

Campus Solutions Implementation Project Steering Council Proposal

Date: March 19, 2015
Request #: SISRP-10
Title: Academic Advising Solution

This Steering Council Proposal is a Request for: Decision

Problem Statement

The scope of the SIS project includes implementation of a set of tools for advisors, some of which exist in Campus Solutions and some of which do not. The campus needs an integrated, comprehensive set of tools that include an appointment scheduling tool, workflow, a student planner, and notes. The project team needs a decision about the direction to take;

- Purchasing and implementing Salesforce,
- Building a customized bolt-on in Campus Solutions,
- Purchasing a new product Student Engagement, by Oracle, or
- Scale bHive (built by L&S) to use as a campus-wide solution.

The Academic Advising (AA) Team has researched multiple options for the comprehensive advising solution, which the AA Team refers to as case management. For the purpose of the project, case management is the entire set of interactions with a particular student. This includes the following:

- shared advising notes
- communication (advisor to advisor; advisor to student)
- workflow (automate student requests)
- long-term academic planning tool
- scheduling tool for creating and managing advising appointments

The AA Team is working closely with the User Experience (UX) Team to ensure that the solution will not only meet functional needs but will provide a strong user experience for advisors. Regardless of the solution, the AA Team and the Cal Central Team have discussed the need for an Advisor Dashboard that pulls all useful student data into one space for ease of use. Our working assumptions are that advisors will use CalCentral as the portal and will be able to enter advising notes directly into CalCentral.

Advising Toolkit Requirements

Academic Planning	What's missing / required classes / to do Approval of plan Trends & issues Sharing with student / joint editing Validating Projecting Integration with academic advisement (audit) Ability to track more than courses (e.g. enrichment opportunities) Maintain multiple plans for a student
Case Management	Case = the entire set of interactions with a particular student Within each case, ability to track specific issues

	Reminders / follow up Analytics (e.g. how are issues resolved; length to resolve issue; types of issues) Notes sharing Referrals Needs to integrate with all advising tools
Communications	Communicate with 1 or more students Communication with staff or faculty members Tie communications to case record and/or plan
Workflow / Forms	Initiating or processing workflow, e.g. withdrawal or major petition Track status of the workflow Manage the workflow, e.g. reassign See when a process is stalled (exceptions)
At Risk / Alerting	See student presenting at risk Tie to case history
Service Indicators / Blocks	Authorized advisor can set, modify or remove a service indicator Student can see service indicators and know how to resolve.

BACKGROUND:

The mission of UC Berkeley’s advising community is to provide advising from recruitment to graduation and help equip students with the tools and support to benefit from a research university rich in services and opportunities. This mission is met through the advising community’s philosophy that it is a partnership of students, faculty and staff committed to the highest standards of professionalism and advising innovations while applying a wide range of approaches that are inclusive of the campus diversity. The advising community offers a wide spectrum of knowledge and opportunities. Students benefit most when they actively engage with the multiple resources available to them to realize their academic and personal potential.

The advising philosophy is supported by the following guiding principles:

- Uphold the University’s mission of teaching, research and public service
- Deliver personalized and comprehensive advising
- Respect and appreciate differences and commonalities
- Deliver comprehensive and personalized advising
- Promote intellectual engagement with Berkeley’s world-class faculty
- Foster self-reflection and open-mindedness
- Cultivate a shared sense of belonging and a lifelong relationship to the University
- Demonstrate integrity and professionalism
- Pioneer advising innovations and technologies
- Collaborate to provide accurate and consistent information
- Empower student ownership of the Berkeley experience

In order for the advising community to carry out its vision and mission, advisors need to leverage technology to reduce time spent on administrative tasks and create a collaborative work environment that will allow advisors shared access to students’ electronic files, including advisor notes, communication and long-term academic planners. We also need to empower students to take ownership of their Berkeley experience. Thus we need to offer the ability for students to make use of online tools, such as the ability to schedule an appointment with their academic advisor, the ability to submit requests via an electronic form that has backend workflow to automate the review process, and

the ability to batch assign students to advisors, so students always have an accurate list of their academic support units.

UC Berkeley has determined that the Advising Solution is in scope for the SIS project. While there is some delivered functionality within Campus Solutions, it is not a comprehensive solution. As delivered, Campus Solutions does not provide a scheduling tool for online appointments. It also fails to provide advisors with a good user experience. Advisors currently use a wide range of disparate tools with different interfaces, which increases the time needed to prepare for advising appointments, thus taking away from the student experience. To close this gap, the AA Team has identified four options. All options would require integration with Campus Solutions, as CS is the system of record for student data (e.g. enrollment, transcript history, registration holds, advisor notes, academic advisement, advisor/advisee tables, student financials, etc).

Background

Participants

Proposal Developed By: Academic Advising Team

Interviewed / Provided Input: Bob Jacobsen, Anne DeLuca, CalCentral Team, Bernadette Geuy (UX), SR Team, SIS Technical Team, Undergraduate Advising Directors, Student Services Managers, UMAs, GSAOs, Grad Division, Athletic Study Center, Cal Student Central, CE3, Law School, Haas, School of Optometry

Stakeholder Community: Students, Advisors, Administrators, Faculty

Glossary

Bolt-on: A bolt on is a modification built using PeopleTools, the Peoplesoft platform, so it is within Campus Solutions and a completely integrated solution.

Third Party solution: This is a vendor product that we would buy that would have to be integrated with Campus Solutions.

Options

Option #1 – Salesforce Solution with Sumo (or TimeTrade) Scheduling Platform

Description: The Sierra-Cedar Salesforce Team put together high-level estimates for developing an Advising Solution that would use the Salesforce Platform for what they feel would be a best-in-class solution. The SCI Salesforce Team would leverage the Salesforce Service Console for the Advisors to work efficiently with student records and have the necessary integrations with Campus Solutions. Their current recommendation is to implement a third party vendor (options are Sumo Scheduling Platform or TimeTrade) as the scheduling system, but also leverage cases, chatter, and many of the other features of the Salesforce platform. This estimate does not account for the long-term program planning tool or electronic forms for student requests.

Estimated costs:

Implementation of Salesforce and Sumo: \$300-350K

Yearly Licensing Fees (based on 800 users): Salesforce \$144K (Limited Use License), Sumo \$519K

Key Considerations:

- Salesforce is a flexible tool with proven capability that includes appointments, case management, chatter for collaboration, and a true 360 degree view of constituents. This can be accomplished with the Salesforce Platform and integration to Campus Solutions and other key institutional systems. (Pro)
- Uses the same tool as is currently being used by Cal Student Central. (Pro)
- Would require extensive customization to meet the full spectrum of campus need.
- The technical and functional resource impact is very high. (Con)
- The current bid does not include a student planner. (Con)
- The current bid does not include electronic forms for student requests. (Con)
- Would require an RFP because of the cost of the appointment scheduler. (Con)
- Ongoing cost to maintain is high due to annual licensing fees. (Con)

Option #2 – Customized Bolt-on Solution, Campus Solutions

Description: The Sierra-Cedar Campus Solutions technical team has proposed a customized solution (bolt-on) for scheduling advising appointments, case management, forms, a student planning tool and workflow.

Estimated costs for comprehensive advising solution:

Scheduling component: \$715K

Estimated yearly cost for maintenance, after year 1: \$70K

Key Considerations:

- The SIS Project Team would have control over all aspects of the bolt-on, including incorporating all the functional requirements, providing an excellent user-experience, and creating sound system architecture. (Pro)
 - The functional requirements would represent all advising needs, including curricular and co-curricular units, to allow for one advising system and replace independent advising systems, such as bHive and Salesforce in Cal Student Central. (Pro)
 - Development of additional advising tools and continual improvement will be based on one common platform for all users on campus post go-live. (Pro)
 - Advisors will only need to be trained on one system, regardless of their home unit. (Pro)
- This is the only comprehensive solution. (Pro)
- Fully integrated with all student data. (Pro)
- While the initial investment is high, this is the least expensive option to maintain and the least expensive when estimated over 5 year period. (Pro)
- The functional resource impact will be high. (Con)
- The technical resource impact will be high. (Con)
- Risk with the amount of technical effort required vs. the timeline. (Con)

- A deeper dive into Cal Student Central's use of Salesforce is necessary to understand additional functionality that was not included in the initial advising solution proposal. This might be met by delivered functionality in CS or will be part of the bolt-on solution, which could impact the cost estimate. (Con)

Option #3 – Purchase Oracle’s Marketing Cloud for Student Engagement

Description: Oracle has released a new product that includes many of the components we are planning to build in the bolt-on. The project team is currently conducting research on this option and will only pursue it if the product does what we need it to, will integrate well and easily with Campus Solutions, and is relatively inexpensive.

Estimated costs for comprehensive advising solution:

Unknown – still being researched by Chris Cameron.

Key Considerations:

- Only if the Cloud solution meets our functional needs and is inexpensive will we consider this option. (Pro)
 - This solution is currently unknown and untested (Con)

Option #4 – Scale bHive, a homegrown system within the College of Letters and Science, to meet campus advising needs

Description: The College of L&S built and deployed appointment scheduling software that integrated with their existing database, named bHive. The Project Team considered expanding its use to the campus.

Based on the results of the Campus Infrastructure Architecture Review, in order to extend bHive to an enterprise level sustainable application, we would need to augment the application development team by 1 FTE (currently 1 FTE that has extensive NodeJS/Mongo expertise) and add System Administration FTE or services to the team. For this summary, we are suggesting 1 FTE, but additional discussion would be advised. In addition to the staff augmentation, the application needs to pass MSSEI for Data Protection Level 2 data, implement an Intrusion Detection System (IDS), consolidate all required infrastructure in either the campus Data Center or AWS, improve load balancing configuration, register the application with the UCB AWS master agreement and integrate with bCal to be enterprise-ready. On an aggressive schedule, this effort would take 3-5 months with the additional FTE.

Estimated costs:

Implementation of bHive would require 2 FTE: \$200K + Benefits @ 45% = \$290K

Yearly maintenance costs: \$290K (2 FTE)

Key Considerations:

- Good tool for academic advisor use, with existing appointment scheduling and CalCentral integration (Pro)
 - Would require extension to support the full spectrum of campus needs to include all advising units
- Does not include a student planner or workflow. (Con)

- Five year cost. (Con)

Recommendation

The Advising team is considering the following criteria when determining a recommendation.

1. functionality and integration with campus business processes
2. the user experience for both the advisors and the students
3. the timeline for implementation, and
4. cost, including ongoing maintenance costs

The recommendation from the Advising Team, after careful consideration and exploring several options, is **Option #2, Customized Bolt-On, Campus Solutions**.

Justification:

1. A bolt-on solution is the least expensive option and the only option that provides us with a comprehensive solution.
2. A bolt-on solution will meet all advising needs across campus to ensure one student and staff experience in order to provide students with a holistic service.
3. In order to achieve this goal, a bolt-on solution will replace all independent advising systems, such as bHive and Salesforce in CSC, thus creating one advising system.
4. One advising system provides a common platform for users across the campus and lays the groundwork for continual development post go-live.
5. A bolt-on solution is the least expensive to maintain.
6. A bolt-on solution would not require an RFP.
7. A bolt-on solution would allow the work to be managed within the project team.
8. An excellent user-experience will be a high priority and, within the project team, sound decisions can be made about whether to use CalCentral or Fluid Design for any of the steps.

Summary of Four Options

Solution	Functionality	First Year	Ongoing	5 Year Cost	Notes
SalesForce with Sumo	Appointments (Google Integration), Communication, Notes (no Planner)	\$1,013K	\$663K	\$3,315K	Needs RFP - doesn't meet timeline requirements
SalesForce with TimeTrade	Appointments (Google Integration), Communication, Notes (no Planner)	\$714K	\$364K	\$1,820K	Needs RFP - doesn't meet timeline requirements
Campus Solutions Bolt On with Cal Central	Appointments (Google Integration), Communication,	\$715K	\$70K	\$995K (Planner cost is \$158K)	Higher development risk (mitigate scope by

	Notes, Academic Planner				Go-Live 5=Appointments and Workflow & Go-Live 7=Planner, Shared Notes, Communication, Surfacing At- Risk Students); least expensive solution
Bolt-on plus Burgundy Planner	Planner	\$557K + \$300K	\$70K	\$1,137	There is a bolt- on already built for the planner and in use by CSU Sonoma.
bHive	Appointments, Notes	\$290K	\$290K	\$1,450K	

What is included in each solution?

	Salesforce	Bolt-On	Cloud	bHive
Academic Planning	No	Yes	Unknown	No
Case Management	Yes/limited	Yes	Unknown	Yes/limited
Communications	Yes	Yes	Unknown	No
Workflow / Forms	Yes	Yes	Unknown	No
At Risk / Alerting	Yes	Yes	Unknown	No
Appointments	Yes (Sumo or Timetrade)	Yes	Unknown	Yes
Service Indicators / Blocks	Yes	Yes	Unknown	Unknown