



# FedRAMP OSCAL Early Adopters

**December 6th, 2023**



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**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



**Keep the discussion respectful**



**Be curious, seek understanding**



**Speak from your own experience**



**Challenge through questions**



**Focus on ideas**



**Keep it technical**

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.

## 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.

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

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## 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-oscals-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

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

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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
- ([#535](#)) Discrepancy between baseline XML response-points and SSP Appendix A response-points

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

## 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]: {
  uuid [1]: uuid,
  ▶ metadata [1]: { - },
  ▶ import-ap [1]: { - },
  ▶ local-definitions [0 or 1]: { - },
  ▼ results [1]: [
    An array of result objects [1 to ∞] {
      uuid [1]: uuid,
      title [1]: markup-line,
      description [1]: markup-multiline,
      start [1]: date-time-with-timezone,
      end [0 or 1]: date-time-with-timezone,
      ▶ props [0 or 1]: [ - ],
      ▶ links [0 or 1]: [ - ],
      ▶ local-definitions [0 or 1]: { - },
      ▶ reviewed-controls [1]: { - },
      ▶ attestations [0 or 1]: [ - ],
      ▶ assessment-log [0 or 1]: { - },
      ▶ observations [0 or 1]: [ - ],
      ▼ risks [0 or 1]: [
        An array of risk objects [1 to ∞] {
          uuid [1]: uuid,
          title [1]: markup-line,
          description [1]: markup-multiline,
          statement [1]: markup-multiline,
          ▶ props [0 or 1]: [ - ],
          ▶ links [0 or 1]: [ - ],
          status [1]: token,
          ▶ origins [0 or 1]: [ - ],
          ▶ threat-ids [0 or 1]: [ - ],
          ▶ characterizations [0 or 1]: [ - ],
          ▶ mitigating-factors [0 or 1]: [ - ],
          deadline [0 or 1]: date-time-with-timezone,
          ▶ remediations [0 or 1]: [ - ],
          ▶ risk-log [0 or 1]: { - },
          ▶ related-observations [0 or 1]: [ - ],
        }
      ],
      ▶ findings [0 or 1]: [ - ],
      remarks [0 or 1]: markup-multiline
    }
  ],
  ▶ back-matter [0 or 1]: { - }
}
```

```
▼ <assessment-results uuid="uuid"> [1]
  ▶ <metadata> ... </metadata> [1]
  ▶ <import-ap href="uri-reference"> ... </import-ap> [1]
  ▶ <local-definitions> ... </local-definitions> [0 or 1]
  ▼ <result uuid="uuid"> [1 to ∞]
    ▶ <title>markup-line</title> [1]
    ▶ <description>markup-multiline</description> [1]
    ▶ <start-date-time-with-timezone</start> [1]
    ▶ <end-date-time-with-timezone</end> [0 or 1]
    ▶ <prop name="token" uuid="uuid" ns="uri" value="string" class="token" group="token"> ... </prop> [0 to ∞]
    ▶ <link href="uri-reference" rel="token" media-type="string" resource-fragment="string"> ... </link> [0 to ∞]
    ▶ <local-definitions> ... </local-definitions> [0 or 1]
    ▶ <reviewed-controls> ... </reviewed-controls> [1]
    ▶ <attestation> ... </attestation> [0 to ∞]
    ▶ <assessment-log> ... </assessment-log> [0 or 1]
    ▶ <observation uuid="uuid"> ... </observation> [0 to ∞]
    ▼ <risk uuid="uuid"> [0 to ∞]
      ▶ <title>markup-line</title> [1]
      ▶ <description>markup-multiline</description> [1]
      ▶ <statement>markup-multiline</statement> [1]
      ▶ <prop name="token" uuid="uuid" ns="uri" value="string" class="token" group="token"> ... </prop> [0 to ∞]
      ▶ <link href="uri-reference" rel="token" media-type="string" resource-fragment="string"> ... </link> [0 to ∞]
      ▶ <status>token</status> [1]
      ▶ <origin> ... </origin> [0 to ∞]
      ▶ <threat-id system="uri" href="uri-reference">uris/threat-id</threat-id> [0 to ∞]
      ▶ <characterization> ... </characterization> [0 to ∞]
      ▶ <mitigating-factor uuid="uuid" implementation-uuid="uuid"> ... </mitigating-factor> [0 to ∞]
      ▶ <deadline>date-time-with-timezone</deadline> [0 or 1]
      ▶ <response uuid="uuid" lifecycle="token"> ... </response> [0 to ∞]
      ▶ <risk-log> ... </risk-log> [0 or 1]
      ▶ <related-observation observation-uuid="uuid"/> [0 to ∞]
    </risk>
    ▶ <finding uuid="uuid"> ... </finding> [0 to ∞]
    ▶ <remarks>markup-multiline</remarks> [0 or 1]
  </result>
  ▶ <back-matter> ... </back-matter> [0 or 1]
</assessment-results>
```

## 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

```
</add>
<add position="starting" by-id="ac-1_smt.a.1.a">
  <prop ns="https://fedramp.gov/ns/oscal" name="response-point" value="You must fill in this response point."/>
</add>
<add position="starting" by-id="ac-1_smt.a.1.b">
  <prop ns="https://fedramp.gov/ns/oscal" name="response-point" value="You must fill in this response point."/>
</add>
<add position="starting" by-id="ac-1_smt.a.2">
  <prop ns="https://fedramp.gov/ns/oscal" name="response-point" value="You must fill in this response point."/>
</add>
<add position="starting" by-id="ac-1_smt.b">
  <prop ns="https://fedramp.gov/ns/oscal" name="response-point" value="You must fill in this response point."/>
</add>
<add position="starting" by-id="ac-1_smt.c.1">
  <prop ns="https://fedramp.gov/ns/oscal" name="response-point" value="You must fill in this response point."/>
</add>
<add position="starting" by-id="ac-1_smt.c.2">
  <prop ns="https://fedramp.gov/ns/oscal" name="response-point" value="You must fill in this response point."/>
</add>
```

### 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. Develop, document, and disseminate to [Assignment: organization-defined personnel or roles]:
  -  1. [Selection (one-or-more): organization-level; mission/business process-level; system-level] access control policy that:
    - (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
  -  2. Procedures to facilitate the implementation of the access control policy and the associated access controls;
-  b. Designate an [Assignment: organization-defined official] to manage the development, documentation, and dissemination of the access control policy and procedures; and
-  c. Review and update the current access control:
  -  1. Policy [FedRAMP Assignment: at least annually] and following [Assignment: organization-defined events]; and
  -  2. Procedures [FedRAMP Assignment: at least annually] and following [FedRAMP Assignment: significant changes].

# Open Forum

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# Next Steps

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# 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](mailto:OSCAL@fedramp.gov)

Learn more at [fedramp.gov](https://fedramp.gov)



**@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-automation/issues>

## Alternate

Email us at [oscal@fedramp.gov](mailto:oscal@fedramp.gov)

## **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>