

Keep Identities in Sync

The SCIMple Way

Brian Demers and Matt Raible

@briandemers / @mraible

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APACHECON

Who are we?

Brian Demers

Open Source Developer and Java
Champion

Fun facts: likes to snowboard; into 🐝

 @bdemers



Matt Raible

Open Source Developer and Java
Champion

Fun facts: likes to ski; into classic VWs 🙌

 @mraible



Today's Agenda

01

What is SCIM?

02

Best Practices

03

Apache SCIMple

04

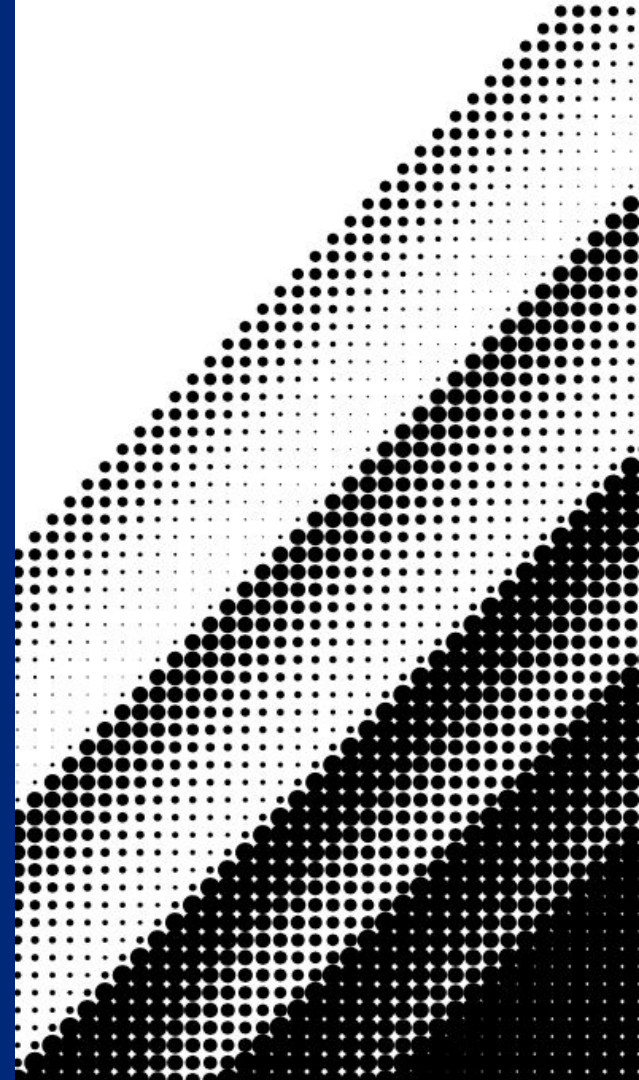
Demo
Apache SCIMple + Spring Boot

05

Action!
How to get involved!

01

What is SCIM?



SCIM

System for Cross-
Identity Management



TL;DR

Standardized User & Groups REST API

REST Endpoints

Imagine you are building an API for an auto parts store:

`https://example.com/api/v1/Parts`

`https://example.com/api/v1/Orders`

`https://example.com/api/v1/Users`

`https://example.com/api/v1/Groups`

User Object

application/scim+json

```
{ "schemas": ["urn:ietf:params:scim:schemas:core:2.0:User"],
  "id": "2819c223-7f76-453a-919d-413861904646",
  "externalId": "dschrute",
  "userName": "dschrute",
  "name": {
    "formatted": "Mr. Dwight K Schrute, III",
    "familyName": "Schrute",
    "givenName": "Dwight",
    "middleName": "Kurt",
    "honorificPrefix": "Mr.",
    "honorificSuffix": "III"
  },
  "phoneNumbers": [{
    "value": "555-555-8377", "type": "work"}],
  "emails": [{
    "value": "dschrute@example.com", "type": "work", "primary": true}],
  "meta": {
    "resourceType": "User",
    "created": "2011-08-01T18:29:49.793Z",
    "lastModified": "2011-08-01T18:29:49.793Z",
    "location": "https://example.com/v2/Users/2819c223..."}}
```


What about other attributes?

SCIM Extensions

```
"schemas": [  
  "urn:ietf:params:scim:schemas:core:2.0:User",  
  "urn:scim:schemas:extension:srd:1.0:ability"],  
  
"urn:scim:schemas:extension:srd:1.0:ability": {  
  "charisma": 14,  
  "constitution": 12,  
  "dexterity": 15,  
  "intelligence": 8,  
  "strength": 10,  
  "wisdom": 13}
```

SCIM Schemas Endpoint - /Schemas

```
{
```

```
  "id": "urn:scim:schemas:extension:srd:1.0:ability",  
  "name": "SDR-0GL",  
  "description": "Systems Reference Document - Ability Scores",  
  "attributes": [{  
    "name": "charisma",  
    "description": "Charisma, measuring force of personality",  
    "required": true,  
    "type": "integer",  
    "uniqueness": "none",  
    "caseExact": false,  
    "multiValued": false,  
    "mutability": "readWrite",  
    "returned": "default"}
```

```
...
```

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SCIM Endpoints

/Users[/{id}]

/Groups[/{id}]

/Schemas[/{id}]

/ResourceTypes[/{id}]

/Bulk

/ServiceProviderConfig

Why use SCIM?

Why should you use SCIM?

- Standardized RESTful API
- Covers >90% of use cases
- Integrate with other services

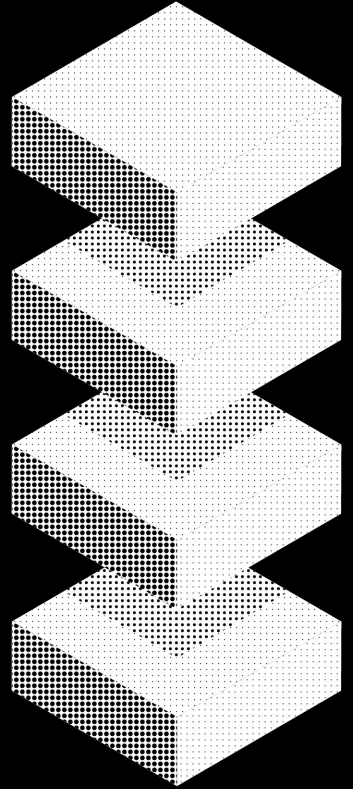
When to avoid SCIM?

02

Best Practices



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User Model Best Practices

- Store the "source" of the user
- Store the "ID" of the user's source
- Emails are not good IDs
- The status of a user is a boolean.
- SCIM supports a SQL like expression language

```
/Users?filter=emails.value EQ "bob@example.com"
```

```
/Users?filter=username EQ "bob"
```

User data is sensitive!

I Am Not A Lawyer!

03

Apache SCIMple



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Apache Directory



Apache Directory

ApacheDS

Apache Directory Studio

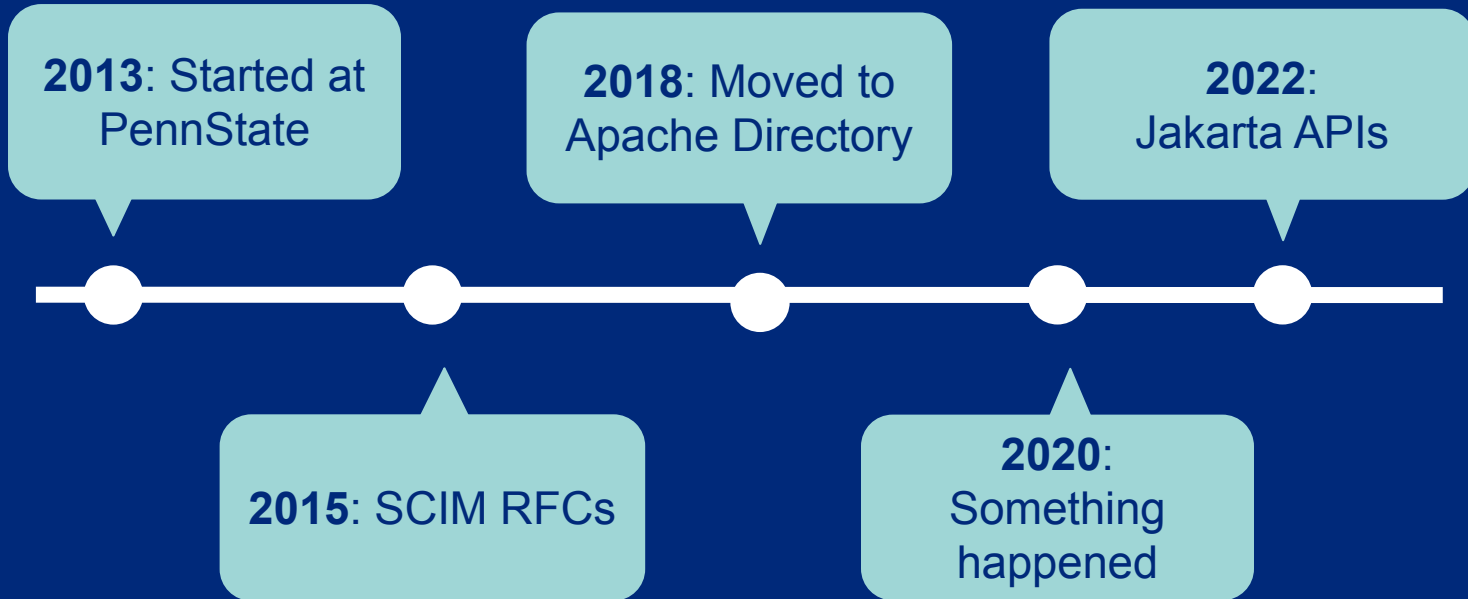
Apache LDAP API

Apache Fortress

Apache Kerby

Apache SCIMple

Apache SCIMple History

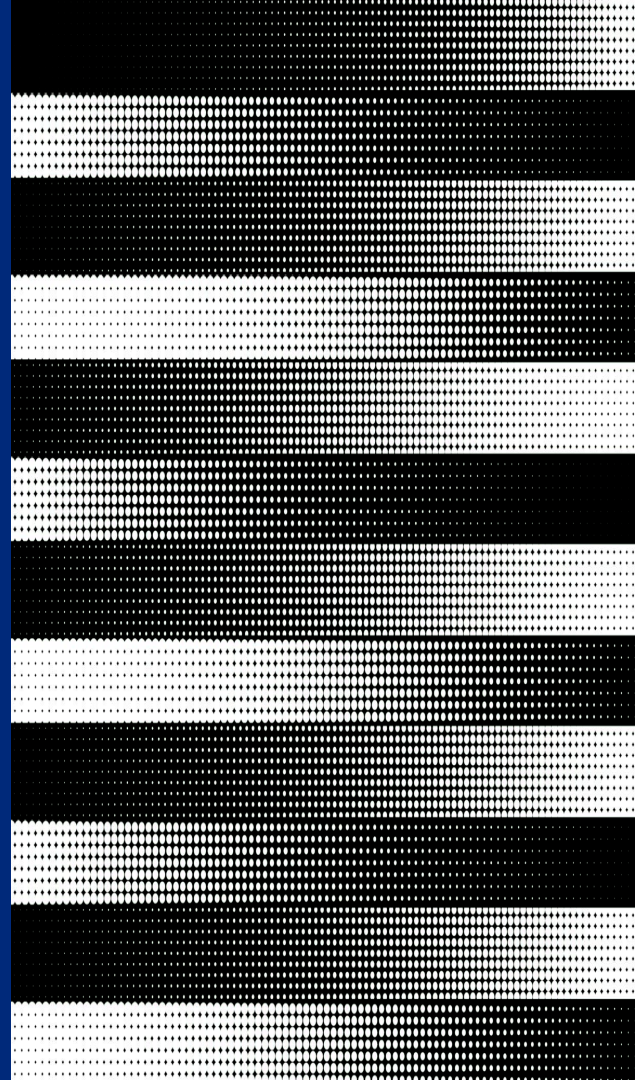


04

Demo

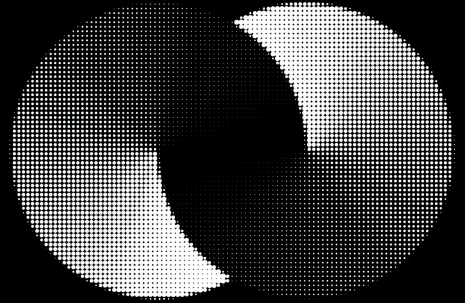


github.com/mraible/okta-scim-spring-boot-example



05

Action!



Action

Get Involved with
Apache SCIMple



**GET
INVOLVED**

**YOUR
LOGO
HERE**

Action

Get Involved with
SCIMple



directory.apache.org/scimple



[apache/directory-scimple](https://github.com/apache/directory-scimple)



scimple@directory.apache.org

Thanks!

Brian Demers

 @briandemers  @bdemers

 @bdemers

 brian.demers@okta.com



Matt Raible

 @mraible  @mraible

 @mraible

 matt.raible@okta.com

 <https://speakerdeck.com/mraible>





developer.okta.com