

# IHE Japan Connectation Tool Introduction

- for IHE-LAB International meeting -

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October 15th 2013

in JAHIS Tokyo

IHE Japan Testing & Tools Committee

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# Self Introduce

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AJS Inc.

IHE Japan

Radiology Technical Committee

Radiation Oncology Technical Committee

Testing & Tools Committee

Gazelle Japanese Development Project Leader

JAHIS

Medical System Division Interoperability Committee

HIS – RIS WG Chair

Medical System Division Examination System Committee

Radiation Oncology WG Sub Chair

Report Unification WG

JAMI Certification : Senior Healthcare Information Technologist

# Self Introduce

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## International Activities

### IHE International

#### Testing & Tools Committee

- Attending common biweekly Teleconference as IHE-Japan observer

- Reporting Japan Connectathon and Gazelle system implemented in Japan

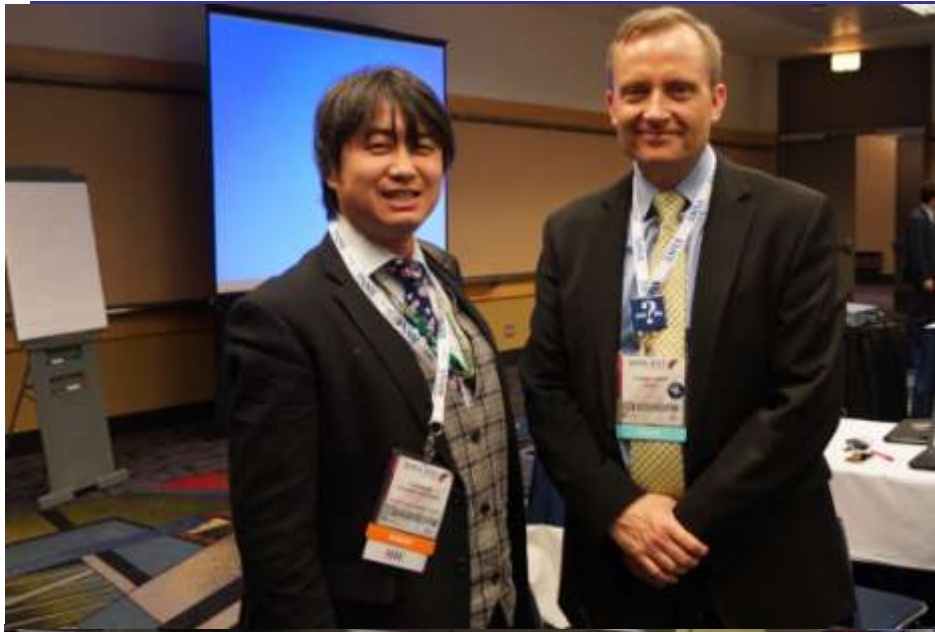
- Researching IHE-NA / EU Connectathon as a monitor

#### Radiology Plan / Technical Committee

- SWF.b proposal from IHE-Japan in 2012-13 IHE-RAD Activities

(Hope to do others... )

# Self Introduce



# Pre-testing Tool

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Test simulator and Test Scenario Editor

# Pre-testing Tool

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## Objectives

Prevent from the Connectathon mixing up

- All vendor has to pass the pre-testing

- Monitors check all logs and support to pass the testing

  - Sometimes vendors loose testing and take monitor's support to retry.

  - At least basic implementation is checked in the term.

- Not support all scenario and all validation

  - Tool can not support all profile scenarios and validations so far.

  - Making effort to expand all testing as much as possible.

## Checking Japanese specification

- Japanese Connectathon check mainly Group testing rather than P2P.

- Many National Extensions are in the specification of checking.

## Helping few Japanese monitors

- Japanese monitors are usually few numbers every year.

- Tool can validate automatically many checking points.

- The tool's validation engine is also used on Connectathon testing!

# Pre-testing Tool

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## Test Simulator

### Using in Pre-Connectathon Testing

Simulation testing as MESA or NIST tool

Tool works as roles of other IHE Actors for the testing system.

Testing system will connect tool to send / receive HL7 / DICOM transactions.

Testing system can use plural tools if the scenario has plural actors.

### Validation transactions

Tool can validate HL7 / DICOM transaction messages.

Checking on standard grammar and IHE specifications.

### Scenario consistency validation

Tool can test in the workflow of IHE profiling scenarios.

Checking ID, field contents consistency in the step of scenario.

## Scenario Editor

### Programming Test Simulator Activities

Setting above scenario flow and validation rules

# Transaction Monitor and Validation Engine on Gazelle testing tool

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Japanese specific functions on Gazelle tool



# Japanese Specific Functions for Gazelle

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## Objectives

Smoothly going testing for vendors and monitors

Transaction Monitor (TRM) can record all of transactions in group testing.

TRM can also show transaction contents and problems of each steps.

Vendors recognize problems before "To be verified" status.

Auto-validation is the same as pre-checking.

Helping the few Japanese monitors

Monitors can easily check the transactions showed after parsing.

Tool can validate automatically many checking points.

Monitors can only check other points from the auto-validation result.

# Japanese Specific Functions for Gazelle

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## Transaction Monitor (TRM)

Recording testing transactions in Connectathon

Recording (TRM) mode and non-recording mode

At first, vendors test each other on non-recording mode.

After success testing, vendors test on TRM mode to be verified by monitors.

Vendors set their IP address from using subnet XXX.XXX.3(<-1).XXX

Putting scenario step number to each transaction

TRM cannot know the scenario step from transaction automatically.

Vendors put scenario step number to each transaction

Auto Analyzing Panel

Tool has a display panel show detail data of transaction.

Validation Engine give the checking result to the Panel.

## Validation Engine (VE)

Same transaction validation as pre-testing

Checking result is shown in the TRM display panel.

# Future Plan

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## Validation Engine

- Apply tools to more scenarios

  - Making scenario checking rules by committee members

    - The goal is we cover all testing scenario on the checking validation. But...

- Checking Quality Upgrading

  - Cover more checking patterns

    - Some upgrading to be able to use more checking pattern.

  - Cover more detail of HL7 and DICOM grammar

    - Implementing more HL7 and DICOM basic checking in VE.

- Make scenario validations more detailed

  - Make (sub) components checking followed by fields condition.

    - We can make more detail checking in VE scenario if we have more time!!

## Contribution for International

- Share each tools and technologies among IHE-NA/EU/JP

Thank you for you time!

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Any Question?