



## *What's New With* **OpenRegistry**

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## What Is OpenRegistry?

- An OpenSource Identity Management System, a place for data about people affiliated with your institution
- Core functionality
  - Interfaces for web, batch, and real-time data transfer
  - Identity data store
  - Identity reconciliation from multiple systems of record
  - Identifier assignment for new, unique individuals
- Additional functionality
  - Data beyond Persons: Groups, Courses, Credentials, Accounts
  - Business Rule based data transformations



## What Is OpenRegistry?

- More than just a Registry, some periphery too
  - Directory Builder
  - Provisioning and Deprovisioning
- Generally *not* authoritative for data
  - SORs are authoritative for most data
  - OR reflects single, reconciled view of data from multiple SORs
  - Exceptions include some identifiers, results of business rule calculations, populations with no real SOR (eg: visitors)
- Higher Ed Standards (eg: eduPerson)
- Evolving Standards (eg: NIST LoA)

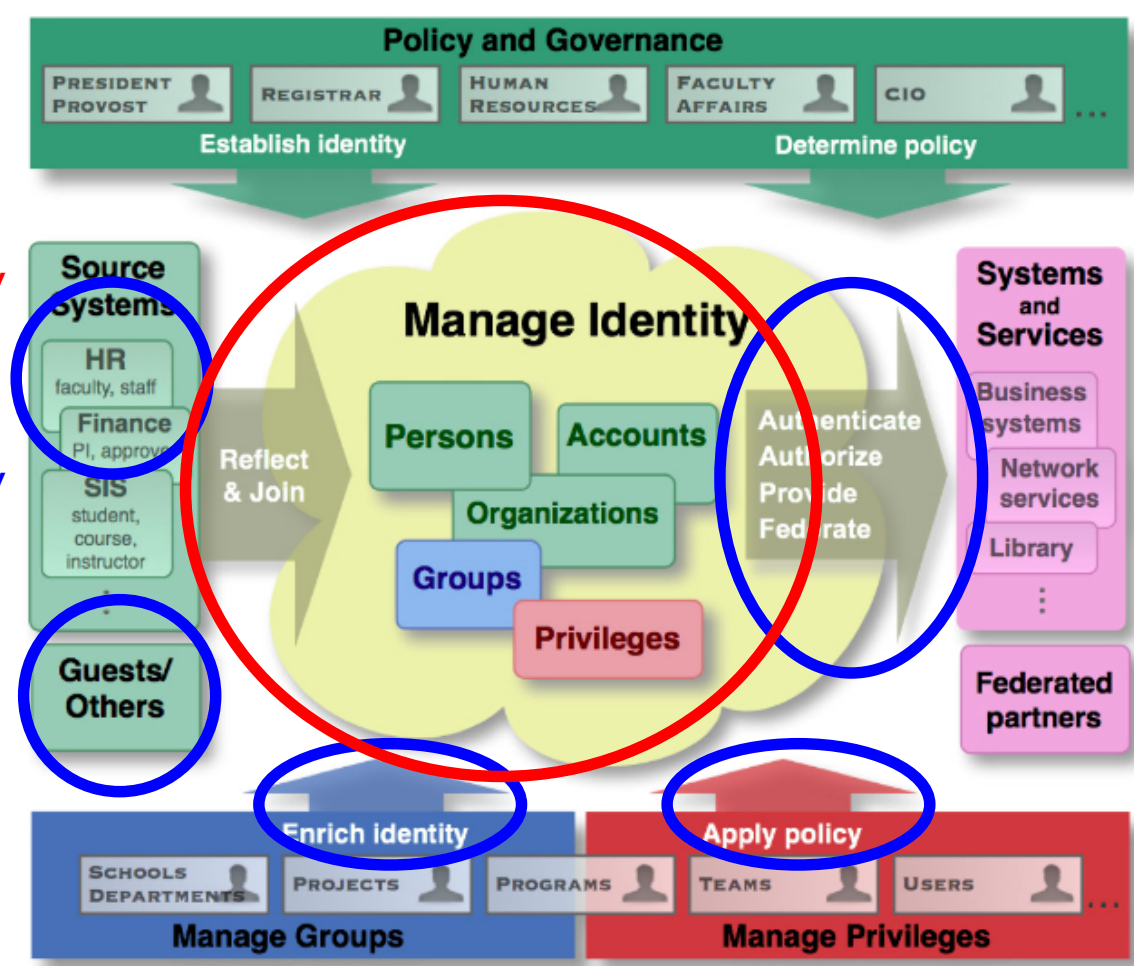


## Why OpenRegistry?

- “Off the shelf” solutions usually end up requiring significant customizations and integration work and/or solve only a portion of an institution's needs
- Lots of institutions still rolling their own
- Combined institutional efforts better leverage scant resources and allow for learning from others' experience (eg: Sakai, uPortal, CAS, Shibboleth, Quali)
- OpenRegistry is tailored to the needs of higher ed
- Decades of combined experience from before the field was called “Identity Management”



## I2 Identity & Access Mgmt Model



OpenRegistry Core

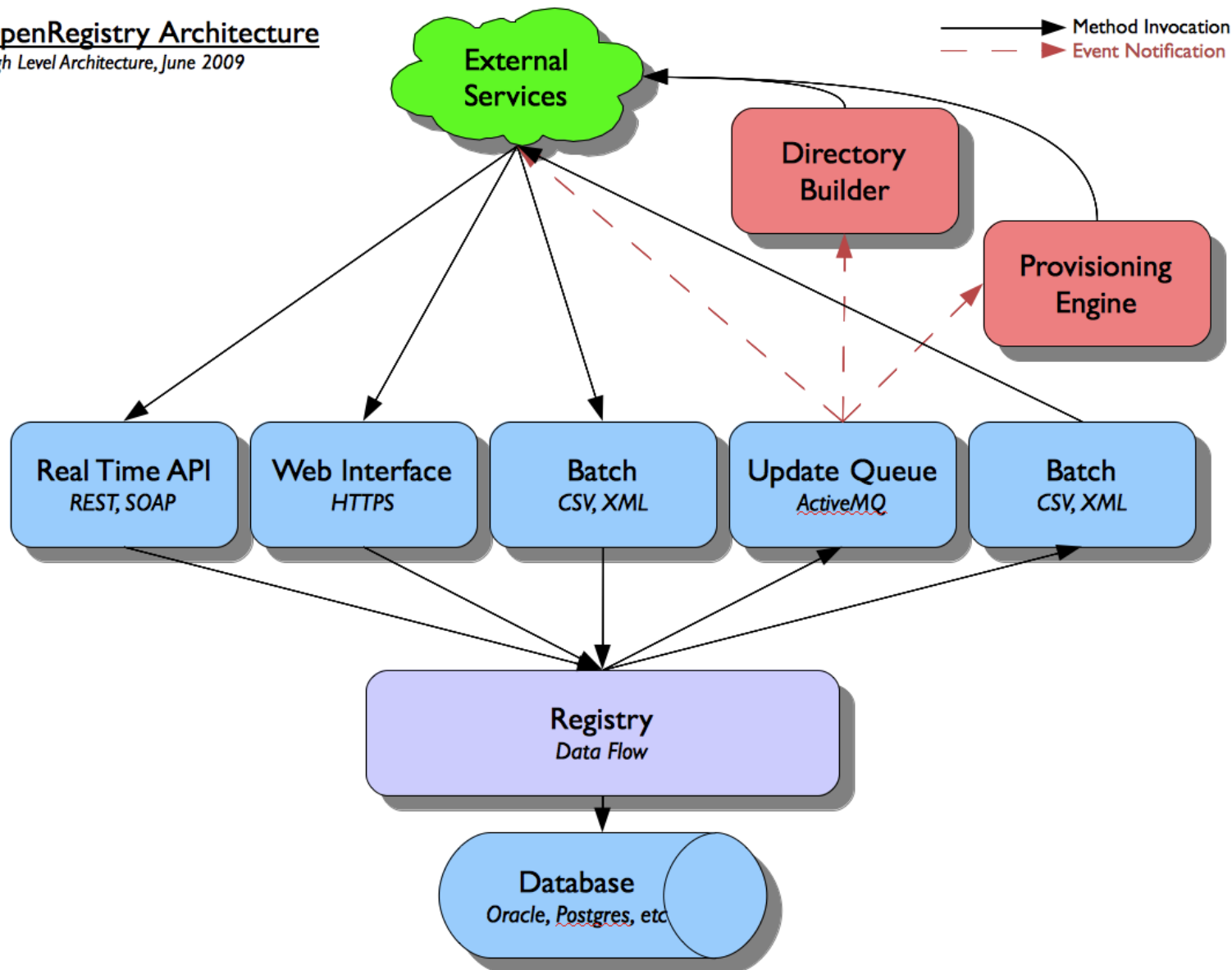
OpenRegistry Periphery

# OpenRegistry: What's New



## OpenRegistry Architecture

High Level Architecture, June 2009





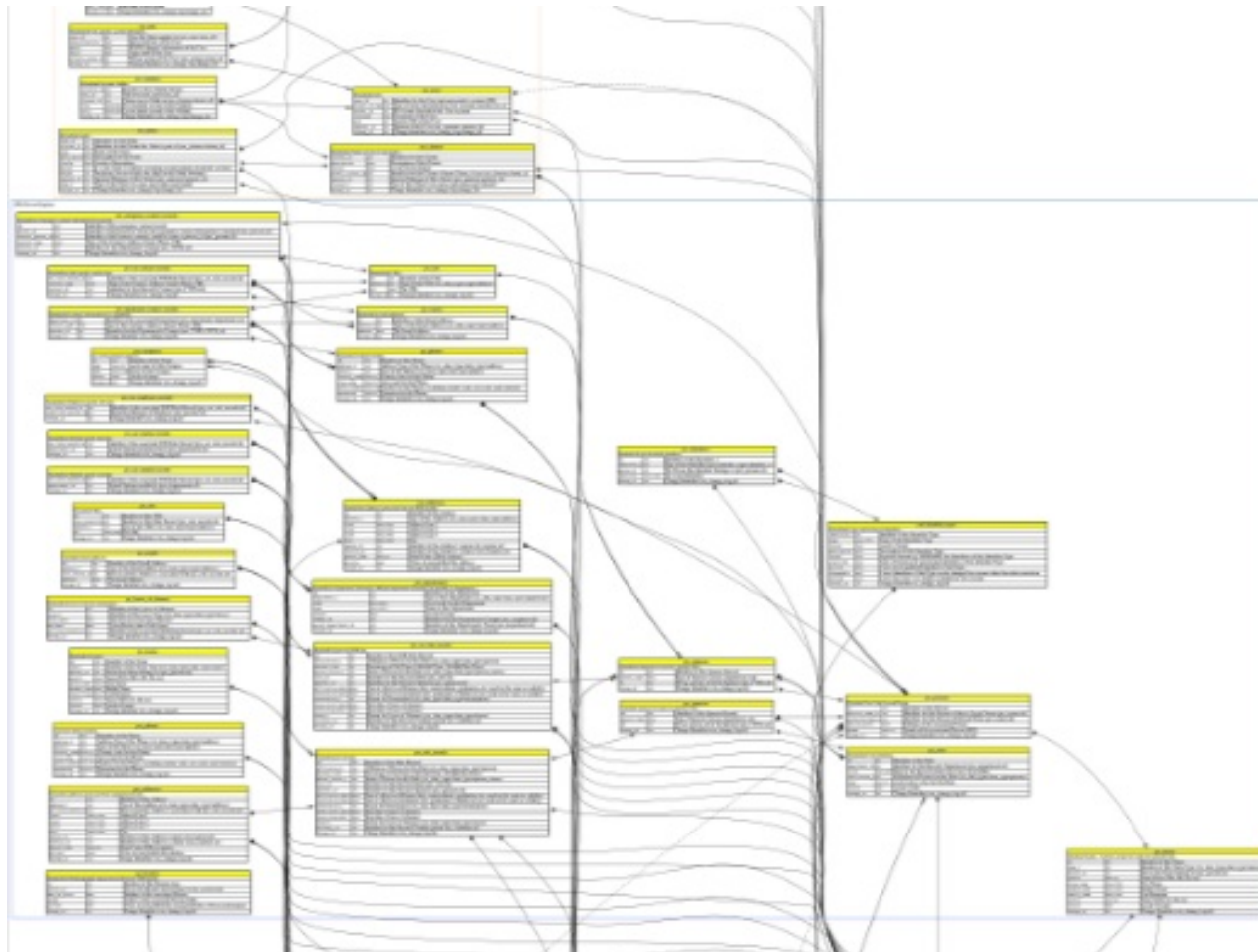
## Data Model

- Generic enough to work for multiple institutions
- Specific enough to work for yours
- Internationalized
- Well documented





# Data Model Overview





## Data Model Excerpt

prc_affiliations		
affiliation_id	int	Identifier of this Affiliation
person_id	int	Person this Affiliation belongs to (prc_persons:person_id)
validity_id	int	Identifier for this Affiliation's Validity period (ctx_validities:validity_id)
parent_affiliation_id	int	Identifier of this Affiliation's Parent (prc_affiliations:affiliation_id)
termination_date	date	Date of effective termination (need not be same as validity)
termination_t	int	Reason for termination (ctx_data_types:data_type=termination)
affiliation_t	int	Affiliation of Person (ctx_data_types:data_type=person)
percent_time	int	Percentage of Full Time (100=Full Time, 50=Half/Part Time)
person_status_t	int	Status of Person for this Affiliation's (ctx_data_types:data_type=person_status)
role_id	int	Identifier for this Record's Affiliation's (prs_roles:role_id)
sponsor_id	int	Identifier for this Record's Sponsor (prs_sponsors:sponsor_id)
sor_role_record_id	int	Identifier of this Affiliation's SOR Role Record (prs_sor_role_records:sor_role_record_id)
change_id	int	Change Identifier (ctx_change_log:change_id)

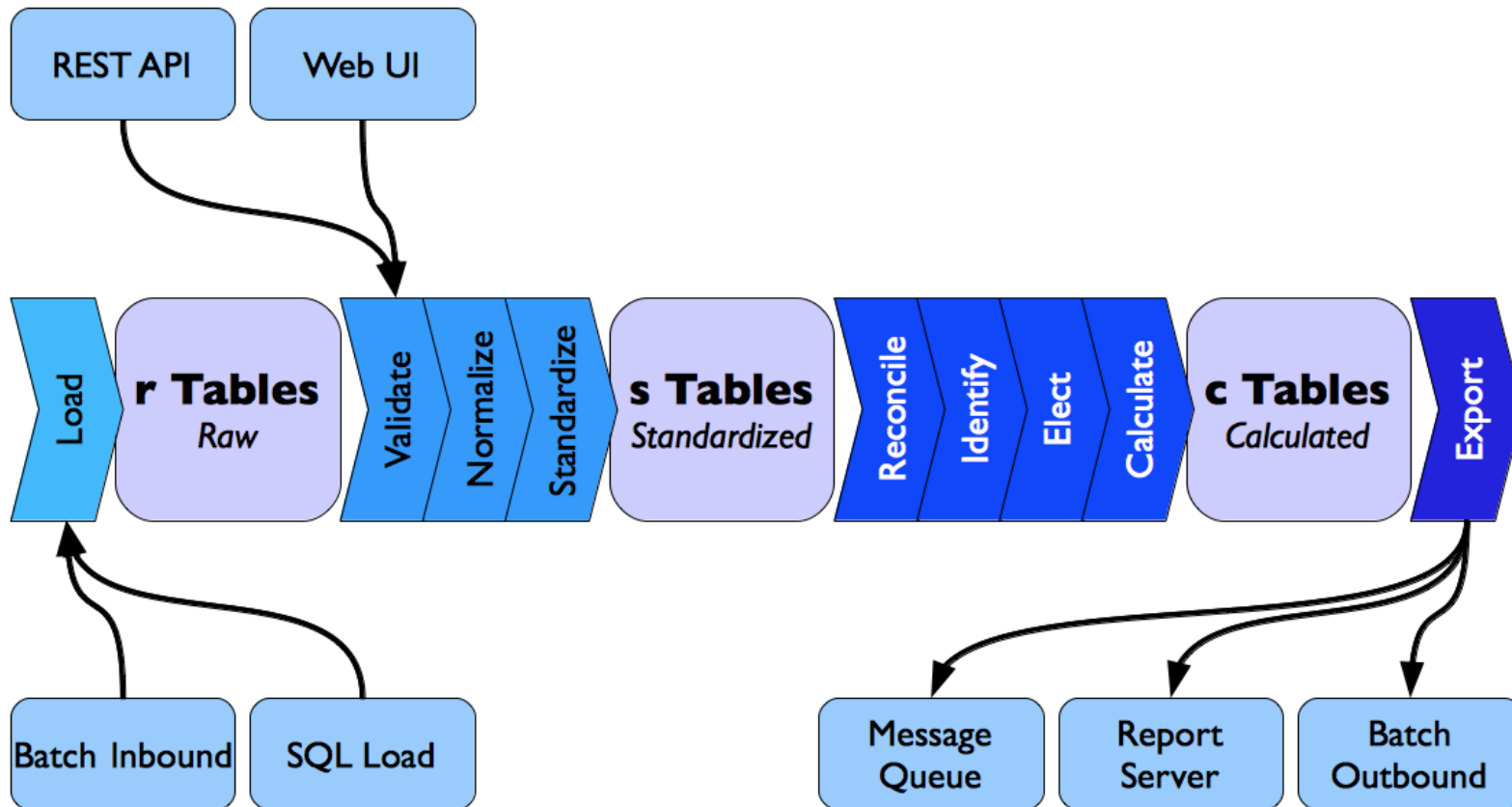
prs_sor_employee_records		
sor_role_record_id	int	Identifier of the associated SOR Role Record (prs_sor_role_records:sor_role_record_id)
supervisor_person_id	int	Reporting Manager of Employee (prc_persons:person_id)
hire_date	date	Date of effective hire (need not be same as validity)
termination_date	date	Date of effective termination (need not be same as validity)
termination_t	int	Reason for Termination (ctx_data_types:data_type=termination)
change_id	int	Change Identifier (ctx_change_log:change_id)

# OpenRegistry: What's New



## OpenRegistry Architecture

Data Flow, June 2009





## OpenRegistry Approach

- Communicate openly and transparently
- Design based on supportable, end-user focused, efficient processes and ease of maintenance
- Adhere to open standards wherever possible
- Leverage other higher ed efforts
- Favor iterative development where appropriate
- Implement highly available, highly scalable, cost efficient technologies



## OpenRegistry Approach

- Generic architecture and data model
  - Makes OR useful for as many institutions as possible
- Multiple levels of engagement with the community
  - Discuss: Review design documents, identify gaps and changes
  - Develop: Help write code, documentation, etc
  - Deploy: Run OR as an IDMS (when released)
  - Donate: Contribute resources to help with development and outreach
- Transparent, agile development process
  - Work done on Jasig servers
- Get the ball rolling, encourage others to join
- Build on lessons learned from CAS



## OpenRegistry 0.1 M1

- Generate Activation Keys via REST
- Invalidate Activation Keys via REST
- Verify Activation Keys via REST
- Add Person via REST
- Use Case Analysis
- Framework for Identifier Creation
- Basic Domain Objects
- Documentation, Unit Tests, Integration Tests



## OpenRegistry 0.1 M2

- Add SoR Role via RESTful API
- Add SoR Person via RESTful API
- Delete SoR Person via RESTful API
- Improved Usage of Standards (JSR303)
- Documentation, Unit Tests, Integration Tests
- Use Case Analysis



## OpenRegistry 0.1 M3

- Update or Edit SoR Person via REST
- Update or Edit SoR Role via REST
- Delete SoR Person via REST (mistake vs. actual)
- Delete SoR Role via REST (mistake vs. actual)
- Refactored XML representations
- Documentation, Unit Tests, Integration Tests
- Use Case Analysis





## OpenRegistry 0.1 M4

- System of Record Specifications for Inbound Feeds
  - Required Fields
  - Not Allowed Fields
  - Min/Max Size for Collections/Maps
- “Re-Calculation”
- Use Case Analysis



## OpenRegistry 0.1 RC1

- Normalization and Standardization
- Started Work on Standard, Component-based UI
- Election/Calculation Framework



## OpenRegistry – Near Future

- Help Desk Tools
  - Split/Join/Move/Merge
  - View Complete Person
  - Re-Generate Activation Key
- Batch Framework
- Bug Fixes ;-)
- Improvements to...
  - Normalization/Standardization
  - Election/Calculation
  - UI



## OpenRegistry Not-So-Near Future

- UIs for...
  - Add/Update Person
  - Add/Update Role
  - Delete Role/Person
  - View SoR
- Improved Security for...
  - Role-Based Access to SoR Information
  - Role-Based Access to Help Desk Tools
  - UI to rule it all!



## Development Efforts

- Lead by...
  - Simon Fraser University
  - Rutgers, the State University of New Jersey
- With Assistance from...
  - The OpenRegistry Developer's List
- Working on...
  - Use Cases
  - Personas
  - Usability
  - Code
  - Data Model Improvements

A screenshot of a web browser window. The title bar reads "OpenRegistry » Welcome to OpenRegistry". The address bar shows "http://openreg.its.sfu.ca/openregistry/main.htm" and a search bar with "Google". The main content area has a light blue header with "OpenRegistry" in bold. Below it, a section titled "Manage People" contains a bulleted list of links: "Add Person", "Update Person", "Move Sor Person Record", "Move All Sor Person Records", "Request New Activation Key", and "View Complete Person". At the bottom, there is a copyright notice and three links: "Documentation", "Issue Tracker", and "Mailing Lists".

OpenRegistry » Welcome to OpenRegistry

http://openreg.its.sfu.ca/openregistry/main.htm

Google

## OpenRegistry

### Manage People

- [Add Person](#)
- [Update Person](#)
- [Move Sor Person Record](#)
- [Move All Sor Person Records](#)
- [Request New Activation Key](#)
- [View Complete Person](#)

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[Documentation](#) | [Issue Tracker](#) | [Mailing Lists](#)

# OpenRegistry: What's New



OpenRegistry » Add a Person

http://openreg.its.sfu.ca/openregistry/addSorPerson.htm?execution=e3s1

## OpenRegistry

Find a Person  
**Add a Person**  
Logout

Required fields are marked with\*.

Prefix  First Name\*  Middle Name  Last Name\*  Suffix

Gender \*

Birth Date\*

SSN

Email

Phone Number

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OpenRegistry » Find a Person

http://openreg.its.sfu.ca/openregistry/viewPersonDetail.htm?execution=e1s1

Google

## OpenRegistry

**Find a Person**  
Add a Person  
Logout

### Manage People

- Enter your search criteria in the fields below and click **Find Person**.
- Matching persons will appear below.
- Select a person to perform any of the following actions:
  - View a person's complete details
  - Update the Person
  - Move an Sor Person record to another calculated person
  - Move all Sor Person Records to another calculated person

Identifier  Name  Date of Birth

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Identifier:  Name:  Date of Birth:

### Search Results

1 results were found for your query:

Name	ID	Roles	Gender	
<a href="#">Test Person Test</a>	TPT399535548		F	<input type="button" value="Details"/>

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OpenRegistry » Manage People

http://openreg.its.sfu.ca/openregistry/viewPersonDetail.htm?execution=e1s2

Google

## OpenRegistry

**Find a Person**  
[Add a Person](#)  
[Logout](#)

Calculated Person	
FORMAL Name	Test Person Test
Birth Date	March 3, 1903
Gender	Female
NETID	TPT399535548 (Primary)

Source: or-webapp

SoRID	1
-------	---

**FORMAL Name**

First:	Test
Last:	Test
Middle:	Person
Prefix:	
Suffix:	

Birth Date	Mar 3, 1903
Gender	Female
SSN	123456789

Go to "http://openreg.its.sfu.ca/openregistry/addSorPerson.htm"



## Intersection With Your Institution

- Potential for collaboration could take many forms
  - Participation in or vetting of OR design
  - Evaluation for migration and adoption as OR matures
  - Adjustment of OR milestones according to your needs, with your resources
- Benefits of Migration to OR
  - Provides long term, sustainable model
  - Elimination of programmer-specific knowledge concerns
  - Avoidance of vendor lock-in
    - Commercial solutions aren't drop-in, customization work needed
    - Easier to tailor to future needs
  - Community of similar institutions in similar situations



## Additional Information

- <http://www.ja-sig.org/wiki/display/OR>