University of California, Berkeley
Visiting Scholar and Postdoc Affairs (VSPA)

http://vspa-gateway.berkeley.edu

Title:

Visiting Scholars and Postdocs Affairs (VSPA) Gateway

An online application to manage the visiting scholar and postdoc community for the Berkeley campus.

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Summary

The VSPA Gateway is an automated electronic tool that replaces the paper application process for visiting scholars, visiting student researchers, and postdocs. Prospective applicants use a public portal to submit an online application, and sponsoring departments directly interface with a web-based application to review and approve an application and create official authorization letters.

The VSPA Gateway has dramatically improved the application submittal and approval process and has made it easier for sponsoring departments to manage their visiting scholar and postdoc population.

Project Description

Prior to the VSPA Gateway, more than 150 campus departments and organized research units interfaced with the VSPA Program with a paper application. This paper application was sent to the prospective affiliate for completion and later returned directly to the sponsoring unit for unit their review and approval. This process involved duplication of efforts, i.e., the department recorded the data into their shadow systems prior to submittal to the VSPA Program.

With the older paper system, the VSPA Program would have to review the application for appropriateness and then would re-enter the same data into another campus central system that provided letters of affiliate authorization. However, if the applications were incomplete or incorrect, the VSPA Program would manually communicate the need for more or corrected data. After the needed information was received, VSPA Program staff then entered this data.

Because the VSPA Program research community is more than 72% international, approximately 25% of the prospective affiliates had to change their beginning and ending dates of their research visits several times because of visa appointment arrangements or change in travel plans. These changes resulted in new data entries on the old VSPA Program database so that new, more accurate affiliate authorizations could be produced.

With the VSPA Gateway, the length of time to produce the letters of affiliate authorization was cut dramatically, i.e., from four weeks to literally one to three days. Additionally, the online application eliminated duplication of effort. In other words, the applicant filled out their academic and personal information in their home country and now the sponsoring department only needed to complete their information, i.e., compensation amount, job code, sponsoring faculty name, work location, purpose of research visit as well as a variety of other required data.

With this new online system, the department no longer has to re-enter the affiliate information onto their departmental shadow systems and only has to complete the departmentally required data referenced above.

Because applications are now electronically completed and approved, the VSPA Program no longer has the need to enter the data into the former central database thereby eliminating duplication of effort.

Financial Impact

By eliminating shadow systems and reducing the amount of time and resources required to process applications and to produce approval letters, UCB saving estimate is over $560,000 annually.

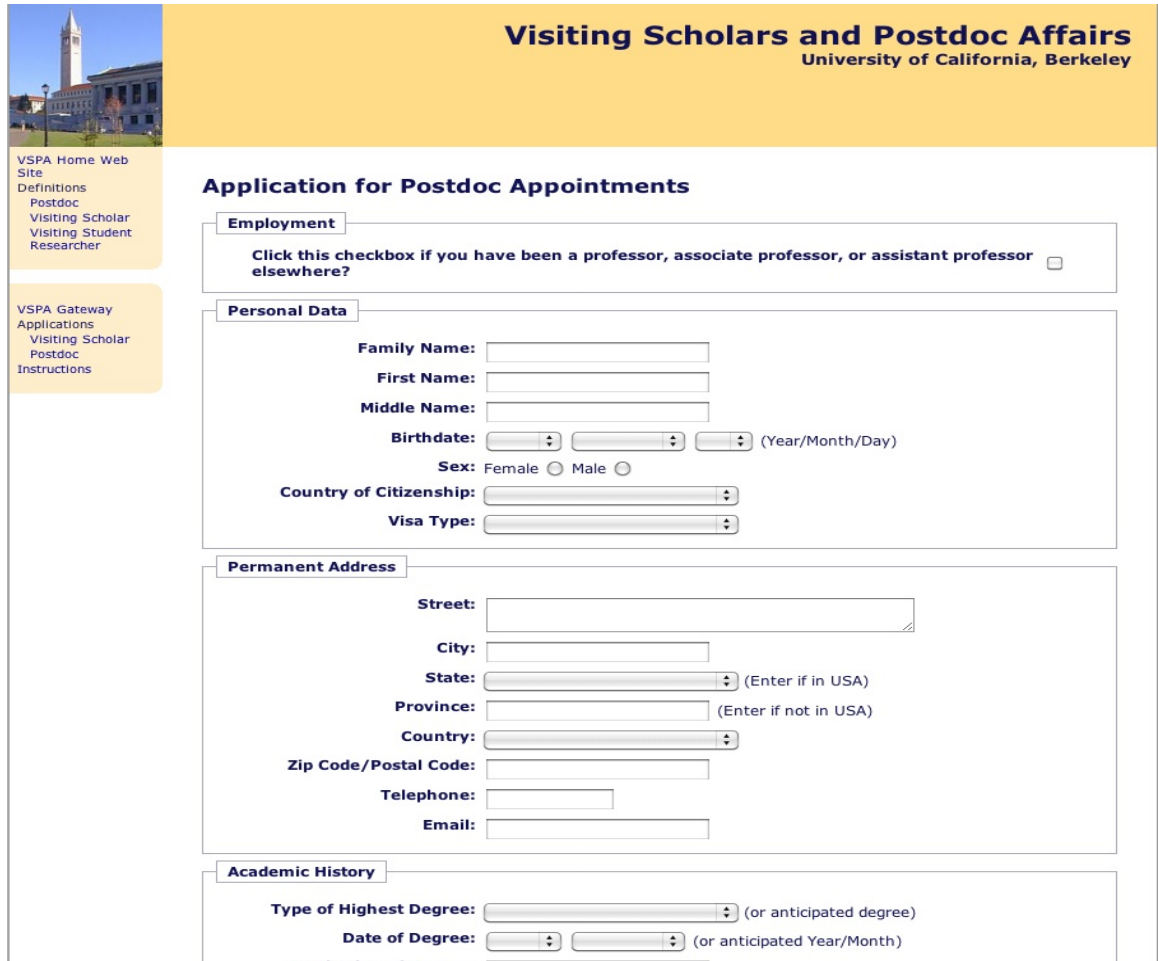The savings calculations is based on:

1500 (average number of applications per year) * 3 (steps in approval process) * 5 (hours saved per application per step by reducing paperwork and eliminating data entry in shadow systems) * $25 (cumulative average hourly rate for administrators/department heads) = $562,500.

Other UC Campuses have shown great interest in this application. We are in discussions with other campuses to either host the application for them or supply them with the source code. UC-Wide savings could be over $5,600,000 when other campuses use VSPA Gateway application.

Applicant

The VSPA Gateway web-based application allows prospective candidates to submit their application only after they receive an invitation email with a unique URL address for each candidate from the hosting department. To this regard, sponsoring departmental administrators create the email invitation by going to the "Invite" section of the application and enter the candidate's name, email address, hosting department and sponsoring faculty member's name.

This allows the candidate to receive a URL so that they can complete their application and submit it online to a designated departmental "preparer".

By validating the user input and enforcing business rules such as degree requirements and previous experiences for an application, the VSPA Gateway ensures that all submitted applications are appropriately completed and ready for the approval process.

Once a candidate submits an application, the URL becomes inactive and an email is sent to the designated departmental administrator informing them that the application is ready to be reviewed.

Administration

The VSPA Program designates departmental administrators who can logon to the Administration section of the application so as to manage their department's visiting scholars and postdoc population.   This function is entirely new for departments as they never before had access to data with regard to their affiliates.

When the VSPA Gateway was constructed, more than ten years of affiliate history was transferred into this new electronic tool and is of particular importance for planning, e.g., grant writing purposes.

Approval Process

The approval process is a two-step process: The first step is to "prepare" an application. At this stage, a designated departmental administrator will complete the submitted application by adding job title, funding source, proposed start and end date of appointment, office location and other required or missing information and submit it for final approval.

The second step in approval process is "Review" whereby designated departmental "approvers" review a "prepared" application and either approve or reject it.

Once the application is approved, the official affiliate authorization letter is created automatically and is ready to be sent to the approved affiliate via email.

VSPA Gateway System Benefits

Besides dramatically improving the submittal and approval timeline with regard to the application process as well as eliminating duplication of effort, this new, electronic web-based system has many other benefits.
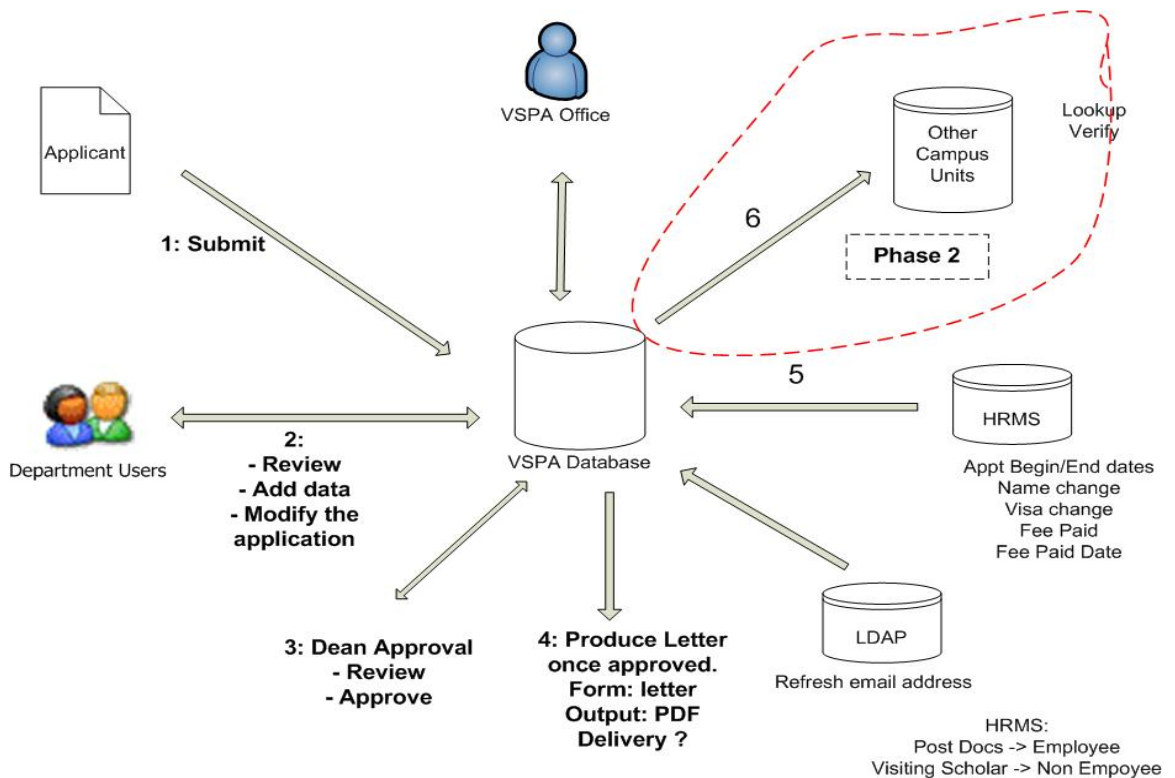
- Over $560,000 in operational cost saving annually.

- Eliminated the need to support costly shadow databases that were being maintained at the college and school level. Now, all sponsoring units have access to their departmental data in a centralized repository with a uniform application and approval process.
- Reporting ability is now possible. Prior to the VSPA Gateway, the VSPA Program was incapable of producing regulatory and ad-hoc reports with regard to the visiting scholar and postdoc population.
- Eliminated duplicate entries in databases for a single person by enabling administrators to add additional appointments for a person instead of creating multiple entries for the same person.
- The old, entirely paper-based process is now replaced with electronic PDF authorization letters that are transmitted by email. The cost for the use of U.S. mail was entirely eliminated. This is particularly important, as the official authorization letter is required on a moment's notice, e.g., at U.S. embassies and international funding agencies.
- Large departments can directly manage their own visiting scholar or postdoc population with minimal assistance from the VPSA Program.
- The visiting scholar or postdoc can now be linked to campus central systems such as Human Capital Management when the affiliate is physically present on campus.
- Other service providing departments such as CalNet, Cal1 Card, The Library, CalMail, Housing and Dining, etc. now have the ability to confirm information about an approved affiliate and assign their resources. Future enhancements are scheduled that will allow campus service providers a customized use of data in the VSPA Gateway.

Technical Information

The VSPA Gateway application is written in the Ruby on Rails platform and hosted on central UNIX servers. The database used for application is Oracle 11g. The next release of this application will be on Jruby platform on Linux virtual servers deployed on Tomcat.

Below is an overview as to how the VSPA Gateway interfaces with users and other campus systems.

Department Reviews

Because the VSPA Gateway was extensively planned for two years, the product was rolled out in bits and pieces to large units first and smaller units last. This allowed for focus groups, training sessions and tools to be produced and reviewed meticulously. To this regard, the campus reacted with an unprecedented, huge favorable response to this new tool.

From colleges and schools to small-organized research units, the VSPA Gateway offers the ability to regulate and customize the application, approval and affiliate recognition process. Never has the campus embraced an electronic tool that provides deliverables in a cost-efficient and timely manner. Over the last year in particular, department heads, deans and principal staff have lauded the founders and creators of the VSPA Gateway and have provided direct comment with regard to the success of this project.

Collaboration with other UC campuses and future of VSPA Gateway

Primarily because of the recent unionization of postdocs in the UC System, other UC campuses have expressed a strong interest with regard to this application. To this regard, the VSPA Gateway will soon be renamed The UC Gateway. Recently, a ten campus ReadyTalk telephone conference was convened to demonstrate the prowess of such an efficient tool. The campus is currently in discussions with UC San Diego and UC Merced to either host the application for them in Berkeley or give them the source code. UC Davis is the next in line for collaboration. Because of the favorable response from other UC campuses, the IST - CTS team is exploring the possibility to host the VSPA Gateway for the entire UC System.