Developer Data Bites

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FedRAMP

GSA

Introduction

Purpose: To create space for dialogue between developers who use OSCAL and the FedRAMP® automation team.

Outcomes:

- Shared Understanding of 3rd Party Tools that can be used for Schema Validations and Schema Aware Editing
- Productive Discussion around OSCAL for FedRAMP

Agenda:

- Welcome
- Pre-Submitted Q&A
- Schema Validations with 3rd Party Tools
- Demo
- Open Forum
- Next Steps & Closing

Data Bites Guiding Principles

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Keep the discussion respectful

Be curious, seek understanding

Speak from your own experience

Challenge through questions

Focus on ideas

Keep it technical

Pre-Submitted Questions

Pre-Submitted Questions

Question 1: Per FedRAMP Guide, if the implementation-status is not-applicable, the N/A justification must be provided in the remarks field. Do we still need to fill out the rest of the 'statements' and 'by-component' sections?

YES. You must have at least one statement object and by-component object.

FedRAMP Automation GitHub Updates

Update on FedRAMP automation repository changes?

10x Flexion Transition

- ○ 10x/Flexion team will be transitioning out of Schematron validations support over the next 4-6 weeks.
- ○ Being taken over by Thomas Penna & Tom Volpe Sr.

Issues/Ticket Tags

- **Closed issues this cycle related to Schematron Validations**
  - ○ Closed out issue 308 (Add XML, JSON and YAML media types to fedramp_values.xml) (originally issue 18F#716)
  - ○ Closed out issue 348 (original issue 18f#259) – Clarifying wording of implementation status requirements
  - ○ Closed out issues 248, 255, 256 (All related to POA&Ms)
  - ○ Closed out issue #361 (IANA protocol names comparison should be case sensitive)

Schema Validations using 3rd Party Tools

FedRAMP Validation Process Review

OSCAL Artifact Validation/Conversion Steps:

1. **Validate File Format** in JSON, XML or YAML
   - ☐ Any valid schema aware editor (VS Code (free), XML Notepad, OxygenXML). Plenty of Open Source tools available.
   - ☐ XML musts: root elements, element closing tags, case sensitive tags, properly nested elements, and quoted attributes

2. **Validate file's NIST OSCAL Schema** against Version 1.0.x of OSCAL.
   - ☐ We use the tools available off of the **NIST OSCAL website** and **NIST Github**.
     You can also use VS Code or OxygenXML to do this!

3. **Convert file to XML** and **validate** using FedRAMP Schematron validations for FedRAMP specific extensions to NIST Core OSCAL.
   - ☐ Conversion: https://github.com/usnistgov/oscal-cli/
   - ☐ Validation: https://github.com/GSA/fedramp-automation/src/validations

Demos

Useful Links

ChkSchema

- https://github.com/vitg-gsa-automation/chkschema
- Download: git clone https://github.com/vitg-gsa-automation/chkschema

3rd Party Tools

- https://www.oxygenxml.com/xml_editor/download_oxygenxml_editor.html   (Oxygen XML Editor)
- https://code.visualstudio.com/download   (Visual Studio Code)
- https://marketplace.visualstudio.com/items?itemName=qub.qub-xml-vscode
- https://marketplace.visualstudio.com/items?itemName=redhat.vscode-xml

Open Forum

What topics do you want to see in the future?

A few potential topic suggestions

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What to you want to see?

1. Demo of NIST Deepdiff tool
2. Demo of GSA Public portal prototype
    a. Formation of Working group for early adopters to help with testing and formation of process and site.
3. Demo creation of a minimal OSCAL artifact that passes NIST validation.

Thank you

Data Bites is switching to monthly sessions!

Our next Developer Data Bites virtual meeting will be on **Thursday, February 16, 2023 at 12p ET**.

Submit questions and future discussion topics to **OSCAL@fedramp.gov**

Learn more at **fedramp.gov**

@FEDRAMP

How to Submit Issues with FedRAMP

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Ensuring your outstanding issues or questions are received:

Issues can be submitted in several ways:

✓ Preferred	Alternate
Open an issue on fedramp-automation github so that it will benefit the NIST/FedRAMP community. **https://github.com/GSA/fedramp-automation/issues**	Email us at **oscal@fedramp.gov**

OSCAL Resources

NIST:

https://pages.nist.gov/OSCAL/

Learning Resources: https://pages.nist.gov/OSCAL/learn/

Current release: https://github.com/usnistgov/OSCAL/releases

Development version: https://github.com/usnistgov/OSCAL/tree/develop

Content repo: https://github.com/usnistgov/oscal-content

FedRAMP:

Current repo: https://github.com/GSA/fedramp-automation

Current issues: https://github.com/GSA/fedramp-automation/issues

Validations work: https://github.com/18F/fedramp-automation/tree/master/src/validations

Web based validation tool:

https://federalist-2372d2fd-fc94-42fe-bcc7-a8af4f664a51.app.cloud.gov/site/18f/fedramp-automation/#/documents/system-security-plan