

## 2015 Edition §170.315(d)(8) Integrity

Testing Components: Health IT developer self-declaration to the testing outcomes

Test Procedure Version 1.1 – Last Updated 09/21/17

Please consult the Final Rule entitled: *2015 Edition Health Information Technology (Health IT) Certification Criteria, 2015 Edition Base Electronic Health Record (EHR) Definition, and ONC Health IT Certification Program Modifications* for a detailed description of the certification criterion with which these testing steps are associated. We also encourage developers to consult the Certification Companion Guide in tandem with the test procedure as they provide clarifications that may be useful for product development and testing.

*Note: The order in which the test steps are listed reflects the sequence of the certification criterion and does not necessarily prescribe the order in which the test should take place.*

### Required Tests

#### (d)(8) Integrity.

**Standard(s):** §170.210(c)(2): A hashing algorithm with a security strength equal to or greater than SHA-2 as specified by NIST in [FIPS Publication 180-4 \(August 2015\)](#) (incorporated by reference in § 170.299).

(i) Create a message digest in accordance with the standard specified in § 170.210(c)(2).

Criteria ¶	System Under Test	Test Lab Verification
(i)	The Health IT Module creates a message digest using a hashing algorithm with a security strength equal to or greater than SHA-2, as specified by NIST in accordance with the standard specified in §170.210(c).	The tester verifies that the message digest that is created uses hash values that are in accordance the standard specified in §170.210(c) by: <ul style="list-style-type: none"> <li>a. using Visual Inspection of the message digest; and</li> <li>b. reviewing the provided documentation to verify it indicates that SHA-2 was used to create the message digest.</li> </ul>

(ii) Verify in accordance with the standard specified in § 170.210(c)(2) upon receipt of electronically exchanged health information that such information has not been altered.

Criteria ¶	System Under Test	Test Lab Verification
(ii)	Following the exchange of information using the vendor-identified transport technology which employed the message digest created in (d)(8)(i), in accordance with the standard specified in §170.210(c), the Health IT Module creates a message digest on the receiving system of the electronic health information that has been received, to ensure that the content has not been altered.	The tester compares the electronically exchanged message digest and the message digest created on the receiving system to verify that the electronically received health information has not been altered. The Module should show the received message, not an indicator. It should also show the received hash and a computed hash showing them as identical.

#### Document History

Version Number	Description of Change	Date
1.0	Final Test Procedure	January 08, 2016
1.1	As of September 21, 2017, Test Procedure has been moved to Attestation/Developer self-declaration only	September 21, 2017

Dependencies: For all related and required criteria, please refer to the [Master Table of Related and Required Criteria](#).