The “Berkeley Miracle:”
Maintaining Quality With Fewer Resources

June 4, 2014
Larry Conrad
Associate Vice Chancellor-IT and CIO
Agenda

Overall Context for the Operational Excellence Initiative

• Leadership Support
• Funding Model
• Multi-Dimensional Approach

Campus Shared Services

• Campus Shared Services IT

Results to Date/Lessons Learned
Financial realities require changes to:

- Contribute to long-term financial sustainability.
- Maintain accessibility of this world class institution.
- Create incentives that foster progress in alignment with strategic objectives.

Room for improvement in operational effectiveness:

- Duplicative, fragmented, and overly complex operations.
- Expensive, manually intensive processes.
- Error-prone data and information.
Change in Revenue Sources
2004 to 2012

- 2003-04:
  - State support: 28%
  - Gifts/Other
  - Student Fees
  - Research

- 2011-12:
  - State support: 88%
  - Gifts/Other
  - Student Fees
  - Research

Berkeley
UNIVERSITY OF CALIFORNIA
## Diagnostic Phase

### Setup

| Scope                      | Deep, systematic look to significantly reduce expenses.  
|                           | • *In scope*: Campus operations, processes, and systems.  
|                           | • *Not in scope*: Teaching and research.  
| Governance                | Chancellor Birgeneau formed *and led* Steering Committee.  
| Methodology               | Collaborated with Bain Consulting to assess key operational areas, evaluated benchmarks from a broad range of public and private institutions, and recommended areas with the greatest potential for savings and improved service delivery.  
| Campus Involvement        | 700 faculty, administrators, staff, and students across the campus involved through in-person meetings and online surveys.  

## Diagnostic Phase

### Outcomes

<table>
<thead>
<tr>
<th>Findings</th>
<th>Plan of Action</th>
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<tbody>
<tr>
<td>• Potential savings of &gt;$100M from operations cost base.</td>
<td>• Chancellor launched effort to capture $75M in administrative costs and improve upon administrative operations.</td>
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<tr>
<td>• Opportunities for improvements in operational effectiveness.</td>
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### Opportunity Areas

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<td>• Five areas enable delivery of more consistent, sustainable service levels at dramatically lower cost:</td>
<td>• Design of a modern financial management system to ensure more effective management of financial resources:</td>
</tr>
<tr>
<td>1. Procurement</td>
<td>1. Commitment to a high-performance operating culture.</td>
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<tr>
<td>2. Organizational Simplification</td>
<td>2. Redesign of a disciplined financial management model to ensure more effective management of financial resources.</td>
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<tr>
<td>3. Information Technology</td>
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<td>4. Energy Management</td>
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<td>5. Student Services</td>
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## OE Implementation Phase

### Multi-Dimensional

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Benefit</th>
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<tbody>
<tr>
<td>IT Productivity Suite</td>
<td>Enhancing collaboration between faculty, staff, and students by offering access to standardized, best-in-class IT tools from Google, Microsoft, and Adobe.</td>
</tr>
<tr>
<td>CalPlanning</td>
<td>Enabling units to submit department-level operating budgets, enabling richer budget discussions by campus leaders and strategic prioritization.</td>
</tr>
<tr>
<td>Unit Restructuring (spans and layers)</td>
<td>Streamlining the campus organization, unit by unit, to create a flatter, more effective organizational structure with well-defined roles and career paths for individual contributors and supervisors, and increasing span of managerial control.</td>
</tr>
<tr>
<td>Procure-to-Pay Reporting</td>
<td>Improving procurement and payment processing, compliance, vendor relationships and vendor diversity.</td>
</tr>
<tr>
<td>Campus Shared Services</td>
<td>Providing consistent, high-quality tier 1 support for new campus applications (e.g., BearBuy, bConnected, CalPlanning).</td>
</tr>
<tr>
<td>Energy Management Program</td>
<td>Showing reductions in electricity consumption.</td>
</tr>
<tr>
<td>Cal Student Central</td>
<td>Providing a one-stop source of information and assistance for student business transactions.</td>
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</tbody>
</table>
### OE Implementation Phase

Multi-Dimensional

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<tr>
<td><strong>Campus Shared Services</strong></td>
<td>Performing post-service delivery reviews. Incorporates feedback to improve operations and customer service.</td>
</tr>
<tr>
<td><strong>BearBuy</strong></td>
<td>Leveraging purchasing data to negotiate improved contractual terms.</td>
</tr>
<tr>
<td><strong>Energy Management Program</strong></td>
<td>Encouraging friendly competitions between units to continue to find new ways to reduce energy consumption leading to increased savings and reduced greenhouse gas emissions.</td>
</tr>
<tr>
<td><strong>Berkeley Operating Principles</strong></td>
<td>Inviting the campus community to publically post examples which demonstrate the operating principles in action, inspiring other members of campus to incorporate these principles into our work environment.</td>
</tr>
<tr>
<td><strong>OE Program Office</strong></td>
<td>Building a community of practice of project management professionals who share new knowledge, lessons learned, and effective approaches.</td>
</tr>
<tr>
<td><strong>OE Executive Committee</strong></td>
<td>Leveraging campus strategic goals and information on OE projects (e.g., financials, successes, obstacles) to make better informed decisions.</td>
</tr>
</tbody>
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OE Implementation Phase

OE Portfolio Savings

$75 mil goal

Current Estimate

Actual through Dec 2013

Years:
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
OE Project Organizational Structure

OEPO -
- Faculty Head
- Director
- Project Mgmt - Change Mgmt - Communications - Financial Mgmt - Risk Mgmt

OE Executive Committee

OE Project -
- Sponsor
- Project Manager
- Functional Lead - Change Mgr - Technical Lead - Communications Lead - Finance Mgr

Implementers -
- Functional Owner - Staff/Students/Faculty

Coordinating Committee

Steering Committee

Advisory/User Group

OE Executive Committee

CORWE & HR

Public Affairs

Budget Office

Enterprise Risk Mgmt
CSS Timeline & Implementation

- **2011**: Hire Executive Director
- **2012**: Financial Model
- **2013**: Day 1 Processes, Method/Tools to reassign staff and work
- **2013 (CSS Go-Live)**: Jan. 2013
- **2014**: Implementation in waves or “cohorts” (●) to be completed by Dec. 2014
• Organization has grown to 620 staff members across IT, Business and Financial Services, HR, and Research Administration.
• Now serves ~70% (over 17,500) of UC Berkeley’s faculty, staff, student employees, and affiliates.
• CSS IT:
  - Has 114 staff members serving the campus.
  - Supported a total of 65,961 tickets from Jan. 2013 to March 2014 (an average of 32 tickets per business hour).
• CSS places a focus on staff diversity.
• Off campus central offices with 7 on-campus satellite locations.
CSS IT – Zone Map

- Off Grid
- Upper Hearst
- Campanile
- Upper Bancroft
- Lower Bancroft
- Lower Hearst
- Central Campus
CSS IT – Organizational Chart

Larry Conrad
Office of the CIO
Associate Vice Chancellor & Chief Information Officer

Theresa Kaimijn
Campus Shared Services
Chief Operating Officer

Jerry Terardi
Director

Barinder Dhindsa-Hamagan
Deputy Director

Operations Coordinator
Nicole Lauger

Service Desk
4th Street

- Carol Chapman
- Charles Heisz
- David Holt
- Joseph Locastro
- Jocelyn Oriente
- Aaron Turner
- John Valmores
- Noah Bacon
- Eric Fong
- Jeff Gill
- David Lee
- Pat Mahaney
- Sean McPherson
- Melanie Parker
- Glenn Robertson
- Dominick Toy
- Tony Ward
- Theodore Nakatsu
- Adam Zakaukas

Procurement and
Provisioning Team Zone 0
4th Street

- Glenn Cruz

Strategic Initiatives
4th Street

- Jasa Garcia
- Fred Koushika
- Mary Mallard
- Hool Koman
- Erik Hagen
- Kinako Ramirez
- Roberto Rivera
- Donald Wong

Technical Projects
4th Street

- Chris Kowalski
- Candy Skinner
- Michael Thompson

Engineering & Security
4th Street

- Luis Arin
- Peter Lo
- Louis Liu
- Dong Yan Bowen

Microservices Team
Justin Amorese
Jennifer Bouzou
Arti Horzmann
Taco Stuart-Villaros
Anthony Roybal
Paula Dravis Shimada
Vacant – QA/Tester

EUDS Team
Upper Heartst
Zone 1

- Athena Chavira
- ManuelCastilllo
- Foye
- "Yoshit" Kim
- Bryan Lee
- Philip Loarie
- Steven Santiago

EUDS Team
Compton
Zone 2

- Ashtah De Silva
- Michelle Dunlap
- Mark Ingels
- Nadine Martineau
- Gaby Morisotta
- Edgar Ortega
- Ryan Tran

EUDS Team
Upper Bancroft
Zone 3

- Robert Amsbury
- John Benedict
- Stuart Darnell
- Benjamin Darmon
- William Driscoll
- Steven Herrera
- Morgan Milligan
- Jimmy Morin
- Robert Rainey
- Thom Stokes
- Farnaz Stack
- Sathya Tavani

EUDS Team
Lower Bancroft
Zone 4

- Steve Delton
- Mike Dragle
- Denis Duval
- Jean Grandis
- Charles Lam
- Maria Martinez
- Khaathak McIntosh
- Chris Mitchell
- Ivan Ondreka
- Carl Petroff
- David Schwartz
- Alex Warren

EUDS Team
Central Campus
Zone 5

- Cavin Burner
- Ameda Donner
- Andy Eiley
- John Fitch-Scorer
- LaTanya Floyd
- Adam Grimaldi
- Bratt Larson
- Rudi Maday
- Ben Soriano
- Kenneth Wilson

EUDS Team
Control Campus
Zone 6

- Sara Bakic
- Mike Dagla
- Denis Duval
- Jean Grandis
- Charles Lam
- Maria Martinez
- Khaathak McIntosh
- Chris Mitchell
- Ivan Ondreka
- Carl Petroff
- David Schwartz
- Alex Warren

CSS – IT
Includes reassigned staff for
Cohort 3.1
Effective April 1st, 2014
Implementation Timeline

Jan – May 2013
- AVC, IST
- Chancellor’s Office
- CITRIS
- COENG Engineering (ERSO)
- College of Letters and Sciences, Division of Biological Sciences
- College of Environmental Design
- College of Natural Resources
- Environmental, Health & Safety
- Intercollegiate Athletics
- School of Journalism
- School of Social Welfare
- University Health Services
- VC, Administration & Finance
- VC, Research and RES

July 2013 – February 2014
- Academic Senate
- Blum Center
- College of Engineering
- College of Letters and Sciences (select Math & Physical Science, Social Science units)
- Executive Vice Chancellor & Provost
- Goldman School of Public Policy
- Haas (T&E Purchasing)
- L&S Computer Resource Users (IT)
- School of Public Health
- Summer, Study Abroad & Lifelong Learning (HR)
- VC, Student Affairs
- Vice Provost for Faculty

April – July 2014
- Art, Music & Pacific Film Archive
- Athletic Study Center
- College of Chemistry
- Education Technology Services
- Graduate Division
- Graduate School of Education
- KALX Radio Station
- Student Learning Center
- VC, Equity and Inclusion
- VC, Facilities Services

September – December 2014
- Berkeley Law
- Cal Performances
- College of Letters & Science, Deans Office
- College of Letters and Sciences (select Arts & Humanities, Math & Physical Science, Social Science units)
- College of Letters and Science, Undergraduate Division
- Haas School of Business
- Osher Lifelong Learning Institute
- School of Information
- Summer Sessions
- Study Abroad
- School of Optometry
- UC Library
- University Extension
- VC, University Relations
# CSS IT – Tools & Technology

<table>
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<th>Tool/Technology</th>
<th>Benefit</th>
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<tr>
<td>Bomgar</td>
<td>Remote support solution that allows technicians to remotely connect to end-user systems.</td>
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<tr>
<td>Avaya ACD</td>
<td>Automated Call Distribution tool that manages in and outbound phone calls and voicemails.</td>
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<tr>
<td>Helpdesk Institute (HDI) Customer Satisfaction Surveys</td>
<td>Tool for gathering customer experiences and feedback upon completion of services provided.</td>
</tr>
<tr>
<td>Tivoli Endpoint Management (TEM)</td>
<td>IT Asset Management tool enabling remote management and automatic delivery of software updates.</td>
</tr>
<tr>
<td>Incident Management Tools</td>
<td>System used to manage the documentation and response of customer reported incidents or issues.</td>
</tr>
<tr>
<td>Salesforce</td>
<td>Client Relationship Management</td>
</tr>
<tr>
<td>Confluence Wiki</td>
<td>Web application which allows internal team members to share information in collaboration with others.</td>
</tr>
<tr>
<td>Knowledge Base</td>
<td>Technology used to store and share structured, consistent and accurate information across internal staff and external customers.</td>
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The Berkeley (Managed) Desktop

- Provides a reliable, secure, and integrated computing environment that reduces the amount of time faculty and staff spend maintaining their computers.
- A standard environment combined with automated maintenance means you see fewer problems and are able to get help faster.
- List of models that have been tested and optimized to work with the Berkeley Desktop.
  - Dell OptiPlex 390, 3010, 3020, 760, 780, 790, 960, 980, 990, 9010, 9020
  - Dell Latitude E6220, E6230, E6410, E6420, E6430, 6430U, E7240, E7440

Non-Berkeley (Non-Managed) Desktops

- Higher costs.
- Higher risk of compromise.
- Less opportunities to receive remote desktop support.
- Longer to research/troubleshoot/resolve problems—greater downtime for customers.
- May not be compatible with enterprise applications.
CSS IT – Services

- Desktop Hardware Support
- Desktop Software Support
- Application Support
- Device Procurement
- Desktop Engineering & Security
- Incident Management
- Service Desk
- Infrastructure Support
- Technical Projects
- Strategic Initiatives (On-Boarding Team)
- Some Research Lab Equipment Support
CSS IT – Service Gaps

Active Directory
- Not everyone is on the campus domain and some departments are on their own domain or only have local workstations.
- Departments may not have a back-up for a system administrator or lack a support community.
- Departments may need an OU to be created on the campus domain.

Applications
- Does a service partner exist?
- Only a limited group of people know how to setup specialized configurations.
- Are standardized procedures in place to handle applications?
- Patching, licensing, and security.

Database
- Expertise of DBA not funded and left to unqualified staff.
- Data classification.
- Many different tools used (i.e., MS Access, Filemaker, MySQL, etc.) which makes maintenance and scale difficult.
Metrics: IT Customer Satisfaction

1. Average Overall Satisfaction

Overall Satisfaction

2. Survey Responses by Month

Responses per Month

3. Scores by Question (1-4)

Q1 - Courtesy of Analyst

Courtesy

Q2 - Technical Skills of the Analyst (Avg)

Technical Skills/ Knowledge

Q3 - Timeliness of Service Provided (Avg)

Timeliness

Q4 - Quality of Service Provided (Avg)

Quality

Metrics are based on the Help Desk Institute metrics for higher education.
CSS IT

Successes

On-boarded 17,500 people
Provided bMail support for entire campus
Deployed 1,500+ standard imaged PCs
Provided desktop support to departments who had no support
Initiated project management team
Established ongoing relationships with various IT service orgs
Created a security and engineering team
Established Customer Technical Liaison role
Launched Campus Ticketing Project
Reorganized 4th Street Hub and Campus Zones
Workforce & Talent Management
CSS IT Challenges

- New ticketing tool
- Re-assigned staff development
- Managing the ratio of work
- Budget for hardware upgrades
- Space on campus
- Increase ratio of remote support
- Increase first call resolution ratio
- Increase the centralization of Active Directory
- Integrate Knowledge Base with ticketing system
- Support departments with outdated technology
- Increase coordination awareness of network security
- CSS IT Leadership training
- Support departments with outdated technology
Lessons Learned

• Leadership must be fully and visibly engaged in the program.
• The cooperation/collaboration of both sides of the house – administration and academic – is critical.
• Co-create to drive better outcomes and deepen commitment.
• Deploying new technology is not success.
• Changing mindsets and behaviors in order to realize the full potential of new technology is success.
• Changing behavior takes time and effort.
• Leverage the strengths of the organization to achieve behavior changes (strong culture, clear mission, committed workforce).
• Change risks are predictable yet different in every case – customize the change plan.
Lessons Learned
Continued

• Project management must be coupled with change management in order to achieve desired results.
• Face-to-face communications is the most effective form.
• Feedback loops must be built into every phase of the program and the projects.
• Iterative and incremental development approach works best.
• Program management oversight provides consistency, rigor, view to the big picture, momentum.
• The results of OE must be realized in the units for OE to be successful.
• Business process management must shift to the horizontal flow of work rather than vertical hierarchies.
My Thanks to...

Thera Kalmijn, COO, Campus Shared Services
Peggy Huston, Director, Operational Excellence Program Office
Jerry Yerardi, Director, Campus Shared Services IT
Ben Gold, Manager, IT Services Communications
Questions?