Shibboleth Futures:
Results of Online Consultation

1. Overview

The Shibboleth Futures questionnaire was released on xxx as the first opportunity for the Shibboleth stakeholder community to comment on the future of the Shibboleth software. It was promoted to relevant groups internationally and the survey was open for 6 weeks to enable time for consultation and organizational coordination.

The questionnaire was divided in to the following sections:

- Background information: to elicit as much information as possible about the stakeholders involved in the consultation.
- Future requirements for the development of the code. This was to provide evidence that there was clear support for the continued development of Shibboleth.
- Funding models: to elicit information about the preferred structure for future funding models.
- Future structure: to elicit commentary on the structure Shibboleth should consider for its future.
- Commentary – general comments on stakeholder interaction with the Shibboleth project.

In total 122 responses were received, which is an excellent response rate for an online survey. This report presents an analysis of the findings from the report with a set of key messages for the Shibboleth Consortium and a series of recommendations for practical steps moving forward.

2. Background Information

2.1 Individual vs Organisation Responses

Organizational vs Individual Responses

Individual
41%

Organizational
59%

A fairly even divide can be seen between individual and organizational responses. This shows the support for Shibboleth amongst individual 'champions' within institutions. The group of individual respondents should be used for further consultation and support in shaping the proposals for the future of Shibboleth.

2.2 Geographical Response

Organisational responses can be quickly analysed by country, where as this information is not readily available for the individual responses.

Organisational Response by Geographical Location
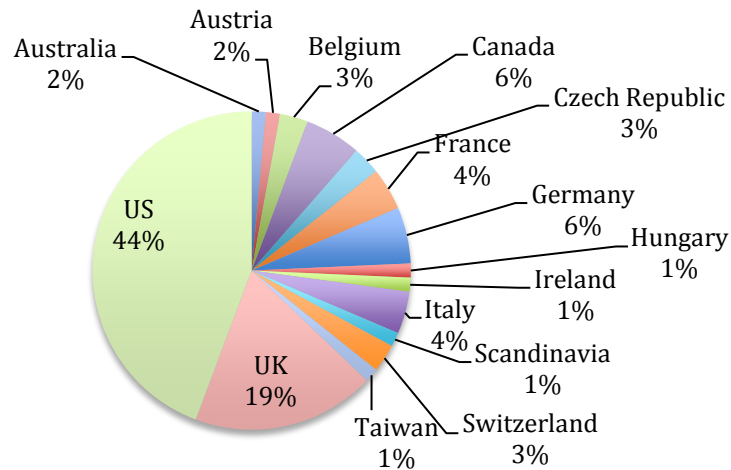
Unsurprisingly, the largest response came from the US, followed by the UK. Although other countries have a much smaller response rate, this can be attributed to a more centralized management for access management within those countries and the likelihood for single federation responses. Of more concern are the countries known to actively use Shibboleth but not represented in the study, such as Japan and The Netherlands. Whilst individual responses may well have been submitted, the organizational views from these countries are of significant importance.   It will be essential for the Shibboleth Consortium to ensure that they have elicited feedback from these large stakeholder groups.

> **Recommendation: reach out to known contacts in countries not represented in the survey and ask for specific feedback on the future model of Shibboleth.**

2.3 Use of Shibboleth by Respondents
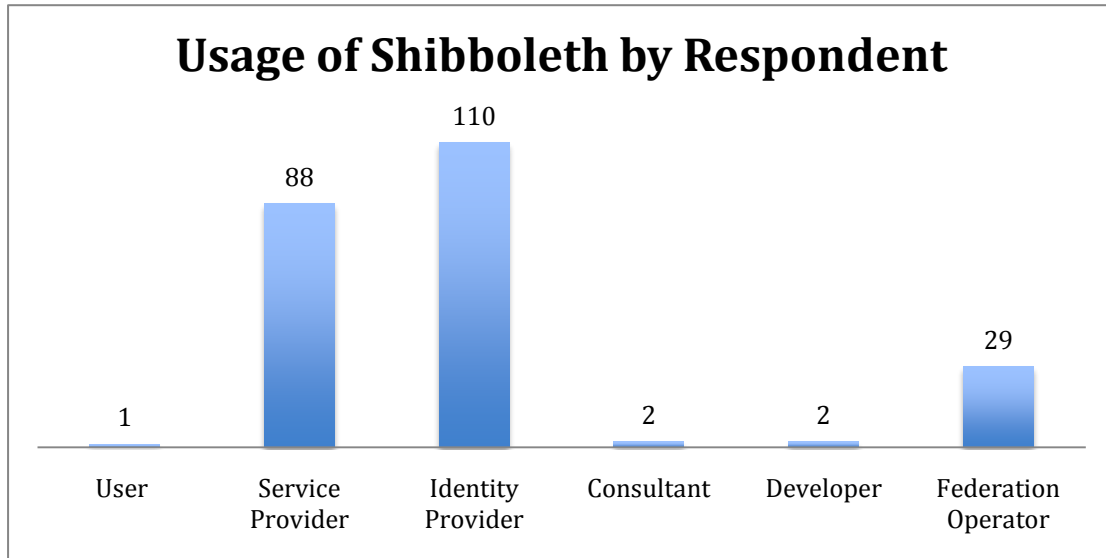
The results demonstrate a fairly even split between Identity Provider and Service Provider responses. 29 respondents identified themselves as Federation Operators, namely:

Federation Operators	
Individual	5
Atomwide	1
NCSU OIT	1
HEAnet	1
Cal Poly San Luis Obispo	1
SUNY Buffalo	2
Alberta Distance Learning Centre	1
California State University	1
Lawrence Berkeley National Laboratory	1
LIGO	1
Webassign	1
K.U.Leuven	1
institute telecom	1
Australian Access Federation	1
SWITCH	1
Clemson University	1
RENATER	1
Humboldt-Universität zu Berlin	1
NIIF	1
DAASI International GmnH	1
NorduNET	1
LFRZ / Land- Forst- und Wasserwirtschaftlichliches Rechenzentrum	1
Canarie	1
GARR	1
TOTAL	**29**

This does present a representative picture of research and education federations worldwide, with federations such as the UK Access Management Federation and InCommon not submitting an organizational response. Buy-in by national federations will be essential to the future of Shibboleth and it is essential that these groups be fully consulted. Whilst these organizations may be reflected in the individual responses, a more coherent response is needed from a management perspective.

> *Recommendation: using REFEDs as a mechanism, ask targeted questions to the national education and research federations regarding phase 2 of Shibboleth.*

2.5 Interest Points
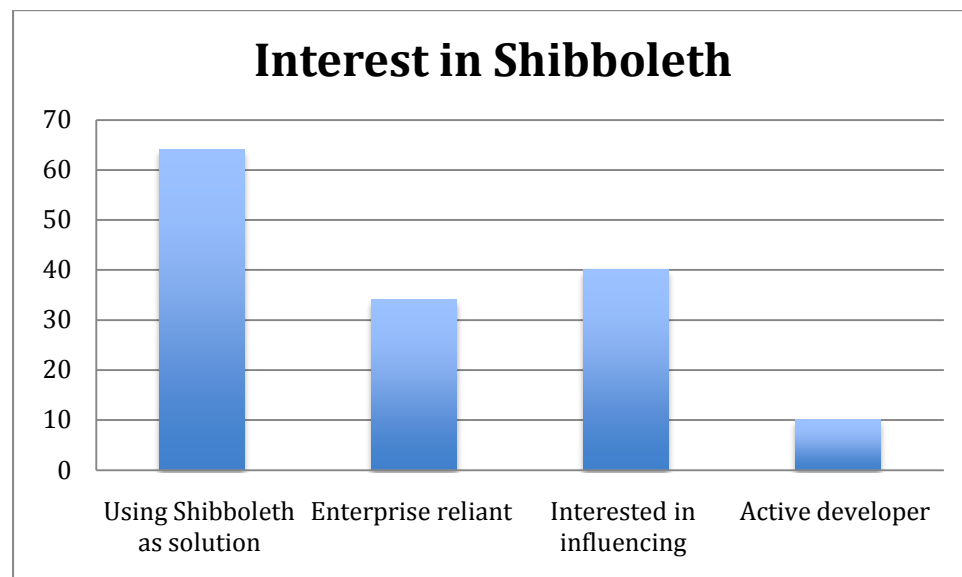
From the responses to this question, it is clear that there are a lot of organizations that could be considered 'customers' of Shibboleth, using the software as a solution. Defining a funding model for these types of organizations could be difficult, as this would imply a product-based solution, moving Shibboleth away from its open-source routes.

Respondents identifying enterprise reliance and a desire to influence the direction of Shibboleth can be more easily approached for funding.

> *Recommendation: adopt organizational funding models that are tied to a desire to influence the direct of Shibboleth and look to some other model to interact with 'customer' institutions.*

3. Future Requirements for the Shibboleth Code

This section of the survey was intended purely as an evidence base for current funders that there was support in the community for maintaining Shibboleth as a fully supported model.

Should code be 'mothballed'?
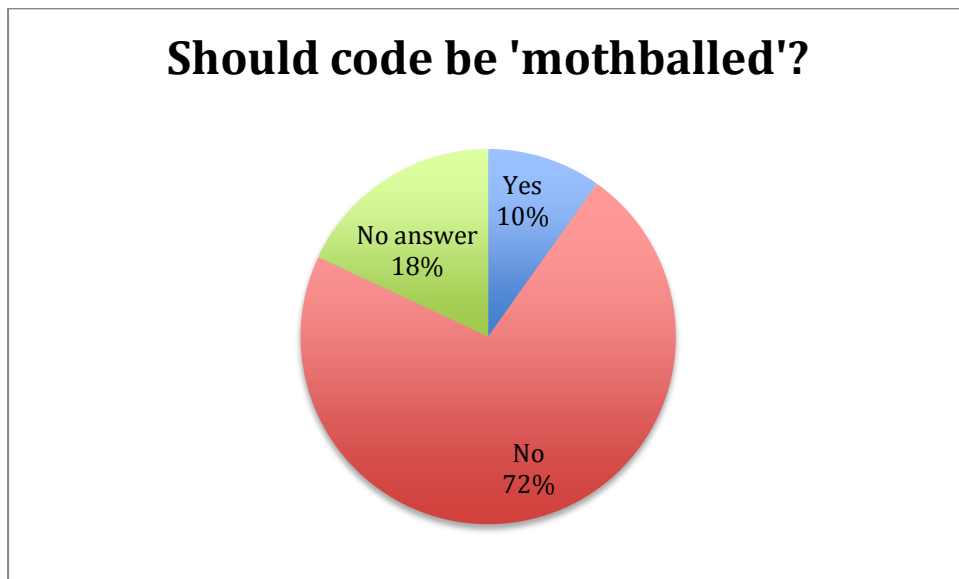
There was little support for moth-balling Shibboleth as a product.

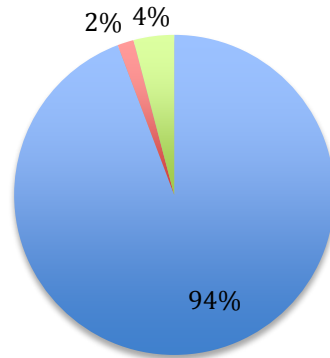### Maintain code, but cease development
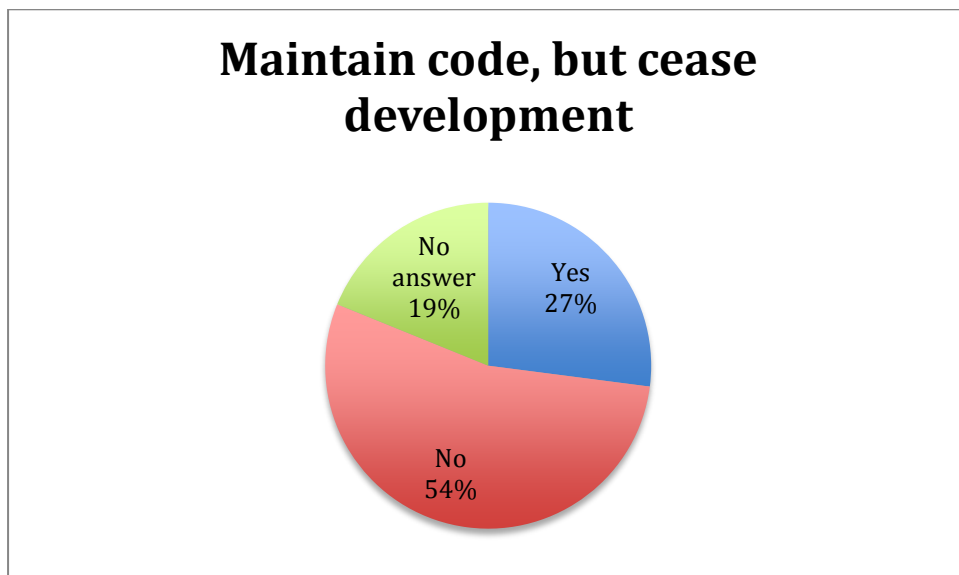
There was slightly more support for a model that would provide a minimum level of support and maintenance for Shibboleth but the support was not significant.

Ongoing Development of Code

■ Yes ■ No ■ No answer

2% 4%

94%

There was clear support for maintaining and developing Shibboleth as a full-featured product. Only 2% of respondents did not support the development of Shibboleth which is excellent given the survey was open and unrestricted to comment by anyone, including possible rivals to Shibboleth.

4. Funding Models

4.1 Ability to fund
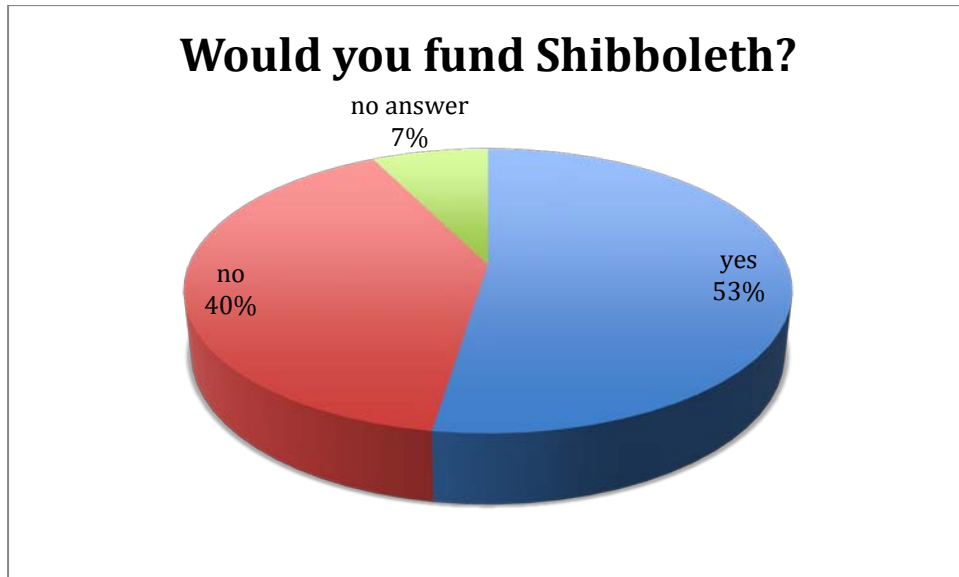
There is clear support for future funding models for Shibboleth. It is noteworthy that there is a clear correlation between organizational responses and a 'yes' answer vs. individual responses and a 'no' answer. This is as expected for financial support for open-source solutions.

4.2 Type of subscriptions preferred in general
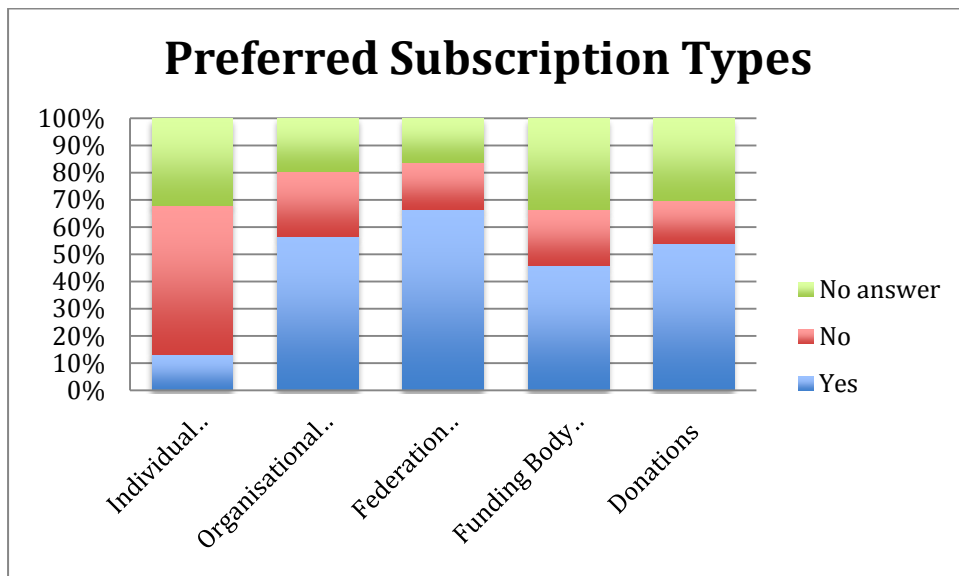
As noted above, respondents were not typically in favor of individual subscriptions.

There was concern in the narrative about the best way to make a subscription service work. Whilst many favored federation subscriptions, others expressed concern about how this might work with federations with a mixed economy of software types and difficulties in funding one and not the other. Some respondents preferred organizational contributions, whilst others expressed the difficulties involved in paying both a federation subscription and a software subscription. Individual subscriptions were not seen as relevant to the Shibboleth project. There was concern about how to best manage subscription models in general, with 'by income' models not gaining much support from respondents.

There was a strong indication within the comments fields for this section that stakeholders are still not clear how best to donate time to the project.

> *Recommendation: Shibboleth should adopt subscription models that allow for subscriptions on behalf of a single entity and on behalf of multiple entities.*

> *Recommendation: Shibboleth should implement a process allowing donations via a paypal account or other such route.*

Respondents were asked what level of contribution they felt they could make. This was obviously a very premature and un-substantiated query to get a general feel of the worth people assigned to Shibboleth.

There was a general consistency in the amounts suggested:

- $100 - $1000 dollar mark. Amounts that may be relevant as donations.
- $3000 - $5000 dollar mark. Amounts that could be linked to small subscriptions.
- $10000 dollar mark (plus). Amounts that could be linked to those with a more strategic investment interest.

5. Future Structure

This section of the survey sought input in to whether Shibboleth should establish itself as an independent organization or seeks to align itself with an existing organization. This section is supported by the document Shibboleth Consultation and Review (B).
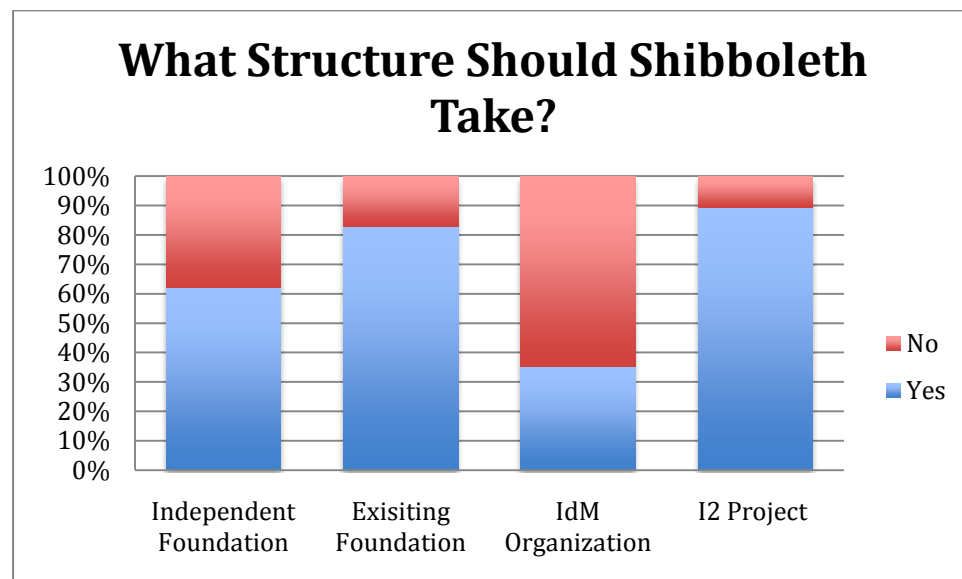
There was very little support for investigating IdM organizations as a potential home for Shibboleth. As such, these have not been included in the stage (B) investigation as part of the Shibboleth Consultation and Review. All of the other options were well supported by the respondents.

The comments provided as part of this question provide more of an overview of the requirements of respondents. It is clear that respondents want the following from Shibboleth:

- To maintain its educational roots,
- To remain open-source,
- To be internationally relevant,
- To have a non-bureaucratic funding structure,
- To be cutting-edge in its development.

The most frequently referenced possible 'homes' were Shibboleth were existing federations, Jasig and Apache. There was reasonable commentary support for the development of a new foundation as long as it was very lightweight and non-bureaucratic. There was some concern that politics were over-taking the ability of Shibboleth to remain up-to-date in terms of development.

These opinions have all be fed-in to stage (B) of this reporting cycle.

6. Commentary

Respondents were given the opportunity to highlight a 'wishlist' of what they would like from Shibboleth development. The most consistent message from this list was the need for the barriers to entry to be reduced and the Shibboleth documentation should be improved. The requested detailed were:

Non technical

- Lower the barrier of entry for Shibboleth,
- Improve documentation, including example screens etc.,
- Improve the end-user experience,
- Improve support and friendliness of list environment,
- Provide paid-for professional consulting services,
- Improve community input process,
- Consider an active partnership with Microsoft / Oracle etc.,
- Provide more assurance of long-term viability of the project.

Technical

- Integrate uApprove,
- Integrate single log-out (SSO),
- 2-factor authentication support,
- Statistics tools,
- Integrate OpenID.

Many of the improvements requested by respondents are already being addressed by the Shibboleth Team, suggested a communication problem rather than one of not meeting user requirements.

> *Recommendation: prepare a communications piece on the back off the survey highlighting the areas of requirement that Shibboleth is already meeting.*

Many positive comments were received in the commentary section, with respondents praising Shibboleth for its quality of development and meeting a core strategic need. The team should be proud of its achievements to-date and feel recognized by the community for what they have done.

7. Summary

The following observations from the study can be made above the recommendations made within the report:

- *There is clear support for maintaining Shibboleth as an application and there is interest from the community in providing funding to make this viable.*
- *The Shibboleth Consortium needs to undertake more work to distinguish between 'customers' and 'influencers' within its model.*
- *The Shibboleth Consortium should make a public statement about its commitment to continuing as an open-source solution.*
- *The Shibboleth Consortium needs to improve its communication with Stakeholders, particularly within the US.*
- *Shibboleth support models and documentation need improvement.*
- *More work is needed to make the code contribution process more coherent and open, including support for 'seed corn' developers and repository space for code developed elsewhere, even when not included in the core.*
- *Not enough consultation has been achieved with major education and research federations.*

The following recommendations are drawn out from the report:

- *Reach out to known contacts in countries not represented in the survey and ask for specific feedback on the future model of Shibboleth.*
- *Using REFEDs as a mechanism, ask targeted questions to the national education and research federations regarding phase 2 of Shibboleth.*
- *Adopt organizational funding models that are tied to a desire to influence the direct of Shibboleth and look to some other model to interact with 'customer' institutions.*
- *Shibboleth should adopt subscription models that allow for subscriptions on behalf of a single entity and on behalf of multiple entities.*
- *Shibboleth should implement a process allowing donations via a paypal account or other such route.*
- *Prepare a communications piece on the back off the survey highlighting the areas of requirement that Shibboleth is already meeting.*

Annex 1: Organisational Responses

The following organisations responded to the survey:

Organization Name
eHealth Platform
Australian Access Federation
Graz University of Technology, Austria
Certipost
K.U.Leuven
CANARIE Inc.
Sheridan College
Sheridan College
University of Guelph
Faculty of Education, Masaryk University
University of Pardubice
Crous de Dijon
INRP
RENATER
UCB Lyon 1
DAASI International GmnH
Humboldt-Universität zu Berlin
LFRZ / Land- Forst- und Wasserwirtschaftlichliches Rechenzentrum
University of Passau
NIIF
HEAnet
GARR
Università degli Studi di Milano-Bicocca
University of Roma TRE
institute telecom
NORDUNet A/S
Fachhochschule Nordwestschweiz
SWITCH
Shu-Te University
Anglia Ruskin University
Cardiff University
Coleg Sir Gar
E2BN
JISC Monitoring Unit
JISC Netskills
Newcaslte University
Northampton Community College
the university of edinburgh
University of Canterbury
University of Kent
Warrington Collegiate
Worcester Polytechnic Institute
Alberta Distance Learning Centre
Atomwide Ltd
Cal Poly San Luis Obispo

California State University
Clemson University
Colorado State Univeristy
Cornell University
Georgia Tech
iup.edu
Knowlton School of Architecture
Lawrence Berkeley National Laboratory
LIGO
Michigan State University
NCSU OIT
SUNY
SUNY Buffalo
The University of Chicago
UC Office of the President
UCLA
UCLA
UCSB
UNC-General Administration
University of Alaska
University of Applied Science
University of Cambridge
University of Chicago
University of Illinois
University of Maryland, Baltimore
University of Minnesota
University of Oregon
WebAssign
OCLC
University of Vermont
Virginia Commonwealth University
WPI