



Australian Research Collaboration Service

providing national collaborative data stores
supporting cloud computing
facilitating seamless authentication
enabling collaboration and interoperability

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Connecting Applications - Plone as a Tool for Connectivity to other Resources

David Breitzkreutz, Russell Sim

What is Plone?

- Platform for delivering content centric collaboration.
- Enterprise level CMS
 - Fine grained ACLs
 - Content workflow
- Extremely Customisable
 - Enforces best practice
 - Based on Zope technologies

Google Integration

- Tool for the job
 - GData API
 - Requires us to handle Oauth
 - Requires us to handle all data on behalf of the user
 - IFrame
 - Google handles auth
 - Google handles data

My Google Mail		My Google Docs																												
20 new messages Updated: Jul 10, 2009		<table border="1"> <thead> <tr> <th></th> <th>Name</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td>asdf</td> <td>Mar 26, 2009</td> </tr> <tr> <td></td> <td>arcs product catalogue aa08 help desk contacts</td> <td>Apr 29, 2009</td> </tr> <tr> <td></td> <td>Access Grid Roadmap</td> <td>Jun 29, 2009</td> </tr> <tr> <td></td> <td>ABIN Contacts</td> <td>Mar 04, 2009</td> </tr> <tr> <td></td> <td>asdfsad</td> <td>Mar 26, 2009</td> </tr> <tr> <td></td> <td>Camtasia Tips and Tricks</td> <td>Feb 26, 2009</td> </tr> <tr> <td></td> <td>Access Grid Support, Facilities and E...</td> <td>Jul 08, 2009</td> </tr> <tr> <td></td> <td>[Draft]EVO Help Desk Support</td> <td>May 21, 2009</td> </tr> </tbody> </table>			Name			asdf	Mar 26, 2009		arcs product catalogue aa08 help desk contacts	Apr 29, 2009		Access Grid Roadmap	Jun 29, 2009		ABIN Contacts	Mar 04, 2009		asdfsad	Mar 26, 2009		Camtasia Tips and Tricks	Feb 26, 2009		Access Grid Support, Facilities and E...	Jul 08, 2009		[Draft]EVO Help Desk Support	May 21, 2009
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Create ▾ More »																														



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IRODS Intergration

- Why integrate with the Data Fabric
 - ARCS Data Cloud
- Research is data centric
 - Collaboration is also Data centric




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Davis

- Shibboleth(AAF) Protected
- Interfaces
 - WebDAV
 - HTTP
- Don't repeat yourself

You are logged in as < russell.sim >



You are browsing:
ARCS > home > russell.sim

[Upload File](#) [Create Directory](#)

File/Directory Name	Last Modified	Size	Select	
.. Parent Directory				
GSI.ppt	Mon, 20 Oct 2009 03:37:39 GMT	162K	<input type="checkbox"/>	Rename
plone roles.odt	Thu, 29 Oct 2009 05:44:39 GMT	11K	<input type="checkbox"/>	Move
test	Thu, 29 Oct 2009 05:56:08 GMT		<input type="checkbox"/>	Rename
				Delete



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TinyMCE coming to Plone

- Plone 4 default editor is TinyMCE
- TinyMCE Plugin
 - Integrated browser



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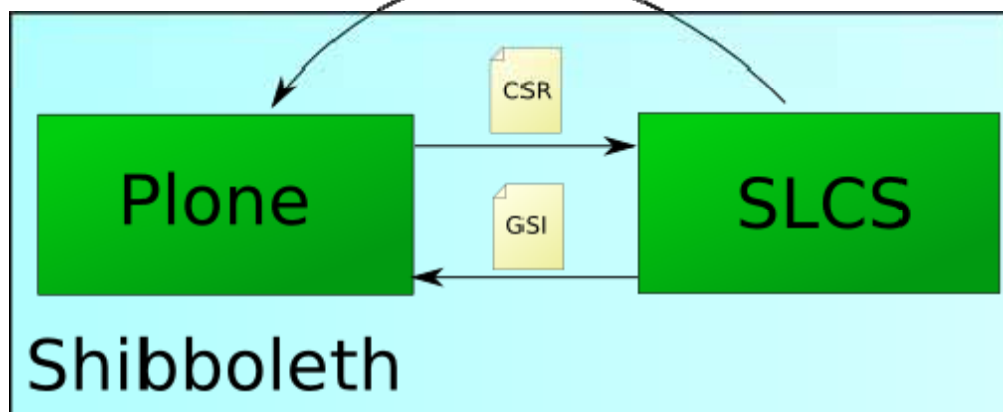
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Authentication Stack

User Passes his own identity information from SLCS to Plone.



- SSO Domain
- User allows Plone to generate GSI.



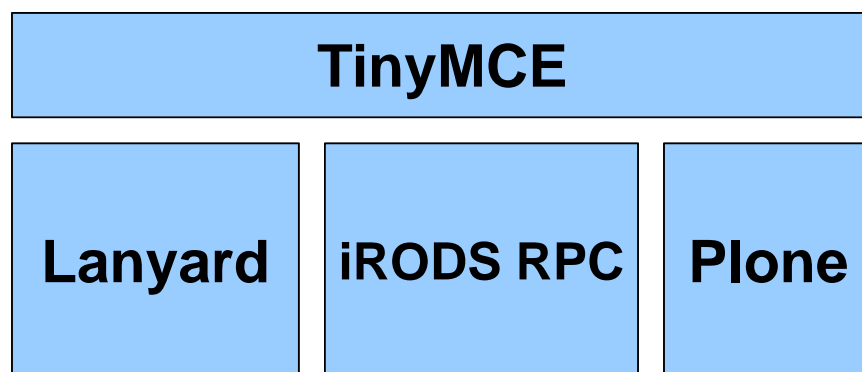
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Architecture

- Loosely coupled
 - Lanyard (WSGI Credential store)
 - iRODS RPC, JSON-RPC interface to iRODS



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Technical Challenges

- Python API (pyrods)
 - Binds onto iRODS C library
 - GSI Authentication
 - Memory Leak

New Python API for iRODS (txiRODS)

- GSI Authentication from a buffer
- Limited API, enough for now though
- Twisted

IRODS RPC

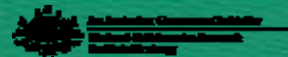
- Asynchronous JSON RPC Service
 - Built on Twisted
 - JSON-RPC 1.0
 - Currently slow ~250ms
 - No Connection Pooling Yet

Integrating Websites

- An now for something completely different.
- Separating the view layer form the data layer.



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Deliverance

Apache

Deliverance

Service



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Integrated Look And Feel

- Deliverance
 - WSGI / Proxy
 - XSLT like Transforms
 - Add extra CSS/Javascript
 - No server modifications required
- collective.xvd
 - Compiles to XSLT
 - Can use mod_xslt



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