

**NASCIO Submission**

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**BEACON Lights the Way from the Limitations of the Past  
to the Possibilities of the Future in North Carolina State Government**

**Enterprise IT Management Initiatives**

**Office of the State Controller**

**North Carolina**

## **B. OSC BEACON HR/Payroll Project Executive Summary**

The results of a 2003 North Carolina State Government business infrastructure study concluded that continued use of the State's legacy business systems could adversely impact the fiscal integrity of state government, as well as the efficiency and effectiveness of its operations. Specifically, study results indicated that the legacy systems supporting the current business functions offered limited functionality, relied on outdated technology, and ultimately, were at risk of failure due to old age and withdrawal of vendor support.

The study identified the State's human resources and payroll systems as being most at risk. Thus was born the BEACON (Building Enterprise Access for North Carolina's Core Operation Needs) Human Resources and Payroll Project. The project's steering committee comprised of representatives from the Office of the State Controller (OSC), Information Technology Services (ITS), the Office of State Budget and Management (OSBM), the Office of State Personnel (OSP), and the Department of Transportation (DOT) oversaw the implementation effort.

After five years in the planning and development phases, the State completed an historic upgrade of its antiquated business systems by replacing them with SAP's Enterprise Resource Planning (ERP) software solution. The State's Group One agencies went live on the new system in December 2007 with a second group following in April 2008. Through Employee Self Service, more than 86,000 state employees now have unprecedented access to their personal and benefits information on file with the State. Additionally, employees have the ability to check current and previous payroll data and record their working time from most computers with an Internet connection.

The HR/Payroll system uses a technology framework from SAP that ties agency information together in a single network. The SAP software also allows for future business operations to be added to the central operational system. The North Carolina state legislature already has approved funding to add electronic recruiting, which will keep track of state job applicants; and electronic training, which will handle a number of training-related functions, to the new system.

Planning has started on the next phase of the project, which will add budgeting, accounting and cash management functions. When completed, the BEACON system will provide centralized, coordinated business operations that can improve efficiency and provide timely, accurate information for decision-makers and the public.

The BEACON HR/Payroll Project, which was rolled out on time and under budget, provides a model for other states to follow when executing an enterprise wide technology initiative. Through the BEACON HR/Payroll Project, North Carolina state government has not only modernized and standardized key business processes in human resources, payroll and benefits, but has built a foundation to replace other aging statewide business applications.

### **C. Description**

North Carolina State Government is a large, complex organization. With an annual general fund budget of \$26.8 billion and more than 86,000 employees, the State would be a Fortune 500 company if it were a private organization. Although the State's agencies have different missions and serve different constituencies, they share similar business functions, such as human resources, payroll, budget management, accounting and more.

In 2000, following the focus on Y2K initiatives, the State of North Carolina turned its attention to its core business systems. For years, state leaders and employees had been frustrated with the limited functionality of the State's multiple business systems (payroll, leave, and training).

Specifically:

- The same information had to be keyed and re-keyed into various systems, which increased errors and impaired data integrity
- Information could not be shared among the State's various business systems, which made it difficult to produce accurate, comprehensive and timely reports
- The systems were written in outdated programming languages that were no longer taught in schools so maintaining them became very difficult
- Also, while business functions were similar or even identical between agencies, many developed specific software applications for particular functions. For example, at one point there were more than 10 agency applications designed to track employee's leave balances.

These concerns and the fact that the current business systems were at risk of failure due to old age, withdrawal of vendor support and were being run by a workforce that was rapidly reaching retirement age, prompted legislators to act.

In the 2001 session of the General Assembly, legislation was enacted to authorize a State Business Infrastructure Study. Session Law 2001-491 directed the Office of the State Controller to determine the feasibility of developing and implementing a new business infrastructure for the State. The study, under the direction of the OSC with assistance from the Office of State Budget and Management, the Office of Information Technology Services, and the Office of State Personnel commenced in February 2003. Deloitte Consulting was engaged utilizing competitive bid processes to complete the study through a two-phased approach:

#### **Phase I - Inventory and Assessment** - Completed April 4, 2003

Goal: To develop a high-level inventory and assessment of the business systems, subsystems and integration/interface components that provide financial, human resources, and payroll information and support to programs in state government. This included the identification of technical and business requirements, problems and risks, and an approximation of present costs incurred for operations and maintenance.

#### **Phase II - Blueprint for Selecting Improvement Approach** - Completed October 31, 2003

Goal: To determine and document viable options for implementing a business infrastructure that would include integrated operations for budgeting, accounting, payroll,

human resources, revenue collection, cash management, investments, and other business functions of state government.

The study concluded that continued use of the current business systems could adversely impact the fiscal integrity of state government, as well as the efficiency and effectiveness of its operations. Therefore, the State decided upon a replacement strategy that carefully weighed the risks of potential system failures with the current state budget condition and state funding priorities. The study evaluated three potential options:

- Leverage and Extend Existing Business Systems
- Phased Implementation by Best of Breed
- Single ERP (Enterprise Resource Planning) Solution

After carefully weighing the pros and cons of each option, the decision was made to go with the best business and technical approach, which would provide the most benefits to the State – the single ERP solution. The strategy involved an extended implementation approach with the first focus on replacing the human resources and payroll systems since these legacy systems were identified as being most at risk of failure.

The study also identified a detailed set of functional and technical requirements along with a corresponding business process redesign approach for the State’s human resources and payroll areas. From a functional standpoint, Joint Application Design (JAD) sessions were held to gather functional requirements, design future business processes and identify opportunities to enhance service delivery. Process owners, subject matter experts and various other individuals representing more than 30 state agencies participated in the JAD sessions. From a technical standpoint, the study identified new system requirements/specifications, including process, function, data and security.

After reviewing the study findings, the General Assembly passed Session Law 2004-129, which appropriated funds to begin implementation of the recommendations in the Statewide Business Infrastructure Study. The full estimated cost for the HR/Payroll Project is \$76 million.

With funding in place, a steering committee comprised of representatives from the Office of the State Controller, Information Technology Services, the Office of State Budget and Management, the Office of State Personnel, and the Department of Transportation was identified to oversee the project’s implementation. The steering committee was responsible for the overall direction and management of the project. The committee committed resources, maintained interagency relationships and agreements, monitored and evaluated the project’s progress, set policies and made final decisions on escalated issues.

One of the first steps taken by the steering committee was the establishment of a program management office (PMO) to oversee day-to-day project operations. The PMO established program reporting standards and management tracking tools, facilitated BEACON communications, monitored master schedules and work plans, and coordinated the procurement and implementation activities of the project’s initiatives.

One of the PMO's first initiatives was to brand the project. After soliciting feedback from key stakeholders, the PMO came up with the name BEACON—an acronym, which stands for Building Enterprise Access for North Carolina's Core Operation Needs. Working with the steering committee, the PMO put out an RFP (Request for Proposal) seeking a firm to act as the BEACON HR/Payroll Project integrator. Following a competitive bidding process, BearingPoint was selected as the project integrator.

The change and communication team members were some of the first staffed on the project to start spreading the word about BEACON, while building trust and rapport with key stakeholders. A communications plan was developed that provided a roadmap of activities throughout the five stages of the project (project preparation, business blueprint, realization, final preparation and go-live and support). The plan included the creation of materials (newsletters, flyers, brochures), scheduling of meetings with key stakeholders, road shows and system demonstrations. One of the more effective communication tools was the creation of a unique employee identification card and brochure that was mailed to the home address of the more than 86,000 impacted state employees prior to the December 2007 and April 2008 go-live dates.

The success of the BEACON HR/Payroll Project can, in part, be attributed to the early and active involvement of representatives from all impacted agencies. The PMO realized early on that employee participation was vital. To keep employees engaged in the project, BEACON support teams were formed. Every impacted agency identified a lead, sponsor, change agent, communications agent, training agent, technical readiness agent, training agent and subject matter experts that stayed involved throughout the project. This approach ensured that agencies felt a sense of ownership with the project.

#### **D. Significance**

In the end, more than 86,000 state employees in 32 agencies and boards benefited from the project. In addition to streamlining human resources and payroll business processes, some of the other benefits realized by the BEACON system include:

- A single system of record that supports existing legislation
- Standardized business processes across state agencies
- Consistent reporting capabilities from a single database of information
- A seamless HR/Payroll experience for employees
- The elimination of redundant systems and duplicative processing
- Real-time access to transaction activity

After employees began using the web-based Employee Self Service and Manager Self Service portal, the project team began receiving questions regarding system security. It was explained that the BEACON system utilizes 128-bit encryption via SSL (Security Socket Layer) technology to ensure that employee data is securely transmitted between the BEACON server and an employee's web browser. Furthermore, it was explained that no one else can access an employee's personal data via the BEACON Portal other than the employee. Although the State's human resources professionals, with the proper security clearance, can access employee personal data, they can only access it using the state network through the BEACON back-end system.

In fact, the project team took a role-based approach to security, which means employees have to be given the appropriate security role to see authorized pieces of information. For example, within a specific agency a benefits practitioner can only access benefits related information, whereas a payroll practitioner can only access payroll information.

Another security precaution involves no longer using an employee's social security number as the primary means of identification. Prior to go live, each state employee was assigned a unique identification number, which will follow them through their careers as state employees. This number will also be used to identify those same employees when they leave state government and start drawing their retirement benefits. Additionally, employees will use this number to identify themselves when calling the BEACON Enterprise Support Team (BEST) Shared Services Center.

Another outcome of the BEACON HR/Payroll Project was the creation of a shared services center. BEST Shared Services is a support organization for employees and agency human resources personnel designed to:

- Provide human resources, benefits and payroll administration services based on standard processes, policies and systems
- Provide accurate, consistent and timely answers to human resources, benefits and payroll questions
- Provide support for reporting activities
- Provide BEACON system maintenance and assistance

BEST Shared Services is one point of contact for employees and core human resources and payroll users seeking answers to human resources, payroll, time entry and benefits questions.

### **E. Benefit of the Project**

The demands placed on the State's human resource departments continue to grow despite limited budgets and staffing. Considering the important and often strategic roles that human resources staff members play, there is limited time for the routine tasks that fall under the management and administration of employee information.

With SAP's Employee Self Service (ESS) offering, also known as the BEACON portal, state employees and human resources practitioners all win. Through ESS, many basic human resources transactions no longer need to be routed through managers or other human resources staff members, but can be handled directly by employees. Ultimately, ESS not only creates more time for human resources practitioners to focus on strategic activities, such as workforce planning and development, but it also gives state employees a greater sense of ownership and control over their personal information.

With minimal training, through the BEACON portal state employees can, among other things:

- Securely update personal information (e.g. address, phone numbers, dependants)
- View and print past and current pay stubs
- Access multiple-year W-2 information
- View available vacation time
- Enter hours worked and vacation taken
- Enroll in statewide benefits plans

ESS reduces much of the paper shuffling, e-mails and phone calls that are inherent in human resources administration. It saves time and cuts costs by putting many day-to-day record-keeping and career development responsibilities directly in the hands of employees. Employees no longer have to wonder who to call or what form to use to manage their personal information. With an intuitive user interface, ESS is easily accessible through any Web browser.

Besides benefitting the State's employees and human resources/payroll professionals, agency leaders also come out ahead using the new system. In the legacy systems, reports were static and special reports had to be programmed. In the BEACON system, reports are easy to use and customizable.

Unlike reports generated out of the old system, BEACON reports can be run on demand by designated users without impacting transaction processing. Additionally, the reports are easy to download to Excel and combine with non-SAP data allowing for multiple views of single datasets.

Although no immediate financial returns on investment have been realized, it is expected that the efficiencies implemented by BEACON will have long-term financial benefits. Specifically, in the long run, the shared services center should reduce the number of human resources and payroll administrative staff needed at each agency.

Some of the non-financial returns on investment include:

- Increased efficiency – went from more than 30 monthly payroll cycles to two (biweekly and monthly)
- Payroll processing time was reduced from weeks to days
- A significant number of payroll errors have been reduced
- Improved system availability (ESS/MSS)
- Reduce errors and duplicative efforts
- The time evaluation process feeds information to payroll, eliminating the need to key information obtained from a separate time keeping system into the payroll system
- Policy compliance can be better enforced, as all relevant rules were configured in the system

BEACON allows state employees, human resources/payroll professionals and agency leaders to work smarter and more efficiently, which ultimately will save taxpayer dollars.