SAAESD Financial and Personnel Database at Texas AgriLife IT

The following information on development and subsequent maintenance of the SAAESD Database was provided in email correspondence with John Adamson, Manager, Software Development Group, Texas AgriLife IT, Texas A&M University System.

Below is a Service Level Agreement (SLA) outlining our understanding of the SAAESD Database project at this point. Included in the document are basic goals and objectives to be met, tasks necessary to make the application a reality, and general responsibilities of both AgriLife IT and SAAESD, including a definition of the project's expected life cycle (two years).

Please note that we are agreeing to do all the development work, will host and maintain the application using our resources, and are agreeing to provide backup capability.

We estimate that development alone will consume roughly 12-15% of Rey's time and so would appreciate recovering our cost at the same rate. That translates to approximately $9,000, or $4,500/year for each of the two years in the project life cycle. This is consistent, by the way, with the cost recovery model used with the "Excellence In Extension" application which Rey developed. Based on our on-going costs for SAS licensing, server maintenance and upgrades, and recurring professional development costs, an annual cost after the first two years to SAAESD of $1,000 will be sufficient.

If the attached SLA and cost recovery terms as described above are satisfactory in your view, we see no reason why the application can't be in production by the Fall of 2011.

The following points will add some clarity.
a) The original set-up three years ago needed to be revisited for a couple of reasons: (1) It was never documented to the standards degree that we are required to use today, and (2) it was out-of-scope as far as a two-year life cycle is concerned.
b) Reviewing an already-written project (plus adding some new mods) allows the project to incorporate needed security "hardening" and to incorporate current data presentation technologies not available in the old website. (Meaning that, even though the application exists, there's still significant work to be done on it.)
c) The SLA accurately describes the project regardless of whether portions of it have been completed or not.
d) Cost recovery provisions haven't been discussed until now.

An additional point which I think should be considered: The application has been hosted, maintained and supported for the last three years, regardless of whether it was in use or not (another reason for a two-year life cycle). That support has meant disk space, bandwidth allowances, regular backups, and migration as newer equipment and operating systems became available. None of these individual items amount to much, cost-wise, but they do nevertheless contribute to "overhead" because every application in the mix occasionally must be addressed specifically.

SERVICE LEVEL AGREEMENT

Client: Eric Young, Executive Director, Southern Assoc of Ag Exp Station Directors

SDG∗ Team: J. Rey Santos (developer)**,** John Adamson (Manager)

∗ Refers to the Software Development Group under Agrilife Information Technology unit of Texas A&M University

Background:
A web site was developed in 2007 named "Baseline Data for Experiment Stations in the Southern Region". It was built to accept funding allocation data from various experiment station directors who are members of the Southern Association of Agricultural Experiment Station Directors (SAAESD). The web site was hardly ever used and has remained stagnant for some time. This proposed project seeks to resurrect the same project using an entirely different set of metrics and database structure.

Objective:
Enable easy access and sharing of key administrative data among the SAAESD directors to assist with decision-making relative to acquisition and allocation of budget, positions, and other resources within the region's agricultural experiment stations.

*Goal***:**
Develop a web-based database system with the following features:
1. Simple, user-friendly data input web page
2. Easy access to all data sorted by state and specified parameter(s)
3. Data summary of regional average and range
4. Data calculated from combinations of certain parameters (e.g. support staff per researcher)
5. Ability to download data, summary, and calculated tables into Excel

Task list:
1. Construction of the data input page (24 hrs)
    ▪ Create a database front end to capture data entered for the following parameters:
        i. Total budgeted funds appropriated from NIFA (Hatch, McIntire-Stennis, and Animal Health only) for the most current federal FY
        ii. Total AES awards from immediate prior FY from grants and contracts
        iii. Total AES expenditures from immediate prior FY from grants and contracts
        iv. Total other revenue for AES during the previous FY from any source other than those above (could include gifts, royalties, etc.)
        v. Total number (in FTEs) of permanent filled researchers (professional level researchers regardless of title) from all hard funding
        vi. Total number (in FTEs) of hard-funded support staff (technicians, post-docs, etc., but not secretarial/clerical) in the state
        vii. Total number (in FTEs) of Directors and Associate/Assistant Directors (i.e. AES administrators) in the state. This does not include support units (e.g., computing, communications, fiscal and personnel, etc.) or department heads.
        viii. Average starting salary for tenure-track researchers
        ix. Range (high/low) of starting salary for tenure-track researchers
        x. Number of patents awarded this reporting year

- Use a script (ASP or JavaScript) behind the data entry form for error-checking and data validation
- Provide an ASP script to capture the data that were entered and have the data populate the pre-created database

2. Provision of data access (56 hrs)
   - Access to data and associated permissions (add, edit, and delete) will be provided through a configuration file. A login module will be provided to limit access to authorized users only. An account at a database administrator's level will be created for SAAESD use only to enable the creation and control of user accounts.
   - Data viewing will be enabled in the form of a matrix table with the columns in the first row containing all the variable headings. The left-hand first column would contain the id or observation number (index key) which is usually not visible to the user. An option to display data in Excel-like format would be provided when possible.
   - All or selected variable headings would be clickable for initiating an ascending/descending sort procedure on each column.

3. Generation of data summaries and calculations (56 hrs)
   - Statistical summaries (mean, range, etc.) and calculations will be handled using SAS and would be presented in tabular and/or graphical forms. An option to display statistical summaries in Excel-like format would be provided when possible.

4. Data download (8 hrs)
   - A facility to download data in the form of summaries, tables and/or graphs will be provided to save or export data and associated statistics in Excel format.

5. Application testing (56 hours)
6. Launch beta release for client testing (56 hours)
7. Launch of production version subject to completion of client testing

Note: Documentation is included in steps 1-4 above at a rate of approximately 25% of total time for each task.

General Responsibilities:

Code development and logic testing will be the responsibility of SDG. This means that the software code must conform to customer specifications and operate error-free. If errors are found which cause the software to stop operating, SDG will correct such errors as a top priority.

Design and testing of the software's functions will be the responsibility of both SDG and SAAESD. If errors are found in functionality of the software, SDG and SAAESD will jointly review the problem and determine corrective action on a case-by-case basis.

Each project will follow a two-year life cycle. That is, after the initial launch, the application will be in use for two full years without modification (excepting those related to coding errors which must be corrected) [1]. At the end of the first year, the customer(s) and the developer(s) will "meet" (via teleconference, chat or e-mail) to ascertain any needed changes, new features, etc. [2]

- Any needed changes will be incorporated, tested and approved as a development version during the second year[3], and will be released as a new production version at the end of the second year. The life cycle will then repeat.
- If no changes are required, the production period will be extended for an additional 12 months.

[1] It is understood that exigent circumstances (e.g., disasters, changes in State and/or Federal requirements, etc.) may necessitate deviating from the normal life-cycle schedule.

[2] As a general rule, only changes which can be developed and tested within one year will be considered.
[3] Customer acknowledges that the 12-month period for development and testing can only begin after agreement is reached as to the needed changes. Delays on the customer's part in identifying needed changes will not infringe on the 12-month development/testing period.

Post Launch Responsibilities:

Software Development Group responsibilities:

1. Host the website and its database on its server.
2. Provide backup support.
3. Provide code and database maintenance, fixing any bugs as needed.
4. Provide basic support to SAAESD about use of site functions.
5. Scheduled maintenance will be completed on Sundays and will provide SAAESD with 5 business days notice.
6. Reserves the option of shutting down the application with no notice to SAAESD if a security issue is detected.

Client responsibilities:

1. Manage all contents in the system, including creation and deletion of user accounts and maintaining existing ones.
2. Provide a notice to the users when scheduled maintenance will be performed.
3. Be the primary contact for site visitors with questions.
4. Alert the web developer in a timely manner via e-mail if they discover any post-launch errors or bugs so "fixes" can be scheduled quickly.
5. Be aware that new features must be discussed and planned as an individual project and version upgrades, following the same process as a new from-scratch project.
6. Be responsible for keeping administration logins secure per system guidelines (available using a link from the login page) regarding passwords.