

Pioneering Interoperability

A4L & HR Open Standards Collaboration with the
SIF Infrastructure

Agenda

- What is JEDx?
- How does it tie into SIF?
- What does that look like?
- Special Considerations
- Lessons Learned

What is JEDx?

- **JEDx (Jobs and Employment Data Exchange)** is an initiative by the **U.S. Chamber of Commerce Foundation** and the **T3 Innovation Network** to develop a **public-private approach** for collecting and using standards-based jobs and employment data.
- It builds on two previous initiatives:
 - **Job Data Exchange (JDX)**: Focused on public-private standards for job descriptions and postings.
 - **Employment and Earnings Records Standards Project**: Aimed at creating public-private standards for employment and earnings records.

What is JEDx?

- JEDx is working to establish a **data collaborative** to improve the collection and use of job and employment data for **public and private applications** including:
 - **Learner/Worker Empowerment and Trusted Records:** Helping individuals use **verifiable employment and earnings records** for career opportunities, education, and government benefits.
 - **Employer Reporting to Government:** Reducing costs and improving data quality in **employer reporting** for **federal and state programs** and economic statistics.
 - **Workforce Analytics:** Enhancing access to **workforce analytics** for employers, workers, and government agencies to support **labor market information, policy, and research**.

What is JEDx?



How does it tie into SIF?

For the standard interface HR Open Standards has adopted the SIF 3 Infrastructure!

1. **Interoperability & Scalability** – Built on modern RESTful principles and using JSON/XML payloads, SIF 3 allows for easy integration with existing systems while scaling efficiently across large ecosystems.
2. **Security & Role-Based Access Control (RBAC)** – The infrastructure includes strong security mechanisms such as OAuth-based authentication and role-based permissions, ensuring compliance with data privacy regulations and security best practices.

How does it tie into SIF?

For the standard interface HR Open Standards has adopted the SIF 3 Infrastructure!

- 3. **Event-Driven & Request-Response Model** – SIF 3 supports both event-driven (push-based) and request-response (pull-based) data exchange models, making it highly adaptable for organizations that need real-time updates and asynchronous processing.
- 4. **Brokered & Direct Architectures** – SIF 3 provides flexibility through brokered (middleware-based) and direct (peer-to-peer) communication models, accommodating different governance structures and data flow needs.
- 5. **Support for Asynchronous & Batch Processing** – SIF 3 allows for both real-time data exchange and batch processing, making it suitable for systems that need to handle high data volumes efficiently.

What does it look like?

Organization

GET

Default operation to get a list of all available Organizations

HEAD

Get HEAD info for Organizations.

PUT

Default operation to update or delete multiple Organizations

POST

Default operation to create multiple Organizations or query by example (QBE).

POST

Default operation to create a single Organization

PUT

Default operation to update a single Organization

GET

Default operation to get a single Organization

DEL

Default operation to delete a single Organization

Default operation to get a list of all available Organizations

Default operation to get a list of all available Organizations

QUERY PARAMETERS

changesSinceMarker	string Required if a changes since request is performed.
order	string Orders the result set by one or more specified elements and directions. Use XPath notation. Must be URL encoded.
where	string A restricted XPATH expression that qualifies which among the set of all objects supplied by the Provider will satisfy the query and be returned. Must be URL encoded.

HEADER PARAMETERS

authorization required	string Authorization header. Typical values are Basic+token or SIF_HMACSHA256+token.
accept	string The mime type of the response. Typical values are application/xml or application/json. If not provided it will default to application/xml.
accept-encoding	string Indicate what payload encoding is accepted in the response. Valid values are: identity (not compressed) or gzip (compressed).
accept-profile	string Indicate what payload datamodel schema(s) is/are accepted in the response. Example: urn:sif:data/

GET /Organizations

Response samples

200 401 403 410 413 415 500 501 503

Content type
application/json

Copy Expand all Collapse all

```
{
  - "organizations": [
    - {
      "name": "HR is US",
      "responsibilityCode": "Subsidiary",
    - "communication": {
      - "web": [
        - {
          "url": "http://www.SomeEnterpriseHRCompan
        }
      ],
    - "email": [
      - {
        "address": "info@SomeEnterpriseHRCompany.
      },
    - {
        "address": "sales@SomeEnterpriseHRCompany
      }
    ]
  ]
}
```

What does it look like?



The screenshot shows a REST client interface with the following details:

- HTTP Method:** POST
- URL:** `https://testharness.a4l.org/SIFController/AdaptorServer/{{ConnectorId}}/requests/organizations/organization`
- Body:** JSON format, containing the following structure:

```
1 {
2   "taxId": {
3     "value": "123456789",
4     "schemeId": "FEIN",
5     "description": "Federal Tax Identification Number"
6   },
7   "status": {
8     "reasonCode": "Active",
9     "statusCode": "A",
10    "statusDate": "2023-10-01",
11    "description": {
12      "value": "Active status"
13    }
14  },
15 }
```
- Response:** Empty

What does it look like?

The screenshot displays a REST client interface with the following components:

- URL Bar:** Contains the endpoint `/ {{ConnectorId}} /requests/organizations/organization` and a **Send** button.
- Response Status:** A green box indicates **201 Created**, with additional details: **398 ms**, **3.88 KB**, and a status icon.
- Response Body:** The **Body** tab is selected, showing a JSON response. The **JSON** tab is active, displaying the following structure:

```
1 {
2   "taxId": {
3     "value": "123456789",
4     "schemeId": "FEIN",
5     "description": "Federal Tax Identification Number"
6   },
7   "status": {
8     "reasonCode": "Active",
9     "statusCode": "A",
10    "statusDate": "2023-10-01",
11    "description": {
12      "value": "Active status"
13    }
14  },
15 }
```
- Left Sidebar:** Includes **Cookies** and **Beautify** buttons.
- Right Sidebar:** Includes **Preview** and **Visualize** buttons, along with icons for menu, copy, search, and share.

What does it look like?

JEDx Test Session

[BACK](#) [NEXT](#)

MakesRead_resume_Request

Services a read resume request and looks for a successful return.

 Running:

What does it look like?

Logging

t:

p:

Category	Type	Time
SENT	201	2025-01-29T16:19:34.654Z
RECEIVED	POST	2025-01-29T16:19:34.644Z

/

What does it look like?

Tests

	Status	Name
	PASSED	MakesOAuth2Request
	PASSED	MakesHTTPSConnection
	PASSED	MakesCreate_organization_Request
	RUNNING	MakesCreate_worker_Request
	RUNNING	MakesRead_worker_Request
	RUNNING	MakesCreate_workerCompensationReport_Request
	RUNNING	MakesCreate_workerPaidHoursReport_Request
	RUNNING	MakesCreate_resume_Request
	RUNNING	MakesRead_resume_Request

What does it look like?

GET ⌵ https://testharness.a4l.org/SIFController/AdaptorServer/ {{ConnectorId}} /requests/organizations/ORG12345 Send ⌵

Params Auth ● Headers (10) Body Scripts ● Settings Cookies

Query Params

Key	Value	Description	⋮ Bulk Edit
Key	Value	Description	

Body ⌵ ↺ 200 OK · 228 ms · 3.88 KB ⌵ 📄 Save Response ⋮

{} JSON ⌵ ▶ Preview 🖼️ Visualization 🔍 🔗

```
1 {
2   "taxId": {
3     "value": "123456789",
4     "schemeId": "FEIN",
5     "description": "Federal Tax Identification Number"
6   },
7   "status": {
8     "reasonCode": "Active",
9     "statusCode": "A",
10    "statusDate": "2023-10-01",
11    "description": {
12      "value": "Active status"
13    }
14  },
15  "legalId": {
16    "value": "987654321",
17    "schemeId": "EIN",
18    "description": "Employer Identification Number",
19    "schemeAgencyId": "IRS",
20    "schemeVersionId": "1.0"
21  },
22 }
```

Special Considerations

- JSON only
- Anonymous resource roots
- Named collections
- Non-UUID resource names
- Bridge to established HR industry APIs

Lessons Learned

- Case sensitive paths are very important to clarify.
- Goessner Notation:
 - Can represent any XML in JSON.
 - Cannot represent any JSON in XML.
- XUpdate was *not* adopted by the W3C.

CALL TO ACTION

Useful links / next steps:

Visit:

<http://specification.sifassociation.org/JEDx/ServiceDocs/>