

Internet Budgeting Solution (IBS)

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Abstract

The Georgia Tech Office of Budget Planning and Administration (“Budget Office”) is responsible for the development, implementation, maintenance, and control of Georgia Tech’s operating and capital budgets, based on allocations approved through appropriate academic and administrative processes. The one billion dollar operating budget includes revenue from tuition, state allocations, departmental sales and services, sponsored awards, auxiliary operations, and agency operations. In addition, budgets are maintained for a large number of plant fund and major capital projects.

Budgets at Georgia Tech are maintained at the project level and include details by position. Each department maintains its own budget, while the Budget Office provides oversight and overall university control. Because of this detailed process, the Budget Office has designed and implemented an internet-based budgeting application called “Internet Budgeting Solution” (IBS). IBS allows users across the university to manage and view their own budgets, while the Budget Office retains control over budget postings to the General Ledger. The application has allowed Georgia Tech to save substantial staff time and paper, while improving the timeliness and quality of budget management information required by the academic and administrative departments.

Introduction of the Organization

The Georgia Institute of Technology is one of the nation's top research universities, distinguished by its commitment to improving the human condition through advanced science and technology. Georgia Tech's campus occupies 400 acres in the heart of the city of Atlanta, where more than 17,000 undergraduate and graduate students receive a focused, technologically based education. Georgia Tech also has campuses in Savannah, Georgia and in Metz, France and research operations all over the world.

Accredited by the Southern Association of Colleges and Schools (SACS), Georgia Tech offers many nationally recognized, top-ranked programs. Undergraduate and graduate degrees are offered in the Colleges of Architecture, Engineering, Sciences, Computing, Management, and the Ivan Allen College of Liberal Arts. Georgia Tech consistently ranks among U.S. News & World Report's top ten public universities in the United States.

Georgia Tech has a \$991 million budget in Fiscal Year 2007, comprised of \$904 million "Education and General" funding, plus \$83 million for Auxiliary Enterprises. With affiliated organizations, Georgia Tech's operating budget surpasses \$1.0 billion.

Statement of the Problem/Initiative

The size and complexity of Georgia Tech make the budget function a challenge. Georgia Tech historically has maintained a decentralized budgeting process that permits departments the authority to transfer funds within given boundaries and with the authorization of deans and other division heads. The Budget Office has retained central control over this process through an internally developed, online budget system. Beginning in the late 1970's the previous budget

system was housed on a mainframe and was character-based for user input. The system suited the university for a number of years, but had a number of limitations, including the following:

- Substantial user training was necessary
- The hardware that hosted the application was no longer supported
- Substantial re-keying of data by campus users was required
- Reports produced by the system were centrally generated, inflexible, and dependent upon paper
- Updates were required to meet the requirements of the new financial and human resources systems implemented by Georgia Tech during the 1990's.

With changes in technology, including the advent of the Internet, Georgia Tech began a project to replace the application in the mid-1990's. University management determined that there was no viable higher education budgeting system suitable to Georgia Tech and authorized the Budget Office to proceed with a project using in-house resources to design and build a new internet-based application for budgetary control. Initial requirements defined for this new application included:

- Capability of building the annual ("original") budget **and** processing budget amendments
- Providing a clear view of a department's budget at several levels
- Being user friendly and therefore requiring minimal user training.

In 2001 the Internet Budgeting Solution (IBS) was first introduced to the campus.

Design

Georgia Tech has since the 1970's utilized an online budgeting system, so the Budget Office staff realized what would be essential in a new budgeting application. First, staff conducted a national survey to ascertain what budgeting packages were being utilized by other universities.

The key finding was that only a few universities in the mid- to late 1990's had formal budgeting systems other than spreadsheets. The few budgeting applications being used were either not written for higher education or were very cumbersome to use. The decision was made to develop a budget system that would be tailored for university budgeting, especially for a major research institution. Because of the maintenance involved with the previous online budget system, the Budget Office already employed a three person technical team. This team began designing the Internet Budgeting Solution (IBS) with the following requirements:

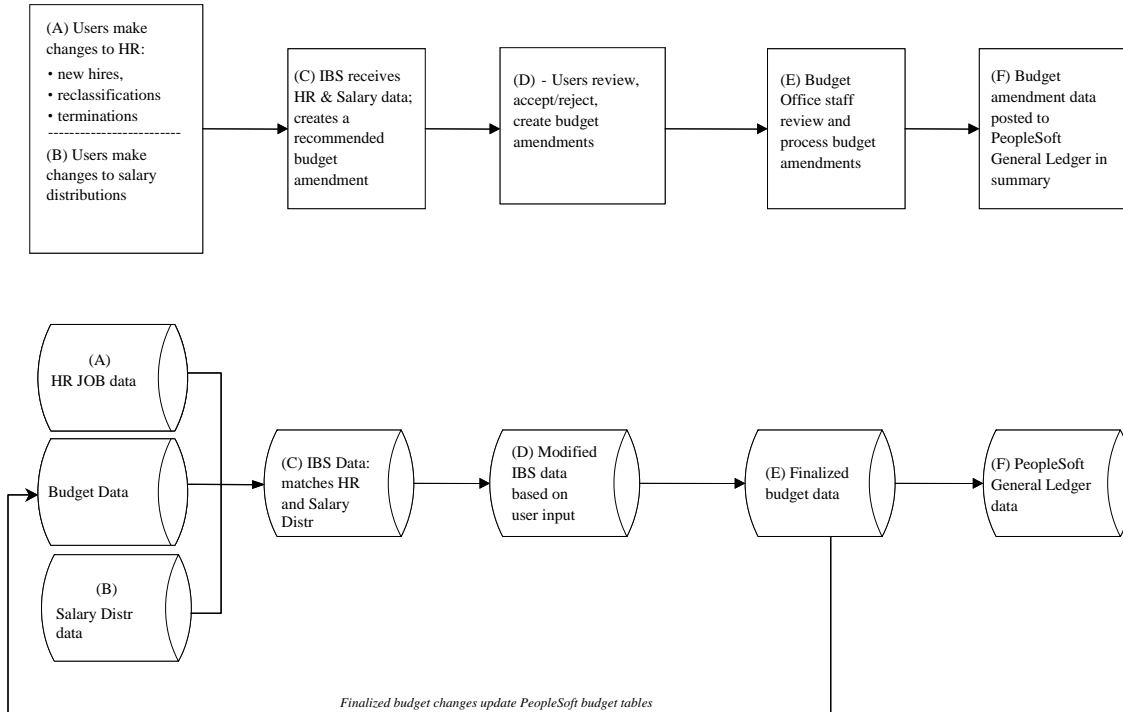
- Web-based and available from any Internet connection
- User-friendly because of the wide range of users needing access to budgeting information
- Capable of building the original budget as well as performing monthly budget amendments
- Capable of delivering expenditure and revenue information
- Interface with PeopleSoft financial applications, but not be dependent on them
- Interface with the Human Resource system to reflect HR changes
- Interface with Georgia Tech's Salary Planning and Distribution system so that users could avoid "double keying" information
- Allow users to move funding within their departments and immediately see the effect on their totals
- Provide a variety of standard budget management reports that:
 - Integrate actual and budget data
 - Provide multi-year comparisons
 - Display data in detail and on a roll-up basis.

- Along with the standard reports, permit easy downloading of data into management reports maintained internally by departments
- Provision for explanations and justifications for budget actions
- Allows Budget Office to maintain control of any budget changes made to the General Ledger.

IBS has been successfully used at Georgia Tech for four years and has proven to be an effective solution to Georgia Tech's budgeting needs. Campus users log into IBS to gain access to the departmental budgets they are authorized to manage. Each user employs IBS to develop and manage their operating budgets through the Internet. This includes the annual/original budget development and the budget management/amendment process throughout the fiscal year. Also, certain users, including department heads and other academic staff, may obtain "read only" rights to view available reports.

At the beginning of each month, the application downloads information from the PeopleSoft Human Resources and Financials modules and from the Salary Planning and Distribution system and loads the data into the IBS database. This permits campus users to keep their budgets "in synch" with other university systems. Many budget reports are made available through IBS for the users to reference during the budget amendment process. These reports, which supplement those available from other systems, provide a great variety of data, including approved budget information (year-to-date and current budget), budget balance and category analysis, filled and vacant position data, multi-year expenditure and budget history, and salary planning reconciliation reports. Users have access to all reports for the current and three previous fiscal

years. Departments make any budget amendments (revenue, non-personal or personal services) and submit the information back to the Budget Office via IBS. The Budget Office is then able to review the requested changes on-line before loading any budget transactions into the General Ledger. The diagram below shows the monthly budget amendment process.



Implementation

The implementation process began by just using IBS to deliver the many monthly budget reports via the internet to the campus users. Previously these were provided in hard copy via budget notebooks delivered to departments. While the users were getting comfortable with the idea of budget information across the Internet, the technical team was finalizing version 1.0 of IBS (current version 3.1). The Budget Office then assembled a “Budget System Review Team” comprised of a number of campus users. The team represented a variety of academic and administrative units. This team performed the following tasks:

- Pilot test IBS with users' own department information
- Offer recommendations for application improvements
- Recommend standard reports
- Identify policy issues to be addressed by executive staff
- Edit the training materials.

As this team began using IBS over several months for their own budget amendments, they offered many recommendations to make the application better and more user-friendly. After addressing the issues or ideas from the review team, IBS was released to the campus to run parallel with the legacy budget system. Users were able to run and compare both budget systems for several monthly budget cycles. During this time the Budget Office provided formal, "hands on" training classes for all budget contacts on campus and also individualized work sessions for staff requiring additional help. After successfully running parallel for several months, the legacy budget system was deactivated, and users were required to use IBS for any budget maintenance.

Benefits

IBS was built by people who work in the university budget environment and therefore understand the nuances of higher education budgeting. Because this is an "in-house" product, the campus users are involved in the continuing development of IBS. Many of the reports and much of the functionality of IBS have originated from requests by users. Although IBS was written specifically for Georgia Tech, the Budget Office wrote IBS with transferability in mind. Because of the lack of quality higher education budgeting products on the market, the Budget Office has been able to speak with many other universities concerning the budget system

development process. In fact, IBS has been installed on a beta test basis at another research university in the southeast.

Campus Users Perspective – Users are able to access their budget information from anywhere they have an Internet connection. All the reports are available to download into the MS Excel format, and all contain formulas for executing “what if” scenarios. Within the reports are worksheets with the actual raw data listed so that users may build any other reports needed. Units have experienced a substantial reduction in the effort required to prepare and maintain budgets, including the avoidance of re-keying of data.

Budget Office Perspective – The Office has moved from preparing 170+ notebooks full of budget documents once a month to no notebooks or paper reports by offering all the information and reports on the web. All departments are now able to monitor and maintain their own budgets, while the Budget Office maintains control of what information is passed to the General Ledger. Budget amendments that previously required a week or more of Budget Office staff time now require one day.