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POWER RADICAL CHANGE

The OSCAL Implementer’s Guide

Strategies, Lessons, and Best Practices

2.19.2025

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INTRODUCTION

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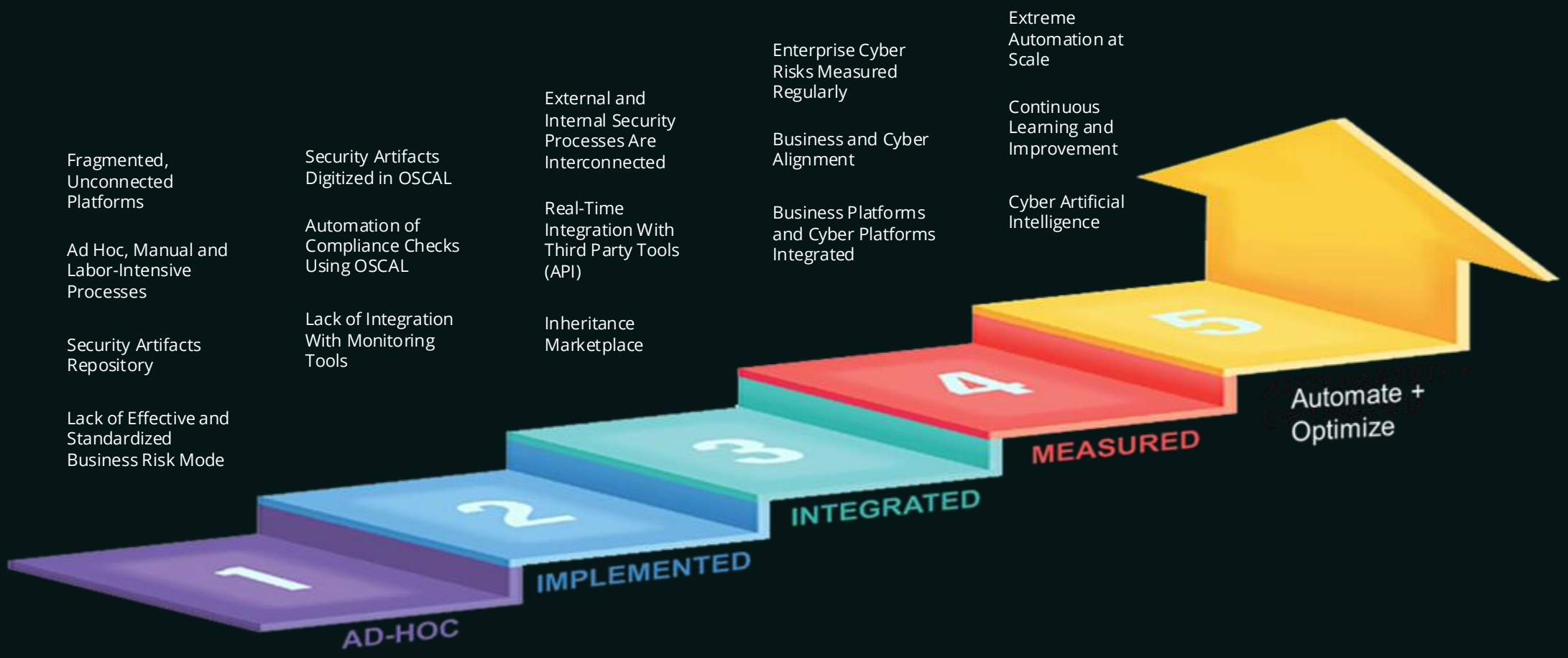
COMPLIANCE AUTOMATION MATURITY MODEL

Framework to help organizations adopt and scale OSCAL.



COMMON CHALLENGES

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GOVERNANCE

OSCAL provides extreme automation to the compliance lifecycle that can evaluate risk based on an organization's risk tolerance threshold. Organizations should define the following parameters in OSCAL to begin training teams on how to leverage OSCAL's tool sets.

- Undefined organization profile
- Manual catalog change management
- Undefined risk appetite
- Lack of OSCAL operational policies & procedures

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DATA READINESS

Legacy RMF tools and process do not define compliance to the granularity required for OSCAL. Organizations should prepare early to capture or redefine their data to comply with OSCAL.

- Data locked in physical paper or word, excel, and PDF documents
- Control implementation statements not stored at the part-level
- Users not assigned to OSCAL defined roles or parties in legacy tools
- Organization Defined Parameters (ODPs) captured under NIST do not follow the same ID structure of OSCAL

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LEGACY TOOLING

To operationalize OSCAL organizations will need a robust modern tool set capable of supporting the new automation and workflows OSCAL will foster.

Paper-Based	Escalating Technology Costs	Time-Consuming Changes	Inflexible Infrastructure
Legacy Data Structure	Lack of Integration Capability	Customized Code	Slow Innovation
Lack of Digitization	Poor User Experience	Legacy User Interface	Lack of Intelligent Automation

ACTIONABLE SOLUTIONS

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PREPARE DATA

Identify a standard set of roles and groups that participate throughout the RMF lifecycle.

LEGACY SYSTEM

```
[
  {
    "personId":0,
    "pocId":0,
    "isActive": true,
    "firstName":"string",
    "middlename":"string",
    "lastName":"string",
    "phone1":"string",
    "phone2":"string",
    "email":"string",
    ],
  }
]
```

Users are often attested without specific role or group assignments.

OSCAL

```
"roles": [
        {
          "id": "String",
          "title": "String"
        }
      ],
"parties": [
        {
          "uuid": "String",
          "type": "String",
          "name": "String",
          "email-addresses": [
            "String"
          ],
"addresses": [
            {
              "addr-lines": [
                "String",
              ],
              "city": "String",
              "state": "String",
              "postal-code": "String"
            }
          ]
        }
      ],
```

```
"users": [
        {
          "uuid": "String",
          "title": "String",
          "props": [
            {
              "name": "String",
              "value": "String"
            }
          ],
          "role-ids": [
            "String"
          ]
        },
"responsible-parties": [
        {
          "role-id": "String",
          "party-uuids": [
            "String"
          ]
        }
      ]
```

OSCAL requires users to be identified with *role* and *responsible party IDs*.

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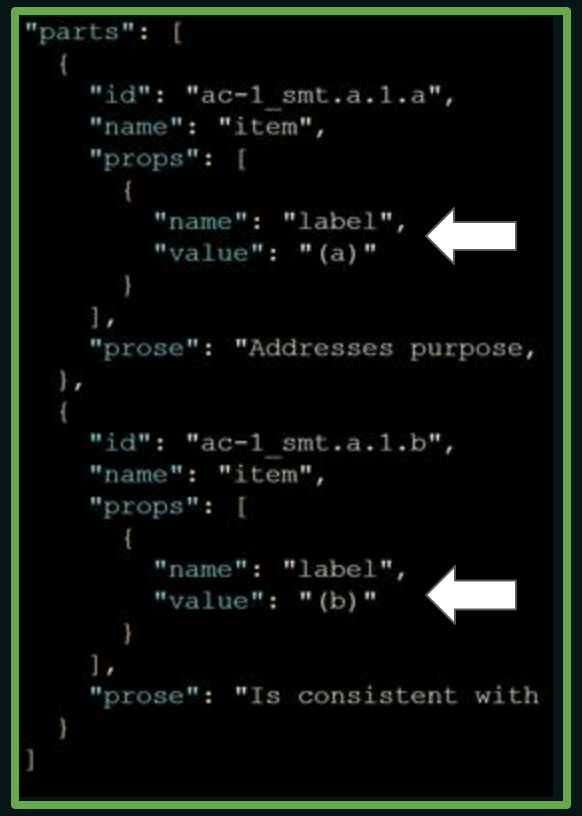
PREPARE DATA

Break controls out by part to follow the OSCAL control structure in NIST 800-53 controls.

LEGACY SYSTEM

Implementation Statement includes all control parts grouped into one.

OSCAL



OSCAL requires implementation statement to be broken down by specific requirements. (i.e. Part A / Part B).

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PREPARE DATA

Break Organization Defined Parameters to follow OSCAL ODP IDs.

LEGACY	OSCAL
Parameter AC-1(a):	ac-1_prm_1
Parameter AC-1(a)(1):	ac-1_prm_3

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ADOPT OSCAL-NATIVE INTELLIGENT PLATFORMS

Organizations must modernize their tools to include an OSCAL-native intelligent platform.

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RECOMMENDED APPROACH

Organizations can take the first step by establishing strong policies and procedures, defining a clear data migration plan, and working collaboratively to finalize and improve baselines as a unified community.

Start with Policy and Procedures.

Take a top-down approach to your data. Start with mapping to OSCAL with current data, then implementing.

Collaborate early and often with the OSCAL Community to develop one OSCAL.

QUESTIONS

Please send questions/inquiries to business@usai.io