

OSC Client Portal Project

- Motivation:
 - Existing Tools / Processes
 - Known Client Requirements
- Project Plan:
 - Workflows / Mockups
 - Key Changes

My Page - Ohio Supercomputer Center

http://ohiosuperusers.ning.com/profile/ianMacConnell

Most Visited - Getting Started - Latest Headlines - YouTube - Flight Of ... designfeedr | Feedin... Novell WebAccess (I... Clintonville Vandals ... http://order.land1.c... Promotional

My Page - Ohio Supercomputer... 401 Authorization Required

Remember this password? Remember Never for This Site

Ohio Supercomputer Center

Empowering Ohio's Research Community

Ohio Supercomputer Center

Main Invite My Page Members Forum Events Groups Blogs Notes FAQ Chat My Storage Manage

Welcome, Ian MacConnell!

What brings you here? Update

Project 937438

Resource Unit Utilization over the last 30 Days [View Detailed Usage](#)

Minimum/day: 0.0000, Average/day: 0.0000, Maximum/day: 0.0000
Total RUs over time period: 0.0000

Ian MacConnell
Manage My Page or Photo

Manage My Profile

Select A Project

Request Resource Units

Manage OSC Accounts

1357/5000 Units Remaining

Blog Posts
Discussions
Events (1)
Groups
Videos

Admin Options

★ Feature

Reset Profile Photo

My Events [Edit](#)

The X10 Language and Tools for Advanced HPC Programming Workshop
August 10, 2010 from 9:15am to 5pm - Ohio Supercomputer Center - BALE Theater

My Publications [Add Publications](#)

1. Kelley, H, MacConnell, I, and Abel: "An Analysis of Identity Links on the ARMSTRONG Portal". Next Steps, Wood, D, Decker, S, and MacConnell, I (Eds.), Columbus, OH (2010). [An online version is also available for download.](#)

2. Berrueta, D, Labra, JE, and MacConnell, I: "XSLT+SPARQL: Scripting the ARMSTRONG Portal with SPARQL embedded into XSLT stylesheets". In: 4th Workshop on Scripting for the ARMSTRONG Portal, Bizer, C, Auer, S, Grimmes, GA, and Heath, T (Eds.), Tenerife (2008). [An online version is also available for download.](#)

Ian MacConnell

Sign Out

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Alerts

Friends - Invite

Settings

Quick Add...

Events

The X10 Language and Tools for Advanced HPC Programming Workshop
August 10, 2010 from 9:15am to 5pm - Ohio Supercomputer Center - BALE Theater

+ Add an Event View All

OSC News & Info

OSC Supercomputing System Notices
Information on system downtimes, upcoming workshops and software installations.

OSC's Calendar of Events
Here you can see a listing of all our upcoming events, workshops and training sessions.

Ohio Supercomputer Center deploys IBM system expansion to boost research into biosciences, other areas of focus
The Ohio Supercomputer Center today deploys a much anticipated \$4 million expansion to its flagship system, providing further computational support to the state's economic development aspirations in research and innovation.

More...

Research Grant Opportunities
Research Grant Opportunity - Early

Key Motivation



**26 Ohio-based
universities**



41 companies



1,358 clients



218 trainees

- Transition of AweSim services from external partners
- Challenges providing usage / billing reports to existing clients
- 30 years of organic development and growth of existing tools / processes
- Expansion of the client base

Existing Tools / Processes: Getting an Account



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[Submit an Application](#)

Select the type of application.

Instructions:

Startup projects are available to [eligible](#) new researchers. They include login accounts on all of OSC's high-performance computers and 5000 [resource units](#).

Fill out each of the 3 sections in sequence by clicking on the links to the right and following the instructions there. When you have finished with a section, most browsers will display a check mark beside it, indicating that it is done.

If you want to go back and make additions or corrections to data already entered, just click on the link to that section.

Once you have completed all the sections, you will have the option of submitting your application. To do so, just click on the "Submit application" button. Note that this button will not be visible until all other sections are complete.

[Glossary of Terms](#)

- | | |
|--------------------------|--|
| <input type="checkbox"/> | 1 Primary Contact Information
To request a project, you must be a faculty member or research scientist who maintains a full-time position at an Ohio academic institution. |
| <input type="checkbox"/> | 2 Authorized User Information
Here is where you specify additional researchers or students to add to your project. |
| <input type="checkbox"/> | 3 Upload Files
Upload files containing additional information about your project. |



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Sign Up

Already have an account? Please [log in](#).

Personal Information

First name

Last name

Email

Title

Citizenship

☐ US Citizen

☐ Non-US Citizen

Company Information

Company

Address

Phone number

- Academic vs. non-academic processes
- Inconsistent instructions and inputs

Existing Tools / Processes: Account Status



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Welcome to the Ohio Supercomputer Center
HPC User Portal, My OSC!

My OSC Login

OSC ID

Password

Login

[Forgot your password?](#)

- Minimal web-based info
- Difficult to extract / parse data

OSCusage



Introduction

OSCusage is command developed at OSC for use on OSC's systems. It allows for a user to see information on their project's current RU balance, including which users and jobs incurred what charges.

Availability

OAKLEY	RUBY	OWENS
X	X	X

Usage

OSCusage takes the following options and parameters.

```
usage: OSCusage [-qvn] [-r|h] [MM/DD/YYYY] [MM/DD/YYYY]
        or [-i]
```



Note: the year requires all 4 digits.

i OSCusage can only provide information on a user's primary project, visible with the command `id -gn`. If you are a part of other projects, visible under `id -Gn`, you will be unable to pull information on those projects. Contact OSC Help for assistance in getting such information.

Existing Tools / Processes: Behind the Scenes













record 0 of 0 **FIND** This line displays information about each field on this form. admins

General Login ID Information

Username: Contact ID:  Project: 

Numeric UID: Numeric GID: Status: Co-PI:

Notes: Hosts: (none)

- Database / code is decades old
- Difficult to make changes / updates
- Unable to expose reports directly to clients

Jobs by user

Job info by

- Job id
- User
- Group
- Account
- Node

Job stats by

- CPU Count
- Node Count
- Job Class
- Job Length
- Institution
- Account
- Group
- User
- Quarter
- Month
- Week
- All

Software package

usage by

- System
- Job Class
- Job Length
- Institution
- Account
- Group
- User
- Quarter
- Month
- Week

Software packages

used by

- User
- Group
- Account

Miscellaneous

reports

- Usage Summary
- Job List
- Most Active Users
- Most Active Groups
- Most Active Accounts
- Unmatched Jobs
- Error Correlator

User:

System:

Start date: (YYYY-MM-DD)

End date: (YYYY-MM-DD)

Date Logic:

Properties:

- ☐ groupname
- ☐ account
- ☐ jobname
- ☐ nproc
- ☐ mppe
- ☐ mppssp
- ☐ nodes
- ☐ feature
- ☐ gres
- ☐ queue
- ☐ qos
- ☐ submit_ts
- ☐ start_ts
- ☐ end_ts
- ☐ cput_req
- ☐ cput
- ☐ walltime_req
- ☐ walltime
- ☐ mem_req
- ☐ mem_kb
- ☐ vmem_req
- ☐ vmem_kb
- ☐ energy
- ☐ software
- ☐ submithost
- ☐ hostlist
- ☐ exit_status
- ☐ script
- ☐ sw_app
- ☐ Select All

Known Client Requirements

- Self-service for account creation / maintenance
- Ability to generate reports on usage
- Shorter turn-around time on help and service requests
- Maintain existing channels to access OSC systems

Area	#	Business Requirements	Process Flow
General	GN -1	Future-state design allows the registration of a client who can access the Client Portal information. In order to access HPC and associated applications, a client must have security to be on the HPC system. Thus, two LDAP servers need to be maintained to permit access to the client portal without HPC access and a second which holds the HPC access connectivity requirements.	
	GN -2	A client should be able to create and publish HPC software applications if they agree to the requisite T&Cs.	UM2009b - Create & Publish Apps
	GN-3	Workshop attendees should have very limited access to Client Portal functionality. They should only be able to login and access the workspace.	UM2007 - Enter a Workshop
	GN -4	Major and Discovery project applications require peer reviews. Reviewers should have access to a specific "reviewer" form and not be permitted to log into the Client Portal. Reviewers may or may not be registered HPC clients.	UM2007a - Enter as a Reviewer
	GN -5	Once a Reviewer completes their review form, they should not be permitted to re-access the form. This is a one-time review process.	UM2007a - Enter as a Reviewer
	GN -6	The system must ensure the Reviewer can only create a review for the project they to which they were associated.	UM2007a - Enter as a Reviewer
	GN -7	The OSC Administrative Specialist requires access to update Service Agreements, Client Profiles, Project information and Software Application assignment.	
	GN -8	The OSC Administrative Specialist must be able to maintain a specific listing of available HPC software applications and various licensing and eligibility criteria associated with each.	UM2009c - Maintain HPC Applications
	GN -9	System must link to the OSC ondemand or AweSim dashboard workspace from within the client portal	UM2008 - Enter Project Workspace
	GN-10	System should provide an area where HPC software applications can be displayed by name and image, like the App Store.	
	GN-11	General Configurational email address - we would like the option to add from email address (default would be noreply@osc.edu). This functionality is needed for peer review process.	
	GN-12	Use standard OH-TECH actions and roles API for user permissions within the GUI application	

Timeline

- External consultant documented existing processes / tools and developed desired workflows / requirements (Oct – Dec 2016)
- Obtained quotes from external developers / existing similar software providers (Jan – Feb 2017)
- Selected a vender and started Controlling Board approval process (Mar 2017)
- Internal work on schema, conversion, mockups (Mar -Apr 2017)
- External developer work (May – Oct 2017)
- Portal in production by end of Oct 2017

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Process Analysis and Recommendations for HPC support services, user services database, and on-line HPC access

Current-State and Future-State Process Flows and Business Process Definitions

December 29, 2016

Competitive Analysis

The screenshot shows the Adaptive Computing Viewpoint website. The header includes the Adaptive Computing logo and navigation links: Products, Solutions, Partners, Services, Support, and Company. A 'Log in | Register' link is in the top right. The main banner features a hand holding a pen with the word 'productivity' written on it. Below the banner, there's a 'VIEWPOINT' section and a 'CONTACT ADAPTIVE COMPUTING' section with links for E-mail, Call, and Request Demo/Eval. An 'EXPLORE' section lists various products like Moab HPC Suite, Moab Lite, Accounting, Nitro High Throughput, and Viewpoint. A 'REQUEST DEMO' button is prominently displayed at the bottom.

The screenshot shows the Rescale Cloud HPC Simulation Platform website. The header includes the Rescale logo and navigation links: SOLUTIONS, PLATFORM, PRICING, SOFTWARE, RESOURCES, COMMUNITY, and PARTNERS. A 'Free Trial' and 'Log In' button are in the top right. The main banner features a globe with the text 'Cloud HPC Simulation Platform' and a description: 'Rescale is the leading turn-key platform for running high performance computing and simulations in the enterprise. From engineering design to scientific computing and machine learning – scalable, secure, and on-demand HPC to deliver better results faster.' Below the banner, there are three sections: 'White Paper' (Cloud 3.0: The Rise of Big Compute), 'On-Demand Webinar' (Hybrid cloud solutions: The path to integrating on-premise HPC with complementary cloud HPC), and 'Case Study' (Supersonic Simulations in the Cloud: Spike Aerospace Migrates All CFD to the Cloud). Each section has a 'Download' or 'Watch' button.

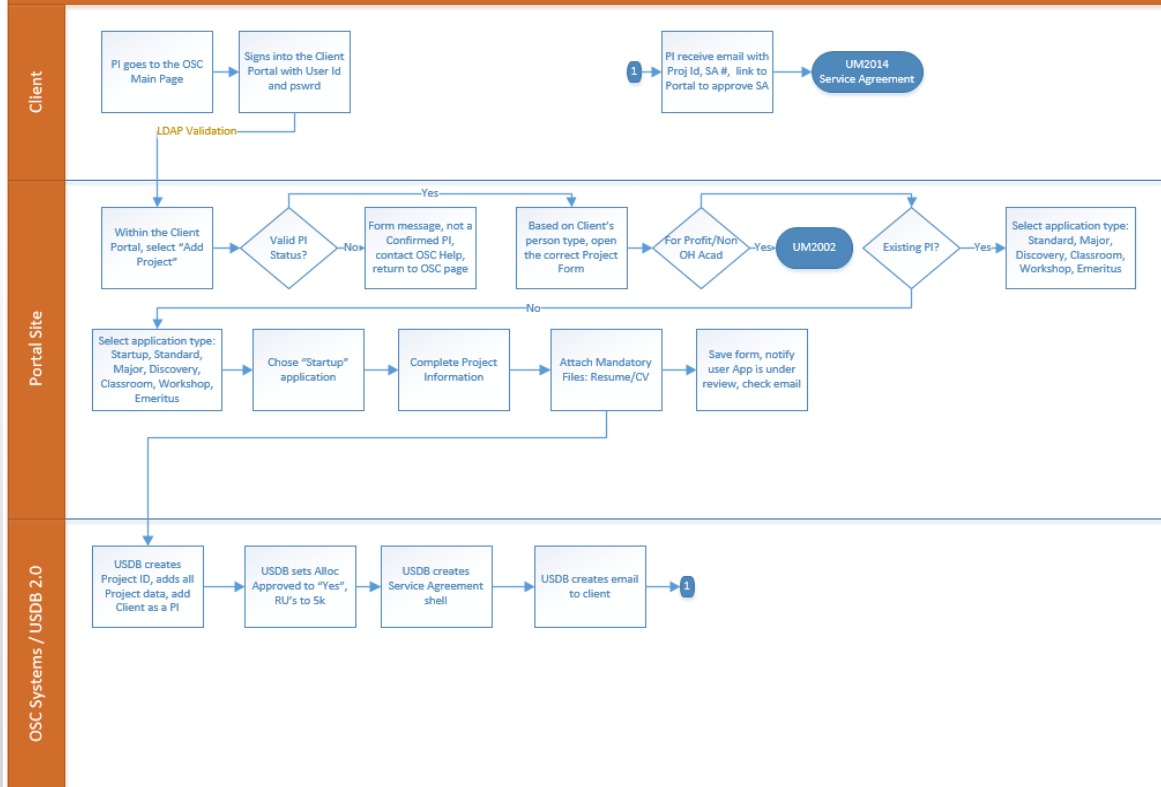
The screenshot shows the XSEDE User Portal website. The header includes the XSEDE logo and navigation links: MY XSEDE, RESOURCES, DOCUMENTATION, ALLOCATIONS, TRAINING, USER FORUMS, HELP, ECSS, and ABOUT. A 'SIGN IN' button is in the top right. The main banner features a globe with the text 'XSEDE USER PORTAL ON THE GO' and images of mobile devices. Below the banner, there's a 'Get Started on XSEDE' section with 'Sign in' and 'Create Account' buttons. A 'Quick Links' section lists various services like System Monitor, Allocations, User News, Software Search, Documentation, Training, Help Desk, ECSS, User Forums, and Science Gateways. An 'Access on the Go' section shows links to the App Store and Google Play. A 'Connect to us with' section shows social media icons. The 'In the Past 7 Days' section features a pie chart titled 'ID Site Charged Total by Field of Science' and a bar chart. A 'New to XSEDE?' section is also present. The 'XSEDE Compute Resources' section shows a table of resources with columns for Name, Status, Load, and Jobs.

Name	Status	Load	Jobs
Stampede UT Austin	Healthy	97%	R: 0 Q: 1851 O: 101
Comet SDSC	Healthy	91%	R: 1401 Q: 4952 O: 15
XStream Stanford U	Healthy	73%	R: 159 Q: 83 O: 206

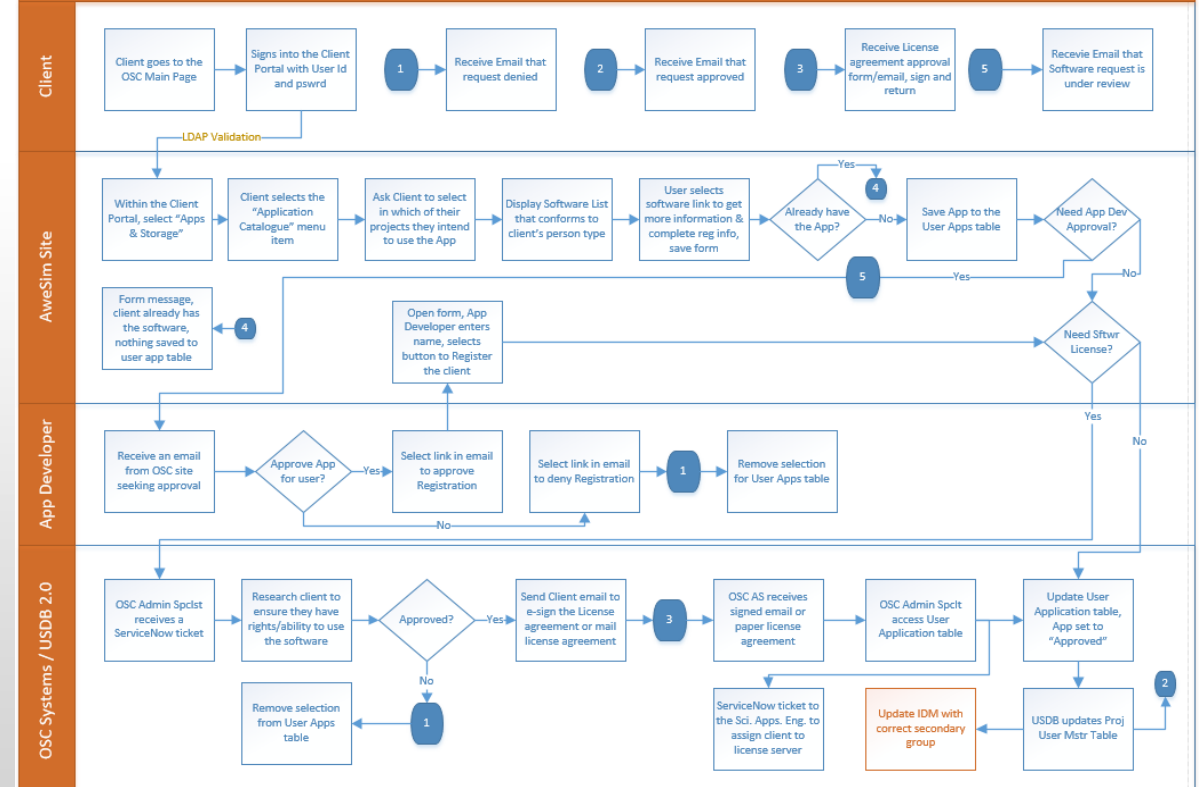
- Other HPC Centers
- Cloud Providers
- Commercial-off-the-shelf Solutions

Workflows

Future State: UM2005 Submit Application (Startup) - Academic



Future State: UM2009a – Registering for an Application



- Show desired interactions between client, website, and database
- ~2 dozen documented processes
- Will provide business requirements for developers

Mockups

New Project Exit Save and Continue

Project Name * Effective Date * / / Default to today

Abstract *

Project Type *

Field of Science *

Master Service Agreement #

(?) Popups for each field

Select Project Type:

- Startup
- Classroom
- Workshop
- Standard/Major/Discovery
- Emeritus
- Annual Allocation

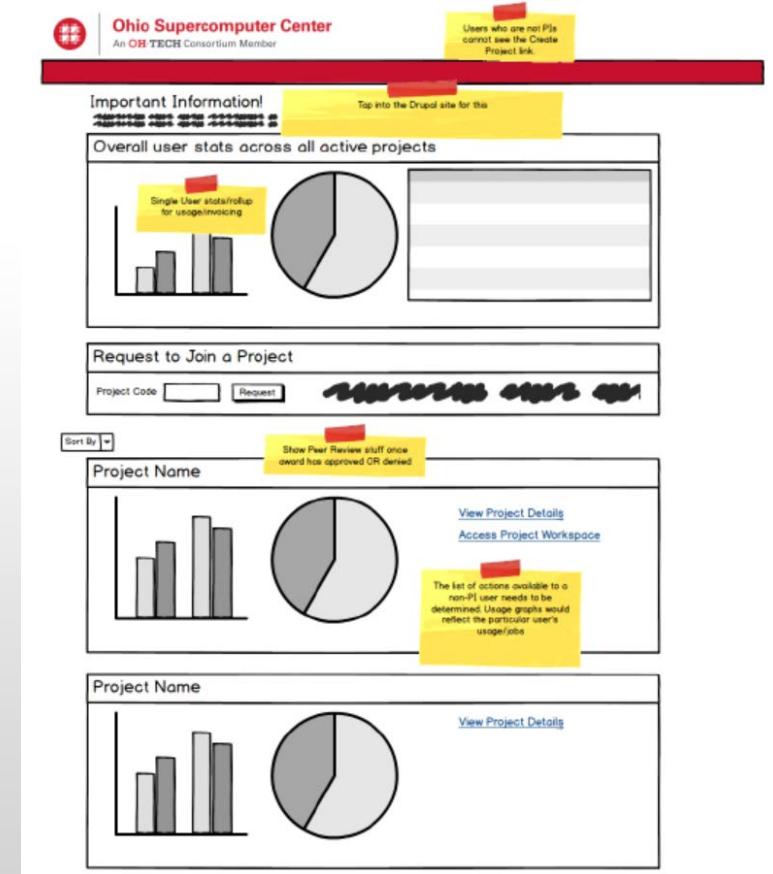
Dropdown changes based on PI's existing projects:

- Startup, Classroom, Workshop if user hasn't created any project or if the user has only classroom and/or workshop
- Emeritus users see only emeritus, classroom, workshop
- Annual Allocation only appears during allocation application window for invited PIs

ONLY ONE STARTUP IN PROCESS

The dropdown includes an Other/My field is not shown

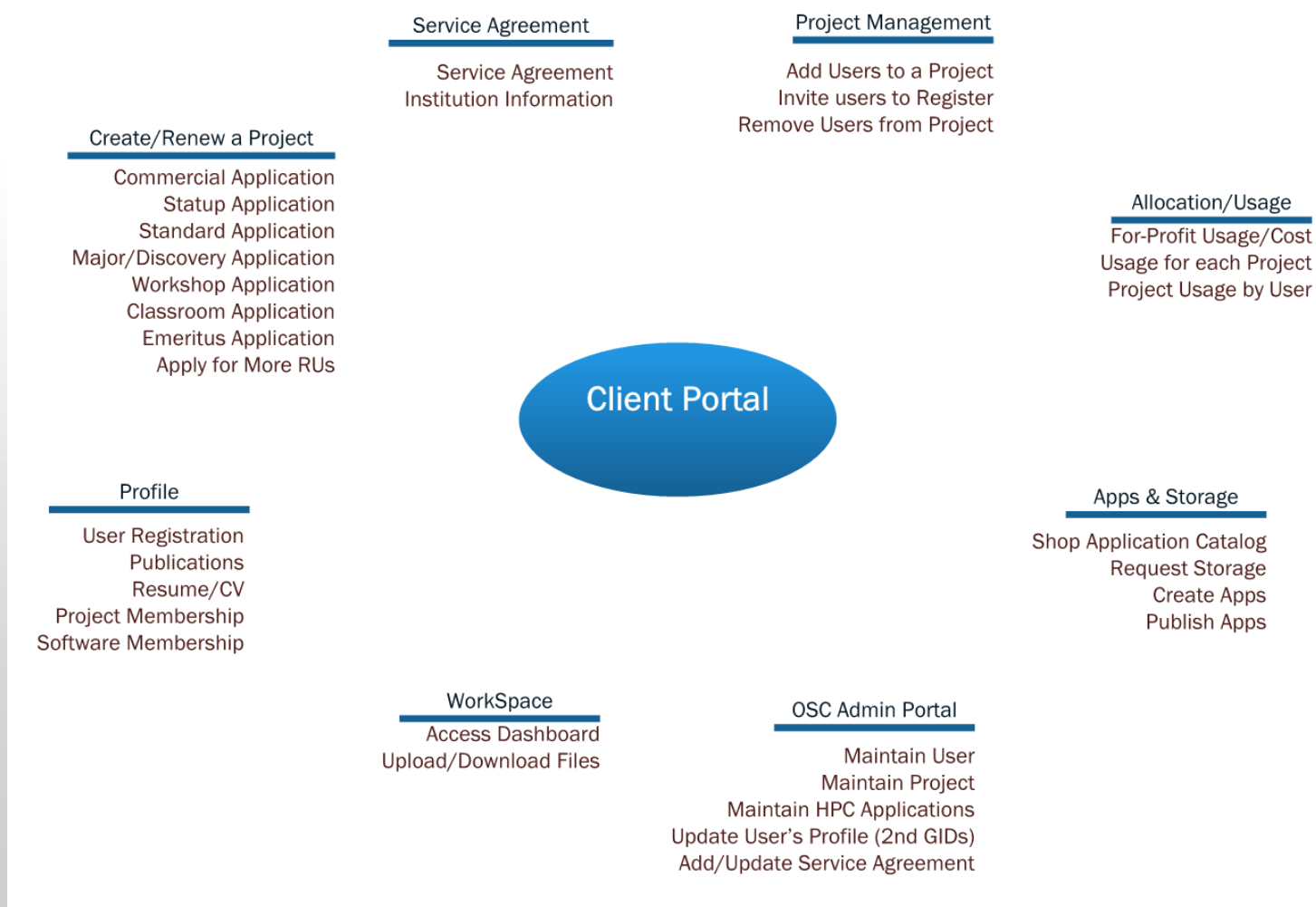
Reuse this page to edit an inprogress project or to request a renewal



- Show desired function, not form, to developers
- ~40 different screens
- Will be built in Oracle APEX and leverage modern UI designs and tools

Key Changes

- All clients (academic and non-academic) will utilize same basic tools / processes
- Clients will have only 1 login account (but can have multiple projects)
- Portal will interface with OSC's Service Now ticketing system
- Many service requests will be able to be completed automatically and electronically
- Extensive client self-service reporting capabilities
- More robust contractual / agreement processes



What would you like in a client portal?



- OSC is looking for feedback from existing clients on desired features / processes that will make it easier to utilize OSC resources
- We can schedule meetings to provide deep dive info on workflows / mockups
- We'll be around the rest of the afternoon to provide more info