



# **Bootstrapping ID-WSF 2.0 with OpenID:** *ID-WSF 2.0 plays nice with OpenID*

a convergence demo developed for IIW 2008

by Asa Hardcastle, [OpenLiberty.org](http://OpenLiberty.org)

**=asa**

## Notable components of the demo

- **OpenLiberty ID-WSF 2.0 Client Library (*Open Source*)**

Java 1.5; OpenSAML tooling,saml2,ws;

<http://openliberty.org/>

- **Conor Cahill's Server Toolkit (*Open Source*)**

Java 1.5; Apache Axis;

<http://www.cahillhome.com/OpenSource>

- **SXIP OpenID for Java (*Open Source*)**

<http://code.google.com/p/openid4java>

## **What are we accomplishing?**

The Liberty Identity Web Services Framework(ID-WSF) requires an Endpoint Reference in order to begin operations. This is traditionally accomplished through a SAMLv2 Single Sign On. A SAMLv2 security token is passed inside of the endpoint reference as well as the endpoint of an ID-WSF Discover service. The Discovery Service can then be used to discover a user's web service and provide the security tokens necessary for the user's level of access to her/his service.

This demo uses OpenID to bootstrap ID-WSF, showing a happy mix of identity worlds.

# First we log in to our Personal Address Manager, PAdMan...



# PAdMan

Hey baby, wanna check out my pad?

Log in to your account:

RED-ID



asa

Log In

using RED-ID,  
our preferred OpenID provider (OP)

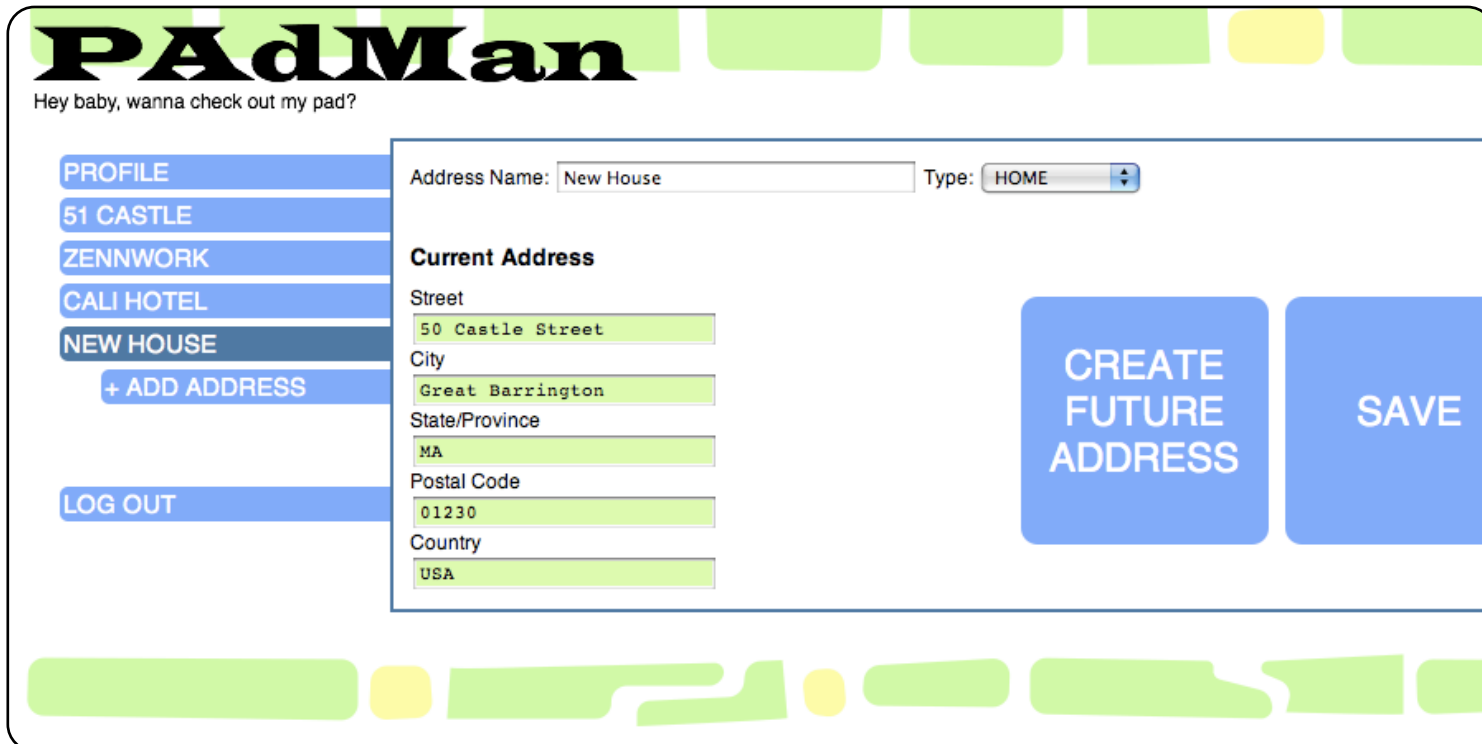


*Single Sign On for the masses.*

username:

secret pin:

# Now we make some changes to our address and profile information, adding the 'NEW HOUSE' address



**PAdMan**  
Hey baby, wanna check out my pad?

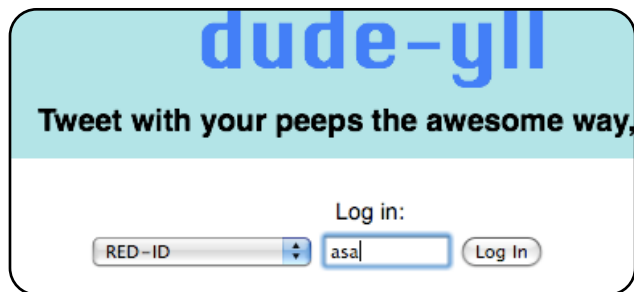
**PROFILE**  
51 CASTLE  
ZENNWORK  
CALI HOTEL  
**NEW HOUSE**  
+ ADD ADDRESS  
LOG OUT

Address Name:  Type:

**Current Address**  
Street:   
City:   
State/Province:   
Postal Code:   
Country:

**CREATE FUTURE ADDRESS** **SAVE**

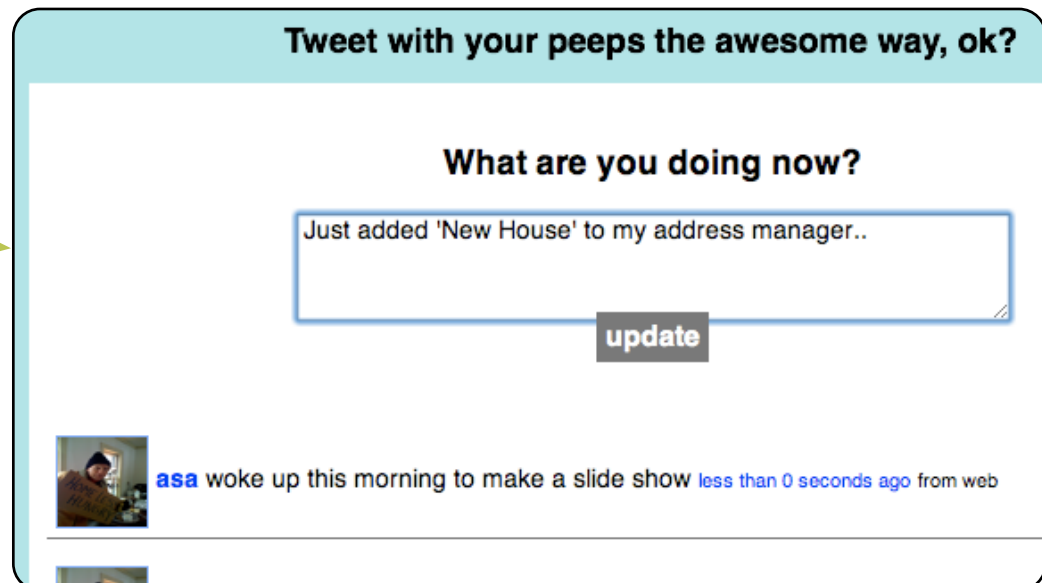
# being extremely hip, I want to tweet the demo



**dude-yll**  
Tweet with your peeps the awesome way,  
Log in:  
RED-ID | asa| Log In

I use RED-ID to log in to my home made twitter platform

and proceed to twit (I know it is tweet, but I like twit)



Tweet with your peeps the awesome way, ok?  
What are you doing now?  
Just added 'New House' to my address manager..  
update  
asa woke up this morning to make a slide show less than 0 seconds ago from web

# time to connect my telephone company



**ID-TELE**    

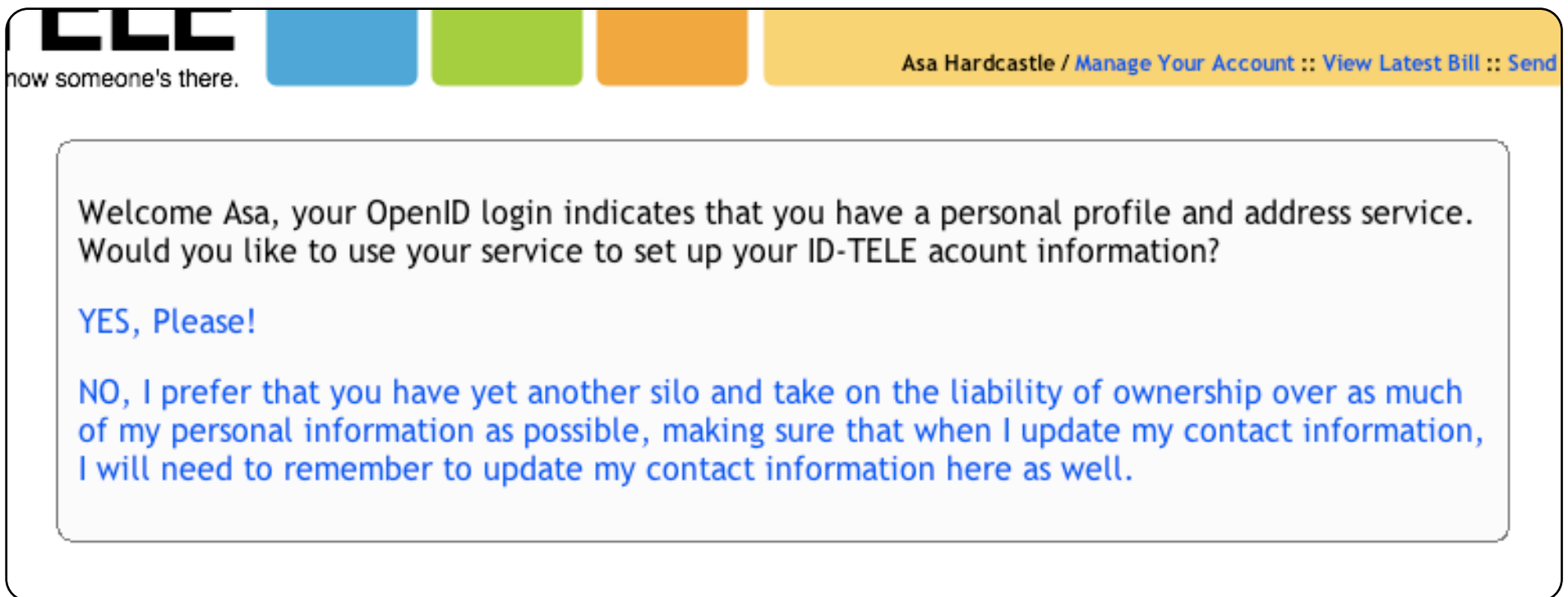
Hello, hello? I know someone's there.

Log in to your account:

First I log in using  
my RED-ID OP



# I've told ID-TELE that I have a profile service now it asks whether it can use it



ELL  
how someone's there.

Asa Hardcastle / [Manage Your Account](#) :: [View Latest Bill](#) :: [Send](#)

Welcome Asa, your OpenID login indicates that you have a personal profile and address service. Would you like to use your service to set up your ID-TELE account information?

[YES, Please!](#)

[NO, I prefer that you have yet another silo and take on the liability of ownership over as much of my personal information as possible, making sure that when I update my contact information, I will need to remember to update my contact information here as well.](#)

# I match my ID-TELE account, and then select an address stored by my address manager

Asa Hardcastle / Manage Your Account

number:

match

Select

Asa Hardcastle / Manage Your Account :: View Latest

Excellent! We found your service address in our database and have retrieved your address cards. Your 'HOME' address card matches what we have on record for your service address. Select your billing address card below:

|  |  |
|--|--|
| <b>51 Castle</b><br>51 Castle Street<br>Great Barrington, MA 01230<br>USA <a href="#">select</a> ↑ | <b>ZennWork</b><br>50 Castle Street<br>Great Barrington, MA 01230<br>USA <a href="#">select</a> ↑  |
| <b>Cali Hotel</b><br>232 El Camino<br>Mountain View, CA<br>USA <a href="#">select</a> ↑            | <b>New House</b><br>50 Castle Street<br>Great Barrington, MA 01230<br>USA <a href="#">select</a> ↑ |

## Oh cool, I can select to keep my address up to date automatically through a subscription

w someone's there.

Asa Hardcastle / [Manage Your Account](#) :: [View Latest Bill](#) :: [Sen](#)

We would like to set up a subscription to the address 'New House' so that we can automatically update our records in the event that you change your address. May we proceed to set up a subscription?

[Yes!](#)

[No thanks, this would be too useful.](#)


# Tweet.

**What are you doing now?**


this was easy

update


---

 **asa** completed the set up of ID-TELE [less than 0 seconds ago](#) from web

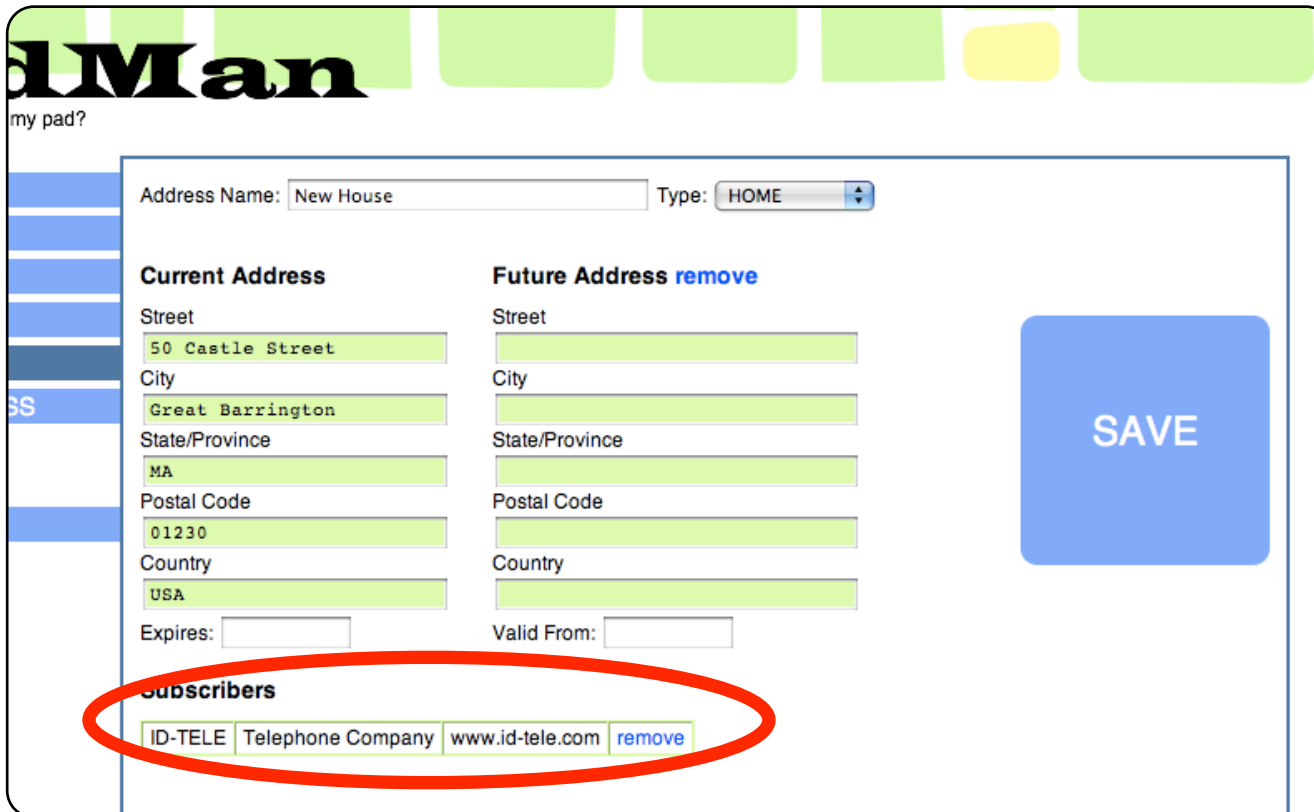
---

 **asa** Just added 'New House' to my address manager.. [less than 2 hours ago](#) from web

---

 **asa** woke up this morning to make a slide show [less than 3 hours ago](#) from web

Now I indicate that I will be changing my address



my pad?

Address Name:  Type:

| Current Address   | Future Address <a href="#">remove</a>  |
|---|--|
| Street<br><input type="text" value="50 Castle Street"/> | Street<br><input type="text"/>         |
| City<br><input type="text" value="Great Barrington"/>   | City<br><input type="text"/>           |
| State/Province<br><input type="text" value="MA"/>       | State/Province<br><input type="text"/> |
| Postal Code<br><input type="text" value="01230"/>       | Postal Code<br><input type="text"/>    |
| Country<br><input type="text" value="USA"/>             | Country<br><input type="text"/>        |
| Expires: <input type="text"/>                           | Valid From: <input type="text"/>       |

**Subscribers**

|                                      |  |  |                        |
|--------------------------------------|--|--|------------------------|
| <input type="text" value="ID-TELE"/> | <input type="text" value="Telephone Company"/> | <input type="text" value="www.id-tele.com"/> | <a href="#">remove</a> |
|--------------------------------------|--|--|------------------------|

**SAVE**

oh, nice, ID-TELE's subscription to this address is listed

**ID-TELE is notified of my new address and sends me an SMS to ask: "You've told us you're moving Wanna make sure that you don't lose a minute of Internet or phone service? "**



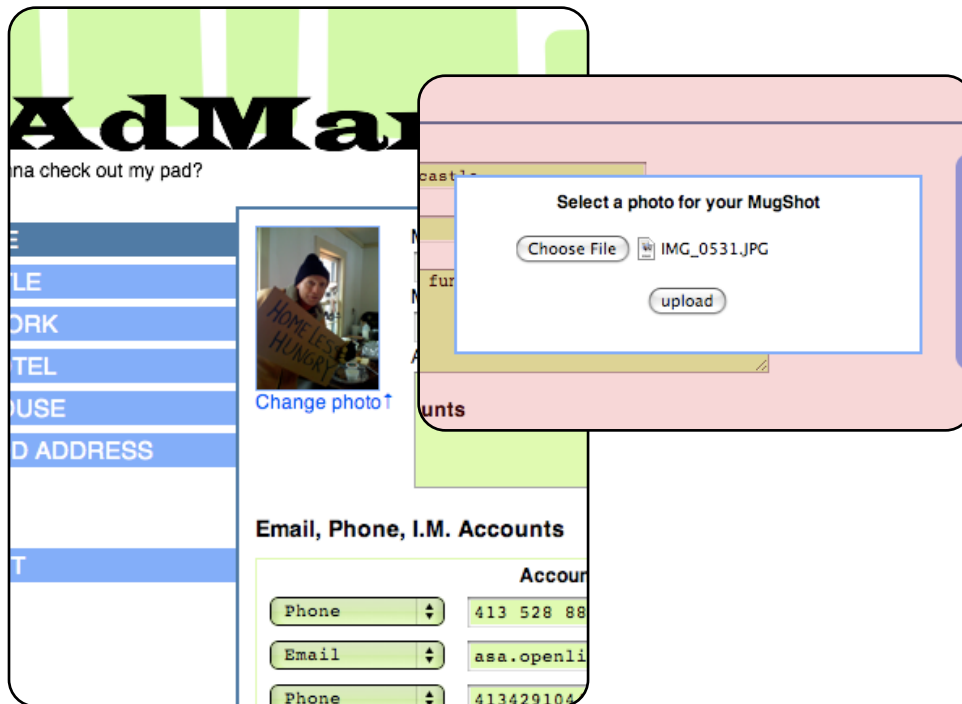
**One second, I need to tweet this.**

**What are you doing now?**

ID-TELE loves me.

update

# Now, I want to change my photo...



... much better.



## Now my tweets have my new photo



**asa** completed the set up of ID-TELE [less than 6 minutes ago](#) from web



**asa** Just added 'New House' to my address manager.. [less than 2 hours ago](#) from web



**asa** woke up this morning to make a slide show [less than 3 hours ago](#) from web

## How did this happen?

**1. Used OpenId to log in to PAdMan** - using code that wraps sxip's OpenID for Java, I wrapped PAdMan as an RP and RED-ID as an OP. When PAdMan requests login it indicates to RED-ID that it needs an endpoint reference to an ID-WSF Personal Profile Service. RED-ID allows this (assume that the user gave permission previously) and passes an endpoint reference to PAdMan. PAdMan pulls the profile and addresses from an ID-WSF backend. OpenLiberty is used as the client for ID-WSF and Conor Cahill's Open Source Server Toolkit fulfills the requests.

**2. PAdMan saves profile data** - after making changes to the address and profile, the user clicks save, which triggers PAdMan to save the object model to the ID-WSF layer (OpenLiberty / Conor's Server)

## How did this happen? (part 2)

**3. Used OpenId to log in and tweet** - my roll-your-own twitter imitation allows me to use RED-ID to login. It asks RED-ID for name and mugshot. RED-ID connects to the user's ID-WSF Personal Profile Service (as PAdMan does in step 1) and retrieves these attributes, passing them back using the OpenID attribute extension. My twitter imitation knows nothing about ID-WSF but has benefitted.

**4. Now I connect ID-TELE** - I log in with my OpenID for the first time to ID-TELE. I find and connect my account. ID-TELE has asked RED-ID whether or not I have a personal profile service. RED-ID says "yes" as I have instructed it to do in situations like this. ID-TELE asks whether it can pull address info from my profile, and whether it can keep up to date by subscribing to my address. I say, no problem. My preference is saved as a Subscription to my address in my personal profile service.

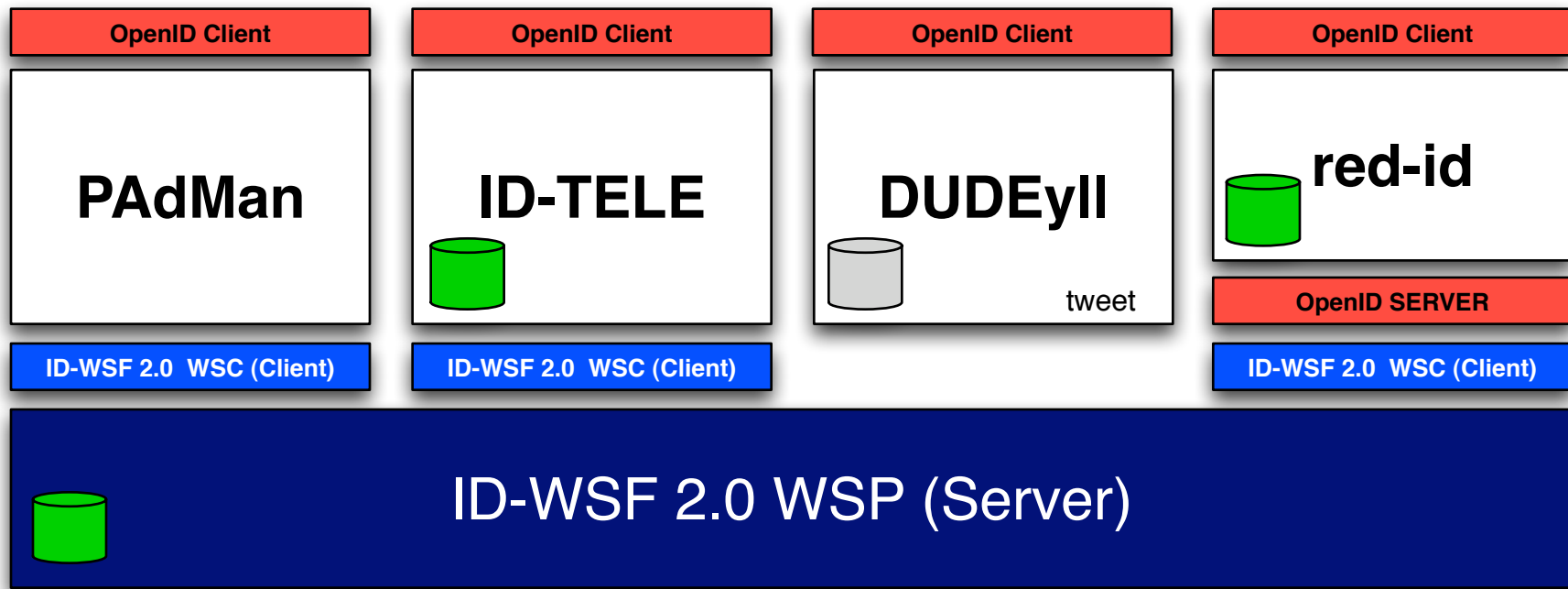
## How did this happen? (part 3)




**5. I'm moving, so I add a future address to my profile** - PAdMan saves my changes to ID-WSF and because ID-TELE has a subscription to the address that I have changed, a notification is sent to ID-TELE.



**6. ID-TELE send me an SMS** - ID-TELE asks me whether I want to start the process of setting up my phone service at my new place, so I don't need to skip a beat.

**7. I change my photo - my twitter photo changes** - PAdMan allows me to make the change and save it to my ID-WSF environment. Although my twitter imitation has no ID-WSF ability, RED-ID does, and when I next log in to tweet, my new mugshot is pushed through the SSO response from RED-ID as an OpenID attribute.

# Technology Layers (100% Open Source Identity)



-  sxip OpenID for Java
-  OpenLiberty ID-WSF Client Library
-  Conor Cahill's ID-WSF Server Toolkit

-  stored profile data
-  cached profile data



 **For more information or if you have any questions:**

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