

FedRAMP OSCAL Early Adopters

December 6th, 2023



Introduction



Purpose: Recurring meetings to engage Cloud Service Providers, 3PAOs, tool vendors and other participants in FedRAMP's OSCAL Early Adopters Workgroup (OEAW) activities.

Outcomes:

- Shared understanding of Charter and Mission of the Workgroup
- Shared understanding of FedRAMP OSCAL package requirements, and discussion of possible enhancements and solutions.



Agenda:

- Welcome
- Guiding Principles/Mission
 Review
- OEAW Updates
- Issues Discussion
- Open Forum
- Next Steps & Closing

FedRAMP OEAW Guiding Principles





Keep the discussion respectful



Be curious, seek understanding



Speak from your own experience



Challenge through questions



Focus on ideas



Keep it technical

Adjusted Priorities



Our goals remain the same:

- Provide a means for the PMO to accept OSCAL-based FedRAMP packages.
- Provide REST APIs for the submission of OSCAL-based FedRAMP packages and continuous monitoring data.
- Support reuse of FedRAMP authorizations using OSCAL-based FedRAMP packages.
- Provide tooling to support CSPs in the creation of valid OSCAL-based FedRAMP packages.
- Provide tooling to support 3PAOs and agencies in using OSCAL-based FedRAMP packages.

We need to adjust our focus to achieve these goals:

- Local OSCAL validation tooling will allow validation of OSCAL content without the need to prematurely share sensitive data.
- Stabilizing the OSCAL guides is needed to support local validation tooling and the GRC acquisition.
- Need to reduce friction where possible in maintaining OSCAL guides and baselines as well as FedRAMP templates.

OEAW Workgroup Charter/Mission - Adjusted



Charter:

To create an engagement space for Cloud Service Providers, 3PAOs, tool developers and others who are adopting OSCAL for the FedRAMP® use case with the goal of refinement of FedRAMP automation technology and processes.

Mission Elements:

- Bring OSCAL early adopters together to foster community engagement around FedRAMP OSCAL use cases.
- Directly engage with OSCAL early adopter stakeholders to advance technology and processes supporting FedRAMP automation using OSCAL.
- Drive stakeholder feedback on GitHub issues relating to FedRAMP baselines, guides, validation, and other related efforts.
- **On hold:** Standardize RESTful APIs supporting machine-oriented, stakeholder interaction with FedRAMP.

OEAW Going Forward



FedRAMP needs the OSCAL Early Adopters Workgroup to help with:

- Continued identification of issues with the FedRAMP baselines, guides, and validations using GitHub issues.
- Submitting GitHub pull requests to fix defects in baselines, guides, and validations.
- Feedback on changes to FedRAMP baselines, guides, and validations through review of GitHub pull requests.
- Testing and refinement of new tooling supporting FedRAMP stakeholders.

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

General Updates

General Updates



Work on hold due to the GRC tool acquisition:

- Submission portal will be discontinued
 - OSCAL content will be submitted with the traditional package for now.
 - Moderate impact systems using MAX.gov / USDA Connect.gov
 - High impact systems have their own repositories
- API discussions on hold until GRC tool is acquired
 - API submission is still the mid-term goal.

Transitioning:

 VITG early adopters GitHub repository transition to GSA -https://github.com/GSA/fedramp-oscal-early-adopters

Adjusted priorities:

- Local validation tooling supporting OSCAL validation
- HTML-based guides and guide improvements
- Refocus Early Adopters Workgroup
 - Coordinating OSCAL guide improvement work
 - Early testing of local validation tooling
- Additional tooling
 - Human rendering of OSCAL-based packages
 - Generation of FedRAMP templates based on OSCAL baselines

Fedramp Automation Repository Improvements



The following improvements have been made to the repo:

- Updated issues templates https://github.com/GSA/fedramp-automation/issues/new/choose
- New project board https://github.com/orgs/GSA/projects/25

Future improvements:

- Automated broken link checking
- Others?

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

Issues Discussion

Issue/PR Summary



PRs needing stakeholder review:

- (#502) Adding Core Controls and Response Points to Rev5 Baselines
- (#539) Early Review: Markdown/HTML version of FedRAMP Guides for OSCAL-based Content

Issue for discussion today:

- (#461, usnistgov/OSCAL#1956) Discrepancy between NIST OSCAL JSON and XML structure for AR and POAM
- (<u>#535</u>) Discrepancy between baseline XML response-points and SSP Appendix A response-points

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

Discrepancy between OSCAL JSON and XML for AR and POAM



usnistgov/OSCAL#1956, GSA/fedramp-automation#461

A discrepancy exists between the OSCAL XML and JSON formats for risk responses in AR and POAM models.

- JSON -> remediations
- XML -> response

While the naming is different, the data is the same. For JSON "remediations" should be "responses".

Recommendation:

Keep as-is and clarify semantics in documentation, since changing will break backwards compatibility, requiring an OSCAL 2.0.0 release.

```
▼ assessment-results [1]: {
                                                            ▼ <assessment-results uuid="uuid"> [1]
   uuid [1]: uuid,
                                                                 ► <metadata> ... </metadata> [1]
   ▶ metadata [1]: { ... },
                                                                ▶ <import-ap href="uri-reference"> ... </import-ap> [1]
   ▶ import-ap [1]: { ... },
                                                                ▶ <local-definitions> ... </local-definitions> [0 or 1]
   ▶ local-definitions [0 or 1]: { ... },
                                                                ▼ <result uuid="uuid"> [1 to ∞]
   ▼ results [1]: [
                                                                    ▶ <title>markup-line</title> [1]
       An array of result objects [1 to ∞] {
                                                                    ▶ <description>markup-multiline</description> [1]
           uuid [1]: uuid,
                                                                    ▶ <start>date-time-with-timezone</start> [1]
           title [1]: markup-line,
                                                                    ▶ <end>date-time-with-timezone</end> [0 or 1]
           description [1]: markup-multiline,
                                                                    start [1]: date-time-with-timezone.
                                                                    group="token"> ... </prop> [0 to ∞]
           end [0 or 1]: date-time-with-timezone,
                                                                    ▶ props [0 or 1]: [ ... ].
                                                                    fragment="string"> ... </link> [0 to ∞]
           ▶ links [0 or 1]: [ ... ],
                                                                    ▶ <local-definitions> ... </local-definitions> [0 or 1]
           ▶ local-definitions [0 or 1]: { ... },
                                                                    ▶ <reviewed-controls> ... </reviewed-controls> [1]
           ▶ reviewed-controls [1]: { ... },
                                                                    ▶ <attestation> ... </attestation> [0 to ∞]
           ▶ attestations [0 or 1]: [ ... ],
                                                                    ▶ <assessment-log> ... </assessment-log> [0 or 1]
           ▶ assessment-log [0 or 1]: { ... },
                                                                    ▶ <observation uuid="uuid"> ... </observation> [0 to ∞]
           ▶ observations [0 or 1]: [ ... ].
                                                                    ▼ <risk uuid="uuid"> [0 to ∞]
           ▼ risks [0 or 1]: [
                                                                        ▶ <title>markup-line</title> [1]
               An array of risk objects [1 to ∞] {
                                                                        ➤ <description>markup-multiline</description> [1]
                                                                        ▶ <statement>markup-multiline</statement> [1]
                   uuid [1]: uuid.
                   title [1]: markup-line.
                                                                        description [1]: markup-multiline,
                                                                        group="token"> ... </prop> [0 to ∞]
                                                                        ▶ link href="uri-reference" rel="token" media-type="string" resource-
                   statement [1]: markup-multiline,
                   ▶ props [0 or 1]: [ ... ],
                                                                        fragment="string"> ... </link> [0 to ∞]
                   ▶ links [0 or 1]: [ ... ],
                                                                        ▶ <status>token</status> [1]
                                                                        ▶ <origin> ... </origin> [0 to ∞]
                   status [1]: token.
                   ▶ origins [0 or 1]: [ _ ],
                                                                        ▶ <threat-id system="uri" href="uri-reference">uri</threat-id> [0 to
                   ▶ threat-ids [0 or 1]: [ ... ],
                   ▶ characterizations [0 or 1]: [ ... ].
                                                                        ▶ <characterization> ... </characterization> [0 to ∞]
                   ▶ mitigating-factors [0 or 1]: [ ... ],
                                                                        > <mitigating-factor uuid="uuid" implementation-uuid="uuid"> ...
                   deadline [0 or 1]: date-time-with-timezone,
                                                                        </mitigating-factor> [0 to ∞]
                   ▶ remediations [0 or 1]: [ ... ],
                                                                        ➤ <deadline>date-time-with-timezone</deadline> [0 or 1]
                   ▶ risk-log [0 or 1]: { ... },
                                                                        ▶ <response uuid="uuid" lifecycle="token"> ... </response> [0 to ∞]
                   ▶ related-observations [0 or 1]: [ ... ].
                                                                        ▶ <risk-log> ... </risk-log> [0 or 1]
                                                                        ▶ <related-observation observation-uuid="uuid"/> [0 to ∞]
           ▶ findings [0 or 1]: [ ... ].
                                                                    ▶ <finding uuid="uuid"> ... </finding> [0 to ∞]
           remarks [0 or 1]: markup-multiline
                                                                    ▶ <remarks>markup-multiline</remarks> [0 or 1]
                                                                 </result>
                                                                ▶ <back-matter> ... </back-matter> [0 or 1]
   ▶ back-matter [0 or 1]: { _ }
                                                            </assessment-results>
```

Discrepancy between baseline XML response-points and SSP Appendix A response-points



GSA/fedramp-automation#535

Issue:

A discrepancy exists between the control implementation response points specified in the OSCAL XML profiles versus those implied in the legacy Word SSP Appendix A.

Background:

The OSCAL response points were intentionally specified at a more granular level (for -1 controls) to help guide SSP authors in providing more detailed control implementation statements, however, this presumed that more granular responses could be aggregated by rendering tools.

Response Points in Word SSP Appendix A

AC-1 What is the solution and how is it implemented?
Part a:
Part b:
Part c:

Response Points in OSCAL Baselines

Discrepancy between baseline XML response-points and SSP Appendix A response-points (Continued)

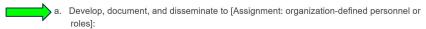


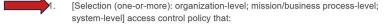
GSA/fedramp-automation#535

Should FedRAMP align the response points as follows:

- For "-1" controls (e.g., AC-1, AT-1, AU-1, etc.):
 - Require a response at the letter sub-part of the requirement (e.g., AC-1(a), AC-1(b), AC-1(c))
- For controls that do not have multiple parts (e.g., AC-2(1), AC-2(2), AC-2(4), etc.):
 - require a response at the control level
- For controls that have multiple parts (e.g., AC-2(a) through AC-2(l)), and perhaps sub parts (e.g., AC-2(d)(1), AC-2(d)(2), etc.):
 - Only require response at the letter sub-part level (e.g. AC-2(d)) but not at the sub-part (e.g., AC-2(d)(1)

AC-1 Policy and Procedures (L)(M)(H)





- (a) Addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance;
 and
- (b) Is consistent with applicable laws, executive orders, directives, regulations, policies, standards, and guidelines; and
- Procedures to facilitate the implementation of the access control policy and the associated access controls;
- Designate an [Assignment: organization-defined official] to manage the development, documentation, and dissemination of the access control policy and procedures; and
- Policy [FedRAMP Assignment: at least annually] and following [Assignment: organization-defined events]: and

Review and update the current access control:

Procedures [FedRAMP Assignment: at least annually] and following [FedRAMP Assignment: significant changes].

Open Forum

Next Steps

Thank you

Our next OEAW virtual meeting will be on

Wednesday, December 20th, 2023 at 12p ET.

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

Learn more at fedramp.gov



How to Submit Issues with FedRAMP



Ensuring your outstanding issues or questions are received:

Issues can be submitted in several ways:



Preferred

Open an issue on fedramp-automation github so that it will benefit the NIST/FedRAMP community.

https://github.com/GSA/fedramp-automat

ion/issues

Alternate

Email us at oscal@fedramp.gov

OSCAL Resources



NIST:

OSCAL repo: 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

Early Adopter repo: https://github.com/GSA/fedramp-oscal-earlyadopters