										
FAILED	0										
IN PROGRESS	0										

**********ONLY MODIFY WHITE CELLS**********

Tabs: Current Status | Testing Status | Defect Tracking ⊕

Testing Status Tab

Filled in by Partner only

Partner Testing Results

Date	Tester Name	HUB Partner ID	Service Tested	Application ID	Timestamp	Partner Test System	Pass/Fail/Pending	Comments

Tabs: Current Status | Testing Status | Defect Tracking ⊕

Defect Tracking Tab

Filled in by Partner

Defect Tracking Report

Remedy ID	Detected on Date	Detected By	Assigned to	Defect Summary	Ticket Status	Severity	Priority

Tabs: Current Status | Testing Status | Defect Tracking ⊕

Partner Testing Summary Report Template

- Current Status Tab
  - EDE Partner will use the Current Status Tab to track total test cases tested that passed or failed for the RIDP and FARS Services
  - EDE Partner should fill in the white cells

- Testing Status Tab
  - EDE Partner will use the Testing Status Tab to track testing results for each test scenario tested
  - All columns should be updated by EDE Partner for each test case run

- Defect Tracking Tab
  - EDE Partner will use the Defect Tracking Tab to log issues that occurred during testing
  - Contact the CMS FEPS Help Desk (CMS_FEPS@cms.hhs.gov) to have a Remedy ticket created for Defects

FARS Experian Reporting Form

- EDE Partner will need to submit the FARS Experian Reporting Form during the Experian Test Phase in order to test the FARS Service

- Forms should be sent to RIDPTestingSupport@C-hit.com and dsh.support@qssinc.com with the Subject Line "*EDE FARS Experian Testing*"

- The C-Hit Team will return the form with the DSH Reference ID transitioned to the FARS DB allowing the EDE Partner to make a FARS request

Test Case	SSN	Consumer First Name	Consumer Last Name	Address	Reference ID	Reference ID Length Check	Expected FARS Outcome
1						Reference ID OK	
2						Reference ID OK	
3						Reference ID OK	
4						Reference ID OK	
5						Reference ID OK	

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Test Scenarios & Test Data

RIDP Test Scenarios

Test Harness Phase	Experian Test Phase	Scenario Description
REQUIRED	REQUIRED	Generates questions for the consumer successfully in English. Once consumer answers questions, it will result in an ACC code.
REQUIRED	OPTIONAL	Generates questions for the consumer successfully in Spanish. Once consumer answers questions, it will result in an ACC code.
REQUIRED	REQUIRED	Generates questions for the consumer successfully in English. Once consumer answers questions, it will result in a RF1 code.
REQUIRED	REQUIRED	Generates questions for the consumer successfully in English. Once consumer answers questions, it will result in a RF2 code.
REQUIRED	OPTIONAL	Generates questions for the consumer successfully in English. Once consumer answers questions, it will result in a RF3 code.
REQUIRED	REQUIRED	Generates questions for the consumer successfully in English. Once consumer answers questions, it will result in a RF4 code.
REQUIRED	OPTIONAL	Generates questions for the consumer successfully in Spanish. Once consumer answers questions, it will result in a RF1 code.
REQUIRED	OPTIONAL	Generates questions for the consumer successfully in Spanish. Once consumer answers questions, it will result in a RF2 code.
REQUIRED	OPTIONAL	Generates questions for the consumer successfully in Spanish. Once consumer answers questions, it will result in a RF3 code.
REQUIRED	OPTIONAL	Generates questions for the consumer successfully in Spanish. Once consumer answers questions, it will result in a RF4 code.
REQUIRED	OPTIONAL	No questions generated- it will result in a RF1 code.
REQUIRED	OPTIONAL	No questions generated- it will result in a RF2 code.
REQUIRED	OPTIONAL	No questions generated- it will result in a RF1 code.
REQUIRED	OPTIONAL	No questions generated- it will result in a RF2 code.
REQUIRED	OPTIONAL	HE009999 - Unexpected Response Code. (002)
REQUIRED	OPTIONAL	HX200009 - Experian Detect temporarily unavailable, please resubmit later
REQUIRED	OPTIONAL	HE200041 - Session timeout, please retry
REQUIRED	REQUIRED	HE200028 - Invalid street address

RIDP Test Scenarios Continued

Test Harness Phase	Experian Test Phase	Scenario Description
OPTIONAL	OPTIONAL	No questions generated- it will result in a RF3 code.
OPTIONAL	OPTIONAL	No questions generated- it will result in a RF4 code.
OPTIONAL	OPTIONAL	HE200029 - Consumer is a minor, manual verification required
OPTIONAL	OPTIONAL	HE200030 - Information on the inquiry was reported as fraud by the consumer, manual verification is required
OPTIONAL	OPTIONAL	HE200031 - Invalid surname or less than two characters in length
OPTIONAL	OPTIONAL	HX200004 - One or more requested reports unavailable at this time. Please resubmit later
OPTIONAL	OPTIONAL	HX200005 - Components of checkpoint system temporarily unavailable. Please resubmit
OPTIONAL	OPTIONAL	HX200008 - Not all data available for Experian Detect evaluation
OPTIONAL	OPTIONAL	HX200010 - Precise ID system temporarily unavailable, please resubmit later
OPTIONAL	OPTIONAL	HE200037 - SSN required to access consumer's file, have consumer input SSN
OPTIONAL	OPTIONAL	HE200038 - Unable to standardize current address, have consumer verify address with official documentation
OPTIONAL	OPTIONAL	HE200039 - Current Address exceeds maximum length, have consumer verify address with official documentation
OPTIONAL	OPTIONAL	HE200040 - Input validation error, verify data validation rules
OPTIONAL	OPTIONAL	HE200042 - Other Precise ID system error, have consumer retry using prior address
OPTIONAL	OPTIONAL	HE200024 - State legislation requires match on more identification information
OPTIONAL	OPTIONAL	HE200025 - Suffix is required to access consumer file, have consumer resubmit with name suffix
OPTIONAL	OPTIONAL	HE200026 - Date of Birth required to access consumer, have consumer resubmit with DOB
OPTIONAL	OPTIONAL	HE200027 - Middle name required to access file, have consumer resubmit including Middle Name
OPTIONAL	OPTIONAL	HX005001 - Unexpected Exception Occurred at Trusted Data Source

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FARS Test Scenarios

Test Harness Phase	Experian Test Phase	Scenario Description
REQUIRED	REQUIRED	Successful Authentication results in an ACC code.
REQUIRED	REQUIRED	Response results in a RF1 code
REQUIRED	REQUIRED	Response results in a RF2 code
REQUIRED	REQUIRED	Response results in a RF4 code
REQUIRED	REQUIRED	HE200006 - Reference Number does not exist in hub
REQUIRED	REQUIRED	HE200045 - Data Not Found for the Applicant

CMS Test Harness Phase Test Data

- EDE Partner will test using Mathematica Test Data Spreadsheets created for each of the RIDP and FARS Service

- Each Spreadsheet contain tabs for the expected Request and Response data elements
  - Only Data Element values are provided with the Test Data. There is no Request structure provided.

- Test Cases are mapped to each Required and Optional Test Scenario for RIDP and FARS Harness Testing

CMS Experian Test Phase Test Data

- EDE Partner will test using Experian Test Data Spreadsheet for both the RIDP and FARS Services

- Experian Test Data Notes:
  - Column P represents Experian proprietary scoring system
    - Has no relationship to credit score
    - Normal range is 1 – 999
    - 9001 – Reflects Individual Reported as Deceased
    - 9013 – Reflects Individual with existing report of ID Theft
    - 9001, 9012 and 9013 scores should not return questions
  - Columns AL-HG to the right reflect categories of question types and possible answers
  - C-Hit Team will support simulated phone proofing via offline method

CMS Experian Test Phase Test Data
Happy Path

1. Select Experian Test Case with Precise ID Score below 1000

2. Enter core credentials (Full Name, Address, Phone #, DOB)

3. Answer the Out of Wallet (OoW) questions based on Columns AL-HG

4. If questions are answered correctly, partner should receive pass condition (final decision code "ACC")

CMS Experian Test Phase Test Data
Phone Path

1. Select Experian Test Case with Precise ID Score below 1000
2. Enter core credentials (Full Name, Address, Phone #, DOB)
3. Answer all OoW questions INCORRECTLY based on Columns AL-HG
4. Partner will receive a reference code to display to user
5. Fill in the Reference Number information on the spreadsheet
6. Email completed spreadsheet (FARS Experian Reporting Form) to C-HIT/Experian (RIDPTestingSupport@C-hit.com) and copy DSH Support (dsh.support@qssinc.com)
7. C-HIT/Experian will simulate phone based ID proofing with these test cases. Results of the attempts will be recorded in last column of the spreadsheet
8. Spreadsheet will be returned to the requestor
9. Partner can then attempt to retrieve the results in the next test window to verify pass/fail for the user

Please note that this is a manual process. We request that you limit to 20 failed cases daily

CMS Experian Test Phase Test Data
Immediate Fail or Error Codes

1. Select Experian Test Case with Precise ID Score above 9000
2. Enter core credentials (Full Name, Address, Phone #, DOB)
3. Partner should receive immediate fail condition, Hub response code of "HE000050" and one of the following final decision codes:
   - RF1 = Prompt to Experian Call Center - Blocked or frozen credit file
   - RF2 =Prompt to Experian Call Center - Cannot pin individual, not enough questions could be generated or questions were answered incorrectly
   - RF4 = Cannot Pin Individual - Individual has been found to be deceased by Experian; do not prompt to call center for assistance; alternate in-house solution/manual process must be used to identity proof individual.
4. *FARS Testing Only:* To generate the response code HE200006, EDE Partner will need to make a change to the *DSHReferenceNumber* via the middleware or through SOAPUI before sending the FARS request.
5. *FARS Testing Only:* For the HE200045 error code, submitting a test with an invalid suffix to the RIDP service will result in an input validation error HE200040 where Experian would not have that reference number for the FARS DB. So a request to FARS using the reference number from failed RIDP request will result in an HE200045 error code.

SoapUI Setup

Pre-Requirements

- SoapUI is an API testing tool that allows partners to test required business logic and basic connectivity. Partners can simply send requests and check if the responses meet expectations.
- Download and Install SoapUI Application
  - **SoapUI Open Source** Download Link (SoapUI Open Source 5.4.0 used in this guide)
    - https://www.soapui.org/downloads/latest-release.html
- Hub Partner ID and Password provided by Hub Support Team (dsh.support@qssinc.com) at the completion of service onboarding
  - Hub Partner ID will have the following format: "*04.AAA.BB*.000.000*"
    - AAA=3 Letter Code, BB=State Code, 000=random 3 digits
  - Password = 15 characters
- Keystore file (*JKS* or *PKCS12* format) containing the Private Key matching the certificate chain shared with DSH Support
- Successful download and installation of SoapUI Application
- Partners testing through an internal Server or Application such as DataPower, the Keystore and HTTP Headers must be setup by partner internal teams for internal Application use
- Firewalls and routing open to domain (*impl.hub.cms.gov*) and IP Address (*216.178.233.147*)

Importing Test Project

1. Open SoapUI and import the Test Project provided by the Hub Team via one of the methods below:

   a. Select "*File>Import Project*"

   b. Use the keyboard command "*Ctrl+I*"

   c. Select the "*Import*" Project icon
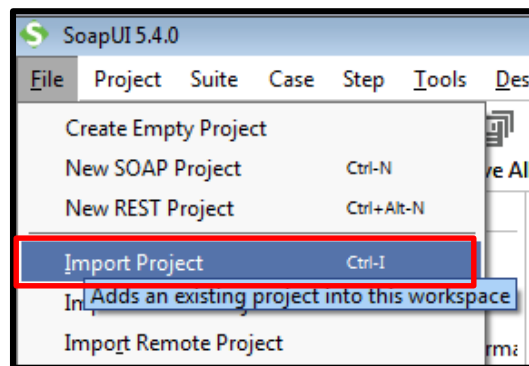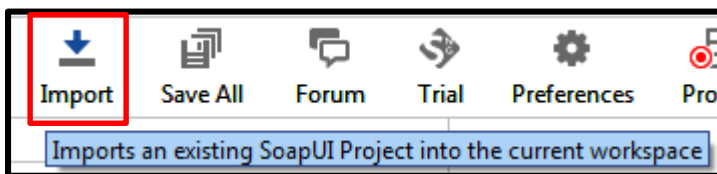
2. Select the saved XML Connectivity Project file in the File Explorer and select "Open"

3. Go to the Navigator window in the

left side to interact with the project
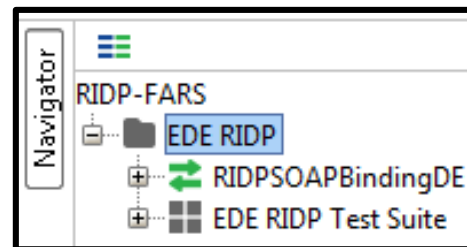
Setting up Security Header Details

4. Open the Project View by double-clicking the Root Project node from the Project Navigator tree or going to "**Project>Show Project View**"

This is the Project View Window
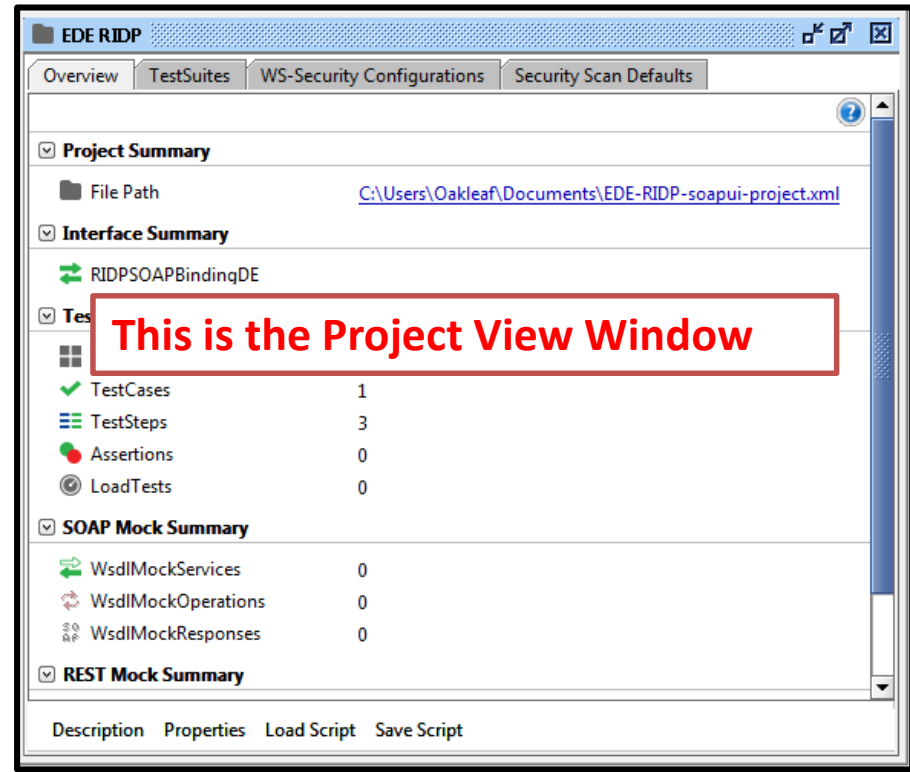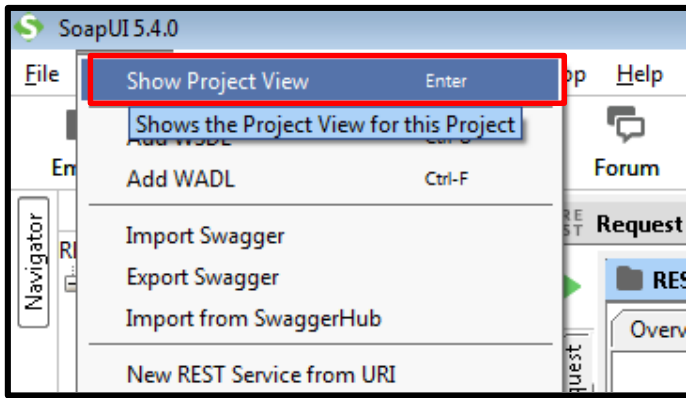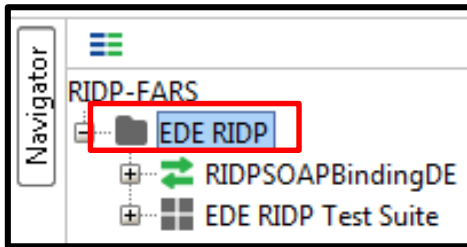
Setting up Security Header Details

5. Select the "**WS-Security Configurations**" upper menu tab and the "Keystores" lower menu tab
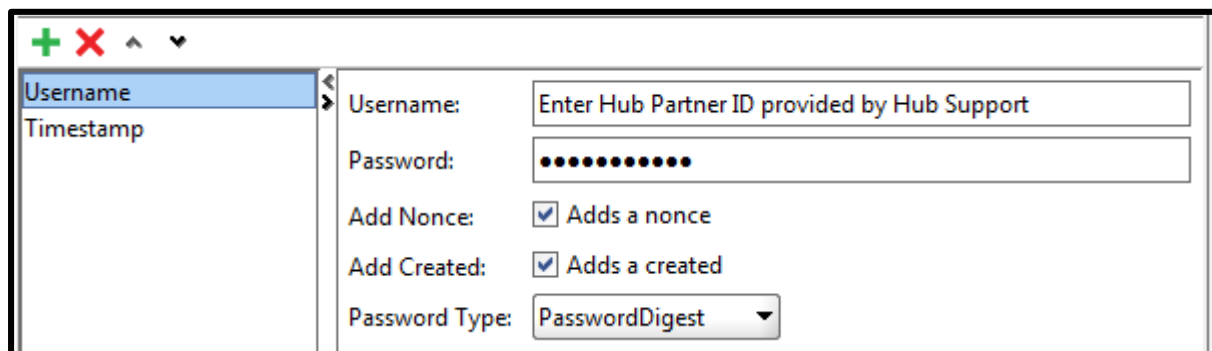
6. Click the Green "**+**" icon and add a name for the new Configuration

7. Click the lower green icon to add "Username" and "Timestamp" WSS Entry
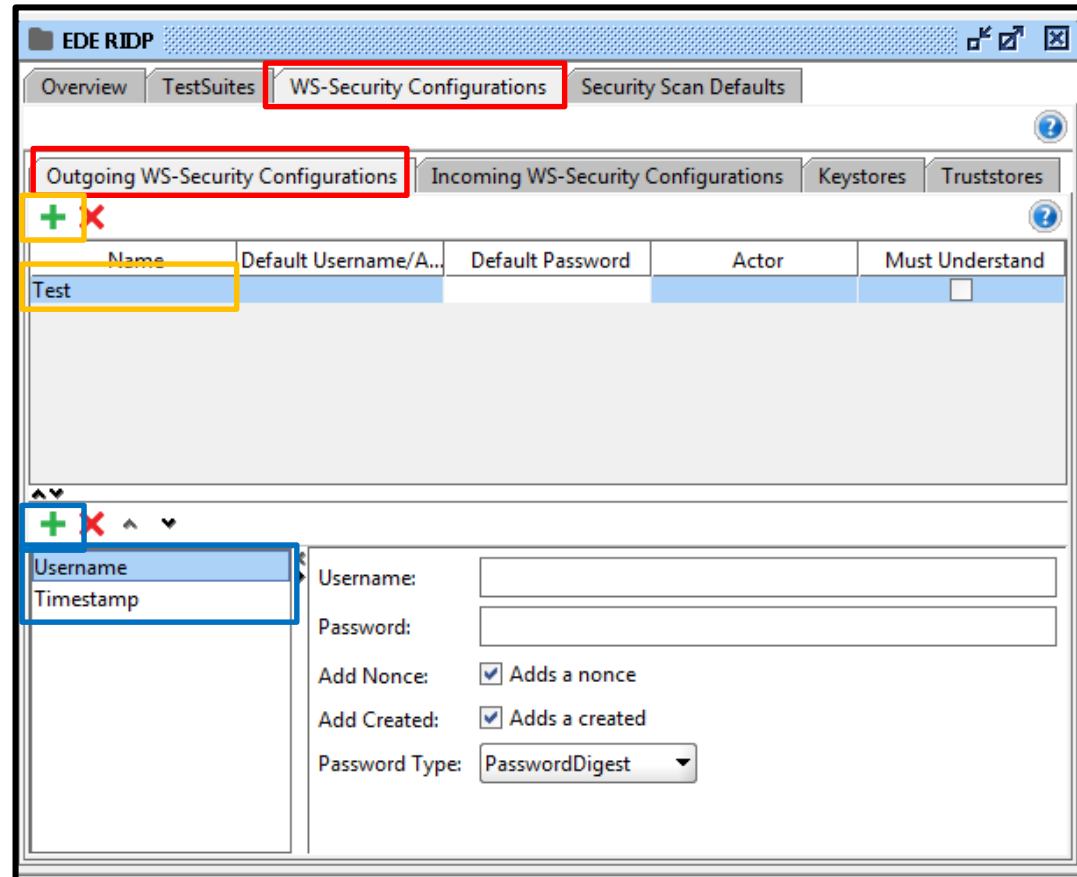
Username and Timestamp WSS Entry
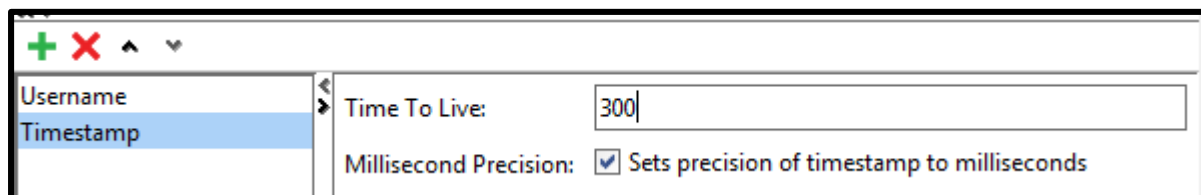
9. Under the Username WSS Entry, input the Hub Partner ID and Password provided by Hub Support Team. Make the checkmarks are checked off as below and the Password Type is "PasswordDigest"

10. Under the Timestamp WSS Entry, input a value between 1-90000 and ensure the check mark for is selected for milliseconds

Keystore Setup

11. In the "**WS-Security Configurations**" upper menu tab, select the "**Keystores**" lower menu tab
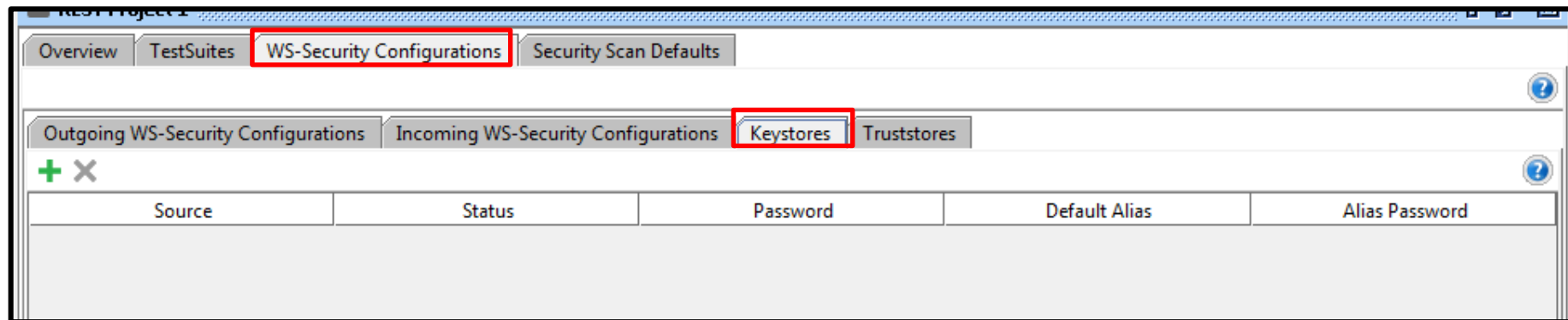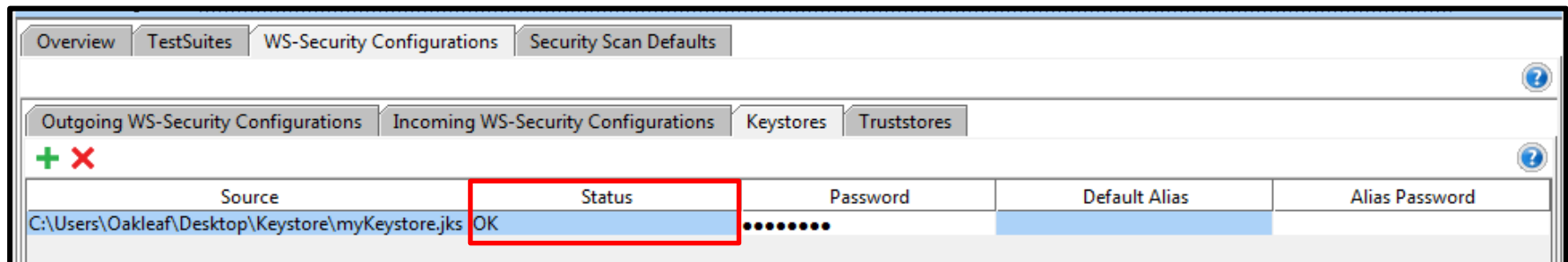
12. Select the Green + icon to add the keystore file via a File Explorer window
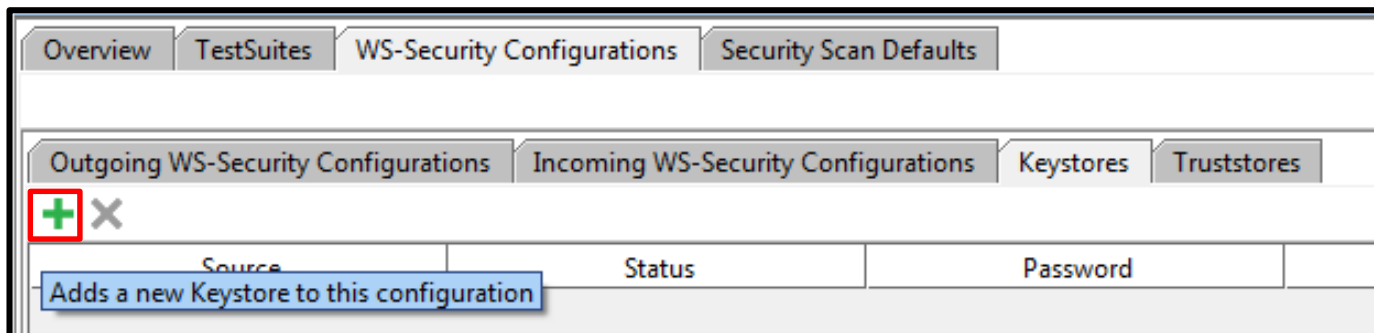
Keystore Setup Continued

13. Navigate to your saved Keystore file in the File Explorer window and select "***Open***"

14. Enter the Keystore password in the popup window and select "***OK***"

15. Make sure the Status Column shows "**OK**" after entering your Keystore password. If an error message is provided re-enter the Keystore Password. Otherwise send the error message to Hub Support Team (dsh.support@qssinc.com)

16. Close the "**Project View**" window after the Keystore is added

Adding Keystore to the Request

17. In the Project Navigator window, drill down to the Test Steps and highlight a Request to view the "TestRequestProperties" menu

Adding Keystore to the Request Continued

18. In the "*TestRequest Properties*" window, select the "*SSL Keystore*" Property

19. Selecting the "*Value*" column cell next to the "*SSL Keystore*" Property will open a dropdown list

20. Select your Keystore file from the dropdown list
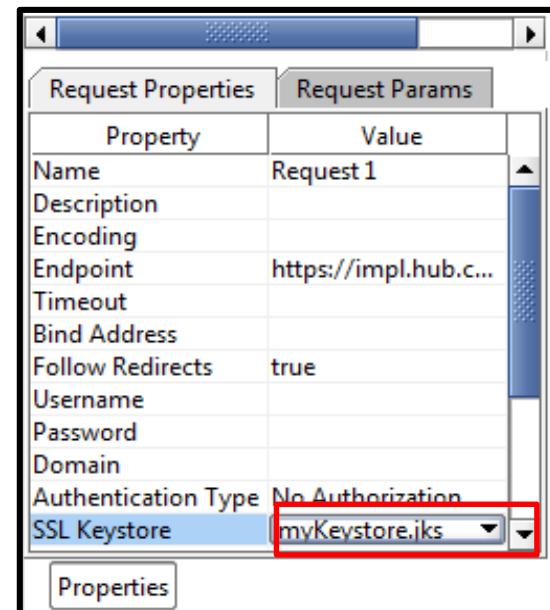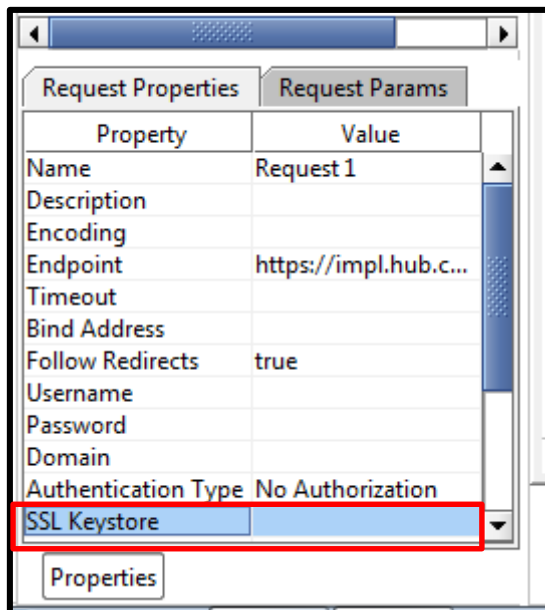
Adding Security Header to Request

21. Open one of the Test Requests under the Test Steps by either double-clicking or hitting "*Enter*" on the selected Test Request.

22. In the Test Request Editor, right click and select "**Outgoing WSS**" then "***Apply "{name of WSS Entry}"***" to add the Security Header containing the Username/Password/Timestamp
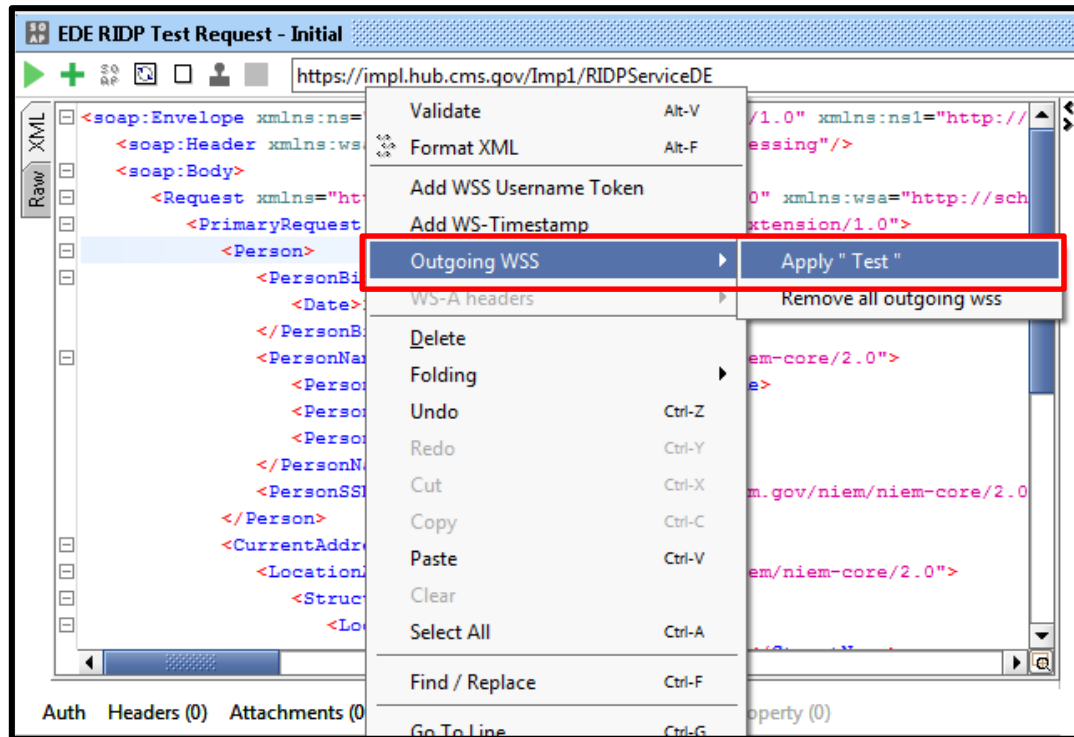
Running a Request

23. With the Keystore and Security Header added, Run the Test Request by clicking the Green Triangle Icon. Before running, please make sure the data elements match with the intended testing scenario