# Sakai and uPortal Integration Options

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# **Agenda**

- Single Sign On
- MyCourses Portlet Strategies
- Alternative Integration Strategies

# Single Sign On (SSO)

- Single Sign On Server
- SSO-enabled applications
- Standards
  - SAML
- Implementations
  - Shibboleth
  - CAS
  - Others

#### **Shibboleth**

- Open Source (Apache 2 license)
- Version 2 released March 19, 2008
  - Previous non-security patch release in 2006
- Adopted by several Higher Ed institutions and organizations (e.g., JISC, USC)
- Incorporates SAML
- http://shibboleth.internet2.edu/

#### Shibboleth in Sakai and uPortal

#### Sakai

- Shibboleth integration done by UHI
  - http://www.guanxi.uhi.ac.uk/drguanxi/index.php/Sakai\_G uanxi\_Shibb\_Kit

#### uPortal

- Shibboleth integration done by select schools
  - University of Southern California
  - JISC/SPIE

#### CAS

- Open Source (BSD License)
- Version 3.2 released February 2008
  - Previous release 3.1.1 October 2007
- Originally created by Yale, now a JA-SIG project
  - Lead developer, Scott Battaglia, Rutgers University
- Supports Proxy CAS authentication
- http://www.ja-sig.org/products/cas/

#### CAS in Sakai and uPortal

- Sakai
  - CAS integration done, part of standard distribution
- uPortal
  - CAS integration done, part of standard distribution

#### **Person Information**

- How do you make the same information about a Person available in both Sakai and uPortal?
- LDAP (or equivalent)
- uPortal
  - Person Directory implementation
- Sakai
  - User Directory Provider implementation

# **My Courses Portlet**

- After (or before) enabling SSO
- Create a Portlet running in uPortal that displays a user's list of current Sakai Courses
- If SSO is enabled, Course list can be deep links to that Worksite in Sakai
- Different approaches to getting this list of courses to appear in uPortal

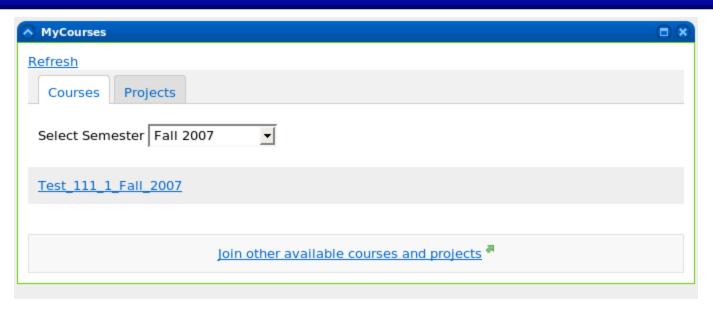
# **My Course Portlet Strategies**

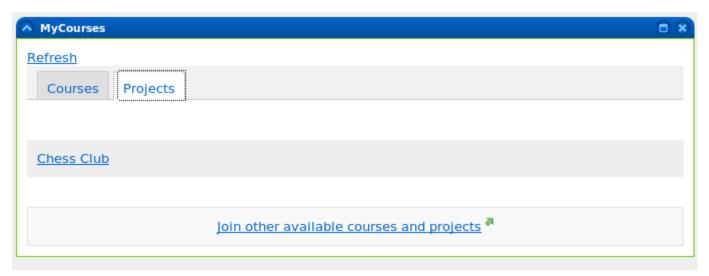
- Web Services
- RESTful Architecture
- IFRAME
- WSRP
- Direct Database Access

#### Web Services

- uPortal Portlet using Web Services to get Sakai data
- Sakai .jws files
- Custom Web Services
- sakai-dev mailing list discussion about creating a Sakai standard web service for querying a users list of courses
- Unicon MyCourses Portlet
  - http://code.google.com/p/my-courses-portlet/
  - Uses Web Services to get Course Information
  - Web Services implementations not currently available

# **Unicon My Courses Portlet**





#### **REST Services**

- uPortal Portlet using REST Services to get Sakai data
- Entity Broker
- MySakai
  - JSON approach
- Custom REST Services
  - Yale has taken this approach
    - Proxy CAS Protected Servlet in Sakai serving XML Course List
    - uPortal XSLT Channel

# **Yale My Classes Channel**



#### **IFRAME**

- Use an IFRAME Channel
- Attach to a tool without connecting to main Sakai Portal
- Virginia Tech tried an IFRAME approach
  - Not recommended

#### **WSRP**

- Web Services for Remote Portlets
- Not much progress with WSRP4J project
- uPortal support is often not working from release to release (not supported in uPortal 3.0)
- Not used by anyone in the uPortal or Sakai communities

# **Direct Database Access**

Just say No!



# **Alternative Integration Strategies**

- Data beyond then the course list Portlet
- Recent Activity Portlet
- Gadgets, Widgets and non-uPortal Integration

# **Digging Deeper**

- Follow the same Web Services / REST approach for course data to get at Announcements and other data
- uPortal Columbia Announcements Channel supports reading announcements from an external source (proprietary feed format)
  - Convert Sakai iCal data feed to Announcements Channel feed
- Sakai now supports using Java Content Repository (JSR 170)
  - Possible to create a JSR 170 Portlet to access the same data

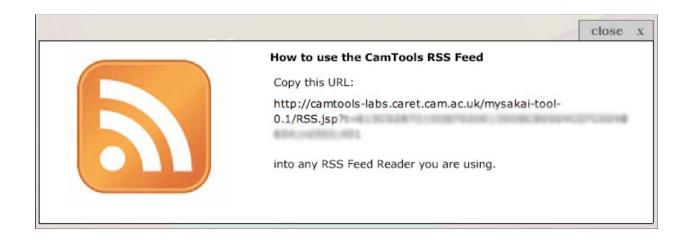
# My Sakai

- Widgets show you recent activity on all of the worksites you're a member of
- Widgets also provide synoptic views of Resources and Announcements
- Widgets for Mac DashBoard, Vista Sidebar,
  Facebook, iGoogle, Google Desktop, and RSS
- Global search lets you search the entire Sakai instance, without having to go to a search tool

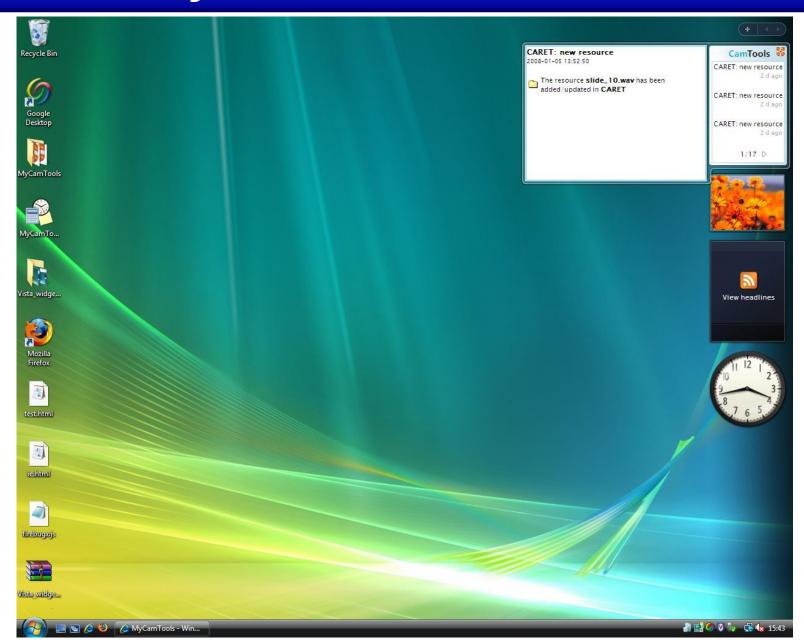
# **Installing My Sakai**

- Install sdata non-interactive tool into Sakai
- Create app to handle JSON REST feeds
- Create server to convert JSON feeds to other formats (iGoogle, Facebook, etc)
- Security considerations
  - Do not allow external non-trusted systems to access JSON streams directly
  - Security Token enabled URLs
  - Proxy CAS

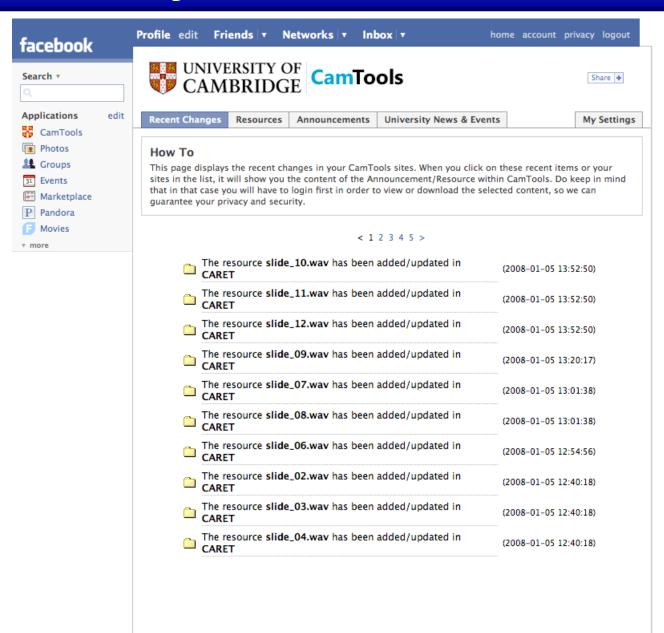
# **Security Token URL**



# My Sakai Vista Dashboard



# My Sakai Facebook



# My Sakai iGoogle



Please re-enter your password to see your information.

## My Sakai

- Considered Contrib and in development
- Developed by CARET (University of Cambridge)
- http://confluence.sakaiproject.org/confluence/x/7wCW

#### **CANS**

- http://www.cansaware.com/
- Chris Amelung, University of Missouri (now at Yale Summer '06)
- CANS is a notification system for online communities
- Server / Widget development pattern
- Activity Manager/Reporter/Permissions
  - http://www.cansaware.com/node/43

#### **Other Conference Sessions**

- Monday 2-3pm Portal-LMS Integration BOF
- Tuesday 2-3pm Shibboleth 2.0: An Overview for Developers
- Tuesday 3:30-4:30pm CAS-NG: Adding Access Control to CAS
- Wednesday 8:30-9:30am Functionality Mashup –
   Evolving to the Next Generation of Learning Management
   Systems
- Wednesday 9:45-10:45am Implementing Sakai and CAS

## **Questions?**

