

Agency - Federal Communications Commission (FCC)

The FCC regulates the telecommunications industry in addition to a large number of media companies that utilize the broadcast airwave spectrum in the United States.

Cases Analyzed – Universal Licensing System (ULS) and Automated Auctions System

The FCC has implemented several e-commerce initiatives with a high degree of success over the past four or five years. One project in particular, the Universal Licensing System (ULS), was created to streamline the processing of license applications for telecommunications providers. The project has been brought forth and developed through the efforts of the Wireless Telecommunications Bureau (WTB) and it is estimated that ULS will save over \$7 million annually in filing costs to telecom providers. Also, the ULS severely reduced the number of forms that were required to apply for a license; under the old system, a company would need to fill out and process roughly 40 forms, but with ULS these companies merely need to process five. In addition, the system is thought to provide millions of dollars in cost savings to the WTB and the FCC. As of late 1999, the system had over 2 million subscribers and adoption and usage are expected to increase as the telecom industry continues to grow very rapidly.

Another e-commerce initiative that the FCC has installed is its Automated Auctions System. Using this system, telecom providers can make bids for a designated part of the telecom spectrum. In the past, these auctions had been conducted using sealed bids or open, in-person forums. One main challenge to the new system has been security: it would put a company at a disadvantage if its bids were known to its competitors ahead of time. With this in mind, the FCC has wisely chosen to conduct these auctions only over an intranet, which is only accessible through a dial-up connection. In addition, bidders are required to enter a PIN in order to gain entry to the system. While there are many encryption and security systems in development, the use of PINs and intranets (or wide area networks) are sufficient defenses against the risks and security hazards posed by the Internet.

One of the critical factors for the success of these systems has been the FCC's insistence upon improving how it interacts with the companies that use its services. These telecom companies have gained significant cost savings and improved their own business processes through the use of ULS and the Automated Auctioning System. Another factor for the success of these projects has been consistent management (i.e. low turnover among the principals who oversee these projects) as well as a well-thought out plan for implementation. In addition, these projects were implemented in phases, which broke the projects down into manageable tasks; this gave the agency the option to abandon the project in midstream, if necessary, without making it a total loss had the projects been implemented in full from the start. (Fortunately, this option was never exercised.) Finally, since these projects were internally generated, there was little need to find cross-

departmental support and assistance. Rather, the agency was able to fund these projects using its own budget and outside of the statutory budgeting process.

Lessons Learned:

AGENCY: Joint Electronic Commerce Program Office

The Joint Electronic Commerce Program Office was created by the Secretary of Defense in 1998 to serve as central point through which electronic commerce will be accelerated into Department of Defense operations. The Joint Electronic Commerce Program Office (JECPO) was envisioned as a single office that would manage all aspects of DoD electronic commerce acquisitions. JECPO brought together formally fragmented e-commerce operations at the Defense Logistics Agency and the Defense Information Systems Agency to form an integrated electronic commerce office. In regards to JECPO, we had the opportunity to interview Matthew Maginniss of Price Waterhouse Coopers who has worked with the Central Contractor Registration System discussed below.

CASE ANALYZED: CCR – Central Contractor Registration System

The Central Contractor Registration System (CCR) is a registration database for Department of Defense contractors. As of June 1, 1998, all vendors must register with CCR in order to conduct business with the Department of Defense. The database is accessible online and is managed within the Joint Electronic Commerce Program Office. The Director of Defense Procurement and Secretary of Defense for Acquisition spearheaded the CCR initiative to streamline the acquisition process. Thus, the approval and funding process for this system was not a problem because top people in the organization championed the initiative. The interest in streamlining the acquisition process was born out of the Federal Acquisition Reform and the Debt Collection Improvement Acts, which basically requires vendors to be paid through electronic funds transfer.

When this system was deployed, vendors were not ready to be online. A great majority of vendors did not have Internet connection. However, JECPO made sure that customers had enough room to adapt to the new system. Help desks were utilized, which allowed vendors to call in their information or fax it in. Additionally, vendors received help from Electronic Commerce Resource Center and Procurement Technical Assistance Center, which facilitated the ramp up process. Of course, when such a system is first introduced there some initial concerns about the security of vendor's data are to be expected. There may have been the perception that someone may steal a vendor's bank account number. However, once the specifics of the system security were explained, fears were quenched.

The CCR system has been a seemingly successful endeavor for JECPO because it eliminated the paper trail that accompanied government vendors. Information is now

easily updated because the vendors simply do it themselves. Streamlining this aspect of the procurement process also facilitates other aspects of procurement such as electronic payment because accurate vendor information on the front end of the process means that there is less room for error and duplication of effort in processing awards and payment.

Success is measured according to the total number of vendors registered on the system. Additionally, since CCR is integrally linked with electronic funds transfer, the percentage of payments that are processed through electronic transfer is indicative of the use of the CCR system. As a result of this system, the time it takes to service the customer has reduced dramatically, from approximately 30 days down to 5 hours.

The Joint Electronic Program office would like to extend this system to many other government agencies. CCR is currently being used within the Department of the Interior, the Department of the Treasury, NASA as well as the Department of Transportation.

LESSONS LEARNED:

- ◆ **Idea Generation:** based on legislation
- ◆ **Customer /Market Research:** aid in customer technical development
- ◆ **Approval Process:** top down
- ◆ **Success Measures:** This case is an example of an e-commerce implementation providing efficiencies for an existing system (CCR facilitates processes relative to electronic funds transfer). Success is based on the quantity of registrants.
- ◆ **Technology development:** didn't jump out as a significant issue in this case
- ◆ **Risks:** general security and privacy of issues in terms of the protection of sensitive financial information

Agency – GSA

The interview was conducted by Karen Rigby and Brian Y. Lai on Oct. 24 2000. The interviewer is Judith Spencer.

CASE ANALYZED: ACES (Access Certificates for Electronic Services)

ACES is the government's digital signature certificate program that allows the public to deal with the government electronically in a secure and protected manner. Federal agencies and entities are offering ACES certificates to the public and business trading partners on a no-cost basis, providing them with the capability to authenticate electronic digital signatures. The ACES project is currently under GSA.

The idea of this project came from the SSA case three and a half years ago. The SSA came up with an idea to put personal earnings and statement information on line to let the public get access to that information, trying to be more user-friendly. However, USA Today reported the story and questioned the risk of privacy and security issues. After a Congressional hearing, the SSA was forced to take the website down. Since then, the

government started to take interest in what PKI can do to facilitate online communication.

To put the information online, some agencies went to the GSA for a government-wide infrastructure solution that agency can take advantage of. Meanwhile, half of the US households were ready to be online.

Many agencies thought of the SSA as the ideal pioneer, since they touch people's life from birth, but SSA didn't want to take the job. Many agencies thought that whoever goes first, would have to pay for the infrastructure. Consequently, GSA took the lead on this initiative.

The goal of the ACES project is to entice more agencies to use PKI and participate in online transactions. This project is supported by GSA's FTS, who plays the government-wide role, the CIO Council and the Government Information Service Group. GSA's Office of Government wide Policy was also involved on the policy side of things, such as certificate policy for access of PKI and liability issues. The technology and website was developed by contractors.

Each agency evaluated its own needs and decided whether or not to participate, because each agency would be obligated to pay the transaction costs by proportion the certificate used once they signed on to use ACES.

When choosing the industry partners, the ACES team used the following criteria: the ability to deal with liability issues, the ability to schedule the timetable quickly, the ability to maintain the best transaction cost structure, and the ability to show their competency.

The expected benefit of ACES is the lower transaction costs to each agency. Although the team didn't really evaluate and deal with the risks, they believe some potential risks may be from governmental bureaucratic issues, agency culture, stakeholders, or the interest groups. Besides, not everyone is ready to be online. During the developing process, the ACES team had negotiated with each agency to make progress. The contactors also helped to manage the potential risky issues like ROI estimation.

The success measures are qualitative and include: the amount of interest in the project, the number of people and agency participants (currently 20 agencies), and the feedback from public and industry. Two years from now, when Internet is more pervasive and all agencies are PKI compliant, then possibly return could be a viable success measure.

Lesson Learned:

- Top-down idea generation
- High technology. ACES project if the first mover of PKI and digital certificate technology among government agencies.
- Customers are well defined.

Lacks clear success measures.

AGENCY: U.S. General Services Administration

The U.S. General Services Administration (GSA) was established in 1941 by President Herbert Hoover to consolidate efforts with regard to handling supplies and space. Today, GSA serves individual federal government agencies by providing workspace, products, services, technology, and policy. GSA is essentially a central entity whose services blanket the federal government and is one of three central management government agencies. Within the GSA, we interviewed Deborah Diaz regarding the First Gov system,

CASE ANALYZED: First Gov

The First Gov system is a portal that links individuals to various government sites and also allows searches on those sites. The portal includes a search index, organization directory, topic category, featured subjects, and feedback areas. First Gov was pushed by the President's Management Council, which consists of representatives from 26 leading government agencies. Consequently, the First Gov board of directors and development team were put together to implement the vision.

The purpose of this system was to provide information to the average citizen, other government agencies as well as businesses and to aggregate information in such a way that individuals would have a single source for government data. As has been our experience with projects that have top management champions, initial funding and approval was not necessarily an issue. In fact, the cost of development of the portal was minimal due to intense interest from project contractors who waived fees just to be a part of the project. However, a major stumbling block was and continues to be, having updated agency web sites that this portal could link to in the first place.

Interactions with customers were paramount to the development of First Gov. Customer focus groups were utilized in order to gain an understanding of the need for an online government portal. During the early stages of the project development process, the Center for Council in Government tendered advice on the development of the portal and focus groups from the private sector were consulted. Additionally, the feedback feature on the website facilitates continued interaction from individual users in terms of what is working and what is not working.

Success for First Gov is primarily anecdotal. Time savings to customers, including other government agencies, is an outcome of the searching capabilities of this portal. Possible future measures of success may be: how many people come and stay at the site, how many people return to the site, and how many people come back to reroute to other sites. With the enforcement of the Government Performance Results Act in 2001, success for projects in general, may be focused on improving efficiencies and responsiveness rather than on return alone.

In future upgrades to the system, GSA hopes to include interactive feature to the site that allows users to complete transactions online.

LESSONS LEARNED:

- ◆ **Idea Generation:** Task force idea generation origin
- ◆ **Customer/Market Research:** Focus groups in all stages of this project as well as feedback areas on the website keeps this program focused on what works for the customer
- ◆ **Approval Process:** based on the consensus of the President's Management Council
- ◆ **Technology Development:** outside technical support to build the actual portal, however the ability of individual agency to provide updated web sites to link to affects the overall effectiveness of the portal.
- ◆ **Success Measures:** mostly qualitative
- ◆ **Risks:** not many as the portal system is based merely on providing aggregated access to information.

Agency: GSA

The Electronic Asset Sales project is currently under evaluation by Booz-Allen & Hamilton, Inc. The purpose of this project is to build an auction website which enables the assets sales between the sellers, government agencies, and buyer – mainly public. The project is outsourced by GSA, and BAH now is evaluating the effects of technology, risks, customers and potential impact. The timeline of this project is now undecided.

The interview was conducted by Karen Rigby and Brian Y. Lai on Nov. 14, 2000. The interviewer is Ashley Skyrme, the e-Gov consultant of Booz-Allen & Hamilton, Inc.

Case Analyzed: Electronic Asset Sales Initiative

The idea of the electronic asset sales initiative originated from NSF's auction website. Different agencies basically have varying outlets in which to sell assets (real estate, financial and personal properties). Based on NSF's online auction site, the Office of Governmentwide Policy decided to investigate the potential of a government-wide site for online asset sales. The goal of this inquisition was to make the case for the development of a website that will be a government-wide portal that provides a single source for Federal asset sales, and promotes partnering among agencies with similar assets to implement on-line auctioning.

Originally, the case started as public service, but when it ended up online, agencies realized that it could be a business model from which a revenue stream could be generated. Traditionally, each agency sells its own assets, while this site has the value to serve the public. For this case, there are two customer clusters: the buying public and the agencies that have assets for sale.

Currently, the project is on the approval stage, and not yet available and operated. The possible technology used may be the portal format, in which users can search for the information they need either by assets or by agencies.

As to the potential success measures, there needs to be a consensus among participating agencies in order to come up with the criteria. It's still too early to determine where the revenues will come from. Thus, agencies are therefore worrying about the investing funds at this stage of the project.

Individual agencies control their readiness to move online. Booz Allen and Hamilton is developing the business case for the electronic asset concept itself. The consulting firm is in the process of estimating potential revenues, types of assets transaction, and costs...etc, but cannot determine which agency should go online. Booz Allen and Hamilton is now developing the eGov concept, not implementing the project. This result of this analysis will be presented to the OMB (Office of Management Budget). But unlike Venture Capital, OMB doesn't really fund the ideas. They pick up the ideas just for public's support, which is different from other business cases in the private sector. For private sector business cases, the start-up can get initial funding support.

Some risks are visible, such as leadership, political risks and technical incapability of each agency. This project depends on the degree of the commitment of the project leaders from each agency. The other risks include the possibility that this model may not bring in revenue and benefits as well as cut the costs.

Often the best way to set an organizational-wide initiative is to find the right division/sector or in this case, agency who can be the first on board, and has the ability to pull everyone else in.

GSA may have a key part in the development of this business model. GSA already has an assets auction website (GSAAuction.gov). Additionally, the organization has a lot of assets. The only thing that GSA does not have are financial assets. Some argue that GSA will be the single host in the later stage, as with the First Gov portal.

Lesson Learned:

The project is not yet implemented.

AGENCY: The Federal Supply Service

The Federal Supply Service (FSS) coordinates the procurement and delivery of physical supplies that are needed by various agencies and departments throughout the federal government. Information from this section of the report was obtained through interviews with Al Iagnemmo and Harold Roach.

The planning behind the GSA Advantage system began in 1994 when the FSS decided to investigate the potential to expand and redesign its services through the use of the Internet. Although this was a time when there was still a lot of uncertainty about the

future of electronic commerce, the FSS thought it was wise at the time to begin a thorough assessment of this new technology and the possibilities it would hold for various agencies in the government to procure needed supplies. Over the last six years, more and more federal agencies have become involved with GSA Advantage and have updated their technological capabilities and information systems in order to participate in this online procurement system. However, not all agencies are fully able to utilize this service; in addition, some agencies have logistical barriers to online procurement.

With approximately \$200 billion in annual procurement expenses by various federal agencies, there is clearly a strong need to streamline the way that these agencies research, order and take delivery of the products that are necessary for their operations. Before the Internet became available for online ordering, there were a number of systems that were in place to handle procurement, including the Federal Standard Requisitioning and Issue Procedures System (FEDSTRIP) and Multi-Use File For Interagency News (MUFFIN). However, these legacy systems did not have a graphical user interface, nor were they capable of handling HTTP and other Internet protocols. In addition to these systems, agencies were also able to order through paper catalogs, which could not be updated as frequently as an online system.

Although it would seem like a certainty that the FSS was justified to go through with its plan to implement GSA Advantage, there are some risk factors that were present and needed to be addressed thoroughly. Specifically, there was the risk that agencies would not use the new online system, electing instead to stick to the legacy systems. In addition, since there was a wide range of technological proficiency across different agencies, it is clear that some agencies may not have the capability to integrate GSA Advantage into their current operations. However, one of the clear benefits to the system is that it could be implemented at a very low cost in addition to the methods of procurement that were already available at the time. Also, since the project was generated internally, there were fewer layers of management from which the project would require approval; in fact, the project was given the green light by the commissioner of the FSS, which paved the way for a full-scale implementation of GSA Advantage. Finally, since over \$300 million worth of goods has been ordered through the system (at a cost equal to a small fraction of this amount) it is clear that the project has paid for itself and will continue to provide the FSS, along with the agencies that take part in GSA Advantage, clear benefits long into the future.

AGENCY: National Science Foundation

Description

"By the National Science Foundation Act of 1950 the Congress established the National Science Foundation to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes.' The President approved the act on May 10, 1950."

Case study – Fastlane Project

"The purpose of FastLane is to experiment with ways to use the World Wide Web to facilitate business transactions and the exchange of information between the National Science Foundation and its client community including researchers, reviewers, research administrators, and others doing business with NSF."

Idea Generation

- Internal
- Feedback from customers

Technology Development

- High level of technological sophistication (NSFnet)
- Invested in internal systems; easy to do business with private sector

Approval Process

- Viewed as an experimental agency
- Had good support all along
- Very well funded

Customer/Market Research

- Well connected to academic institutions and other agencies interested in funding
- Beta-tested system with customer base and received feedback
- Able to receive iterative customer feedback due to open ended system development process

Critical Success Factors

The factors that needed to be in place in order for the Fastlane project to succeed include:

- Technologically enabled customer base
- Involving customers directly in development process
- Project perceived to be of great value to customer base
- Sought customer buy-in for smaller segments of the project first, then gained support for more ambitious segments of project
- Manage growth of customer support resources (grew faster than anticipated)

Risk

- Need to anticipate customer support needs
- Internal systems need to be integrated into front end of e-commerce architecture
- Anticipate maintenance costs – more lines of code, more maintenance
- Don't overlook user support/training
- IT people need to work with policy people
- Need success metrics on front end
- Think of interoperability

Agency - The Social Security Administration

The Social Security Administration provides public information materials concerning Social Security, supplemental security income programs, and information on Medicare. Social Security is generally viewed as a retirement program in part due to 61% of its beneficiaries receiving retirement benefits. The remaining percentages of beneficiaries encompass the disabled, spouses and dependents of someone who receives Social Security, widows, widowers, and children of the deceased. Currently 44 million Americans receive Social Security benefits. Franklin D. Roosevelt's message to Congress on June 8, 1934 summarizes the original intent of Social Security.

"SECURITY was attained in the earlier days through the interdependence of members of families upon each other and of the families within a small community upon each other. The complexities of great communities and of organized industry make less real these simple means of security. Therefore, we are compelled to employ the active interest of the Nation as a whole through government in order to encourage a greater security for each individual who composes it.... This seeking for a greater measure of welfare and happiness does not indicate a change in values. It is rather a return to values lost in the course of our economic development and expansion."

In government to business transactions, the major driver of idea generation comes from legislative mandates. The legislative mandates that have shaped idea generation within our study are listed below.

Government Paperwork Elimination Act (GPEA)
December 17, 1999 White House Memorandum
Federal Acquisition Reform and the Debt Collection Improvement Acts
President's Management Council
National Partnership for Reinventing (NPR) Government

Our research into best practices at the SSA for electronic commerce project selection was taken from an interview with Tony Trenkle, Director, Electronic Services Staff.

Case Analyzed - Overview of initiatives

The electronic commerce initiatives created by the Social Security Administration (SSA) consist of a wide variety of issues and customers. The SSA is faced with the daunting task of uncovering the needs and wants of the citizens and businesses of the United States. To assist the SSA with these tasks they have compartmentalized the needs of citizens into three sub suites consisting of the post entitlement suite, the retirement suite, and the disability suite. Within each suite the needs of the citizens are researched through workload studies, customer focus groups and usability studies.

The majority of electronic commerce projects conducted by the SSA have been driven through legislation. The current administration at the SSA works in a top-down approach in dictating the direction of electronic commerce projects. The executive steering committee distributes the goals for e-commerce projects with working level implementation teams carrying out the initiatives. The remaining electronic commerce projects flow from the Government Paperwork Elimination Act, the Vision for 2010 for electronic service, and the December 17, 1999 Presidential Memorandum. These legislative mandates have led to the creation of more information sharing between the SSA and its constituency. Furthermore, this has created programs that decrease transaction times and increase efficiency for all parties involved. Some of the more widely used initiatives include the following:

- Ability to apply for Social Security retirement benefits online requests for replacement Medicare Cards
- Up to date cost of living information
- Programs to help citizens prepare and plan for retirement.
- Changes to social security cards
- Complete Benefit Information Publications
- Requests for a Social Security Statement – requests are mailed to respondents.

The request for a social security statement is very popular and this information was once available online. Unfortunately, at the time it was provided, security and the Internet were sensitive subjects. This service was discontinued due to political pressures. While there were no reported cases of privacy invasion, the Personal Earnings and Benefit Estimate State (PEBES) was shut down. It is unfortunate that this service had to be closed, though much can be learned from this miscalculation. Well-intentioned and researched projects are often at the mercy of public and political opinion, leading us to conclude that project selection should be carefully screened as to how the political environment may react to them. Timing can be critical when potentially sensitive projects are undertaken. It should be noted that if PEBES was proposed later, the backlash against it might not have materialized. PEBES in essence became a lightning rod that people embraced during a period of uncertainty surrounding the Internet.

The SSA is now cautious when providing possibly sensitive information over the Internet. They now conduct risk assessments with respect to privacy and are working on improving authentication, and Internet security. In addition, the SSA now attempts to foresee the political implications of its Internet projects while providing services the public desires.

Currently the SSA has been exploring how to measure the success of their Internet projects. They realize the need for both qualitative and quantitative benchmarks for success. Furthermore, the SSA expressed the understanding that the public's benchmarks for success are based on what is expected in the private sector. The SSA is striving to match that level of customer service and satisfaction. The public is very vocal about its desires, and the SSA strives to provide a level of support the public requests. In

providing this level of service, the SSA on occasion benchmarks itself with the best practices from states that have implemented successful Internet initiatives.

Lessons Learned:

AGENCY: United States Postal Service

William J Henderson, Postmaster General and CEO of the US Postal Service said, “Only the United States Postal Service provides the American people with a secure and efficient connection that binds our nation together. Only the Universal Postal Service is the gateway to the American Household.”¹ According to 1999 Statistics, the U.S. Postal Service delivers mail to 134 million delivery addresses. The USPS is also a large provider of business services, including business correspondence and transactions, business advertising, expedited delivery, publications delivery, standard package delivery, and international mail. The U.S. Postal Service is also dedicated to increasing its ubiquity through e-commerce. They are focused on transferring the protection and integrity that is offered for hardcopy mail online to serve businesses as well as the general public. We interviewed Tom Beecher of Imagitas, a private company just outside of Boston, MA that developed the Gov Key solution for the U.S. Postal Service. Mr. Beecher is a General Manager at Imagitas.

CASE ANALYZED: Gov Key

The GovKey system is a pilot program within the United States Postal Service that facilitates the generation and use of digital certificates (PKI). Imagitas presented the idea of developing an initiative to make postal services more accessible to the everyday citizens. The Vice President of e-commerce at the US Postal Service was already familiar with Imagitas and its people and welcomed the idea of this pilot project. In some regards, the lack of needed upfront financial commitment on the part of the Postal Service probably also aided the decision process. Currently, the USPS bears no financial burden in the development of this system. The financial burden is currently absorbed by Imagitas. The project was initiated on June of 2000, and is relatively early in the development process. The actual pilot will be implemented in the spring of 2001.

The GovKey initiative is in some regards similar to the ACES digital certificate initiative within the GSA. However, GovKey also encompasses state and local government and has differing technical infrastructure.

In general, GovKey is likely to be adopted by individuals with some amount of technical savvy, who are able to easily adapt to doing business online. Five to six rounds of customer focus groups were utilized in order to better understand customers and their need.

There are two types of constituencies that are involved in success measurement with regard to this project: individuals and agencies, who are counter parties for customers.

With regard to customers, there is a general need to understand their perceptions about the process and the quality of service that they receive from GovKey. With regard to agencies, there is a need to understand how their processes have been enhanced, how much of a savings in terms of time the system has produced as well as the level of quality involved in the service. Measurement tools for customers tend to be qualitative and quantitative and those for agencies tend to be quantitative.

The primary risk in terms of this project is the general concern about privacy and security of sensitive information. Technology in this case was not a risk in and of itself. Of more important is general terms, is have enough in-house resources in order to enable walk through of legacy systems, or facilitate the technical aspects to contractors.

There is an attempt to extend this initiative to other government entities, such as the Social Security Administration and state of Maryland agencies.

Lessons Learned

- ◆ **Idea Generation:** idea presented by an outside entity
- ◆ **Customer/Market Research:** Customer focus groups
- ◆ **Approval Process:** top down
- ◆ **Technology Development:** not a significant issue in this case
- ◆ **Success Measures:** qualitative for customers; qualitative and quantitative for individual agencies

Risks: general privacy and security concerns

Agency - Several

Access America for Students

Overview

The Access America for Students (AAFS) project is for post-secondary students including long life learners efficiently accessing government service and information. Serving as a “yellow page”, the URL of AAFS web page, *students.gov*, navigates post-secondary students and its community searching through multiple Federal agencies. This project brings together Federal agencies including the Department of Education, the Department of Labor, the Department of the Treasury, Internal Revenue Service, the Social Security Administration, and so on. As well as the providers of student financial assistance service, schools and other members of the post-secondary education and student aid communities in a public/private partnership are involved in this project to improve their service to targeted students.

Discussion

From top support, AAFS is part of the plan, *Access America*, entitled by the National Partnership for Reinventing (NPR) Government in 1997. The plan aimed to

provide Americans with better access to Federal services and benefits, and specifically, it called for Federal agencies to work together to develop improvements in government services to citizens, business, and other Federal and state government agencies.

Due to the nature of inter-agency task force and top-level support, AAFS had critical success factors in technology development, approval and implementation process. The inter-agency task force created to develop ad hoc information technology, strategic plan and reported to Sally Katzen – Deputy Director for Management, Office of Management and Budget, also Greg Woods, Chief Operating Officer, and Office of Student Financial Aid Programs. Moreover, AAFS was mandated by NPRG and attracted considerable interests from Congressional Oversight committees both to demonstrate the high political priority. Another advantage of the project was the readiness of users to be on line resulted from students' computer literacy, Internet savvy and understanding of privacy issues (i.e. comfortable with web-based transactions of sensitive information).

Meanwhile, the projects faced certain level of risks – upsetting the bureaucracy, re-engineering the business process, meeting the Privacy Act Requirements, securing the on-line transaction and managing cost/benefit – to evaluate and handle along with the development. The principle difficulty in creating the innovation system is resistance from employees, customers and stakeholders in existing organizations with the change of status quo and restructure of long-standing business. Laws also governing the access, collection, record-keeping and disclosure of any personal information, whether online or offline. AAFS needed to provide students with sensitive information (i.e. financial account balance), but at the same time it needed to ensure that these transactions were secured. The Phase I of the project involved using password-authentication, SMIME, SSL and Phase II will involve using digital security certificates & public-key encryption. Lastly, the project goal is to reduce operating costs by introducing emerging technology to benefit current service but it is unavoidable for agencies' capital investment and labor-hour consuming in developing.

Lessons

Idea Generation

- Top down initiation and support

Success Measure

- Cost and benefit analysis (focused on reduction of operating cost)
- Qualitative measures as customer service and employee satisfaction

Risks

- Upsetting the bureaucracy
- Re-engineering the business process
- Meeting the Privacy Act Requirements
- Securing the on-line transaction
- Agencies' capital investment and time consuming

Market and Customer Research

- Advantage of students' computer literacy and Internet Savvy

Approval Process

- Directly report to high level of budgeting administration
- High political priority from Congress

Technology Development

- High technology sophistication
- Multi-agency task force



ⁱ Official website of the U.S. Postal Service: <http://new.usps.com/cgi-bin/uspsbv/scripts/content.jsp?B=null&D=23842>