INTRODUCTION

In December 2013, Interim Campus CIO Prasant Mohapatra appointed the UC Davis Advisory Committee for Application Development (ACAD) to formulate an effective process for administrative application procurement/development across the campus of UC Davis. Specific objectives and charges to the ACAD can be found in the ACAD appointment letter located in Appendix A of this report.

In general, ACAD is working to identify effective, efficient and sustainable approaches for administrative application provisioning (planning, procurement and/or development). Recognizing that previous initiatives such as P&P 200-45 and the Strategic Technology Advisory Committee (STAC) did not fully produce the desired level of change and impact to improve administrative application provisioning, ACAD is trying to focus on the following elements:

- Understanding why more application developers on campus are not employing best practices to effectively and efficiently provision applications for use by broader audiences
- Identifying barriers to employing the best practices
- Identifying tools, resources, and processes to encourage employment of the best practices
- Promoting a change in culture to consider administrative application needs beyond single units, and a collaborative approach among clients and the developers to meet the needs.

To address Interim CIO Mohapatra’s charges to the committee, ACAD established seven subgroups for exploration and collection of information and data. Much of this work involves in-person dialogue with client groups, applications developers, and senior administrators at UC Davis to better understand the culture and past approaches to administrative application provisioning.

This ACAD initial progress report contains a summary of each subgroup’s work, including:

- Focus of the subgroup’s work
- Activities to date
- Next steps.

Over the next few months, the ACAD will use findings of all its subgroups’ initial work to develop recommendations for processes, tools, resources, and guidelines to improve the efficiency and effectiveness of administrative application provisioning on campus.

Submitted by,

Thomas M. Kaiser, Chair
UC Davis Advisory Committee for Application Development (ACAD)
SUBGROUP REPORTS

Collaboration Subgroup

SUBGROUP MEMBERS
Donna Olsson, Lead (CBS); Lora Jo Bossio (Student Affairs); Jamie Butler (CoE); Adam Getchell (CA&ES); Mary McNally (SVM); Jeremy Phillips (DSS); and Dawn Roarty (DEVAR).

FOCUS OF SUBGROUP’S WORK
The subgroup’s work has three areas of focus:

- Survey application developers on campus to understand why they have not taken an approach to application development/procurement which would meet needs beyond their own units. Ascertain the barriers to such an approach. Identify reasonable and appropriate incentives to encourage such an approach. Identify ways to encourage application developers to share their code and collaborate more (avoid single person application development)
- Identify ways to encourage and promote voluntary adoption among application developers of the approach to developing/procuring administrative applications for the whole campus community instead of just one unit.
- Survey Deans’ Technology Council and key individuals in IET to determine opportunities for better collaboration and provision of infrastructure to support nimble and effective application development/procurement.

ACTIVITIES TO DATE
Activities through March 14, 2014:

- Step 1: We have completed verbal surveys of all assistant deans for administration/finance, and of the Dean’s Technology Council. We have completed written summaries of these surveys. The AdMAN Executive Committee survey is scheduled for March 13, and we will complete the written summary soon thereafter.

NEXT STEPS

- Step 1 (continued): Survey the IET/ARM/Registrar representatives group.
- Step 2: We will review ADAPT survey results to determine consistencies and inconsistencies with the Step 1 results.
- Steps 3 to completion. Conduct follow-ups with selected individuals; discuss major findings within the subgroup and then within ACAD; write final draft for review/input by subgroup then for full ACAD review. Submit final report to ACAD.
Survey of Application User Groups

SUBGROUP MEMBERS
Tracy Lade, Lead (AdMAN); Adam Getchell (CA&ES); Meshell Louderman (AdMAN); Morna Mellor (IET)

FOCUS OF SUBGROUP'S WORK
The subgroup hopes to learn which administrative applications, from a user perspective, successfully meet the needs of users and which do not. Further, we hope to learn how the development/procurement process may have influenced the end user experience with respect to meeting the user’s needs.

ACTIVITIES TO DATE
Tracy Lade met with Hampton Sublett and Bob Cutler to clarify how the charge of the ACAD subgroup on user perspective differs from the task underway by Hampton and Bob. Bob shared information he has gathered to date on administrative applications in use on the campus.

The subgroup membership was expanded to four: Tracy Lade, Meshell Louderman, Morna Mellor and Adam Getchell. The subgroup agreed upon a survey method and approach. In consultation with the Chair of the ADMAN Executive Board, the subgroup identified a short-list of 11 administrative applications to be evaluated with respect to user perspective on the application’s success in meeting user needs. These 11 applications represent ones that are used by the full campus (administrative units as well as academic units), ones that are used primarily by academic units, and one (ServiceNow) that is used almost exclusively by administrative units. See attached summary of the survey method and approach in Appendix B.

The survey method and list of applications was shared with members of ACAD and ADMAN Executive Board and input was encouraged.

For each of the 11 administrative applications chosen for evaluation, a primary contact/sponsor was identified. The 11 applications were divided up amongst our subgroup members to take the lead soliciting the developer’s/sponsor’s input via an Application Developer Questionnaire (attached in Appendix B). Questionnaires are due back to Tracy Lade by March 7th. It’s hoped that by soliciting this information from both developers and users we’ll have a more complete picture of how an application was developed and launched. It will be interesting to see if the perspectives of the developer and the user differ on the point of how an application was developed and how much user input was taken into consideration.

NEXT STEPS:
A 2-hour meeting with ADMAN membership has been scheduled for March 13th. Participants have been encouraged to come to the meeting educated and prepared to provide useful feedback...or send an informed substitute.

Two members of the subgroup (Tracy Lade and Meshell Louderman) will facilitate a discussion with those present at the March 13th meeting (two other members are not available to attend). Using our User Perspective Survey (attached in Appendix B) as a guide for the conversation, each of our chosen 11 applications will be discussed and notes will be taken.

Note: Additional email lists are being sought to find another way to reach admin/academic unit directors/managers. Tracy has contacted IET and HR for Email List Information.

Following the meeting, a summary of the discussion will be drafted and distributed to the ADMAN mailing list (and additional mail list, if found) and additional input/edits will be requested. A final summary will be distributed to the adman@ucdavis.edu and other (TBD) email lists once additional feedback has been incorporated.

Following the meeting with ADMAN on March 13th the subgroup will consider calling a town hall meeting to solicit additional feedback.
After incorporating all input from application developers and application users, a final report will be submitted to ACAD.

**Benchmarks Subgroup**

**SUBGROUP MEMBERS**
Sonja Colbert, Lead (OCP); Lora Jo Bossio (St. Affairs); Adam Getchell (CA&ES); Bob Loessberg-Zahl (BIA); Jeremy Phillips (DSS); and Gabe Youtsey (IET).

**FOCUS OF SUBGROUP’S WORK**
The focus of this subgroup is on benchmarking proposed development/procurement projects against other successful projects, with the goal of developing a checklist about the foundation for a successful project.

**ACTIVITIES TO DATE**
- Created box for sharing information
- Gathered information about the factors for successful projects -- State of California FFB; other universities; other sources (Gartner, PMI, Accenture); other private companies (e.g., Healthnet, Blue Shield, Apple); articles; other campus colleagues.
- Brainstormed list of characteristics of successful projects (Below are a few examples)
  - Define scope (includes initial project and ongoing maintenance)
  - Provide clear project goals, benefits (e.g., business objectives, quality, VOI/ROI) and outcomes
  - Ensure full disclosure and transparency
  - Identify stakeholders and sponsors (champions)
  - Develop incentives (e.g., EPAR objectives) to motivate and engage participation
  - Complete user acceptance testing with the right stakeholders
  - Provide professional services (e.g., project management, business analysts)
  - Follow good application architectural practices
  - Complete project on time and within budget
  - Align with UC Davis “One World, One UC Davis”

**NEXT STEPS**
- Review article about the signs of project failure
- Consolidate brainstorm list of factors for successful projects
- Obtain feedback on list from other team members and ACAD subcommittees
- Collaborate with other ACAD subcommittees to create a single framework for checklists
Cost and Resource Factors for Software Acquisition

**Subgroup Members**
Safa Hussain (Lead); Mike Allred (AFS); Adam Getchell (CA&ES); Jeremy Phillips (DSS); and Su-Lin Shum (BIA).

**Focus of Subgroup’s Work**
The subgroup has explored the different factors that affect direct and indirect costs when considering acquiring (buy or build) new enterprise software – ranging from readily identifiable labor costs through to more qualitative factors related to risk management.

**Activities to Date**
The subgroup has proactively worked with two other campus workgroups that are also looking into how to identify and calculate key cost considerations related to IT services. Though different in nature and scope, we hope to leverage the work of these other initiatives and collectively build a common knowledge base/approach that can be utilized across campus.

We have reviewed several drafts of our report and are getting close to the final draft.

**Next Steps**
The subgroup will review our next draft and then send it forward to the committee for a wider discussion.

Current Models Subgroup

**Subgroup Members**
Gabe Youtsey, Lead (IET); Zak Edson (Strategic Comm.); Safa Hussain (ARM); MacKenzie Smith (Library); and Kent Wilken (ECE).

**Focus of Subgroup’s Work**
- Obtain information about the overall IT governance models at other UCs and several similar R1 institutions
- Identify where needs assessment and prioritization fit into other campus’ IT governance models
- Summarize other campus’ needs assessment and prioritization, required documentation, and decision-making processes
- Identify needs assessment and prioritization processes on the UC Davis campus in departments
- Provide an assessment of each model in the context of UC Davis

**Activities to Date**
- Developed survey questions to obtain the information needed.
- Held discussions with and received information from: Michigan, Indiana, Yale, Utah, MIT (info from MacKenzie), UC Berkeley, Washington, and Cornell.

**Next Steps**
- Hold discussions with: UCLA; Penn State; select UC Davis IT leads from Academic and Admin units
- Format notes and documents for broader review and consumption
- Meet with the ACAD Needs Assessment and Prioritization Model Subcommittee to review findings and form recommendations
- Draft and finalize subcommittee report
Inventories Subgroup

**SUBGROUP MEMBERS**
Hampton Sublett, Lead (IET); Jeff Barrett (ARM); Curtis Bray (IET); Bryan Collins (OE); Bob Cutler (IET); and Steve Pigg (Education).

**FOCUS OF SUBGROUP’S WORK**
This activity has been part of the ADAPT project team in response to the second MCA within the Internal Audit: “Under sponsorship by the Provost, and in partnership with central HR, Information and Educational Technology (IET) will complete a study, including an inventory of IT staff functions, that immediately relate to application development, across the Campus to support strategic decision-making by campus leadership regarding IT investments with the intention of expanding to include UCDHS as a part of a future Unified Governance Structure Strategic Vision. In addition, this study will identify each administrative application development organization on campus to identify opportunities for consolidation of IT staffing resources and roles, processes, tools and infrastructure to improve access to specialized skillsets, and to determine if staff levels are adequate to meet administrative application development demands.”

**ACTIVITIES TO DATE**
Application lists provided by AADI and the former ITSSC project were combined into one master list which was used as the basis for the inventory. Two inventory teams were assembled to help reduce the time needed to complete in-person interviews with every campus unit. To date the teams have met with 20+ units and have an extensive data set.

**NEXT STEPS**
The remaining 3 units will be surveyed and interviewed by the end of next week. Once complete, the list will be reviewed and duplicates will be removed, at which point the list will be sent to ACAD.

Central vs. Non-central Subgroup

**SUBGROUP MEMBERS**
Hampton Sublett, Lead (IET); Nate Affleck (AFS); John Finazzo (DEVAR); and Sheri Pulis (OR).

**FOCUS OF SUBGROUP’S WORK**
Provide a clear definition for separation of work to assess whether application development/procurement should be done centrally versus decentralized in units.

**ACTIVITIES TO DATE**
To help arrive at a definition, or criteria, of whether or not an application should be developed or procured centrally, first the team attempted to define two potential definitions of centralization. From there, the team made an extensive list of Pro’s and Con’s for centralization vs. decentralization. After completing the list, the team agreed that two models would need to employed and worked to complete the criteria for projects that should need to be centralized.

**NEXT STEPS**
The group will take the work completed to date and vet it with various campus experts on the topic of application development, as well as, compare the criteria with other universities.
February 27, 2014 (rev.)

Kaiser, Tom (Chair) – College of Agricultural & Environmental Sciences
Allred, Mike – Kuali Financial System
Bossio, Lora Jo – Student Affairs
Butler, Jamie – College of Engineering
Colbert, Sonja – Offices of the Chancellor and Provost
Edson, Zak – Strategic Communications
Getchell, Adam – College of Agricultural & Environmental Sciences
Hussain, Safa – Administrative and Resource Management
Kiel, Cindy – Office of Research
Lade, Tracy – Physics Department
Loessberg-Zahl, Bob – Budget & Institutional Analysis
Louderman, Meshell – Computer Science Department
McNally, Mary – School of Veterinary Medicine
Mellor, Morna – Information & Educational Technology
Olsson, Donna – College of Biological Sciences
Phillips, Jeremy – College of Letters & Sciences
Platten, Michele – Administrative and Resource Management
Roarty, Dawn – Development & Alumni Relations
Shum, Su-Lin – Business and Institutional Analysis
Smith, MacKenzie – University Libraries
Sublett, Hampton – Information & Educational Technology
Tollefson, Allen – Administrative & Resource Management
Wilken, Kent – Electrical & Computer Engineering Department
Youtsey, Gabe – Information & Educational Technology

RE: UC DAVIS ADVISORY COMMITTEE FOR APPLICATION DEVELOPMENT

Dear Colleagues:

I take this opportunity to thank you immensely for your willingness to participate and help in formulating an approach to effective administrative application provisioning at UC Davis. Application development process includes a detailed analysis of all options, from the need, specifications, features, constraints, and build/buy/borrow options to the cost, resources, maintenance, security, and long-term sustainability of an application. The Advisory Committee for Application Development (ACAD) is charged to formulate an effective process for administrative application procurement/development across the campus of UC Davis.

Specific objectives for the UC Davis application development process might include:

- Careful evaluation of the need for administrative applications;
- Broad use of the applications, including through extensible features;
- Facilitation of the allocation of resources in the most efficient and effective manner;
- Reduction of duplication of effort;
- Optimization of the ways in which applications are delivered, supported and sustained over time;
- Collaboration and coordination of resources and expertise; and
- Any other relevant and practicable issues.

The Committee should propose a comprehensive process to help formalize an effective, efficient and sustainable approach for administrative application provisioning (planning, procurement and/or development). Specifically, the Committee should complete the following:

1. Gather a comprehensive list of all existing administrative applications of UC Davis. Evaluate the current status of administrative application provisioning.
2. Consult with the relevant units, committees, councils, and users and formulate the best practices for administrative application provisioning. This would include the study of similar efforts at other campuses.

3. Identify and formulate a comprehensive and implementable process for application provisioning that includes such elements as need assessment, effectiveness, usage scope, buy-vs-build analysis, sustainability, maintenance, resource allocation, and periodic assessment.

I would be grateful to receive the Committee’s initial progress report by March 15, 2014, followed by a draft report by May 1, 2014 and the final report by June 1, 2014. Babette Schmitt, Chief of Staff in the CIO Office, will help in coordinating the work of the committee, working in close collaboration with Tom Kaiser, Chair of the ACAD.

Thank you for your support of this important initiative. I look forward to your recommendations as we prepare to move forward with an efficient approach to application development at UC Davis.

Sincerely,

Prasant Mohapatra  
Interim Campus CIO and Vice Provost  
Information and Educational Technology

Cc: Provost and EVC Ralph Hexter  
Chief of Staff Babette Schmitt
Advisory Committee for Application Development (ACAD)

ACAD subgroup team: Tracy Lade, Meshell Louderman, Morna Mellor, Adam Getchell

Charge of the subgroup
Survey application user groups for examples of applications (and the corresponding development/procurement process used) which successfully met their needs, and examples which have not been successful.

Survey method/approach
1) Develop a list of administrative applications to evaluate from a user perspective that are used by the academic and administrative sides of the campus.

Suggested list below, grouped to represent applications of varying scope and users.

A. Full campus scope
   a) Online Pre-Purchasing (OPP): contact Tom Kaiser; Adam Getchell
   b) Time Reporting System (TRS): contact Jacque Velasquez
   c) PeopleAdmin (staff position control and recruitment): contact Michelle Platten

B. Academic unit tools
   a) Action Tracking (academic advancement): contact Kelly Anders
   b) RECRUIT (academic recruitment): contact Kelly Anders
   c) GradHub: contact Rich Shintaku; Eli Richmond
   d) CBS Grad Tracking / Financials: contact Donna Olsson; John Weston
   e) Student Advising Portal: contact Minh Nguyen; Megan Richmond
   f) BANNER: contact ?
   g) MyInfoVault: contact Kelly Anders

C. Administrative units (but could be campuswide tools)
   a) ServiceNow: contact Anita Nichols

These are the applications that were considered but eliminated from the list of those to evaluate for various reasons, in some cases simply because we needed to keep the list manageable.

a) Automated Course Evaluation (ACE): mirrors OPP in many ways and has not yet been broadly adopted (too early).
b) ESP – IET’s onboarding application: not yet available

c) Kuali Financial System (KFS):

d) MyTravel: about to be replaced

e) FacilitiesLink:

2) Seek input from the application sponsor to briefly describe how the application was developed.

3) Develop questions to use as a guide for the conversation with users.

4) Route the draft of this document to the ADMAN Executive Board and to the ACAD Advisory Board and ask for review/input to refine.

5) Once #4 above is finalized, introduce the project via email to the adman@ucdavis email list and describe our goals. Invite interested parties to come to a meeting prepared to discuss how well these administrative applications meet the user’s needs and what obstacles/challenges were encountered. Stress that the meeting is open to all users of systems, not just administrative managers.

   a) Feedback will be accepted by participation in a meeting (preferable), or via email (we need to discuss this).

   b) Are there any email lists for user groups other than ADMAN that ought to be included?

6) Host a meeting and elicit feedback from a user perspective. Schedule additional meetings as demand/interest indicates to ensure users have had ample opportunity to express their thoughts.

7) Compile a summary of the user feedback provided and route a draft to the ADMAN membership (adman@ucdavis.edu), and any other appropriate user groups who participated in providing user feedback, for comment.

8) Finalize the summary and submit to ACAD Chair Tom Kaiser.
## Application

**Pre-purchasing application**
Web-based tool for submitting and routing for approval requests for procurement of goods or services.

### Application sponsor and name(s) of primary contact(s)
ADMAN, CAES  
Tom Kaiser and Adam Getchell

### Briefly describe how the application was developed

### Who participated in the development?

### How were user needs elicited?

### How was the application deployed, e.g., to pilot group(s), campus-wide, in stages, etc.?

### Does the application continue to be enhanced with additional functionality based on user feedback?

### Does the application facilitate production of data analytics/metrics that may help users improve business processes?

### Additional comments about the application
## User Perspective Survey

**Application**

**Time Reporting System**  
Web based application used to track work and non-work hours (vacation, sick leave, etc.) for eligible employees.

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
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<tbody>
<tr>
<td>Do you feel your needs as a user of the application were understood by the development team?</td>
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<tr>
<td>Were there key constituent groups left out of the development process?</td>
<td></td>
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<tr>
<td>How did you hear about availability of the application?</td>
<td></td>
</tr>
<tr>
<td>Have there been enhancements in functionality that have made your experience using the application better?</td>
<td></td>
</tr>
</tbody>
</table>
| Is the application meeting your needs?  
Comment, plus rate on a scale of 1 (does not meet needs) to 5 (meets most needs). |          |
| Has the application helped improved efficiency in your unit?                                |          |
| Additional comments about the application                                                  |          |