## NEMSIS v3 Compliance

#### November 20, 2013

#### Resources

Sample Test Package: <a href="http://nemsis.org/v3/becomingCompliant/complianceProcess.html">http://nemsis.org/v3/becomingCompliant/complianceProcess.html</a>

Version 3.3.3

Web Service Online Validator:

https://www.nemsis.org/NemsisV3Validator3/NemsisWsService?wsdl

NEMSIS TAC Compliance Web Service:

https://www.nemsis.org/NemsisV3ComplianceTest3/NemsisWsService?wsdl

#### **Pre-Testing & Testing Status Requirements**

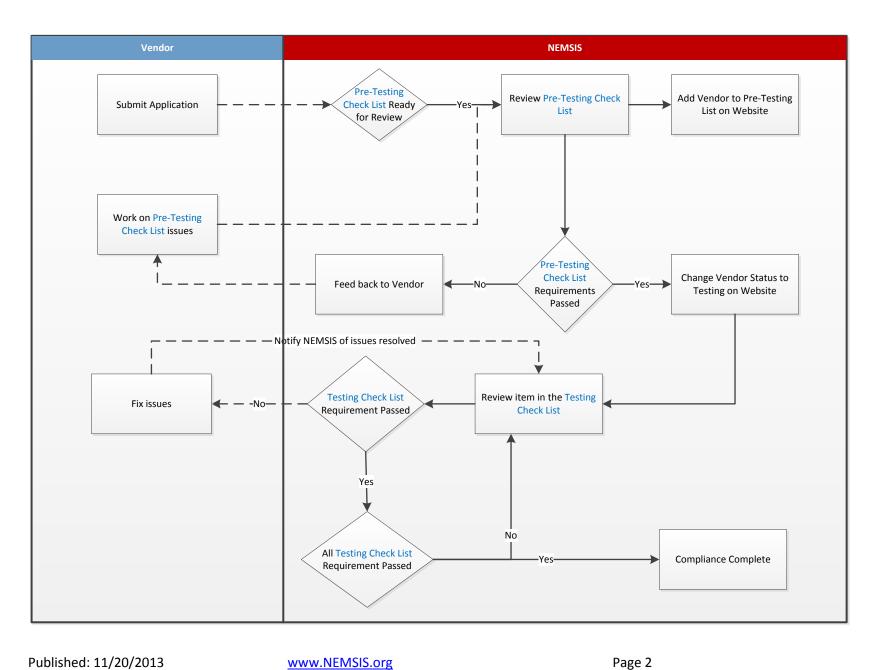
All software wanting to be posted on the NEMSIS website as Pre-Testing must complete all **Pre-Testing Checklist** items that are required for compliance at the local, regional, or state level. Optional items for testing will have the text "(optional)" next them. A vendor's status will be changed to **Testing** once the NEMSIS TAC has reviewed and approved the completion of the **Pre-Testing Checklist**. Demographic and EMS dataset exports must pass both the XSD and Schematron validation.

#### **Overview**

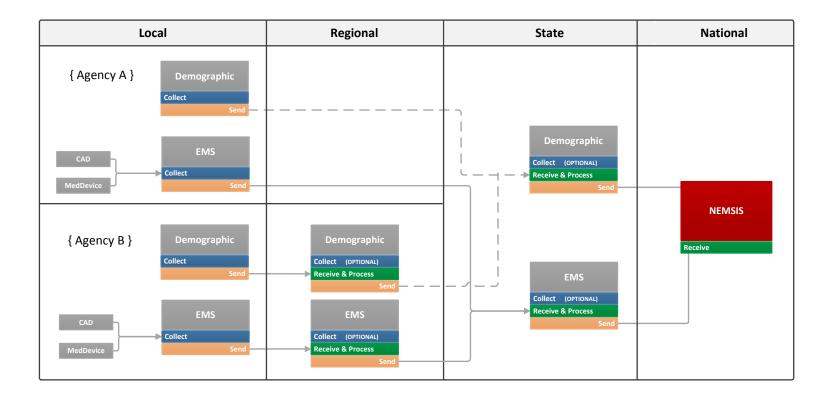
Products seeking NEMSIS v3 compliance must be in final form, ready-for-market, installation ready, and versioned. The NEMSIS TAC may install a product on a test server, request administrative rights to a web application, or (if necessary) travel to test a more complex application. The NEMSIS v3 compliance process will be tailored to address the following requirements:

- 1. Collect Data
- 2. Receive and Process Data
- 3. Send Data
- 4. Web Service Communication
- 5. Demographic Submission
- 6. Software Upgrade/Updates

#### **Compliance Process**



#### **Data Flow**



#### **Pre-Testing Process**

To be completed by the NEMSIS TAC

To be completed by the applicant

**EMS:** EMS Test Case **DEM:** Demographic Test Case

CAD: CAD Test Case

MED: Medical Device Test Case

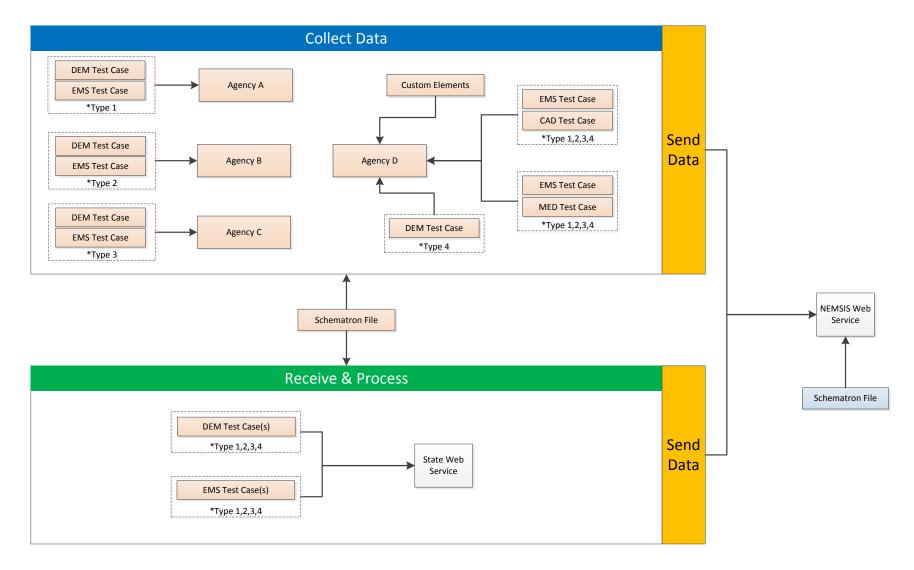
Type 1: Test cases have 1 or more values for elements with max recurrence >= 1

Page 4

Type 2: Test case contains PN if the element allows for them

Type 3: Test case contains PN or NV if the element allows for them

Type 4: Test case has only 1 value for each element



To be completed by the NEMSIS TAC

To be completed by the applicant

**EMS:** EMS Test Case **DEM:** Demographic Test Case

CAD: CAD Test Case

MED: Medical Device Test Case

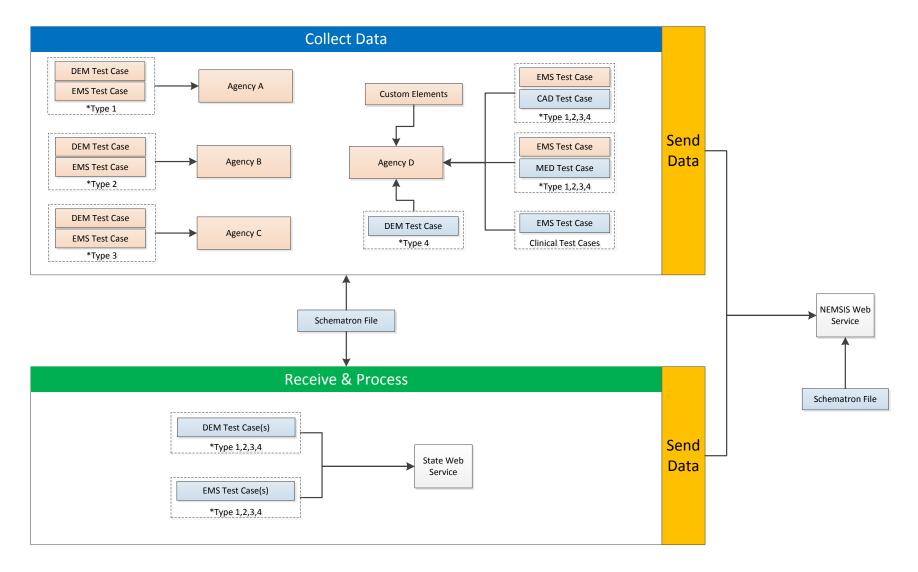
Type 1: Test cases have 1 or more values for elements with max recurrence >= 1

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**Type 2**: Test case contains PN if the element allows for them

Type 3: Test case contains PN or NV if the element allows for them

Type 4: Test case has only 1 value for each element



## Collect Data

Products that **Collect Data** must demonstrate the implementation of all NEMSIS v3 Demographic and EMS dataset elements, processing a CAD and MedDevice dataset, implementation of custom elements, application of business logic at record finalization, and XML representation of the Demographic and EMS dataset.

#### **Overview of Requirements**

- 1. The full NEMSIS v3 Demographic standard is implemented in the user interface.
- 2. The full NEMSIS v3 EMS standard is implemented in the user interface.
- 3. The implementation of custom elements as provided in the test cases.
- 4. The implementation of Schematron for business logic.
- 5. The ability to process multiple Schematron files.
- 6. The use of Schematron for business rules when a Demographic record is finalized.
- 7. The use of Schematron for business rules when an EMS record is finalized.
- 8. The processing of a NEMSIS v3 CAD & MED dataset populates the EMS event.
- 9. The client is able to properly submit data in accordance to the NEMSIS v3 Web Service standard. Reference the Web Service Communication section for details.

#### **Pre-Testing Check List**

Use the **Pre-Testing** test package as referenced in the <u>Resources</u> section at the beginning of this document for the following items:

- 1. **Software Access:** Provide access to the NEMSIS TAC so that they may enter clinical test cases. Steps to meet this requirement are as follows:
  - a. Provide the NEMSIS TAC with all necessary information to access the software.
- 2. **Custom Element Implementation:** The directory "CollectData\CustomElements" in the pre-testing package contains custom elements that need to be implemented. The export must include the custom elements and is validate against the current NEMSIS v3 standard. This means the customConfiguration and customResults section are appropriately populated. Steps to meet this requirement are as follows:
  - a. Implement all 3 custom element rules defined in Pre-Testing package directory CollectData/CustomElements.
- 3. **Schematron Rules:** The directory "Schematron" in the sample test package contains schematron files which need to be configured in the application. The application must be able to parse and process the rules contained in the schematron file. Steps to meet this requirement are as follows:
  - a. Provide the NEMSIS TAC the ability to upload a schematron file.
- 4. **Demographic and EMS Test Cases:** The test cases are in the HTML files must be entered manually and will be compared to the xml version. Create a test agency for each agency (A,B,C,D) located in the pretesting test package directory "CollectData". Agency-D contains additional EMS test cases for CAD and MED datasets. These cases must remain in the product for the NEMSIS TAC to review. All data exported must be valid against the current NEMSIS v3 standard. Steps to meet this requirement are as follows:
  - a. Agency-A (Directory: Agency-A\DEM\TestCase):
    - i. Use the test case *DEMDataset-ElementsRepeat-100.html* to create Agency-A.

- ii. Use the test case *EMSDataset-ElementsRepeat-100.html* to create a PRC assigned to Agency-A.
- b. Agency-B (Directory: *Agency-B\DEM\TestCase*):
  - i. Use the test case *DEMDataset-PNs-100.html* to create Agency-B.
  - ii. Use the test case EMSDataset- PNs -100.html to create a PRC assigned to Agency-B.
- c. Agency-C (Directory: *Agency-C\DEM\TestCase*):
  - i. Use the test case *DEMDataset-Nils-100.html* to create Agency-C.
  - ii. Use the test case *EMSDataset-Nils-100.html* to create a PRC assigned to Agency-C.
- d. Agency-D (Directory: *Agency-D\DEM\TestCase*):
  - i. Use the test case *DEMDataset-NoRepeat-100.html* to create Agency-A.
  - ii. Use the test case *EMSDataset- NoRepeat-100.html* to create a PRC assigned to Agency-D.
- 5. **CAD and Medical Device:** Each CAD and MED test case has a corresponding EMS test case that will need to be entered first and associated with demographics for Agency-D. Process all CAD and MED test case files found in "CollectData\Agency-D" directories in the test package and check that they populate the corresponding EMS record, and that the export is valid against the current NEMSIS v3 standard. These cases must remain in the product for the NEMSIS TAC to review. Steps to meet this requirement are as follows:
  - a. CAD Test Case 1 (Directory: *Agency-D\CAD\TestCase-1*):
    - i. Use the partially completed test case TestCase-1-EMSDataset.html to create a PRC.
    - ii. Use the test case TestCase-1-CADDataSet-ElementsRepeat.xml to complete Test Case 1.
  - b. CAD Test Case 2 (Directory: Agency-D\CAD\TestCase-2):
    - iii. Use the partially completed test case TestCase-2-EMSDataset.html to create a PRC.
    - iv. Use the test case TestCase-2-CADDataSet-Nils.xml to complete Test Case 2.
  - c. CAD Test Case 3 (Directory: *Agency-D\CAD\TestCase-3*):
    - v. Use the partially completed test case TestCase-3-EMSDataset.html to create a PRC.
    - vi. Use the test case TestCase-3-CADDataSet-PNs.xml to complete Test Case 3.
  - d. CAD Test Case 4 (Directory: *Agency-D\CAD\TestCase-4*):
    - vii. Use the partially completed test case TestCase-4-EMSDataset.html to create a PRC.
    - viii. Use the test case TestCase-4-CADDataSet-NoRepeat.xml to complete Test Case 4.
  - e. MED Test Case 1 (Directory: *Agency-D\MED\TestCase-1*):
    - ix. Use the partially completed test case TestCase-1-EMSDataset.html to create a PRC.
    - x. Use the test case TestCase-1-MEDDataSet-ElementsRepeat.xml to complete Test Case 1.
  - f. MED Test Case 2 (Directory: *Agency-D\MED\TestCase-2*):
    - xi. Use the partially completed test case TestCase-2-EMSDataset.html to create a PRC.
    - xii. Use the test case TestCase-2-MEDDataSet-Nils.xml to complete Test Case 2.
  - g. MED Test Case 3 (Directory: Agency-D\MED\TestCase-3):
    - xiii. Use the partially completed test case TestCase-3-EMSDataset.html to create a PRC.

- xiv. Use the test case TestCase-3-MEDDataSet-PNs.xml to complete Test Case 3.
- h. MED Test Case 4 (Directory: Agency-D\MED\TestCase-4):
  - xv. Use the partially completed test case TestCase-4-EMSDataset.html to create a PRC.
  - xvi. Use the test case TestCase-4-MEDDataSet-NoRepeat.xml to complete Test Case 4.

#### 6. Additional Requirements:

- a. See the **Send Data** section for additional requirements
- b. Reference the <u>Demographic Updates (Collect Data)</u> section for additional requirements.

#### **Testing Process**

A new test package will be provided once the Pre-Testing check list is complete and has been reviewed by the NEMSIS TAC.

The following items will need to be completed by the applicant:

- 1. **Demographic and EMS Test Cases:** Enter all of the following DEM and EMS test cases.
  - a. Agency-A (Directory: Agency-A\DEM\TestCase):
    - i. Use the test case *DEMDataset-ElementsRepeat-100.html* to create Agency-A.
    - ii. Use the test case EMSDataset-ElementsRepeat-100.html to create a PRC assigned to Agency-A.
  - b. Agency-B (Directory: Agency-B\DEM\TestCase):
    - i. Use the test case *DEMDataset-PNs-100.html* to create Agency-B.
    - ii. Use the test case EMSDataset- PNs -100.html to create a PRC assigned to Agency-B.
  - c. Agency-C (Directory: *Agency-C\DEM\TestCase*):
    - i. Use the test case *DEMDataset-Nils-100.html* to create Agency-C.
    - ii. Use the test case EMSDataset- Nils-100.html to create a PRC assigned to Agency-C.
- 2. EMS Test Cases for CAD & MED: Enter all partially completed EMS test cases and assign to Agency-D.
  - d. CAD Test Case 1 (Directory: Agency-D\CAD\TestCase-1):
    - i. Use the partially completed test case TestCase-1-EMSDataset.html to create a PRC.
  - e. CAD Test Case 2 (Directory: *Agency-D\CAD\TestCase-2*):
    - i. Use the partially completed test case TestCase-2-EMSDataset.html to create a PRC.
  - f. CAD Test Case 3 (Directory: Agency-D\CAD\TestCase-3):
    - i. Use the partially completed test case TestCase-3-EMSDataset.html to create a PRC.
  - g. CAD Test Case 4 (Directory: Agency-D\CAD\TestCase-4):
    - i. Use the partially completed test case TestCase-4-EMSDataset.html to create a PRC.
  - h. MED Test Case 1 (Directory: Agency-D\MED\TestCase-1):
    - i. Use the partially completed test case TestCase-1-EMSDataset.html to create a PRC.
  - i. MED Test Case 2 (Directory: Agency-D\MED\TestCase-2):
    - i. Use the partially completed test case TestCase-2-EMSDataset.html to create a PRC.

- j. MED Test Case 3 (Directory: *Agency-D\MED\TestCase-3*):
  - i. Use the partially completed test case TestCase-3-EMSDataset.html to create a PRC.
- k. MED Test Case 4 (Directory: *Agency-D\MED\TestCase-4*):
  - i. Use the partially completed test case TestCase-4-EMSDataset.html to create a PRC.

The following items will be completed by the NEMSIS TAC:

- 3. **Schematron Rules:** The NEMSIS TAC will apply a schematron file.
- 4. **Demographic and EMS Test Cases:** The NEMSIS TAC will enter the information for DEM test case for Agency-D and assign all clinical EMS test cases to that agency.
- 5. **CAD and Medical Device:** The NEMSIS TAC will import all CAD & MED test case files for the partially completed EMS test cases (in step 2 above).

### Receive and Process Data

Products that **Receive and Process Data** must demonstrate the capability of receiving and processing the NEMSIS v3 Demographic and EMS dataset. Processing a dataset includes structure validation and business rules validation of a dataset received. A sample test package will be provided prior to testing.

#### **Overview of Requirements**

- 1. The client is able to properly interoperate the status codes in NEMSIS v3 Web Service standard. Reference the <u>Web Service Communication</u> section for details.
- 2. The ability to receive Demographic and EMS data.
- 3. The ability to send Demographic and EMS data.
- 4. The implementation of Schematron for business logic.
- 5. The ability to process multiple Schematron files.

#### **Pre-Testing Check List**

Use the **Pre-Testing** test package as referenced in the <u>Resources</u> section at the beginning of this document for the following items:

- 1. **Schematron Rules:** The directory "Schematron" in the test package contains schematron files which need to be configured in the application. The application must be able to parse and process the rules contained in the schematron file. Steps to meet this requirement are as follows:
  - a. Provide the NEMSIS TAC with an interface for uploading new schematron rule files.
- 2. **Web Service Account:** Provide the NEMSIS TAC with the web service URL and an account. Steps to meet this requirement are as follows:
  - a. Provide the NEMSIS TAC with all necessary information to access the software's web service.
- 3. **Test Case Submission:** Submit Demographic and EMS test cases to the application's web service. Review the section <u>Demographic Submission (Receive and Process)</u> section for handling modifications to a previous Demographic submission. Steps to meet this requirement are as follows:
  - a. Agency test cases overview:
    - i. Agency-A through Agency-G contains xml files that pass XSD and schematron validation.
    - ii. Agency-H contains xml files that fail XSD validation.
    - iii. Agency-I contains xml files that pass XSD validation and fail schematron.
  - b. Agency-A (Directory: Receive&Process\Datasets\Agency-A):
    - i. Submit the DEM file DEMDataset-ElementsRepeat-100.xml, which contains 1 DEM test case, to the software's web service.
    - ii. Submit the EMS file EMSDataset-ElementsRepeat-100.xml, which contains 1 PCR, the software's web service.
    - iii. Submit the EMS file EMSDataset-Nils-100.xml, which contains 1 PCR, to the software's web service.
    - iv. Submit the EMS file EMSDataset-PNS-100.xml, which contains 1 PCR, to the software's web service.

- v. Submit the EMS file EMSDataset-NoRepeat-100.xml, which contains 1 PCR, to the software's web service.
- c. Agency-B (Directory: Receive&Process\Datasets\Agency-B):
  - i. Submit the DEM file DEMDataset-ElementsRepeat-99.xml, which contains 1 DEM test case, to the software's web service.
  - ii. Submit the EMS file EMSDataset-ElementsRepeat-99.xml, which contains 10 PCRs, the software's web service.
  - iii. Submit the EMS file EMSDataset-Nils-99.xml, which contains 10 PCRs, to the software's web service.
  - iv. Submit the EMS file EMSDataset-PNS-99.xml, which contains 10 PCRs, to the software's web service.
    - Submit the EMS file EMSDataset-NoRepeat-99.xml, which contains 10 PCRs, to the software's web service.
- d. Agency-C (Directory: Receive&Process\Datasets\Agency-C):
  - i. Submit the DEM file DEMDataset-ElementsRepeat-98.xml, which contains 1 DEM test case, to the software's web service.
  - ii. Submit the EMS file EMSDataset-Combined-ElementsRepeat-Nils-PNs-NoRepeat-98.xml, which contains 4 PCRs, to the software's web service.
- e. Agency-D,E,F,G (Directory: Receive&Process\Datasets\Agency-D,E,F,G):
  - i. Submit the DEM file DEMDataset-Combined-NoRepeat-97,96,95,94.xml, which contains 4 DEM test cases, to the software's web service.
  - ii. Submit the EMS test case EMSDataset-Combined-97,96,95,94.xml, which contains 160 PCRs, to the software's web service.
- f. Agency-H (Directory: Receive&Process\Datasets\Agency-H):
  - i. Submit the DEM file DEMDataset-failXSD.xml, which contains 1 DEM test case, to the software's web service.
  - ii. Submit the EMS test case EMSDataset-failXSD.xml, which contains 1 PCR, to the software's web service.
- g. Agency-I (Directory: Receive&Process\Datasets\Agency-I):
  - i. Submit the DEM file DEMDataset-failSchematron.xml, which contains 1 DEM test case, to the software's web service.
  - ii. Submit the EMS test case EMSDataset- failSchematron.xml, which contains 1 PCR, to the software's web service.

#### 7. Additional Requirements:

- a. Reference the **Send Data** section for additional requirements
- b. Reference the <u>Demographic Updates (Receive and Process Data)</u> section for additional requirements.

A new test package will be provided once the Pre-Testing check list is complete and has been reviewed by the NEMSIS TAC. The following items will be completed by the NEMSIS TAC

- 1. **Schematron Rules:** The NEMSIS TAC will apply a schematron file.
- 2. **Test Case Submission:** The NEMSIS TAC will submit Demographic and EMS test cases to the application's web service for review of <u>Web Service Communication</u> requirements. The NEMSIS TAC is at **discretion** to submit as many test cases as they see fit.
- 3. **Sending Data**: The NEMSIS TAC will complete the <u>Send Data</u> testing process

## Send Data

Products that **Send Data** must demonstrate the capability of sending the NEMSIS v3 Demographic and EMS datasets. State level products must also demonstrate the capability of submitting a NEMSIS v3 Demographic and EMS dataset that contains National elements only.

#### **Overview of Requirements**

- 1. The Demographic export from <u>Collect Data</u> or <u>Receive and Process Data</u> process is a valid XML file and submits to the NEMSIS v3 web service.
- 2. The EMS export from <u>Collect Data</u> or <u>Receive and Process Data</u> process is a valid XML file and submits to the NEMSIS v3 web service.
- 3. If the Product functions at the state level, the submission of National only elements is also implemented for the Demographic and EMS dataset.
- 4. The client is able to properly interoperate the status codes in NEMSIS v3 Web Service standard. Reference the <u>Web Service Communication</u> section for details.
- 5. Review <u>Demographic Submission (Collect Data)</u> or <u>Demographic Updates (Receive and Process Data)</u> section for additional items.

#### **Pre-Testing Check List**

- 1. **Prerequisites**: Complete the <u>Collect Data</u> or <u>Receive and Process Data</u> process because these test cases will be used in this process. Steps to meet this requirement are as follows:
  - a. Test cases from <u>Collect Data</u> or <u>Receive and Process Data</u> process have been successfully submitted to the NEMSIS TAC's web service, passed XSD validation, and schematron validation.
- 2. **Demographic and EMS Submissions:** Provide a mechanism to the NEMSIS TAC for submitting test cases to the NEMSIS TAC's compliance web service. If the Product functions at the state level, the NEMSIS TAC will also verify the Product's implementation for submitting the Demographic and EMS dataset that contains National elements only. Steps to meet this requirement are as follows:
  - a. Submit data to the NEMSIS TAC's web service, see Resources at the beginning of this document, to from the <u>Collect Data</u> or <u>Receive and Process Data</u> process.
  - b. If the software is being tested for <u>Receive and Process Data</u> submit all test cases with National Elements only.
- 3. **Demographic and EMS Submission Validation:** Validate the test cases entered by comparing the Product's export to the expected XML output files. Steps to meet this requirement are as follows:
  - a. Use the NEMSIS TAC's web service, see Resources at the beginning of this document, to validate data from the <u>Collect Data</u> or <u>Receive and Process Data</u> process.

#### 4. Additional Requirements:

c. Reference the Web Service Communication section for additional requirements.

The test cases from <u>Collect Data</u> or <u>Receive and Process Data</u> will be used for testing of this section. The following items will be completed by the NEMSIS TAC:

1. **Test Case Submission:** The NEMSIS TAC will submit Demographic and EMS test cases, from <u>Collect Data</u> or <u>Receive and Process Data</u> process to the NEMSIS TAC's web service for comparison of files.

## Web Service Communication

Products receiving and processing data must implement the NEMSIS v3 Web Service standard. The web service must implement HTTPS communication channel, SOAP protocol, and status codes listed in the table below. A sample test package will be provided prior to testing.

Category	Status Code	Meaning
PrivilegeErrorCodes	-1	Invalid username and/or password
	-2	Permission denied to the client for the operation
	-3	Permission denied to the client for that organization
SubmitDataProcessCodes	-12	XML file failed XML Schema validation
	-13	XML file failed schematron rule(s) validation
	1	XML file passed XML Schema and Schematron validation
ResultPendingCode	0	Process is not finished for an attempted operation
QueryLimitCodes	51	Successful operation of QueryLimit

#### **Overview of Requirements**

- 1. HTTPS communication channel and SOAP protocol is implemented.
- 2. A "PrivilegeErrorCode" is returned when the account (username, password, and organization) is not allowed access to the service and the "requestHandle" is null.
- 3. The "SubmitData" function is implemented .
  - a. The server responds with a unique "requestHandle" and "statusCode"
- 4. The "RetrieveStatus" function is implemented.
  - a. The server echos the "requestHandle" and a "statusCode" of -12, -13, 1, or 0
- 5. The "QueryLimit" function is implemented.
  - a. The server returns the "limit" in kilobytes and a "statusCode" of 51 or 0

#### **Pre-Testing Check List**

- 8. **Web Service Account:** Provide the NEMSIS TAC with the web service URL and an account. Steps to meet this requirement are as follows:
  - a. Provide the NEMSIS TAC with all necessary information to the software's web service.
- 9. **Request Validation:** The following submit a "QueryLimit", "Submitdata", "RetrieveStatus" request to the Product's web service. Steps to meet this requirement are as follows:
  - a. Submit a "QueryLimit" request to the software's web service.

- b. Submit a "Submitdata" request to the software's web service using test cases in the Pre-Testing package.
- c. Submit a "RetrieveStatus" request to the software's web service from test cases submitted.

The NEMSIS TAC will be submitting numerous test cases to the software's web service to test the following:

- 1. A "PrivilegeErrorCode" is returned when the account (username, password, and organization) is not allowed access to the service and the "requestHandle" is null.
- 2. The "SubmitData" function is implemented.
  - a. The server responds with a unique "requestHandle" and "statusCode"
- 3. The "RetrieveStatus" function is implemented.
  - a. The server echos the "requestHandle" and a "statusCode" of -12, -13, 1, or 0
- 4. The "QueryLimit" function is implemented.
  - a. The server returns the "limit" in kilobytes and a "statusCode" of 51 or 0

# Demographic Submission (Collect Data)

Products that **Collect Data** must demonstrate submission, within 24 hours, of the Demographic dataset when a new demographic record is entered or when an element listed as "mandatory" or "required" is modified.

#### **Overview of Requirements**

- 1. A process is triggered for submitting the Demographic dataset when a demographic element is entered or updated.
- 2. This process occurs for elements listed as "mandatory" or "required".
- 3. The process exports the Demographic dataset within 24 hours of being triggered.
- 4. The attribute "timestamp" is populated with the date and time the demographic dataset was generated.

#### **Pre-Testing Check List**

- 1. Prerequisites: Complete the Collect Data process
- 2. **Demographic Updates:** A demographic element that is "mandatory" or "required" submits the Demographic dataset to the NEMSIS v3 Compliance Web Service. Steps to meet this requirement are as follows:
  - a. Use DEM test case from the <u>Collect Data</u> process and modify a national element. This action triggers a DEM submission to the NEMSIS TAC's web service with the updated DEM information.

#### **Testing Process**

The NEMSIS TAC will randomly select and change the data for an element that is "mandatory" or "required" and test the following:

1. **Demographic Updates:** The NEMSIS TAC will test that the modified demographic information has been submitted within a 24 hour time period and will compare the demographic submission to an expected output file.

# Demographic Submission (Receive and Process Data)

Products that **Receive and Process Data** must demonstrate submission, within 24 hours, of the Demographic dataset when a new demographic record is entered or when an element listed as "mandatory" or "required" is modified.

#### **Overview of Requirements**

- 1. A process is triggered for submitting the Demographic dataset when a demographic dataset is received with new demographic records or changes to a demographic current record.
- 2. This process occurs for elements listed as "mandatory" or "required".
- 3. The process exports the Demographic dataset within 24 hours of being triggered.

#### **Pre-Testing Check List**

- 1. Prerequisites: Complete the Receive and Process Data process
- 3. **Demographic Updates:** The NEMSIS TAC will update a demographic element that is "mandatory" or "required" and verify the submission of the Demographic dataset to the NEMSIS v3 Compliance Web Service. Steps to meet this requirement are as follows:
  - a. Use DEM test case from the <u>Receive and Process Data</u> process and modify a national element. Submit this modified DEM test case and submit this to the software's web service. This must trigger a DEM submission to the NEMSIS TAC's web service with the updated DEM information.

#### **Testing Process**

The NEMSIS TAC will randomly select and change the data for an element that is "mandatory" or "required" and test the following:

1. **Demographic Updates:** The NEMSIS TAC will test that the modified demographic information has been submitted within a 24 hour time period and will compare the demographic submission to an expected output file.

# Software Updates/Upgrades

Software is considered compliant only for the version being tested. Any version changes require reevaluation by the NEMSIS TAC. All software changes (e.g. release notes, bug fixes, etc) must be provided to the NEMSIS TAC to determine what components need testing to certify the new release of software as compliant.