

Integrating the Healthcare Enterprise



IHE 2009 North America Connectathon Policies and Guidelines

Revision 3.1
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1 Introduction

This document provides policies and guidelines for organizations participating in testing at the IHE 2009 North America Connectathon ("Participants") designed to help ensure successful testing. The policies and guidelines set forth below are incorporated by reference into the application/contract submitted by all Participants.

2 Sponsorship and Governance

1. The IHE 2009 North America Connectathon is sponsored and organized by the Healthcare Information and Management Systems Society (HIMSS) and the Radiological Society of North America (RSNA) ("Connectathon Sponsors"). Connectathon participants agree to take direction from RSNA and HIMSS staff, contractors and volunteers, including the Connectathon Management Team retained by the Connectathon Sponsors ("Connectathon Team") and volunteer Test Monitors.
2. In the event of disagreement over interpretation of testing requirements, specifications or results, the Connectathon Management Team is the onsite authority. In the event that any such dispute cannot be resolved by the Connectathon Management Team, the IHE Review Committee, consisting of representatives of the sponsoring organizations, will have authority to determine a resolution.
3. Procedural questions and other issues should be directed to Chris Carr of the RSNA, Didi Davis of HIMSS or Steve Moore and Lynn Felhofer, the Connectathon Management Team.

3 Contacts

- **Connectathon Managers:**
Lynn Felhofer, felhofer@charter.net
Steve Moore, moores@mir.wustl.edu
- **Connectathon Sponsor Representatives**
Chris Carr, ihe@rsna.org
Didi Davis, ihe@himss.org

4 Goals

Connectathon testing has three specific goals:

1. Testing Participant implementations of actors and profiles defined in the IHE Technical Frameworks
2. Testing and providing feedback on actors and profiles defined in the IHE Technical Frameworks
3. Preparing for any IHE demonstrations in which Participants may also be involved, including the HIMSS 2009 Interoperability Showcase (April 4-8, 2009 in Chicago, IL USA)

Participants are expected to support all three goals as appropriate, to work in a cooperative manner and to show respect for both their peers and the IHE testing process.

5 Registration

5.1 Online Testing Management System (Kudu)

IHE uses an online testing management system, dubbed "Kudu," to aid in organizing, conducting and recording the testing process. Prospective Participants begin the registration process by entering information in Kudu about their organization and the systems they wish to test.

Participants are provided with secure access to their account in Kudu. Throughout the testing process, they use it to access testing requirements and plans for their systems, to find and communicate with prospective testing partners, to track the successful completion of their testing activities and to receive other communications from the Sponsors and the Connectathon Management Team. Kudu is also used by the Sponsors and the Connectathon Management Team to record and publish the results of testing. Participants are strongly encouraged to familiarize themselves in advance with Kudu and to check it regularly throughout the testing process for announcements and other information.

5.2 Fees

Connectathon registration fees are based on the number of systems a Participant registers and the number of IHE Domains (eg, Cardiology, IT Infrastructure, Patient Care Coordination, Patient Care Devices, Radiology, ["Domains"]) in which those systems are registered to test. Fees for the IHE 2009 North America Connectathon are:

For a single system testing in a single domain, the Participant incurs a charge of \$8000USD, the baseline fee for Connectathon testing.

For each additional system, the Participant incurs an additional charge of \$4000USD.

The baseline fee includes testing in one domain. Each additional domain in which a Participant registers to test shall result in an additional charge of \$4000USD. However, Participants who register systems for Patient Care Devices, Radiology or Cardiology shall not incur any additional fees for participating in the ITI or PCC domains.

Each system registration includes registration for two staff members. Additional Participant staff members may register at a cost of \$50USD/day per person. Seating for any additional registrants may not be adjacent to the registered equipment. Sponsors reserve the right to place extra staff members in a separate seating area.

Deadline for payment of all fees is September 30, 2008.

5.3 Late Additions, Withdrawals and Refund Policies

1. After the stated date for close of registration, September 30, 2008 11:59pm_US_CDT, Participants will not be allowed to add new systems or to add actors or profiles to previously registered systems.
2. Participants wishing to withdraw a registered system or to withdraw from testing any actor or profile must contact the Connectathon Management Team as early as possible to allow them to reorder test plans and schedules.
3. No refunds will be issued to Participants that withdraw systems, withdraw from testing particular actors or profiles, or otherwise fail to complete testing successfully.

5.4 Reasonableness of System Composition

The Connectathon is designed to test healthcare IT systems and related devices that might feasibly be sold as commercial products and implemented in real-world healthcare settings. Each system registered shall be an integrated and reasonable collection of IHE actors and profiles. The Connectathon Sponsors reserve the right to exclude from testing any systems judged not to meet this criterion.

5.5 Profile Dependencies

Certain profiles reference other profiles as pre-requisites (for example, XDS requires ATNA). Kudu may not comprehensively list all such profile dependencies. Participants are responsible for being aware of any profile dependencies identified in the Technical Frameworks, properly registering their systems in Kudu and successfully completing testing of any prerequisite profiles at the Connectathon.

5.6 Duplicate Systems

In previous Connectathons, Participants registering a single system were allowed to bring duplicate hardware with no additional fees and extra personnel to facilitate successful completion of testing.

Duplicate system testing will not be allowed for the North American 2009 Connectathon.

Participants are responsible for registering a reasonable number of actors and profiles for each system and for providing sufficient hardware and personnel to complete all required tests. The Sponsors cannot guarantee that a system registered for numerous profiles will have all of its tests reviewed by Connectathon Monitors or Connectathon Managers.

Participants who feel they will require additional hardware and staff to achieve success in testing must register a second system by the registration deadline (September 30, 2008) and pay the associated fees as listed in Section 5.2. "

5.7 Middleware

In previous Connectathons, Participants were prohibited from testing middleware systems, i.e., systems not designed as complete end-user applications, but rather to perform functions such as providing messaging services to enable different applications to communicate. For the IHE 2009 North America Connectathon that prohibition has been relaxed. However, all systems tested must meet all relevant requirements for all actors and profiles they are testing, as defined in IHE Technical Frameworks and interpreted by the IHE Connectathon Management Team. Questions about system qualifications are to be raised with the Connectathon Management Team in advance of registration.

5.8 Post-registration Interview

For each system registered, a representative of the Participant organization is required to participate in a telephone interview with the Connectathon Managers (Moore, Felhofer) during the period of September 15 through October 15, 2008. The purpose of the telephone interview is to make sure the Participant's system has a reasonable combination of actors/profiles, that the registered system includes all profiles required (e.g., XDS.a requires ATNA, CT), and that the participant understands the Connectathon rules and intentions.

6 Pre-Connectathon Testing

Participants are required to run a series of software tests in advance of the Connectathon. These advance tests are designed to assess Participants' preparation for the Connectathon. The Connectathon Managers will publish instructions and deadlines for submitting advance testing results.

For most IHE profiles, the Connectathon Managers will provide testing software, known as MESA test tools, for this purpose. The list of profiles with MESA tests will be published by the Connectathon Managers in the Connectathon Fact Sheet. For any profiles where MESA test software is not provided, the Connectathon Managers will publish Connectathon test specifications early in the process to prepare participants for Connectathon testing requirements.

7 Connectathon Testing

7.1 Testing Schedule and Attendance

1. All participants are required to perform testing activities for the entire Connectathon week (Monday, February 23, 11:00 am – Friday, February 27, 2009 @12:00pmUS_CST). All Participants' systems must be configured and ready for testing starting Monday at 11:00 am. Systems must remain staffed and ready for testing until Friday at 12:00 pm.
2. The overall schedule for Connectathon testing is:
 - Monday 08:30 – 10:00 system setup
 - Monday 10:00 – 17:00
 - Tuesday 08:30 – 17:00
 - Wednesday 08:30 – 17:00
 - Thursday 08:30 – 17:00
 - Friday 08:30 – 12:00
 - Friday 12:00: Teardown begins
 - Friday 17:00: All systems must be re-crated and all shipping arrangements completed.
3. The Connectathon Management Team will provide a detailed testing schedule to Participants. Participants are required to staff equipment and participate in testing during all designated testing periods.

7.2 Testing Activities

Participants are responsible for determining which tests to run for each system (using the Kudu tool) and for completing those tests. For participants whose systems support multiple Integration Profiles, completing testing can be a challenge. Participants are responsible for tracking their progress and prioritizing testing of the profiles they find most important. Participants may find it necessary to drop some actors and profiles if time does not permit completing required tests.

Testing activities performed by Connectathon Participants fall into three general categories:

1. *Unit tests* demonstrate a successful transaction between two corresponding actors in an IHE profile

(peer-to-peer category) or a profile requirement by a single actor (no-peer test). Each unit test usually represents only a portion of a profile.

For each actor in each profile performed by a Participant's system, the Connectathon Management Team will provide a list of such unit tests to be performed and a list of potential testing partners, i.e., the systems registered to perform the corresponding actors in each transaction. They will make this information available through the Kudu testing management tool.

For unit testing, Participants are required to use Kudu to find the tests required for their systems and to identify test partners for each of these tests. Participants are responsible for successfully completing the designated tests.

2. *Group tests* link the transactions performed in unit tests into a sequence so that all the actors in a given profile are engaged and the entire set of transaction in the profile is performed. Virtually all Connectathon systems participate in one or more group tests. Group tests are organized by domain (eg Rad, Card, ITI).

Group tests are actively supervised by a Connectathon Monitor who will track each system's success or failure during the test. A time limit of 60 minutes will be placed on each group test. This allows participants in unsuccessful groups to resume unit testing. The Connectathon Management Team and Connectathon Monitors will record successful test results by individual Participants during group testing.

Group testing is necessary preparation for HIMSS Interoperability Showcase demonstration rehearsal testing later in the week. Systems that fail group tests may be excluded from demonstrations, including the HIMSS Interoperability Showcase. Connectathon Managers assign systems to groups. Where possible, systems involved in a given HIMSS demonstration scenario will be placed together for group tests.

3. *Demonstration rehearsal tests* are used to prepare for public demonstrations such as the HIMSS Interoperability Showcase. Only systems that have applied to participate in such demonstrations will be engaged in demonstration rehearsal testing.

A specific testing schedule will be provided to each Participant by the Connectathon Management Team. The general schedule of testing activities within the week is as follows:

- Mon - Tues: Set up and open unit testing
- Wed - Thurs: Unit and group testing
- Fri: Demonstration rehearsal and completion of group testing and unit testing

Participants will receive special instructions from the Connectathon Managers regarding the scheduling of group tests. In profiles where there are few participants for a certain class of actors, Connectathon Managers will announce schedules for testing and other guidelines to reduce congestion.

Friday of Connectathon week is reserved for completing tests. Systems that have not completed at least one of the required three instances of a test by close of day Thursday will not be allowed to start new instances of that test on Friday. This rule is meant to ensure that participants make steady progress on testing throughout

the week. Participants are responsible for tracking the progress of their testing and to withdraw systems from testing actors/profiles as necessary to insure success in testing other actors/profiles.

7.3 Special Events Schedule

Focused VIP tours will be held on Tuesday during the Connectathon Conference. IHE representatives will guide these groups to minimize impact on testing for the participants.

Testing associated with preparation for the HIMSS09 Interoperability Showcase (April 4-9, 2009, Chicago, IL USA) will take place beginning Wednesday evening and Thursday of the Connectathon week. HIMSS docents will walk through the tests based on clinical scenarios to be used at the demonstrations to familiarize themselves with the requirements and for participants to work out details.

7.4 Success Criteria

In order to successfully complete testing at the IHE-North America Connectathon 2009 and appear in the table of testing results published by the Connectathon Sponsors, a system must complete either *Thorough* or *Supportive* Connectathon testing.

1. *Thorough Testing* normally consists of successful completion by a Participant's system of three instances of each *unit test*, as observed and recorded by the Connectathon Management Team and Connectathon Monitors, assigned for the Actor and Profile it is testing. The list of required tests for each actor and profile is developed by the Connectathon Management Team and is published for each Participant in Kudu.

Exceptions to the three-instance rule of Thorough Testing are:

- a) For 2009, the three instance requirement may be met by passing either three peer-to-peer tests or by passing two peer-to-peer tests plus successful participation in a group test. Success in demonstration testing may also, at the discretion of the Connectathon Managers, be counted as one instance of successful peer-to-peer testing.
- b) Any test identified as a *no peer test* within the Kudu web tool requires only one observed instance to constitute successful testing. Examples of such tests are: "load data onto the Central Archive" and "perform system calibration."
- c) Testing in profiles with few actors: In any profile where not enough systems are registered for particular actors to enable corresponding systems to satisfy the three-instance requirement, that requirement will be relaxed. In cases where fewer than three, but at least one instance of each actor required for thorough testing of a profile is subscribed, Participants will be required to test with each of the available actors. Successful testing with all available actors will be reported in the published table of Connectathon results.

In any profile where no systems are registered for one or more of the required actors, testing will not be performed. The Sponsors and Connectathon Management Team will inform Participants registered to test other actors in such a profile following the close of registration.

2. Some systems may qualify to perform *Supportive Testing*. In this category of testing, Participants receive credit for testing if they perform one observed instance of each test for an Actor/Profile combination. Participants undertaking Supporting Testing for a given profile are also required to

participate in group tests and to help other participants testing that profile who need a partner.

After Connectathon registration closes, organizations may request the Supportive Testing option. Systems that qualify for Supportive Testing are not required to complete the pre-Connectathon tests. In order to qualify for Supportive Testing of a system, a Participant:

a) Must previously have passed Thorough Testing for that particular Actor and Profile at a Connectathon whose results are reported in the IHE database (http://www.ihe-europe.org/con_result)

b) Must also have published an IHE integration statement for that actor/profile

Supportive Testing will not be allowed where significant revisions have recently been made to the Profile in which the participant is testing. The Connectathon Managers will provide participants with a list of such profiles.

8 IHE Connectathon Guidelines

1. Participants are asked to clear the testing area at the end of the testing period each day to allow the Connectathon Managers time to review daily results. If you need to perform more development, bring a laptop or other system and work in your hotel room.
2. Each system to be tested shall be staffed by qualified personnel for the entire duration of the Connectathon (Monday 11:00am – Friday 12:00pm). Connectathon participants shall be technical staff able to configure, test and troubleshoot their system and produce evidence of tests as requested by Connectathon Managers. One person cannot serve as the primary technical contact for more than one system.

Do not bring unqualified personnel. The space is limited; do not bring additional personnel who will only observe. Do not plan to use the Connectathon as an occasion to train staff.

3. Connectathon Managers and Connectathon Monitors understand the IHE Integration Profiles, but may not necessarily understand your product or your specific market niche. Please constrain your conversations with Connectathon Managers and Monitors to the language of the IHE Technical Framework whenever possible.
4. Policy decisions shall be made only by domain Technical Project Managers (Felhofer, Furst, Moore, Poiseau) and Connectathon sponsors (Carr, Davis). Many of the Connectathon Monitors who have volunteered to evaluate tests will not understand the full implications of IHE policies. Submit policy questions by email to moores@mir.wustl.edu. Do not expect immediate responses to policy or similar questions during the Connectathon.
5. The Connectathon is not the time to suggest changes to the overall test process. Participants should review test plans and propose changes in advance of the Connectathon. If you feel there are issues with the Connectathon process, please see Steve Moore, Lynn Felhofer, Eric Poiseau, Chris Carr or Didi Davis first for discussion. The answer during the Connectathon week is likely to be “send me an email”. Changing the testing process and communicating any changes made to the 200-300 personnel participating is a difficult step that we will undertake only if convinced it is absolutely necessary.
6. The Connectathon Managers and Monitors will communicate with participants in English. We understand this is not the first language for many participants. If this presents an issue, please bring

a staff member who can assist in translation. If your members are better at reading English, please bring notepads so we can write instructions.

7. As a condition of participation, Participants agree not to use the Connectathon to gain competitive knowledge of competitor systems or to disclose any information gained about other participants' systems in the course of Connectathon. Participants may take wide-view photographs of the Connectathon floor, but taking of close-up photographs of any system, including your own, will not be allowed.
8. Participants will assist other participants during the testing process. Even if you are convinced the problem is with "the other system," the Connectathon Managers will require you to help with testing and some debugging. Connectathon Managers will assist in determining reasonable efforts.
9. Participants who feel they are unfairly judged or treated by a Connectathon Manager or Connectathon Monitor have two methods for appeal:
 - a) Contact the Connectathon Managers Steve Moore and Lynn Felhofer, or the designated sponsor representatives, Chris Carr and Didi Davis.
 - b) If you are not satisfied with your first review, you can ask for review by a committee of sponsor (HIMSS, RSNA) staff and volunteer members. Contact Chris Carr or Didi Davis to arrange for review.
10. During the Connectathon, Connectathon Managers may on a case-by-case basis advise Participants to drop Actor/Profile pairs for a given system. Participants are encouraged to manage their time and fully complete testing for a given Actor/Profile pair rather than performing partial testing on a number of Actor/Profile pairs.
11. Some Participants register individual systems for multiple profiles and actors. They will not be allowed to occupy a disproportionate share of the time and attention of Connectathon Managers and Monitors at the expense of other Participants.
12. Participants whose systems are registered for Thorough testing should try to find testing partners who are also registered for Thorough Testing before testing with systems registered for Supportive testing.
13. No special consideration will be given to Participants who experience logistical problems such as shipping delays, hardware failures or travel difficulties. Participants are responsible for ensuring that their personnel arrive on time, take direction throughout and continue active participation through the end of testing on Friday.
14. Do not rely on personnel located remotely to help with Connectathon testing. Instead, bring to the Connectathon sufficient personnel with the necessary skills to complete testing successfully.
15. For each system registered for testing, bring a set of printed documents listing your configuration information so that you can share this information with test partners. Configuration is available in the Kudu web tool, but the paper serves as backup.
16. Participants are responsible for ensuring that the successful results of their testing are verified by Connectathon monitors and recorded in the Connectathon results. Test results that remain unverified at the close of the Connectathon will not be counted toward successful completion of testing requirements.

17. Connectathon Managers reserve the right to publish new guidelines during the Connectathon in reaction to unforeseen events. We hope to avoid this.

9 Nondisclosure Agreement

As a condition of their participation in the Connectathon, each Participant and all of its representatives agree to the following nondisclosure policy, which is incorporated by reference in their signed application/contract:

9.1 Introduction

The Integrating the Healthcare Enterprise ("IHE") initiative has the goal of stimulating integration of information and imaging systems used in the delivery of healthcare. IHE develops guidelines and supports a testing process and other activities to encourage the implementation of standards to enable communication among such systems.

9.2 Participant Obligations

In order to encourage the exchange of information among participants necessary to the testing process, including the IHE 2009 North America Connectathon testing event to be held February 23 - 27, 2009, it is important that both the Sponsors and each Participant be protected against improper disclosure of technical or commercial information by any other Participant. Furthermore, the Connectathon process requires Participants to resolve as expediently as possible and in a spirit of cooperation any software bugs and interoperability issues that arise during the testing process. The Participant thus agrees to keep confidential and forbear from using for any commercial purposes any information obtained from other participants in the course of the testing process. The Participant further agrees to respect all other Participants and their systems and equipment.

9.3 Limitations of Obligations

The undersigned Participant shall not be obligated to keep information secret and in confidence if it can show that such information:

- Appears in printed publications distributed by the Sponsors in the public domain;
- was public knowledge at the time of its receipt;
- became public knowledge after its receipt without breach of this agreement by the undersigned Participant;
- was rightfully disclosed to the Participant by a third party without an obligation of confidentiality;
- is provably independently developed by the undersigned Participant's personnel without access to the confidential information;
- is required to be disclosed pursuant to a legal, judicial or administrative proceeding or by law; or
- is approved for release by the prior written authorization of all other organizations in question.

9.4 Sponsors to be Held Harmless

The Sponsors agree to take reasonable steps to provide a work atmosphere conducive to a successful testing process, including discouraging the improper disclosure and use of information by Participants. In consideration of being permitted by the Sponsors to participate in the IHE testing process, the undersigned

Participant agrees to hold the Sponsors harmless from any judgments, fines, amounts paid in settlement and reasonable expenses, including attorney's fees incurred by them in connection with the defense of any lawsuit or other claim which involves conduct of the undersigned Participant constituting a breach of the nondisclosure and nonuse obligations described in the preceding paragraphs.

9.5 Written Permission Required for Use of Copyrighted Materials

Supporting information and documents developed by the Sponsors for use within the IHE testing process, including but not limited to specifications, test data and marketing materials are the copyrighted property of IHE and its Sponsors. In the spirit of collaboration and in keeping with copyright law, no Participant may lay claim to the information created for the IHE testing and demonstration process without written consent from the Sponsors. After software, technical information or documentation is formally released into the public domain by the Sponsors in order to further the purposes of the IHE initiative, the foregoing restrictions on disclosure or use will no longer apply to any software and/or technical information or documentation that is so released.

9.6 Grant of Rights to Sponsors to Publish Promotional Photographs

For the purposes of sharing information with their membership and the public and promoting the IHE initiative, the Sponsors intend to acquire and reproduce representative images of systems being tested by Participants at the Connectathon. Any such images acquired may potentially be used in printed publications, Web pages and multimedia presentations promoting the IHE initiative. Such images will not be used by the Sponsors for any other purpose.

The undersigned Participant, in consideration of being permitted by the Sponsors to participate in the IHE initiative, hereby grants to RSNA and HIMSS the absolute and irrevocable right and unrestricted permission to use, re-use, display, distribute, transmit, publish, re-publish, copy, or otherwise exploit, either in whole or in part, either digitally, in print, or in any other medium now or hereafter known, photographs taken of its personnel and equipment, or in which its personnel and equipment may be included; to alter the same without restriction; and to copyright the same. The undersigned understands and agrees that the Sponsors may or may not, as they choose, use the Participant's name in conjunction with the photographs taken.

The Participant also hereby releases and discharges RSNA and HIMSS and their agents, representatives, and assignees from any and all claims and demands arising out of or in connection with the use of the photographs, including without limitation any and all claims for invasion of privacy, right of publicity, and improper disclosure of commercial information.

9.7 No Warranty of Testing Software

Finally, a Participant acknowledges and agrees that certain software and related technical information and documentation which will eventually be released into the public domain by the Sponsors in connection with the implementation of the IHE initiative (the "IHE Software") will be made available on an "as is" basis and that neither the Sponsors nor any other Participant will make the warranty about the IHE Software, its performance, its merchantability or fitness for any particular use, its freedom from any computer diseases, or its conformity to any specification and that all risk as to the quality and performance of the IHE Software will be with the users of the IHE Software.

10 IHE Interoperability Research Award Program

For the 2009 Connectathon, IHE North America has offered an award program for research institutions, health information exchange (HIE) organizations and developers of open source HIT systems. The IHE Interoperability Research Award Program (IRAP) waives the usual registration fees to participate in Connectathon testing for up to six selected groups. Awardees remain responsible for other Connectathon expenses, such as travel and hotel, shipping and electrical service (see the Logistics Overview document linked at http://www.ihe.net/north_america/connectathon_2009_participants.cfm). The goals of the program are to provide opportunities for participants testing new or relatively untested IHE Profiles and to help foster the success of HIE implementation projects based on IHE Profiles.

Applicants to IRAP submit the same Connectathon application form as other prospective participants. On the form, they must indicate that they are applying for an IRAP waiver of Connectathon registration fees.

In addition to the Connectathon application, IRAP applicants must also submit a brief description of the interoperability project to which their proposed Connectathon testing is related. These applications are reviewed by a committee of five volunteer domain experts. They may be asked to submit additional information and/or references for the projects described.

Preference is given to projects that meet one or more of the following criteria:

1. Lead to implementation of IHE-based systems in operational HIE settings
2. Provide testing of new or previously little tested IHE Actors and Profiles
3. Produce open source and generally distributed implementations of IHE Actors for use by industry and healthcare institutions (including HIEs)

Applications for IRAP are due September 30, 2008 (along with all other Connectathon applications). Applicants have been notified regarding the outcome of their applications.

Applicants not selected still have the opportunity to participate in testing on a regular fee-paying basis. Registration fees for such participants are due by October 15, 2008.