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**Self Service Platform System Development, Production and Deployment
Decision Analysis Report**



DECISION ANALYSIS REPORT

Self Service Platform
System Development, Production and
Deployment

DELIVERY AND RETAIL

RESTRICTED INFORMATION
February 21, 2003

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1.0 INTRODUCTION

This Decision Analysis Report (DAR) recommends a capital investment totaling \$95.4 million for the design, development, production and deployment of the Self Service Platform (SSP). This effort includes the purchase of 2,506 full service SSPs, 2,500 of which will be deployed to postal sites and 6 used for testing and field support. It also includes the field infrastructure necessary to service, maintain, remotely monitor and provide an automated data interface for accounting and other data requirements.

The SSP is intended to meet the following retail objectives:

- 1) Provide customers with convenient access to the postal products and services they most frequently need 24 hours a day, seven days a week by providing a platform that is capable of being deployed at both postal and (in possible future deployments) non postal locations.
- 2) Reduce customer-waiting time in post offices by providing alternative access to postal products and services. SSPs deployed within postal lobbies will reduce the wait in line for customers seeking basic products and services.
- 3) Reduce the cost of selling postal products and services by diverting the most frequent types of transactions away from the postal counter. The SSP can deliver products and services at a fraction of the cost per revenue dollar incurred at a full-service retail counter.
- 4) Make the Postal Service more competitive with alternative delivery services by providing easier customer access to premium products such as Priority Mail and Express Mail.

By addressing these objectives, the SSP is poised to address two key retail elements of the April 2002 Postal Service Transformation Plan by creating a new, low-cost alternative to the postal counter and by moving simple transactions to the lobby of the Post Office.

2.0 BACKGROUND

In Fiscal Year 1998, a self-service strategy was proposed to strengthen and expand the role of the existing vending program. The primary objectives of this strategy included:

- Improving self-service reliability
- Offering customers an alternative to the full-service retail window
- Expanding the reach of self-service beyond the post office lobby
- Reducing the cost per revenue dollar of self-service
- Creating a common self-service platform and supporting technology infrastructure

Implementation of this strategy has followed an incremental approach:

Step 1: Improve and upgrade the current generation of mechanical self-service machines

In August 1998, the Board of Governors approved \$26.3 million in capital and \$3.6 million in expense funding for the purchase of 5,000 additional new vending machines, including Postal Booklet Stamp Machines, Postal Commodity Machines, Stamp Sheetlet Vendors and Stamp Vendors. Planned acquisitions of the Postal Booklet Stamp and Stamp Vending Machines were completed in March 2000. The acquisitions of the Postal Commodity and Stamp Sheetlet Vendors were cancelled and the program officially closed out based on a reevaluation of existing equipment utilization and a reassessment of the cost effectiveness of designing and building unique equipment, respectively.

Step 2: Implement a communications infrastructure that will enable debit/credit card acceptance and provide an automated performance monitoring and measurement system

While an effort was initiated to implement a system capable of accomplishing this objective, this effort has been superceded by the Self Service Platform which would provide an expanded version of these capabilities.

Step 3: Introduce the next generation of self-service equipment to better serve today's customer requirements and future postal needs

The SSP provides a self-service platform that supports a broad range of services and information, including remote diagnostics and monitoring, weighing and rating functions, and debit/credit card acceptance via a customer-friendly, touch-screen kiosk interface. Market testing of these capabilities embodied in the Automated Postal Center (APC), conducted in Orlando, Florida from September 1999 to December of the same year, validated customer acceptance of the SSP concept. Conclusions from that test are summarized in Exhibit V.

In order to expand access to postal services, the following four retail operation transformation strategies were proposed:

- Move simple transactions away from the post office counter;
- Create new, low-cost retail alternatives;
- Optimize the retail network; and
- Develop new retail services that increase customer value and postal revenue.

The SSP directly addresses the first two of these strategies. It also plays a role in making the latter two of these four strategies possible.

3.0 SYSTEM DESCRIPTION

Traditional postal vending machines only provide customers with stamps, stamped envelopes and phone cards. Payment for purchases must be in cash.

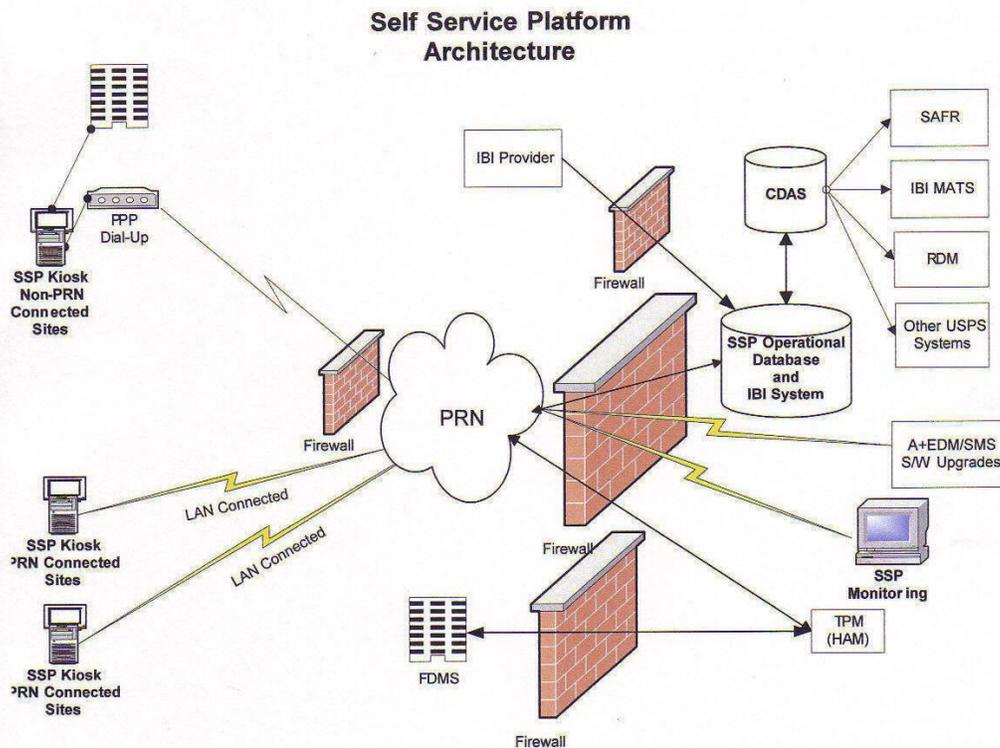
The SSP was designed to offer customers a broader range of postal products, services and information through a state-of-the-art smart vending platform with convenient and reliable access 24 hours a day, seven days a week.

This DAR is for 2,500 full service SSPs. The full service SSP provides USPS customers with automated access to a full line of products and services in a 40 inch wide by 38 inch deep footprint. By virtue of its design, it provides convenient access to many premium delivery services such as Express and Priority mail. It also provides enhanced weighing and rating capability for letters, flats and packages up to 70 pounds. The full service SSP specifically allows customers to:

- weigh letters, flats and small packages (up to 70 pounds) and purchase the appropriate postage for mailing
- buy First-Class, Priority and Express Mail postage
- purchase ATM-style First-Class stamp booklets
- purchase postage for international letters
- add delivery confirmation services to their mail piece
- look up ZIP Codes
- find information for different types of postal services
- register for hold mail services
- initiate a change-of-address
- track Delivery Confirmation
- pay with a debit, credit or LibertyCash card
- print Express Mail shipping labels
- print Certified and Return Receipt forms

Postage for individual mail pieces will be provided on postage labels using Information Based Indicia (IBI) technology. These specially coded postage labels will permit customers to purchase postage and use it at their convenience similar to a postage stamp.

The overall SSP system to be developed under this DAR consists of five critical components: 1) hardware, 2) application software, 3) a system performance monitor, 4) an automated accounting and transaction data collection system, and 5) a support infrastructure. The following illustration shows how these components interact with one another.



3.1 Hardware

SSP hardware consists of the physical components necessary to interface with the customer, deliver the desired products and services, and communicate with the external support infrastructure (e.g., remote monitoring, data and accounting systems). These components will be housed in an aesthetically attractive, ergonomically designed kiosk. Free standing or through-the-wall (postal locations only) parcel acceptors will be provided with all machines.

Customers will use the SSP via a touch screen interface that allows them to easily and conveniently view the services, products and information available, and quickly make a product or service selection. The machines will be designed to meet American Disabilities Act (ADA) standards, and special interfaces will be provided in compliance with section 508 of the Rehabilitation Act for the sight impaired. This will permit customers with disabilities to access services provided by the SSPs.

A camera integrated into the SSP cabinetry will permit the machine to record digital photographs of customers who mail items that must comply with Federal Aviation Security "known mailer" requirements. The photograph when combined with the credit or debit card information allows the SSP to identify the mailer should the need arise.

Modularization will be utilized throughout the SSP design. Universal service modules will enable easy modification of the services provided based on the unique requirements of the market or site where the kiosk is deployed. The modularization concept will also be used for major functional components within the cabinet. This will allow quick and easy replacement of defective components.

3.2 Software

SSP software will also be modularized. This will permit both on-site and remote control of specific machine functionality in order to accommodate the installed hardware and the unique needs of a specific site.

In addition, POS ONE is the foundation upon which the SSP software design will be based. Through the use of POS ONE software modules and data tables, updates can be readily made to the SSP whenever similar functions are updated on POS ONE. In addition, by maximizing the use of POS ONE software, it is possible to accelerate the development of the SSP and minimize associated developmental costs. It is important to note, however, that the SSP is a stand-alone product that leverages POS ONE technology but is not dependent on POS ONE development or deployment for its functionality.

3.3 Maintenance

Today, the only way to know if a postal vending machine is working properly is to physically inspect the machine. Since daily visits to all machines are not feasible, a machine that is out-of-stock or out-of-order may remain that way until the next time a service technician makes a scheduled visit. Research has shown that, after experiencing out-of-service conditions, customers who would otherwise prefer the convenience of self-service, will ignore the machines and go directly to the window.

One of the crucial "smart" features of the SSP is its remote monitoring and alert functions. The SSP automatically detects inoperative components, product dispensing errors, low stock and out-of-stock conditions and transmits an alert, via a pager, to the postal employee responsible for the machine. This means, the person responsible for servicing and maintaining the machine is instantly aware of machine malfunctions and stock shortages, and can respond quickly to the problem. The value of these functions was demonstrated during the post-market test period of the 15 machines in Orlando, Florida, where service and maintenance costs, using USPS personnel, have only been 15 to 20 percent of similar costs for vending equipment.

In order to minimize maintenance expenses, the SSP will be designed to allow non technical personnel to replace components requiring the most frequent attention without the use of tools. Level 1 maintenance, which includes the replacement of these components, will be performed by USPS personnel. All other maintenance (ie., Level 2 maintenance) will be provided by the vendor. Based on the reliability requirements of the SSP, performance of Level 2 maintenance activities must consume less than 8 hours per year.

The new SSP platform also supports the remote tracking and downloading of software. Software updates, maintenance patches, rate changes, or other data transfers may be performed from remote locations. This funding request includes the development and implementation of this remote monitoring and maintenance system.

3.4 Automated Recording of Accounting and Transaction Information

The SSP will conform to USPS corporate information technology architecture. Communication connectivity for the SSP will interface with the Postal Routed Network (PRN) either directly (at postal locations) or through a dial up connection (at non postal sites).

An operational data base will be the target for all accounting and transaction data generated by the SSP units. This data base system will in turn forward consolidated SSP accounting, service and maintenance data to the Central Data Accounting System (CDAS) which will in turn route the appropriate information to Standard Accounting for Retail-Retail Accounting (SAFR-RA), the Retail Data Mart (RDM) and other necessary postal servers. The operational database will also route information to the service and maintenance network to facilitate monitoring of equipment health and stock levels.

A similar prototype system was demonstrated during the APC market test where all pertinent transaction data was transmitted to the Vending Activity Reporting System (VARs) server which in turn automatically

prepared a daily financial report (1412) and transmitted it to the Standard Field Accounting System (SFAS). Automation of this activity eliminated the time consuming, manual preparation and entry of financial data that is required for most vending equipment and assured that regular and accurate records were available at all times.

3.5 Support Infrastructure

The final element of the SSP is the infrastructure that ties all of the aforementioned elements together. The servers, communication network, accounting procedures, help desk, and service and maintenance support systems are all part of this infrastructure. A reliable and efficient network is critical in order for the SSP to meet its objectives. Included as part of the DAR is the supporting infrastructure, which is needed for accurate and timely handling of data generated by each SSP kiosk.

4.0 SYSTEM BENEFITS

Deployment of the SSP family of kiosks addresses the retail elements of the USPS Transformation Plan dated April 2002 which in turn offers opportunity for cost avoidance, cost savings and revenue enrichment.

4.1 Transformation Plan

In the USPS Transformation Plan, the following statement was made with regard to retail products and services: "In today's economy, creating customer value means both improving quality and affordability of products and services and providing the ability to access and use these products and services at times and places that are most convenient to the customer." It further states that "retail and products and services are the main areas of growth in the Postal Service."

There are four strategies that have been identified to improve the simplicity and accessibility of USPS products and services. The SSP either directly or indirectly helps facilitate the execution of each of these strategies:

Retail Strategy 1: Move Simple Transactions Out of Post Offices

The SSP provides postal customers with the products and services they need at the times and locations convenient for them. When deployed, the SSP will be capable of accomplishing this via a convenient, easy-to-use, touch-screen family of kiosks. A family of kiosks that permit customers to access postal products and services up to 24 hours each day, seven days a week, 365 days a year

Although the 2,500 units addressed by this DAR will all be installed at postal facilities, future deployments could be located at non-postal locations as well. By deploying equipment in locations such as supermarkets, shopping malls, and other places frequently visited by the general public, access to simple transactions and postal information can be shifted to more convenient, less costly, non postal sites consistent with this strategy.

Retail Strategy 2: Create New, Low-Cost Retail Alternatives

The expansion of self service is explicitly cited as one way to create a new low-cost alternative to the Post Office counter. During its evaluation, the Automated Postal Center (APC) has demonstrated that it provides convenient low cost access to up to 80 percent of the services currently available at the post office counter. The SSP, which is an enhanced version of the APC, provides a similar low-cost means of providing postal products and services without the consumption of sales and services associate (LDC 45) work hours.

By employing the capabilities of the SSP, many simple transactions can be directed away from the post office counter, thereby allowing staffing to be scaled down. In addition, by adopting this approach, more resources can be focused on the more complex part of the business where higher margins are attainable.

Retail Strategy 3: Optimize the Retail Network

The objective of the Retail Network Optimization program is to tailor retail services to meet the specific needs of communities. Once simple transactions can be moved to lower cost alternatives, such as the SSP, staffing can be scaled back and remaining resources can be focused on more complex, higher-margin business. Deployment of SSPs provides the latitude necessary to allow resources to be reallocated to meet the special needs of each community.

Retail Strategy 4: Develop New Retail Services that Increase Customer Value and Postal Revenue

More attention can be given to the needs of retail customers, especially businesses, once alternative access such as the SSP become available. This will allow new services to be provided at the counter that are built around the Postal Service's core offerings.

4.2 Cost Savings

Work Hour Reduction at the Counter – Since the SSP allows customers to purchase USPS products and services in an unattended environment, it has the potential to offer significant work hour savings by diverting transactions, including stamp sales and weighing and rating transactions, away from the full-service counter. These retail window work hour (LDC 45) savings have been quantified using the APC performance in Central Florida where, based on POS ONE workload factors, it has been demonstrated that the 1,400 transactions per week performed by the average APC would require 65.5 work hours if performed by a sales and services associate at the counter. This equates to a savings of \$0.019 for every revenue dollar generated.

Market test results have further shown that vending machine revenue did not decline at sites where APCs have been deployed. Hence, it can be reasoned that customers using APCs at postal locations would have used the retail counter had this alternative access point not been available. This would have placed a higher demand on the counter work hours at these locations.

Due to their similarities in design, performance and services, customer response to the SSP should be the same or better than the APC. It is therefore expected that where ever an SSP is deployed it has the potential to experience the same or a higher level of work hour savings due to the many improvements offered. However, recognizing that there will be considerable variability across the country in the ability to capture this level of savings, this DAR assumes the SSP will only capture 33% in cash flow over the first two full years after deployment, which represents the primary period of sales growth. This represents a work hour savings of approximately 20 hours per week by the second year of full deployment (2006) Although the APCs in central Florida have continued to demonstrate a 15% sales increase from year to year, this added revenue and the associated savings are not included in the cash flow analysis.

4.3 Other Non-quantifiable Benefits

Deployment of the SSP will provide the USPS with an opportunity for cost avoidance in the following areas:

Limit Facilities Construction – The SSP is capable of providing many of the products and services most frequently purchased at the full-service counter. Through wide area deployment of the SSP, in postal now, as well as non-postal sites in the future, it may be possible to reduce the need for new full-service retail facilities and reduce the need for expansion of existing facilities. It may also be possible to eliminate or reduce the hours of window operations at small, low volume postal sites through the introduction of an SSP unit. This DAR does not assume facilities construction savings, however, sites identified as facility critical have been given special consideration as deployment candidates.

Reduce Self-Service, Service and Maintenance Costs – Both the design and high reliability standards established for the SSP system make it considerably less costly to service and maintain when compared to traditional vending. As the aging population of USPS vending equipment reaches obsolescence (more than 30,300 by the end of 2003) future deployments of SSP equipment will provide a more cost effective solution to self service.

The SSP provides a totally different approach to self-service than traditional vending. Not only will the new self-service platform have commonality with the POS ONE system, it will embrace a completely new automated system for service and maintenance. This system is based on an uptime standard that requires the equipment to be fully operational 98% of the time. This standard demands a very high level of reliability, which in turn requires fewer work hours (than traditional vending) to keep SSPs operational. In addition, the design of the hardware allows non-technical personnel to perform the maintenance most frequently required thereby minimizing the cost per work hour for service and maintenance.

Based on the performance of the APC pilot test, the cost of service and maintenance is typically in the range of \$0.02 to \$0.04¹ per revenue dollar. This is significantly less than the costs to service and maintain conventional vending machines that range from \$0.14 to \$0.16,² and substantially below the costs incurred for selling similar products at the full-service counter. These savings are attributable to factors such as the networked system, remote monitoring, high reliability, modularization of functional components, software-based accounting, and the elimination of cash by limiting payment to debit/credit cards.

Although the SSPs will replace a vending machine at each deployment location, the number of SSPs provided by this DAR is not sufficient to have a significant impact on these costs and no savings have been assumed. Deployment of additional SSPs as the result of a possible future DAR, however, would provide the opportunity to replace vending machines and reduce the work hours associated with self-service equipment service and maintenance.

Provide New Products and Services – A future version of the SSP could be a venue for new product and service offerings. Services for government organizations including passport renewal and access to IRS information and forms can be provided by the SSP. Financial services such as retail bill payment and ATM services could be added to the SSP of the future to increase both customer value and postal revenue.

5.0 ALTERNATIVES

Traditional vending does not provide the wide range of products and services offered by the SSP. Nor can it lead customers through a transaction to assure that the product or service provided best meets the customer needs. The SSP is an interactive device that has more similarities to the functions performed by a sales and services associate than a stamp vending machine. It can be considered more comparable with Post Office Express and Contract Postal Units. Although each of these facilities can offer the customer a broader array of product, both require staffing, have higher startup costs and would be difficult, as well as costly, to keep operational on a 24 X 7 basis. The SSP provides the most often used Postal products and services at a cost of sales below either of these alternatives and substantially below that of the full-service counter.

The SSP provides the self service aspects offered by vending equipment and the breadth of products and services typically sought by customers at a staffed postal facility. No single alternative is available that can provide the same combination of access/availability, products and services and cost savings potential.

6.0 JUSTIFICATION

The market test and associated market research that was conducted from September through December 1999 in Florida validated the SSP concept. During the evaluation period, 98 percent of the customers who used the SSP expressed a high-level of satisfaction with the machine and indicated that they would definitely use the machine again. Based on the success of this prototype test, customer satisfaction is expected to continue once production machines, with enhanced performance and improved reliability, are deployed.

¹ Based on the Vending Equipment Service System (VESS) reports 2002

² Based on the Vending Equipment Service System (VESS) reports 2002

APC post-market test results from Florida have verified that there is an opportunity for significant savings from this new, smart vending platform when compared to both the current generation of vending equipment and the full-service retail window. The justification for this equipment is based on the need to provide USPS customers with better, more responsive access to postal products and services while at the same time reducing work hours and other costs associated with the venues currently in use.

The rate of return associated with the SSP assumes there will be a reduction in LDC 45 work hours as the SSPs divert customer traffic away from the post office counter. The average APC currently deployed in Central Florida is conducting transactions at a rate equivalent to two Sales and Service Associates. A Work Operations Survey (WOS) will be performed at each candidate location prior to SSP installation. A second WOS will be performed approximately 6 months after installation and work hours will be adjusted accordingly. For this DAR, it is assumed that 33% of the work hour savings demonstrated in Central Florida will be captured by the SSPs .

6.1 Performance Metrics

Metrics that will be used to measure the performance of the SSPs after deployment include the following:

Customer Acceptance - Market research will be conducted to determine factors such as ease of use and system acceptability approximately six months after full deployment.

Work Hour Impact – WOS studies will be conducted before deployment and again six months after deployment to assess the work hour impact of the SSP and assure appropriate work hour reductions are implemented. Additional WOS evaluations may be conducted as necessary to evaluate the SSP impact on work hours beyond the first six months.

Sales Performance – Sales through the SSP will be transmitted daily to the Retail Datamart (RDM). Sales volume and transaction volume, including individual transaction types, can all be tracked using RDM data.

Service and Maintenance Costs – Service and maintenance times will be tracked on a real-time basis using data supplied from the SSP operational database. This data will allow management to evaluate the cost of service and maintenance and project the cost of SSP operation.

7.0 DEVELOPMENTAL PLANS

Development of the SSP began in 1999. The first step in this process completed in December 1999, was the proof of concept phase. Prototype SSPs were developed and deployed for market test at 30 locations in Orlando, Florida. Over a four-month period, these machines were evaluated in both postal and non-postal locations. The results of this test validated customer acceptance and usage.

Subsequent to completion of the market test, 15 APC units remained in the field for further evaluation. These machines have continued to generate revenue and improve since January 2000. The lessons learned from these market test prototypes are the basis upon which the new SSP is being developed.

The SSP is a direct descendent of the APC with an expanded level of functionality including section 508 compliance. The experience gained from the APCs has provided valuable information that will allow the SSP to be developed to a smaller footprint, made easier to service and maintain and yet support a broader range of products and services.

Although the kiosk itself has been proven, is very well defined and poses little technological challenge, the supporting network necessary for a deployment of this magnitude does require a substantial development effort. This supporting infrastructure is an essential and necessary component of the Self - Service Platform since a significant portion of the savings associated with the SSP is based on a well developed, functional and reliable back end system. This DAR encompasses the development of the entire SSP system which includes the kiosks and the supporting infrastructure that is necessary to assure a cost effective and successful deployment.

8.0 PROCUREMENT & DEPLOYMENT PLAN

The purchase of 2,506 SSPs along with the supporting infrastructure hardware and software will be made from a single supplier. This supplier will be responsible for the design, development, production and integration of the hardware and software necessary to field and support these machines. Installation of all equipment will be performed by the same supplier.

Deployment of the SSPs will be in 2,500 postal sites dispersed across 85 districts across the country. One SSP will be deployed in each site, most of which will be in major metropolitan areas. Site selection has been made based on a number of criteria, including wait time in line, walk in revenue related to SSP products, population growth, facility type and size, and location. Infrastructure support will be based on an integrated approach to maintenance, service and decision support processes that is consistent with the POS ONE program.

Upon approval of funding, the development of production hardware and software will commence. Design and production of the evaluation hardware will be complete by October, 2003. A field evaluation of up to 30 machines in Central Florida and Santa Anna will be conducted for a period of approximately 30 days prior to roll out. Full scale deployment will begin in December 2004 and is expected to be completed by July 2004.

9.0 ECONOMICS

Below is the financial summary for the design, development and deployment of 2,500 SSP units:

Financial Summary	<u>5-Year Operating Period (\$000)</u>
Capital Investment	\$95,429
Expense Investment	<u>\$0</u>
Total Investment	\$95,429
Operating Variances	\$265,803
Net Present Value discounted @ 10.5%	\$78,941
Return on Investment	30.4%

10.0 RISK ASSESSMENT

The technical and operational risks associated with this deployment are deemed minimal and acceptable.

As the result of extensive market testing of prototype APC units in Orlando, Florida, customer acceptance of the smart vending concept has been proven. As indicated in Exhibit V, Market Test Results, repeat usage is common once customers become accustomed to the machine. APC users indicated that they would have gone to the full service counter if the unit had not been available and over the four-month market test period, users returned to the APC an average of five times. This survey finding is supported by the steady increases in both transactions and sales throughout the market test and post-market periods up to the present.

Market testing also demonstrated that the APC system is technically sound and can be supported utilizing non technical operators. All service and Level 1 maintenance will be performed by USPS employees. In order to maximize machine availability Level 2 maintenance will be performed by the supplier. This combination is expected to assure maximum availability of all SSPs at all times.

The potential labor savings demonstrated by the APCs in Central Florida has been assumed for the SSPs. However, to mitigate any risk associated with this new deployment, the capture rate for these savings is assumed to be 33% of that being experienced by the prototype units in Florida.

Based on current observations using prototype APC equipment, the potential for the SSP appears to be significant. Moving beyond prototypes to production hardware and software is expected to provide even more improvements and benefits from a hardware perspective.

The greatest technological challenge lies with the infrastructure needed to support this deployment. Although no new technology is required to create this infrastructure, the complexity and scale of the support system will require a significant level of development. This effort is expected to incur the risks typically associated with a deployment of this magnitude.

While there may be additional processing costs for debit/credit card transactions on the SSP due to small transactions which have a proportionally high card processing and interchange fee, it is not possible to determine the impact until the machines are deployed and in operation. In our current test sites, a customer must insert their credit/debit card for each and every transaction. In the new machine, the customer will be able to place multiple transactions in a market basket and then pay for them in a single transaction on their debit/credit card. This should decrease the number of small transactions and subsequently increase the average transaction size. We will monitor the debit/credit transactions and dollar amounts as the equipment is deployed. If it is determined that there is an unacceptable number of low revenue transactions, the software can be adjusted to adjust the minimum quantity of stamps a customer may purchase. If this occurs, customer impact will be measured to determine if this drives customers back to the higher cost full service counter

11.0 RECOMMENDATION

Capital investment funding of \$95.43 million is recommended for the design and development, production, and deployment of 2,500 SSP full service kiosks, six full service kiosks for testing, training and support, and their associated support infrastructure.

Self Service Platform Cash Flow Analysis 5 Year Projection (\$000) Exhibit I								
FISCAL YEAR	2003	2004	2005	2006	2007	2008	2009	TOTAL
PROJECT YEAR		1	2	3	4	5	6	
DEPLOYMENT PLAN (Phase I)								
1 Total Number of Machines		2,506						2,506
I. CAPITAL INVESTMENT								
2 Software & Hardware Design, Dev & Testing	(3,100)	(1,696)						(4,795)
3 Network Infrastructure Development	(2,761)	(1,503)				(2,761)	(1,503)	(4,264)
4 IT Infrastructure Development & Support	(2,755)	(550)	(550)					(3,855)
5 SSP Hardware		(38,186)						(38,186)
6 Report Development (RDM)	(1,056)							(1,056)
7 Site Preparation	(571)	(26,733)						(27,304)
8 Training		(510)						(510)
9 Deployment Costs		(2,957)						(2,957)
10 Service & Maintenance Equipment		(53)						(53)
11 Contingency 15%	(1,536)	(10,828)	(83)					(12,447)
12 TOTAL CAPITAL INVESTMENT	(11,779)	(83,017)	(633)					(95,429)
III. OPERATING VARIANCES								
13 Operator Training		(1,795)	(153)	(161)	(168)	(177)	(185)	(2,639)
14 Vendor Provided Support (HW/SW)		(2,067)	(2,481)	(2,481)	(2,481)	(2,947)	(3,050)	(15,507)
15 IT Network Infrastructure Support	(3,007)	(4,687)	(4,273)	(4,408)	(4,214)	(4,344)	(4,511)	(29,443)
16 Advertising & Promotion		(4,302)	0	0				(4,302)
17 Market Research	(125)	(908)						(1,033)
18 Spare Parts Replenishment		(791)	(1,596)	(1,610)	(1,625)	(1,639)	(1,654)	(8,914)
19 Consumables		(10,396)	(3,263)	(3,292)	(3,322)	(3,352)	(3,382)	(27,007)
20 Service & Maintenance		(27,166)	(29,232)	(30,529)	(32,196)	(33,784)	(35,384)	(188,290)
21 Accounting Support		(184)	(311)	(326)	(342)	(359)	(376)	(1,897)
22 Testing		(714)						(714)
23 Vending Equipment Relocation	(4)	(373)						(377)
24 Detail Personnel		(6,417)						(6,417)
25 Labor Savings		27,514	77,503	103,940	109,033	114,375	119,980	552,344
26 TOTAL OPERATING VARIANCES	(3,137)	(32,285)	36,194	61,133	64,685	67,775	71,437	265,803
27 IV. NET CASH FLOW	(14,915)	(115,302)	35,562	61,133	64,685	67,775	71,437	170,375
28 V. RETURN ON INVESTMENT (ROI)	30%							
29 VI. NET PRESENT VALUE @ 10.5%	78,941							

CASH FLOW LINE ITEM DESCRIPTION

Exhibit II

Deployment Plan Line Numbers and Line Items

01 Total Number of Machines — The total number of machines that will be deployed. A total of 2,500 machines will be deployed. Six additional systems will be built for testing, evaluation and help desk support. All machines will be full service SSPs.

Capital Investment Line Numbers and Line Items

02 Software and Hardware Design, Development, and Testing — The vendor cost for designing, developing, and testing both the smart retail platform software and hardware. This includes up to six sets of prototype hardware. The total estimated funding for this item is \$4.79 million.

03 Network Infrastructure Development — The cost of vendor provided software, hardware and system development that will be required to support the network infrastructure. The total estimated funding for this item is \$4.264 million.

04 IT Infrastructure Development and Support — The cost of servers and other equipment required for IT support of the SSP infrastructure. The total estimated funding for this item is \$3.855 million.

05 SSP Hardware Purchase — Includes \$36.249 million for the purchase of the 2,506 SSP full service kiosks that will be deployed and the six additional units that will be used for development and support. Also within this lineitem is \$1.387 million to fund the purchase of both parcel boxes and through-the-wall parcel units that must accompany each SSP deployed. The total estimated funding for this item is \$38.186 million.

06 Report Development (RDM) — The cost for development of SSP reports that will be available through the Retail Data Mart. The total estimated funding for this item is \$1.056 million.

07 Site Preparation — USPS labor costs related to preparation of Post Office sites to accommodate the SSP. The estimated costs for site preparation in 2003 and 2004 total \$27.304 million.

08 Training — The cost for vendor provided operator training programs and the purchase of training materials such as handbooks, video tapes, etc. The training covers service and maintenance procedures, as well as kiosk monitoring and other support systems. The total estimated funding for this item is \$ 0.510 million.

09 Deployment Costs — The cost of vendor provided deployment support, including machine shipment, installation and set-up. The total estimated funding for this item is \$2.957 million.

10 Service and Maintenance Equipment — The cost for pagers necessary to facilitate operator service and maintenance. The total estimated funding required for this item is \$0.053 million.

11 Contingency — A 15% contingency has been included to compensate for potential increases in the cost of labor and materials as well as any unforeseen hardware and software that might be found necessary during the development process. The estimated contingency included is \$12.447 million.

Operating Variances Line Numbers and Line Items

13 Operator Training — The funding required to train USPS personnel to service and maintain the SSP equipment. Estimated costs for this item are \$2.639 million over the term of the analysis period.

14 Vendor-Provided Hardware and Software Support — The cost of vendor support that will be provided for hardware and software improvements and updates. Estimated costs for this item are \$15,507 million over the analysis period.

15 IT Network Infrastructure Support — The costs required by USPS IT to support the SSP infrastructure including keeping it up to date and operational. Estimated costs for this item are \$29.443 million over the term of the DAR.

16 Advertising & Promotion — Initial advertising and promotion activities associated with the introduction of the SSPs in all markets. Estimated advertising and promotion costs are \$4.302 million.

17 Market Research — Marketing research will be performed to evaluate advertising effectiveness and customer response to the SSP. Estimated costs for this item are \$1.033 million during FY 03 and FY 04.

18 Spare Parts Replenishment — The costs associated with replenishment of spare parts retained at the districts. Estimated costs for this item are \$8.914 million over the term of the DAR.

19 Consumables — The funding required for consumable items such as receipt paper, blank forms, and IBI label stock. Estimated costs for consumables, including initial stock during deployment, is projected to be \$27.007 million.

20 Service & Maintenance — Costs associated with the service and maintenance of the 2,500 deployed SSPs. This includes \$170.802 million for USPS provided Level 1 maintenance, \$7.614 million for vendor provided Level 2 maintenance, \$7.833 million for vendor warranty fees and \$2.041 million for pager service fees. Estimated costs for this item over the term of this DAR are \$188.290 million.

21 Accounting Support — Accounting costs necessary for reconciliation of the incremental credit and debit transactions that will result from deployment of 2,500 SSPs. Estimated personnel costs for this function over the term of the DAR are \$1.897 million.

22 Testing — The cost for USPS support of first article test (FAT) and customer acceptance testing (CAT). The testing costs in 2004 will be \$0.714 million.

23 Vending Equipment Relocation — Costs related to the removal, transportation and placement of vending equipment displaced by the SSPs. The estimated cost for this item is \$0.377 million.

- 24 Detail Personnel — Cost for individuals detailed to the project to support deployment activities at the districts. Estimated costs for this item are \$6.417 million.
- 25 Labor Savings — LDC 45 work hour savings attributable to the SSP. A capture rate of 33% has been assumed for this DAR. The estimated savings over the term of this DAR is \$552.344 million.

**Self Service Platform
Assumptions
Exhibit III**

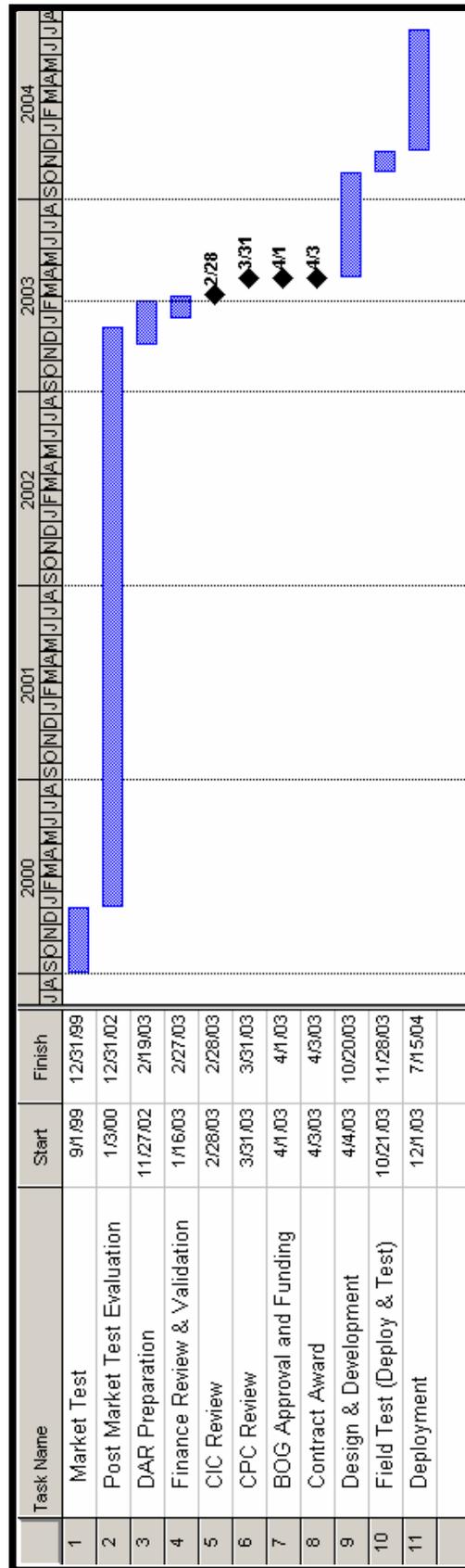
1. A total of 2,500 SSP units will be produced and deployed across the country in postal sites.
2. Six additional SSP units will be constructed during development for test, evaluation and help desk purposes.
3. The SSP has the capability to share POS ONE systems and data, however, it is not dependent on future POS ONE development or deployment to be functional.
4. The SSP will be compatible with Standard Accounting for Retail (SAFR).
5. Information based indicia (IBI) will be used by the SSP to provide evidence of paid postage.
6. The SSP market test and subsequent 3 year post-market test that began in 1999 provided sufficient user data to validate the SSP concept and functionality.
7. The results of the APC market test and subsequent post-market test evaluation is sufficient to serve as the basis for development of an internal rate of return for LDC 45 work hour savings. A capture rate of 33% provides compensation for any variances that might impact achievability of targeted savings.
8. The August 2001 POS ONE Workload Factor study provides representative factors for determining the work hour equivalent for each type of SSP transaction. Using the APC pilot test results from central Florida during FY 2002, it is possible to estimate the number of work hours required to perform similar transactions at the counter from which work hour saving can be derived. Work hour savings shown in this DAR represent a portion of the deployment year as well as two full years after the deployment. Work hour savings during the deployment year for the first six months of start-up after a machine is installed have not been included.
9. It is assumed that utilization of IBI postage presents an acceptable risk based on the increased utilization of this postage type. As IBI postage enters the mail stream in greater quantity, the risk will increase until such time as controls are in place to detect counterfeit or invalid impressions. With the advent of in-line scanning, our ability to detect revenue loss will improve dramatically and much of the risk will be removed. These risks have been reviewed by the Inspection Service.
10. The SSP will use a shopping basket approach that will allow customers to purchase multiple products or services per credit card payment. In order to provide this functionality, a pre-approval will be required from the bank card processor before any product is dispensed from the SSP.
11. It is assumed that an SSP will replace one vending machine at each deployment site. The vending machines removed will either be redeployed or disposed of if obsolete. This DAR, however, does not assume any reduction in SSPC technician work hours as the result of this activity.

12. Based on post market test results, the cost of servicing and maintaining the SSP is substantially less than conventional vending machines. It is assumed that no incremental service and maintenance costs will be incurred at sites where the SSP replaces existing vending machines.

13. Level 1 maintenance includes the replacement of service modules that do not require the use of tools. It is assumed all level 1 maintenance will be performed by USPS personnel. Any maintenance requiring the use of tools is considered Level 2 maintenance and will be performed by the equipment supplier. Based on the SSP equipment specifications, Level 2 maintenance comprises 25% of the total maintenance time required for the equipment or less than 8 hours per year.

EXHIBIT IV

PROGRAM SCHEDULE



**Automated Postal Center (APC)
Market Test Results
Exhibit V**

The APC market test was conducted in Central Florida from September through December 1999. A total of 30 machines were deployed in both postal and non-postal locations for the test. During the test performance data was collected and market research was conducted. Results of this test are summarized below:

1. Customer satisfaction with the equipment was very high. On a 6 point scale (6 being extremely satisfied) 87 percent of the users gave the APC a 5 or 6 ranking.
2. Customers encountered little difficulty performing the most frequently used transactions. Ninety-eight percent of those attempting to use the APC successfully completed their task.
3. Customer recommended improvements included: location of machine output slots; increased transaction processing speed; an optimized procedure for weighing mail piece; multiple transactions per payment and a smaller size IBI label. All these improvements will be included in the SSPs.
4. More than 9 out of 10 APC users said that they would definitely use the machine again.
5. Non-postal site users reported that they were making fewer visits to the post office and significantly less visits to the post office window.
6. A majority of the APC customers indicated that they would have gone to the full service counter if the APC had not been available.
7. The most frequent users were self-employed or small business customers and those who indicated that they typically use competing services.
8. User demographics (age, education, employment, and income) very closely mirrored the customers using the post office window.
9. Over 45 percent of all transactions performed on the APC are weighing and rating transactions.
10. Repeat usage is common once customers become accustomed to the APC. Most users returned to the APC 5 times over the 3-month market test.
11. It takes time for customers to accept, recognize and try the APC. Customer support and advertising are essential to realize high usage levels.
12. Transaction and sales volume continued to grow at most machines throughout the market test period. In the post-market test timeframe, 15 machines were left in the field and have continued to show a steady increase in sales.