Inferno Tech Talk – September 2024

Yunwei Wang

MITRE Inferno Team

September 11, 2024

MITRE | **SOLVING PROBLEMS FOR A SAFER WORLD™**

Inferno Tech Talk Introduction

- Purpose: to provide regularly scheduled updates on the Inferno tool and its implementation of the (g)(10) test procedure

- Typical agenda to include:

  - Announcements about upcoming releases

  - Training on new features

  - Highlight outstanding issues or known problems

  - Open discussion

- Monthly recurrence: 2nd Wednesday at 1PM ET

- This call is being recorded and will be posted on https://inferno.healthit.gov/events/

Content reflects Inferno's implementation of applicable Test Procedure
and does not necessarily reflect ONC policy.

MITRE

Today's Agenda

- (g)(10) Standardized API Test Kit v6.0.1/6.0.2

- Other Test Kits Update

- September HL7 FHIR Connectathon

- Discussions / Questions

MITRE

ONC (g)(10) Standardized API Test Kit v6.0.1/6.0.2

- Test Update:
  - Changes that may result in new failure: 0
  - Changes that will not affect score of passing implementations: 5

MITRE

(g)(10) Updates: Token Introspection for SMART v1 (#553)

- Inferno v6.0.0 incorrectly apply SMART v2 token introspection requirement to SMART v1 test.

- What's changed:

  - For SMART v1, restored token introspection attestation (test 11.06)
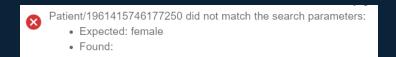
  - For SMART v2, no changes.

MITRE

(g)(10) Updates: Inconsistent asymmetric client refresh token test (#548)

- In v6.0.0, test 9.12.3.03 "Server successfully refreshes the access token when optional scope parameter provided" incorrectly used SMART v1 refresh token test.

- What's changed:

  - Fix test 9.12.3.03 to use the SMART v2 refresh token test.

MITRE

(g)(10) Updates: Search Primitive Value (#557)

- In v6.0.0, a bug prevented primitive values with extension to be recognized as matching search parameter.

```json
},
"gender": "male",
"_gender": {
    "extension": [
        {
            "url": "http://hl7.org/fhir/StructureDefinition/alternate-codes",
            "valueCodeableConcept": {
                "coding": [
                    {
                        "system": "http://snomed.info/sct",
                        "code": "248153007",
                        "display": "Male (finding)"
                    }
                ]
            }
        }
    ]
},
```

❌ Patient/1961415746177250 did not match the search parameters:
- Expected: female
- Found:

- What's changed:
  - Update logic to read primitive element's value instead of the whole element

MITRE

(g)(10) Updates: Server granted read/search separately (#551)

- In v6.0.0, scope tests 9.9.11, 9.14.1, 9.14.2 could not recognize scopes granted separately, such as patient/Patient.r and patient/Patient.s

- What's changed:

  - Update regex to recognize that scopes could be granted either individually or combined.

MITRE

(g)(10) Updates: OpertionOutcome returned in scopes test (#551)

- In v6.0.0, scope tests 9.14.1 treats OperationOutcome in the returned Bundled as invalid resource types.

- What's changed:

  - Skip OperationOutcome in search result Bundle.

MITRE

Other Inferno Releases

- Service Base URL Test Kit v0.11.0

  - Improve performance on systems with large Service Base URL bundles

  - Simplify test structure and improved input options

  - Option to limit number of endpoints verified for large bundles

  - Warnings for additional resource types

  - Warning if only a single Organization resource is provided

MITRE

September HL7 FHIR Connectathon

- US Core & (g)(10) HTI-1 Testing Track

  - https://confluence.hl7.org/pages/viewpage.action?pageId=256516592

  - Track Kick Off

    - Tomorrow at 12 PM ET

Open Discussion / Feedback

MITRE

Resources and Contact Information

- https://inferno.healthit.gov/

    - General materials & live demonstration server

- https://inferno-framework.github.io

    - Create your own Inferno Test Kits!

- https://github.com/onc-healthit/onc-certification-g10-test-kit/

    - ONC Certification tests repository, downloads, issues

    - "Watch" repository to receive alerts (new releases, etc)

    - Note: this repository is specific to ONC Certification testing

- inferno@groups.mitre.org (or rscanlon@mitre.org)

- FHIR Zulip Chat: https://chat.fhir.org/#narrow/stream/179309-inferno

MITRE

Upcoming Meetings

- Next Inferno Tech Talk: Wednesday October 9 at 1 PM ET

- Please reach out with questions & issues

MITRE